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===== A systematic description =====  
of the hitherto known Macrolepidoptera

edited in collaboration with well-known specialists

by

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STUTTGART

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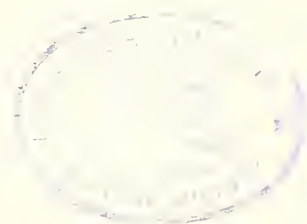
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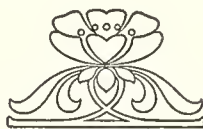


===== II. Division: =====

The Macrolepidoptera

of the

**African Fauna**







XV. Volume:

# Noctuid Heterocera





# Preface.

In the introduction to the 13. Volume we have, in speaking of the general character of African Lepidoptera, laid stress upon the prevalence of gaudily coloured day-flying Noctuids over the unicolorous, grey or brown groups solely consisting of night-flying species.

In the same place we also have spoken of the influence which the climatic and geographical conditions prevailing on that gigantic continent must of necessity exercise upon the Fauna in general and the Lepidoptera in particular. All that we have there stated in regard to other groups, may also be applied in an even higher measure to the Family of Noctuids treated in this Volume. Ethiopian Africa has nothing whatsoever in common with its Palearctic northern portion, and the change of animal forms observed by any one crossing the Sahara Desert is just as absolute as though an immense Ocean separated the North from the South. Even on the southern slopes of the Atlas Mountains we are struck by a decided retrogression of vegetable life, with a corresponding decrease in the development of animal forms. But the still comparatively rich Lepidopterous Fauna of the mountain regions of North Africa, as we find it f. i. in Cabylia, disappears quite abruptly as soon as, going South, we enter the Zone where rain is either almost or altogether unknown. The Desert which in places is absolutely devoid of plant-life, is completely dead; no insect may exist on the glowing hot sand-dunes kept in constant motion by burning winds. Whereas, however, until we pass In-Salah, the endless stretches of lifeless Waste are still occasionally interrupted by Oases or narrow, verdant valleys with relatively luxuriant vegetation, where a close search will reveal some few forms of animal life that have escaped the general destruction wrought by sun, sands and lack of water, — we find, on entering the Tropic of Cancer, also the last traces of animal life disappearing, and only occasionally one may see a stray bird, shyly flitting about the crags, or observe some strong-winged insect carried thither in its aimless flight.

It is not until, coming from the North, we reach the well-watered Region of Timbuctoo, with its numerous lakes and streams, that the first signs of re-awakening Life appear. But even in the hot and humid valley of the Middle Niger, insect-life is limited to very brief periods, being cut short by long intervals of rest. Fevers and dangerous infectious diseases of many kinds prevail in the districts where, in close correlation with a more luxuriant Flora, Insect-life begins again to show a higher development. But how totally changed it is! Of all the species that we left behind on entering the Sahara Desert, we meet hardly one greeting us again as we leave it. This sheer endless Desert proves indeed for all Lepidoptera an invincible barrier.

To the south of this tremendous dividing zone, we find indeed also the whole character and aspect of the country completely changed, having lost the last traces of similarity with Southern Europe. An excess of sunshine, the most intensely bright, glaring light alternating with deep black shadows, a clear, dry atmosphere and an almost everywhere unusually open landscape have impressed their peculiar stamp upon the whole animal world, and in particular upon the more easily influenced Lepidoptera. Endless steppe almost everywhere; but the often very high and coarse grass is thin and sparse, leaving between it, like our rushes, thousands of intertwinning paths. — Occasionally we meet also some patches of forest; but wherever this is the case, the trees are so far apart, that one may see for long distances in every direction. Also in the steppe itself trees are by no means rare, but appear during the greater part of the year stripped of their leaves as if by wintery frosts or by insect-ravages. Only within the 20th degree of North and South Latitude we observe a more luxuriant, dense Forest-zone, such as in India and South America covers almost every part of the country that has not been artificially cleared in order to serve the purposes of cultivation.

Passing to the special part of the present volume, we find that the first group of Noctuid Heterocera, the *Agaristidae*, are particularly well developed in the hot and moist parts of Tropical Africa. But we have here refrained from uniting this group which in every way belongs to the *Noctuidae*, with them, for the sole reason that we do not consider the present compendium the right place to deal with the lengthy proofs necessary to support reformatory theories. Whereas in Palaearctic North Africa the *Agaristidae* are not at all represented, they reach in Ethiopian Africa such a wonderful development that in number of species as well as in the magnificence of their forms they far surpass those of most Indian countries. The first plates of this volume, which represent practically all the known African *Agaristidae*, show a most beautiful display of characteristic, rich



colours, mostly arranged in spots or semibands on velvety-black ground adorned with metallic hues. This colour-scheme which we find among the other groups (*Rhopalocera*, *Pericopiinae* etc.) most largely developed in Tropical America, finds in Africa no other analogy, and does not seem to fit in at all with the more severe general character of colours and forms prevailing in that Region, a fact to which we wish to draw especial attention.

The *Acronyctinae* s. s., headed by the genus *Acronicta* which in Europe and North America finds its greatest development, have but few representatives in Ethiopian Africa. Possibly further search will reveal in the Congo Region the existence of some further species of green *Noctuids* copying lichens such as *Daseochaeta verbenata* Dist., but it is doubtful whether these really should be placed near *Diphthera*, since their caterpillars have in probability a smooth skin. The fact that of the much more than 100 known species of *Acronicta*, some of which count in North Africa among the commonest *Lepidoptera*, not one is found in the Ethiopian Region, confirms what we have said above of the geographical limits peculiar to that Continent.

The *Metachrostinae*, of which comparatively few species are known, and those widely and irregularly dispersed over the globe, are represented in Ethiopian Africa by a few isolated species; but their distribution and the relative rarity of all of these species, especially also *Bryophila*, even in those places where they are well represented, seem to indicate that our present knowledge of this group is very deficient, and it is easily possible that a more thorough search of those parts of Central Africa where Lichens abound, will reveal many more species of Lichen-moths.

Among the *Euxoinae* we notice in Tropical Africa especially the almost complete absence of the largest genera, such as *Euxoa*, *Rhyacia*, *Feltia* etc. Also here we have a group which in the Palaearctic North-African Region plays a most important part, both on account of the great number of species as of individuals; to illustrate this I only wish here to point out the fact that in Algeria in a single evening, besides 300 *Euxoa polybella*, 100 other *Euxoinae* came to the lamp. In Tropical Africa our „*Agrotis*“ is replaced by *Laphygma* and *Spodoptera* of the *Prodenia* Group, both of which occur often in such immense numbers, that the caterpillars do enormous damage. The nearest ally of *Rhyacia* is *Lycophotia*, of which in South Africa and Madagascar a few species occur.

The group of *Hadeninae* is rather better represented than the preceding ones; for even though *Polia* and *Aplecta* which in North Africa are very numerous, have but few species in Tropical Africa, we find in their place some other, closely allied genera, such as *Cirphio*, *Borolia*, *Meliana* etc., containing a great many forms which, however, are on the average rather smaller and less conspicuous than the often quite respectable northern *Hadena*.

Of the *Cucullianae*, represented upon the whole Earth by about 800 forms, we find in Ethiopian Africa but a limited number of rather large species, which do not differ very much from the European, Asiatic and Nearctic *Cucullia*. On the other hand our so-called *Xylinae* (Antitype) are altogether wanting, as is also *Cosmia* which we still find in North Africa.

The *Amphipyryinae* consist likewise of very vividly marked species, whose bark-like colouring indicates their hiding-places to be tree-trunks and the cracks between the bark; the Ethiopian Region offering such to but a limited extent, there exist here of the nearly 1000 known species but very few indeed, all of which are among the least conspicuous of the entire group; only of the Fernmoths (*Eriopus*) which are distributed over the entire Earth, about half a dozen of species occur in Africa, among them the largest known species. But other genera such as *Calamia*, *Acrapex*, *Sesamia*, the caterpillars of which live on sedge-grass, are fairly well represented, and the genus *Mazuga*, characterized by its hieroglyphic markings, is quite typical for Africa.

With the groups of *Heliothidinae* and their close allies, the *Melicleptriinae*, we enter upon the heliophile *Noctuids*, which fly in day-time in bright sunshine and may for that reason be expected to find the most favourable conditions in the sunny Ethiopian Region. Beside the almost cosmopolitan *Heliothis*, it is especially the smaller *Timora* of which the greater number of the 40 species hitherto known occurs in Africa. Also the other smaller genera as f. i. *Raghuva* have their greatest development on that continent.

The *Erastrianae* of which far more than 2000 species are known, ranging over all the hotter parts of the globe, are represented in the Ethiopian Region by a very great number of mostly small, but gaudily-coloured forms. Especially on the prairies of the Central Plateau, on the South African Steppe until far into the scrubby forest, and even in the Kalahari Desert, we find these lovely insects flying in the high grass, alighting on the blades with their head downwards, or timidly hiding under clods of earth. *Corgatha*, *Eublemma* and above all *Tarache* display in Tropical Africa their loveliest forms, and, as the *Teracolus* lead among the *Diurna*, thus we observe the great number of *Erastrianae* (f. i. *Ozarba*) supersede in many localities all other *Heterocera*.

The probably not quite homogeneous group of *Sarrhothripinae* has in Africa a far greater distribution than in the northern temperate zone. Of nearly 300 known forms many genera belong almost entirely (*Bryophilopsis*, *Pardasena*), others largely (*Characoma*) to the Ethiopian Region; also the typical genus *Sarrhothripus* is represented. *Eligma laetepicta* is a typical African species, which in recent years has frequently come to Europe and which, on account of its colour-resemblance to certain *Eusemia* or *Chalcosia*,



is one of the most remarkable of African Heterocera. Some of its allies bear a most striking resemblance to *E. narcissus*, the only *Elygma* species entering the Palearctic Region.

The *Eutelinae* are very well represented, the typical genus *Eutelia* being very largely African. Both the largest as well as the most striking forms, such as *Pacidara venustissima*, and also numerous smaller species inhabit tropical Africa, many of them occurring in such enormous numbers that on the coast of the Red Sea f. i., I counted on a single pole over 50 *Eutelia* that had alighted there.

Like the preceding groups, the *Stictoperinae* occur at times in enormous masses, varying, however, to such an extent that among hundreds of specimens one may hardly find two that are quite alike. But their centre of distribution is India, only a few stray and inconspicuous species being found in Africa, Madagascar and the lesser islands.

Whereas among the *Acontianae* (containing about 300, chiefly tropical, species), those that belong to the Indian Region (quite a number having been described quite recently from New Guinea), are for the most part brightly and uniformly coloured, the African genera are mostly made up of smaller, though frequently brilliantly gaudy forms; thus *Westermannia*, *Metaleptina* and *Negeta* are chiefly African genera.

Among the *Catocalinae* the typical genus *Catocala*, even if applied in the widest sense, is not at all represented in Ethiopian Africa, although in the Atlas Region which is till Palearctic, it shows up almost one dozen of species, most of which are extremely common. Their place is taken by *Ulotrichopus* and some *Spiredonia* which, however, do not rest upon tree trunks or rocks, but conceal themselves on the ground. The huge *Nyctipao* one meets in the evening racing about like bats, producing with their wings a strong cracking noise, and also the *Agonista* that one sees dashing wildly about, both of which are peculiar to the Indies, are replaced in Africa by *Cycligramma*, a genus confined to the Ethiopian Region. The *Hypopyra* with their leaf-like upper surface and frequently gorgeously red under side are represented both in India and in Africa; this is also the case with the gigantic *Patula macrops* with in either of these countries is found under tunnels, arches and bridges and in rocky caverns; but the most remarkable are the *Minioides*, large-sized Noctuids distinguished by their nearly uniformly brilliant crimson or bloodred hindwings, whereas of the *Lagoptera* which are likewise brightly coloured, although not so brilliant, but few species are known to occur in Africa. But the genus *Achaea* contains a considerable number of typically African Heterocera, often with most brilliantly coloured hindwings, which, however, are always concealed under the leaf-like markings of the forewings, very much as in *Catocala*. Well represented we find in Tropical Africa also the *Parallelia*, *Leucanitis* and *Gonospileia* groups, all of which are in the Tropics of the Old world nearly everywhere abundant, so that in the hotter parts of the Ethiopian Region one may hardly find a valley where not one or the other species belonging here, may be found.

The gold-adorned *Phytometrinae*, although chiefly inhabiting the temperate zone where they count among the most common species, occur also in the Tropics almost everywhere; indeed the most gaudily and brilliantly gilt species is rather common, entering in the Canary Islands even the Palearctic Region; but on the whole we find in the Tropics the Plusiids playing a rather insignificant part, compared with the numerous species of the preceding and even more of the succeeding group, and especially in Africa we are struck, in the same way as we are in the Indies, by the entire absence of gorgeously coloured species that could be compared with those of Europe or of North America.

Among the *Noctuinae* s. s. we also count some groups of mostly large sized, brilliantly coloured and strong flying species which in the Tropics predominate over the sluggish, grey, brown forms depending largely on their protective wood-like colour. The *Ophideres* which remind us somewhat of our *Catocala*, although widely differing in their mode of life, the *Ophiura* a. o. are widely distributed, very large genera, represented also in Africa; indeed one may say that this huge Noctuid family to which we may class as the last group the *Hypena*-like genera characterized by their long beak, make up the great bulk of the Noctuids in many parts of the Ethiopian Region.

Taking everything together, the Noctuids of Ethiopian Africa, although showing a similar ratio to the other families as in Tropical India, are represented by much lesser individual numbers than in Temperate Asia and Australia and especially also in Tropical America. Further details will be given in the special part of this volume.

Analogous to Vol. 3, 7 and 11, we call also in the present volume the group made up of the combined *Agaristidae* and *Noctuidae*.

## Noctuiformes.





## 1. Family: Agaristidae.

The only reason for not classing the forms described as *Agaristidae* with the *Noctuidae* is that they have always been treated as a separate family, being often closely connected even with the *Castniidae* and *Zygaenidae*; thus the hitherto generally adopted order has been retained in the present Compendium, in which all fundamental changes in classification are to be avoided as far as possible.

As we have stated in Vol. 3 and 11, the *Agaristidae* are so closely connected with the trifold Noctuids and shade into these so completely, that it is impossible to draw any dividing line between them, and that their separation is an artificial and unnatural one.

The typical *Agaristidae* have clubbed antennae, which have on their under surface in the place of scales very short scent-hairs only seen under a strong magnifying-glass; their cross-section is more or less circular; each segment is provided with a transverse row of bristles. Many species have the antennae filiform or bristle-like, occasionally even serrate or pectinate; thus we find among African genera serrate antennae f. i. in *Pristoceraea*. There are also many species in which the hair of the antennae form a distinct down-like cover. Nor does the second characteristic of the family, the position of the 2. radial in the hindwing, afford any reliable means for separating the *Agaristidae* from the *Noctuidae*; this vein arises in the former at or slightly before the middle of the apex of the cell, being invariably hollow and cylindrical, which is the case also in a number of trifold Noctuids. But there are also cases of typical *Agaristidae* known where the second radial arises below the middle of the apex of the cell, as f. i. in *J. belangeri*.

The majority of *Agaristidae* are day-fliers, preferring the hottest sunshine, and mostly inhabiting open fields in the vicinity of forests, covered with isolated shrubs; almost all of them have the upper surface of the forewings adorned by metallic scales, particularly in those places where in the Noctuids we find the reniform and orbicular. Numerous species have metallic spots near the base and on the disk; others are distinguished by some other striking colour, especially on the hindwings which generally are brilliant yellow or red with a black marginal border.

In Africa *Aegocera* and the allied genera, especially also *Xanthospilopteryx*, furnish the most common species which are always contained in collections sent from there.

Only of a few species of *Agaristidae* the earlier stages are known; the caterpillars are of brilliant colour, particularly the head; the pronotum and a dorsal spot on the raised, last but one segment being yellow or red; they pupate in or on the ground; they rarely occur in larger numbers, only a few species feeding on the grape-vine occasionally do considerable damage. For further particulars see Vol. 3, p. 3—4, and Vol. 11, p. 1—2.

## 1. Genus: **Xanthospilopteryx** Wallgr.

The predominating genus among the African *Agaristidae*. Frons of the ♂ not narrowing behind, somewhat produced, with raised edge. Antennae of ♂ and ♀ more or less thickened distally. Palpi with the 1. and 2. segments covered with long hair, the 3rd smooth, prominent, generally long. Tibiae also of the ♂ with appressed hair, only in the middle of the hindtibiae a few bristling hairs: in a few aberrative forms as f. i. *poggei*, the hind tibiae above and even more beneath are quite rough. The cell of the forewing more than half as long as the wing; the 2. subcostal, with a few exceptions (= Ader 10) arising not from the secondary cell, but beyond it from the 3rd subcostal; the 2. and 3. radial and 1. median close together from the lower angle of the cell; on the hindwing the cell does barely or not at all reach the middle of the wing, the lower median approaching the upper one more closely at the cell than on the terminal border. Hindwings red or yellow, rarely white, with black border, forewing almost always with 3 transverse bands, a subbasal, median and subapical one, the median being mostly dissolved in two larger, the subbasal one in several smaller spots. The earlier stages are known of only one species, although most species are rather common. We separate the genus into 3 groups, according to the colour of the abdomen.

a) Abdomen at the sides and beneath black, with very distinct white spots; upper surface of the ♂, with the exception of the apex, yellow, of the ♀ black with yellow transverse bands, the last but one segment with a white transverse band.

*poggei*. **X. poggei** Dew. (♀ = *falkensteini* Dew.) (1 b). Distinguished from the other species by the white submarginal spots on the forewings. Sexes unlike one another. ♂: Abdomen yellow above, only the terminal segment black, underneath black, spotted with white; forewings with a black discocellular band, which may be quite short or reach from the costal margin to the anal angle. ♀: Abdomen black, ringed with yellow above, with white beneath; forewings from the base to the black distal margin without any markings or with only a fine black discocellular streak. Many ♀♀ have a small black discal spot, corresponding to the first black transverse band distinguishing the following species. — From Cameroon to Uganda and North Angola. The ♀ is an exact copy of *Helcita* (a Hypsid) and of *Aletis* (a Geometrid).



*catori*. **X. catori** Jord. (1 a, ♂ and ♀, the ♀ wrongly named *ochracea*). Sexes unlike one another. Abdomen of ♂ and ♀ as in the corresponding sex of *X. poggei*. Forewing of ♂ with the large triangular basal area, a median and a subapical band yellow, the two former completely separated or united posteriorly; before the anal angle a small yellow spot; hindwings red, with black border, fringe spotted with black, as in *X. poggei*. The ♀ has the basal area united with the median band, enclosing on the forewing two black spots and a short band; the subapical band either entirely isolated or confluent with the large area behind; hindwings reddish-orange. — Sierra Leone.

*limbo-maculata*. **X. limbomaculata** Strd. (= *discostieta* Hmps.) (2 b). ♂: Abdomen yellow above, at the sides and beneath black, spotted with white. Forewings with a triangular basal area, two uninterrupted bands and a submarginal row of spots, all yellow. Hindwings rufous. — German East-Africa and Rhodesia.

b) Abdomen yellow or black, occasionally whitish beneath, without any transverse bands above, at the most with a median row of spots.

*hypercompoides*. **X. hypercompoides** Btlr. (2 b). Both sexes have the abdomen black, in the ♀ tipped with yellow; both sexes with three rows of white spots beneath. Forewings marked most characteristically (see our figure), especially with regard to the second, longitudinal portion of the subapical band. Hindwings orange or red, with the terminal border very narrow from the middle. — Ruwenzori and Uganda.

*elongata*. **X. elongata** Bart. (2 a). ♂ abdomen black, spotted with white beneath; forewings marked very much as in *hypercompoides*, but with the subapical band not interrupted and with its last spot before the upper median nervule small, not projecting towards the termen. On the hindwings the terminal border narrower than in the preceding species. — German East-Africa; North Nyassa-Land.

**X. zenkeri**. A most variable species, with the abdomen varying from yellow to black, unicolorous above in both sexes. Forewings marked as in ♀ of *X. catori* (1 a), with the black costal border widening towards the base and adorned with 3 bluish-white or yellowish spots; before the middle one or two black spots, the lower one occasionally continued along the internal vein to the black termen. From Cameroon to Lake Tanganyika. — Of *zenkeri* Karsch we know three forms in Cameroon: f. **zenkeri** Karsch \*), of which only one ♀ (in the Berlin Museum) seems to be known, has but a black antemedian spot in the cell; the black discal band is narrow as in all ♀♀ from Cameroon, and does not reach the black costal border.  f. **flaviventris** form. nov. (2 b as *zenkeri*). Abdomen of ♀ above and at the sides clear yellow, occasionally mottled with black (our figure is too dark); at the sides a row of black dots, beneath black with more or less faint yellow cross-bands flanking each segment. Forewings as in f. *zenkeri*, but more ochreous, with the black discal band often visible only at the apex of the cell; hindwings yellow or orange. The ♂ which was figured by HAMPSON from a specimen in the STAUDINGER collection, has on the forewing the black discal band broad and not separated from the costal margin, the hindwing reddish-orange, abdomen orange with black tip. The third form f. **nigriventris** form. nov., of which only a ♀ is available, agrees exactly with the ♀ of *flaviventris*, but has the abdomen black with a slight admixture of yellow and yellow tip. — **zeodita** Niep. (= *ochracea* Auriv.) has on the forewing two black antemedian spots.  Congo Region. f. **zeodita** Niep. (1 a as *zenkeri*) has the abdomen black, with or without admixture of yellow, in the ♀ tipped with yellow; the wings coloured as in f. *zenkeri*, f. *nigriventris* and f. *flaviventris*, but in the ♀ the black discal band broader and confluent with the black costal margin; in typical specimens the black border of the forewings extends from the inner angle along the internal vein to near the lower black antemedian spot. f. **ochracea** Auriv. nec Btlr. Like the preceding, but with the abdomen yellow (also beneath?); the name *ochracea* Auriv. 1901 cannot be used for the Congo

\*) The figure marked on Pl. 2 b *zenkeri* is not a typical *zenkeri*, but the form *flaviventris*; fig. 1 a refers to *zeodita* Niep.



species, being already as early as 1875 used by BUTLER for a species of this genus, but the name ochracea may be retained to designate the individual form with yellow abdomen. — *niepelti* Oberth. I only known *niepelti*. from the description and figure. Abdomen in both sexes yellow (?), the black costal margin of the forewing broader at the base than in the preceding forms, with orange instead of white spots; the lower black antemedian spot on the same wing is broadly confluent with the black border and united by a fine streak below the cell with the black discal band, so that there appears an isolated orange median spot; fringes of the forewings, as in f. *zeodita*, largely black, only at the apex and anal angle black. — M'Pala on the westshore of Lake Tanganyika.

*X. karschi* Holl. is likewise a most variable species. Abdomen black or yellow, frequently with an admixture of yellow, resp. black, and often spotted with white or yellowish beneath, in the ♀ the extreme end distinctly orange, occasionally with only a few orange scales. Forewings with two yellow transverse bands, the subapical band at least by one half narrower than the black apical area, reaching the upper median vein, indented inwardly at the third radial nervule; below the band a narrow spot forming an acute angle with the last spot of the band; the median band consists of two large patches generally separated by the fine black median vein, the second one of which projects basad either in front and behind or only anteriorly; before the anal angle a roundish spot, in the basal area a small spot within the cell, two further ones before the internal vein, and a dash at the inner margin; all these are yellow, with a few additional small spots of bluish: but those yellow spots may frequently either in part or entirely be absent. Hindwings red or yellow, the basal area always more or less black, also the black border varying in width, the abdominal margin occasionally only with black hair, but in the majority of cases broadly black. Known to exist from Cameroon to the Congo Region. According to the colour we distinguish: f. *egregia* Wichgr. Hindwings more or less red; only known *egregia*. to me from Cameroon. f. *tristriata* Bart. (= *tessmani* Strand) has the hindwings orange, generally suffused *tristriata*. e/ with red beneath. f. *karschi* Holl. (2 c), Hindwings pale yellow, abdomen black; f. *hollandi* nom. nov. (= *kirbyi* *karschi*. Holl. nec *Carpent.*), Abdomen yellow both above and beneath. According to the extent of the spots on the *hollandi*. forewings and of the black colouring of the hindwings one might establish in addition to the above a great number of individual groups, to which may be probably referred *X. abacata* Karsch and *lomata* Karsch, both described from a badly preserved specimen the sex of which is not given; from Cameroon, not German Southwest Africa, as mentioned in STRAND'S Catalogue of the *Agaristidae*. However, it is advisable to await a closer examination of the two specimens in question; should my supposition prove to be correct, the name of the species must be *abacata*.

*X. gruenbergi* Wichgr. takes the place of *karschi* in Uganda and the adjoining parts of British East Africa. The spots on the forewings are yellowish-white, beneath almost clear white, whereas in *karschi* they are beneath darker than above. Marginal border of the forewings very broad in front, the black basal area above not any broader than the border at the middle, the abdominal margin clothed with black hair (♂) or having only the outer edge black. Abdomen black, or (in ♀) greyish yellow beneath, the latter with the tip occasionally orange. Hindwing yellowish-white (f. *gruenbergi* Wichgr.) (2 b as *paucicolor*) or red *gruenbergi*. (*atribasalis* Hmps.). The subapical band of the forewing generally much narrower than in *karschi*, and more *atribasalis*. distinctly separated in spots, resembling *X. longipennis* (1 f). The basal area occasionally with a distinct cell-spot, two spots before the internal vein and a dash at the inner margin. The two specimens mentioned by HAMPSON from Uganda and Unyoro as aberrations of „*kirbyi*“, and named from his descriptions by /i STRAND ab. *campala* and ab. *alice*, do not belong here.

*X. abacata* Karsch. (2 a). Collar and tegulae according to KARSCH with white, according to BARTEL *abacata*. with yellow spots; basal area of the forewings without any yellow spots, the lower antemedian spot tapering posteriorly; the spots on the forewings paler beneath than above (in our specimens of *karschi* the reverse is the case). Hindwings orange with broadly blackish basal area above and equally broad black border; abdomen clothed with dull yellow hair, legs black, foretibiae covered with ochreous-yellow hair. A much-damaged specimen from Cameroon in the Berlin Museum.

*X. lomata* Karsch (5 a) resembles the preceding, but with the forewings shorter (possibly ♀?). Abdomen covered with plain dull yellow hair; on the forewing the antemedian discal spot projecting basad anteriorly, the second spot tapering in front. Hindwings ochre-yellow, at the innermost base blackish, the black border very broad, the fringe at the apex yellow both above and beneath. One much damaged specimen in the Berlin Museum. As above said, it is possible that neither *abacata* nor *lomata* are specifically different from *karschi*; to decide this, a comparison with a series of freshly captured specimens from Cameroon would be desirable.

*X. flavipennis* Bartel (2 a) has the yellow markings of the basal area of the forewings very broad and *flavipennis*. the posterior yellow median spot projecting towards the base at the cell. The hindwings have only a trace of black at the base, otherwise orange with feeble suffusion of red or orange. Congo Region.

*X. longipennis* Wkr. (= *alice* Strand, ? *doenitzi* Grünb.) (1 f). Head and thorax spotted with white; *longipennis*. abdomen dirty yellow, that of the ♂ tipped with black, the last but one segment of the ♂, and on the underside also the two or three preceding segments in both sexes edged with white, in the ♀ occasionally the entire



underside whitish. On the forewing the spots far apart, in the basal half at the inner margin a heavy dash, before which often two small spots, sometimes also a larger yellow patch in the cell; the two antemedian blotches varying in size and shape, as in many other species, always distinctly separated, the subapical band narrow, the veins crossing it more or less broadly black, the fourth spot long and projecting outwardly. Hindwings red, the base black, the black marginal border variable, the abdominal margin never black, but the costal margin generally so as far as the base. Fringe at least at the apices of both wings white, those of the hindwings sometimes (particularly in ♀) mostly white underneath. — From the Gold-coast to the Congo and Uganda.

**X. aemulatrix** resembles *X. longipennis* (1 f), but is smaller, having the forewing less projecting at the apex, i. e. the outer margin less oblique, and the hindmargin longer in proportion to the costal margin than in *longipennis*; in the ♂ the apex blackish. Tarsi of ♂ with much thinner and longer spines than in the preceding species, those of the front tarsi hairlike; also the genitals differ from those of the other species. On the forewing invariably a narrow, long, yellow dash at the inner margin, and a small yellow cell-spot in the basal area, the antemedian spots as in *longipennis*, the subapical band on the whole less distinctly broken up into spots, occasionally only the lower spot separated proximally, the preceding nervules in these cases being not black. Hindwings red, reddish orange or whitish-yellow. Underneath the pale markings of both wings paler than above; the inner portion of the costal margin of the forewing and the abdominal margin not black, in *aemulatrix*. the red specimens the costal portion of the red area always orange. From Cameroon to Uganda. — **aemulatrix** Westw. (= *longipennis* Mab. nec Wkr.), (1 f, as *mabiliei*). Hindwings red, with the black border narrow, in the middle at the most  $3\frac{1}{2}$  mm in width. Described by WESTWOOD from a specimen bearing no indication of the locality; the specimen preserved in the Oxford Museum has the spots on the forewings pale yellow, not white, as Westwood says; the 5 spots composing the subapical band are distinctly separated, the upper 3 *mabiliei*. and the 5th small. ab. **mabiliei** Bartel\*) refers to specimens having the band broader. Cameroon, Gabun, Congo. — **campala** Strand (= ? *doenitzi* Grünb.) has the border of the hindwing much broader, measuring at *campala*. the middle at least 5 mm; hindwings red or reddish-orange: = f. **campala** Strand, or the hindwings as well *perpallida*. as the spots on the forewings whitish-yellow: = f. **perpallida** form. nov. Both forms found in Uganda and Toro. It is easily mistaken for *X. gruenbergi* which is likewise found there, but is distinguished by the black hair or scales on the abdominal margin of the hindwing, having at the same time the antemedian spots on the *suda*. forewings less far apart and the bristles of the male tarsi not prolonged. — **suda** subsp. nov. resembles almost exactly *aemulatrix*. but with the spots on the upperside of the head and thorax yellowish, the wings even more rounded and the black border of the hindwings on the whole narrower. The tarsal spines as in *aemulatrix*. From Kwidjwi Lake, the western part of Kiwu Lake; 1 ♂ and 4 ♀♀, collected by R. GRAUER, in the Tring Museum; possibly a species of its own.

**X. monslunensis**. The dots on the upper surface of head and thorax yellowish, abdomen yellow, with or without admixture of black, in the ♂ the last and last but one segment more or less black, both occasionally completely yellow. Costal margin of the forewing with three yellow, not white or bluish-white, dots in the basal area, the dash at the inner margin, if at all present, short, cuneiform; two antemedian blotches, occasionally confluent; subapical band as in *aemulatrix* and *longipennis*, or the first three spots nearly as long as the fourth and not separated by the black nervures. The spines of the foretarsi of the ♂ not prolonged, as in *aemulatrix*, only those of the fourth segment delicate, hair-like. The species occurs in three slightly different *monslun-* forms: f. **monslunensis** Hmps. (2 c), from Unyoro, Uganda and the adjoining parts of British East-Africa, has *nensis.* the hindwings orange, and lacks on the forewing the yellow dash at the inner margin. f. **signata** Bart. (2 a) *signata.* has the hindwings red; the forewing with a yellow dash at the inner margin. Found in the same localities as the former. Synonymous with *signata* is *ruwensorica* Strand, a name given by STRAND erroneously to HAMPSON'S ab. 1, which did not come from the Ruwensori Mts., but from Unyoro as HAMPSON himself states. f. *neavei.* **neavei** Hmps. (2 c) differs from f. *signata* in the absence of the dash at the inner margin of the forewings; Rhodesia (NEAVE), possibly a local form.

**X. nigridora** Mab. (4 f). Body black, head and thorax dotted with white; abdomen feebly mottled with yellow, with white dots at the sides and underneath, in the ♂ the last but one segment edged with white, in the ♀ the most extreme tip yellow. Forewing with yellow spots: a dash at the inner margin (very small in MABILLE'S figure), two separate antemedian blotches and a rather narrow subapical band, the latter contiguous, only the last spot almost separated, the 4th the longest, 7 or 8 mm in length. Hindwings crimson, with very broad black border; abdominal margin in ♂ wide, in ♀ very narrow, black; costal margin broadly black. Underneath the spots on the forewings darker yellow than above, represented by a subbasal spot in the cell and a smaller one before the anal angle. Cameroon and Gabun.

**X. grandis** Druce (= *buchholzi* Plötz, *melanchiton* Mab.) (4 g). Body black, head and thorax dotted with white, abdomen of ♂ with a few feebly white spots underneath and a yellow longitudinal streak at

\*) The specimen figured on Pl. 1 f as *mabiliei* is a typical *aemulatrix*.



the base, in the ♀ the extremity yellow. Forewings marked with pale yellow: two large antemedian blotches, frequently confluent, a subapical band dissolved in single spots, a small spot before the inner angle and frequently another additional one in the cell near the base. Hindwings black. Underneath the markings of the forewings paler than above; hindwings with a large red patch, varying much in extent. ab. **batesi** *Druce batesi*. (4 f) has on the forewings a yellow dash at the inner margin. Cameroon.

**X. hornimani** differs from all other species in having on the abdomen a middle row of white dorsal dots. Sexes unlike, the ♂ having the markings of the forewing orange, the hindwing red, the ♀ both white. Abdomen with a reddish or yellow dorsal tuft of hair at the base, in the ♀ the extremity tipped with yellow. A large triangular basal area, two large antemedian blotches, frequently united with the former, and a white subapical band usually followed by a white dash situated between the two median nervules. Hindwings with black outer and costal margins. — **hornimani** *Druce* (♂ = *comaria* *Druce*) (2 c, 4 f). Specimens *hornimani*. from between Sierra Leone and the Niger have the marginal border of the hindwing broad and the white portions of both wings (♀) devoid of any yellowish tinge. Those from Cameroon, Gaboon and the Congo State are likewise usually clear white, but with the dash between the two median nervules as a rule distinct, the black space between the anal spot and the large blotch before the internal vein generally narrower than the black discocellular band, and the marginal band on the hindwings less broad than in the specimens from the Northwestern Region. — The forms from the Ituri District, Uganda (with Toro and Unyoro) and British East-Africa I unite under the name of **melanosoma** *Druce* (1 e ♂). ♂ rather darker than Westafrican ♂♂, the ♀ *melanosoma*. with a yellowish tinge, the subapical band on the forewings somewhat broader, the dash between the median nervules generally larger, and the terminal band on the hindwings narrower. — In ♀ ab. **minchini** *Hmps. minchini*. the white markings of the hindwings are so broad and confluent that of the black ground colour only a broad terminal band, a narrow discocellular streak and two submedian spots remain. Another, very curious aberration is ♀ ab. **diffusa** *ab. nov.* (4 g), which has the inner portion of the forewings dirty white, shading out- *diffusa*. wardly into brown, but outside of the brown nervules without any markings; only underneath the edge of the terminal band is faintly indicated. Hindwings white, shaded with fuscous distally, and with brown veins; under-surface more broadly white. Toro.

c) Abdomen in both sexes ringed with black and yellow above.

**X. mozambica** *Mab.* (1b) has the abdominal segments narrowly edged with yellow and white above. *mozambica*. The markings of the forewings orange, in the black basal area a distinct white dot before the internal vein, and near the costa a few bluish-white dots. Hindwings red with a large black discocellular spot; a black terminal band widening out considerably below the middle and marked with a yellow spot before the anal angle underneath. From the coast-region of German and Portuguese East-Africa.

**X. perdix** *Druce* (1 c). Abdomen ringed with yellow also beneath, the extremity in the ♂ black, in ♀ yellow. Forewings with two yellowish basal dots before and one below the cell, and a somewhat deeper yellow streak before the internal vein, but without any markings on the inner margin; a subbasal band, shortened both in front and behind, two occasionally confluent antemedian blotches, a generally elongate, oval subapical band and a round spot before the inner angle orange. Hindwings crimson, occasionally with orange tinge; before the anal angle a red spot in the black terminal band, in the ♂ sometimes absent either above or on both sides: ♂ ab. **indecisa** *Btlr.* (1 c). ab. **angustella** *Strand* (= ab. 1 *Hmps.*) refers to a very poorly pre- *indecisa*. served ♂ specimen in the Tring Museum, from Mpuapua in German East-Africa, having the antemedian blotches *angustella*. united to a band, the three bands on the forewings narrow and approximately of the same width. — Occurs from Natal northward as far as German East-Africa and the Albert Nyanza.

**X. africana** *Btlr.* (= *meretrix* *Westw.*) resembles *perdix*; abdomen underneath in front with yellow, behind yellowish-white transverse bands, tipped with black in both sexes. Forewings in the basal area before the internal vein with a small yellow spot instead of a streak, hindwings without a red spot in the terminal border. Forewings, as in *perdix*, with a broad, shortened subbasal band and without any markings at the inner margin. Hindwing either red: = f. **africana** *Btlr.* (1 c) (= *meretrix* *Westw.*) or yellow: = f. **flava** *africana*. *form. nov.* (1 d). — From Natal to Nyassa Land. *flava*.

**X. flavisignata** *Hmps.* Abdomen, as in *perdix*, ringed with yellow also beneath; the subbasal band *flavisignata*. on the forewing narrow, broken up into spots, preceded before the internal vein by a small yellow oblique streak; median blotches as in *perdix*; subapical band narrow, the 4th spot projecting outwardly, the 5th short and nearly isolated. Hindwings salmon red with narrow black terminal border. — Lusanga, on the east shore of Victoria Nyanza; 2 ♂♂ in the British Museum.



*pardalina*. **X. pardalina** Wkr. (= *ochracea* Btlr., *kirbyi* Carp.) (1 d). Abdomen ringed with black and yellow above, beneath black with three rows of white spots, tipped in ♂ with black, in ♀ with yellow; femora black with long white dash above, middle and hindtibiae distally black with white tips. The spots on the forewings and the hindwings yellow, the latter with a yellow subanal spot in a black border underneath, more rarely also above; costal margin black; fringe at the apex of the forewings yellowish-white, of the hindwings deeper yellow. The lower one of the first pair of spots on the forewing is divided by the internal vein into a smaller anterior and a longer posterior spot. Angola, Congo.

*fatima*. **X. fatima** Kirby (1 c) resembles *africana*, but has the subbasal band on the forewing dissolved into two spots which are much smaller than the antemedian ones; at the inner margin, at or before the middle, frequently an indistinct yellow dash. — German and British East-Africa.

*geryon*. **X. geryon** F. (= *euphemia* Stoll, *nugatrix* Westw.) (1 d). Collar with large orange spot; abdomen spotted with white beneath, in the ♂ tipped with black, in ♀ yellow. Forewing with a long dash in the basal area at the inner margin, a large spot in the cell and two further ones before it, and 1 or 2 before the internal vein; antemedian blotches mostly large, the subapical band not broken up into spots, only notched on the inside at the lower radial. Hindwings bordered with black distally and costally, either crimson (f. **geryon** F.) (1 d) or reddish-orange (f. **flava** form. nov.). — From Sierra Leone to the Niger and farther East as far as the White Nile, Wadalaï and Toro; not known in Cameroon, Gabun and on the Congo.

*pallida*. **X. pallida** Wkr. (= *niveosparsa* Westw.) (1 c as *niveosparsa*). Head and thorax with white dots; abdomen ringed with yellow above, the last rings whitish, ♂ with the anterior segments altogether yellow, the posterior ones ringed with white; the first segment of the ♀ with a yellow transverse band, all others with white ones, the abdomen both of ♂ and ♀ tipped with yellow. On the forewing the spots pale yellow (underneath nearly clear white), all well separated from one another; in the basal area a small cell-spot and a long streak at the inner margin, the subapical band interrupted, on account of the third spot being absent or only indicated. Hindwings red. — Goldcoast, Nigeria, Cameroon. The type of *niveosparsa* has the spots on the forewings white with yellowish tinge (faded), and the type of *pallida* is strongly discoloured.

*minerva*. **X. deficiens** Mab. Abdomen both of ♂ and ♀ tipped with black, otherwise like that of *pallida*, but the anterior segments even in the ♂ not entirely yellow underneath. Spots on the forewings white (f. **minerva** *deficiens* Weym.) (1 c), or feebly yellowish (f. **deficiens** Mab.), the dash at the inner margin absent, but one or two distinct spots before the internal vein, subapical band contiguous, only the last spot more or less isolated. Known to me only from the coast-region of German East-Africa and from the island of Pemba. MABILLE's statement that it came from Gabun, is surely an error.

*terminatis*. **X. terminatis** Wkr. (1 c, as *terminalis*). Abdomen of the ♂ ringed with yellow in front and white behind, underneath in front almost wholly yellow, in the ♀ above as in the ♂, beneath all the transverse bands white, occasionally also above; abdominal tip yellow in both sexes, the last segment only at the base black. Forewings marked as in *pallida*, with the spots almost clear white, the subapical band interrupted, the dash at the inner margin small or absent. Hindwings yellow, the base narrowly black. Marginal border broad, with a white spot before the anal angle underneath. — From Sierra Leone to the Niger.

*medeba*. **X. medeba** Druce. ♀: Abdomen ringed with white and broadly tipped with yellow. Hindwings white, under surface more or less broadly yellow near the base; the black margin sometimes very broad and somewhat blurred. Old Calabar and Cameroon. Possibly only a form of the preceding species.

*atrifusa*. **X. atrifusa** Hmps. Like *terminatis*, but with the marginal border of the hindwings tapering behind, and the hindwing itself suffused with black. — Semliki Plains, Unyoro. Most likely also a form of *terminatis*.

*atriventralis*. **X. atriventralis** Hmps. ♂: abdomen ringed with yellow and black above, beneath black with a few yellow spots at the sides, but without any central spots. Forewings with a small basal spot in the cell and two small similar spots before the internal vein, the dash at the inner margin absent, the antemedian spots united so as to form a narrow band, the subapical band not dissected by black streaks along the veins. Hindwings red, with black marginal border; under surface yellow in front, the costal margin dusted with black almost to the base. Spines of the foretarsi slender. Northeastern Rhodesia.

**X. superba**. Abdomen ringed with black and yellow above, with three rows of white spots, tipped with black in the ♂, with yellow in the ♀, femora black, with a white spot at the extremity above, the tibiae of the middle and hindlegs broadly black distally, with white tips. The spots on the forewings yellow, the lower spot of the



first pair nearly or quite reaching the inner margin, the subapical blotch large, not dissolved into separate spots. Hindwing crimson to orange, the black border greatly varying in width, always without the pale subanal spot, but with a distinct tooth-like projection at the lower median; underneath also the costal border black. Fringe at the apex of both wings white. — *superba* Btlr. (1 f.) is found from Natal northward to Nyassaland and British East-Africa. The subapical band on the forewings broad, with a distinct outward edge; hindwings crimson. — *ugandana* subsp. nov. Subapical band of the forewing narrower than in *superba*, the outward edge less distinct; hindwings yellowish-scarlet, not crimson. ♂ with the spines of the tarsi shorter than in *superba*, not so thin or hair-like, but rather resembling those of the ♀. Valve much more delicate, drawn out to a long point. On the forewings the two median spots almost always confluent. Unyoro, Uganda. — *basalifasciata* Bartel, from the Tanganyika Region, has the hindwings orange-coloured, the forewings greatly varying in the markings: in ab. *tanganyikana* Bartel the basal and median orange spots on the forewings are more or less connected, both lengthwise and crosswise; ab. *maculipes* Strand has 3 transverse bands; in ab. *basalifasciata* Bartel (= ab. *rufoides* Strand) the two subbasal spots form a broad band, the two median ones being separated; in ab. *separata* ab. nov. finally also the subbasal spots are isolated.

*superba.**ugandana.*

A northern district of  
Tanganyika  
Serum. E. A.  
maculipes.  
basalifasciata.  
separata.

*X. incongruens* Btlr. is perhaps a subspecies of *X. superba*. It is limited to Abyssinia; the 2. subbasal spot on the forewing small, not extending below the internal vein, in contradistinction to *superba*: subapical band at the most 6 mm in width, measured at right angles across. Hindwings orange, with or without any red suffusion. The spines of the foretarsi (♂) slender.

*incongruens.*

*X. jugans* spec. nov. (4 h). Head, thorax, both above and beneath, and legs dotted with white, tarsi broadly yellow, abdomen ringed with yellow and black above, black beneath, with a central row of white dots, the last segment in ♂ black (valves feebly edged with yellow), in ♀ black at base, then consecutively broadly yellow, black and at the very extremity dark orange; the spots on the upper surface of head and thorax faintly yellowish. Forewings without any markings at the inner margin, with three yellow oblique bands, of which the subbasal one is in 1 ♂ and 1 ♀ interrupted (type), in a second pair nearly so and in 4 other ♀♀ complete; in the basal area, moreover, a yellow spot before the internal vein, a second one below and 2 or 3 yellowish spots before the cell; another small spot before the inner angle. Hindwings crimson (in two somewhat faded specimens reddish-orange), with black outer border, below the costal margin orange. Fringe at the apex of both wings yellowish. Valve of ♂ short, narrow, incurved. In two ♀♀ from Angola the subcostal nervule arising from the areole (as in *butleri*). — Bihé in Angola (1 ♂ 6 ♀♀) and Songive Valley, Lake Nyassa (1 ♂).

*jugans.*

In the following species the 2. subcostal nervule of the forewing arises always at the secondary cell.

*X. butleri*. Fore femora yellow; abdomen ringed with black and yellow above, tipped with yellow in both sexes, beneath black with two rows of white spots, which often are indistinct; in addition usually a lateral row of spots; apex of femora and nearly the entire tibiae yellow. Forewings with a spot at the inner margin, the median band either complete or interrupted at the median vein. The other particulars may be seen in the figure. Beneath the spots of the forewings deeper orange than above. Two geographical forms are known: *butleri* Wkr., from Natal, has the median band of the forewings either interrupted at the median vein (f. *butleri* Wkr.) (4 h) or contiguous, with an additional, isolated spot at the inner margin (f. *completa* form. nov.). — *adulatrix* Westw. has the border of the hindwing narrower, black, and the median band of the forewing at the most feebly indented at the median vein. From Matabeleland northward to Toro and Ukerewe. — The larva of *butleri* is bluish-grey with numerous fine transverse bands; head, scutellum, forelegs, a spot on the last but one segment and the anal legs reddish yellow, a lateral line reddish. On Vinum.

*butleri.**completa.**adulatrix.*

*X. aisha* Kirby (= *catarhodia* Holl.) (4 h). Body like that of *X. butleri*; abdomen not spotted with white underneath, tibiae with two black spots. On the forewings the spot at the inner margin placed nearer the base, the median band broken up into two square spots, the subapical band constricted in the middle, the spot before the inner angle large. Fringe at the apex of the hindwings yellow. British East-Africa, Uganda, Unyoro, Somali Land. Three of our Unyoro specimens have the abdomen more or less strongly banded with yellow beneath (f. *transiens* form. nov.), although otherwise quite similar to the other specimens of *aisha*. These specimens render it probable that *aisha* is only a form of the following species.

*aisha.**transiens.*

*X. xanthopyga* Mab. has the abdomen ringed with yellow underneath, the two median spots on the forewing united into a band, the subapical band not constricted. From the coastal region of German East-Africa. Unknown to me.

*xanthopyga.*

*X. pentelia* Druce (3 c). Abdomen beneath marked with yellow, above ringed with black and yellow, the tip yellow; head and thorax spotted with yellow both above and beneath, fore femora and tibiae covered

*pentelia.*



with yellow hair. On the forewings 2 subbasal spots, a rather small antemedian cell-spot and a larger elliptical spot before the inner margin, almost touching it; a broad, outwardly rounded, inwardly concave subapical band, below which a roundish spot of orange-yellow. Hindwings orange-red with strongly incurved black marginal band. — Delagoa Bay. Unknown to me in natura.

*thruppi*. **X. thruppi** Btlr. (3 a) is a robust species having the abdomen red above, black beneath. On the forewing the spots yellow, above darker than beneath, in the basal area 7 dots, followed by a spot in the cell and a larger one at the inner margin, in the middle two square blotches, before the margin a broad, inwardly feebly concave band and a large spot before the inner angle. Hindwing crimson, outwardly more or less orange. — Somali Land, British East-Africa, Toro.

*contigua*. **X. contigua** Wkr. (5 a). Abdomen black, ringed with yellowish grey. Forewings with a yellow subbasal band reaching the internal vein, a small yellow spot in the apex of the cell and a narrow yellow discal band placed nearer the base than in the preceding species. Hindwings red with black border and white, black-spotted fringe. Only 1 specimen known (locality not given). — Resembles *Aegocera tigrina*, but easily distinguished by the ringed abdomen and the absence of the spines from the tibiae.

## 2. Genus: **Rothia** Ww.

Distinguished from *Xanthospilopteryx* principally by the short cell in the forewing which is less than half the length of the wing; also the cell in the hindwing is rather short. On the forewing the second subcostal arises from the secondary cell, the upper median quite close from the angle of the cell. With one exception found also in East Africa, all the species are confined to Madagascar. A few small forms belonging to this island have the cell in the forewing somewhat longer, being therefore no true *Rothia*; but since in all other respects they fit very well into this genus, I enclose them here, so that *Rothia* comprises, with the exception of *Tuerta rufodiscalis*, all the known *Agaristidae* of Madagascar.

*watersi*. **R. watersi** Btlr. (3 c). Head and thorax black with yellowish spots, pectus, legs and abdomen largely orange. Forewings reddish-brown, with a somewhat oblique yellowish median band that reaches neither the costal nor inner margin. Hindwings deep red, broadly shaded with fuscous at base, costa and outer margin. — Eastern Madagascar.

*hypopyrrha*. **R. hypopyrrha** Btlr. (3 c). Body black, head and thorax with small yellowish spots, pectus, femora, tibiae and underside of abdomen orange. Forewings with a broad sulphur-yellow median band. Hindwings unmarked above, underneath the forewings at the base narrowly orange, the hindwings carmine with a terminal border of fuscous, broad in front, tapering behind. Eastern Madagascar.

*simyra*. **R. simyra** Westw. (3 a) resembles *hypopyrrha*, but smaller, with the spots on head, thorax and palpi nearly white, the band on the forewings placed farther outward, not reaching the cell; on the under surface of the hindwings the terminal border much wider, occupying more than two thirds of the costal margin, the fringe at the apex of either wing white (f. *simyra*) or quite black (f. *nigrifimbriata* form. nov.) or intermediate. Specimens of either sex from Morondawa, Southwestern Madagascar.

*zea*. **R. zea** H.-Schäff. Head and thorax spotted with yellowish, under side of the body and the legs almost completely orange; the first segment of the middle feet of the ♂ greatly enlarged and longer than in ♀. On the forewing 2 cell-spots, and outside of the cell a constricted or interrupted discal band, both yellowish-white. Hindwings blackish fuscous, fringe spotted with white. On the under surface the base of the forewings orange; hindwings carmine with broad black border. f. *zea* H.-Schäff. has the band on the forewings more or less strongly constricted, whereas in f. *divisa* form. nov. (3 b as *zea*) it is divided into two blotches; the blotches vary greatly, the anterior one frequently being no larger than the cell-spots. — Of 125 specimens from Morondawa (southwestern Madagascar), 124 belong to *divisa*, whereas all specimens I have seen from the eastern part of the island, represent f. *zea*.

*distigma*. **R. distigma** Mab. (3 a). Body similarly coloured as in *zea*; the first segment of the middle tarsi of the ♂ barely enlarged. Forewings with white markings, namely two small spots in the cell and, separated from the latter, a discal band consisting of 4—5 spots. Hindwings with whitish-blue middle area neither reaching the margins nor the base. Underneath the base of the forewings yellow, the hindwings carmine with black border. Eastern and western Madagascar.

*cruenta*. **R. cruenta** spec. nov. resembles the preceding, but has the last segment of the palpi longer. Forewings without a trace of cell-spots, but with a white, faintly yellowish median band touching the angles of the cell, and reaching from the upper angle to the internal vein, tapering in front and dentate inwardly, hardly exceed-

ing 5 mm in width. On the forewings a blue median spot, which is much smaller than in *distigma* (6 × 7 mm.). Fringe at the apex of both wings white. Under surface: Forewing at the base orange, hindwings scarlet, at base orange, the border black, broader in front than in *distigma*, and almost reaching the base. — 1 ♂ from Madagascar, probably the southwestern part, in the Tring Museum.

**R. virguncula** Mab. (= *metagrius* Btlr.) (3c). Body as in the preceding. Forewing with median band as *virguncula*. in *cruenta*. Hindwings with yellowish-white median area. Underneath the forewings orange at base, the hindwings yellow, in front and behind orange, bordered with black. Madagascar: Betsileo.

**R. pales** Guér. (3b). On the forewing a small white cell-spot and a narrow, oblique, white discal *pales*. band, composed of 5 spots and reaching anteriorly the secondary cell. Hindwings with large pale blue median area. On the under surface the body, the base of the forewings and the hindwing orange, the latter broadly bordered with black. Madagascar; 2 ♂♂ in the Tring Museum, locality unknown.

**R. micropales**. A small species, resembling the preceding, but having on the forewing the discal band *micropales*. undivided and the cell-spot lacking. — In *micropales* Btlr. (3e) from Central Madagascar the band on the forewings reaches the internal vein, tapering in front, otherwise of even width (3 mm); on the hindwing the diameter of the blue, pale-centred spot is about 4 mm. — *caecata* *subsp. nov.*, from Morondawa (Southwest *caecata*. Madagascar), has on the forewing the band shorter but broader, in front 2½ mm in width, from the 2. radial on 4 mm, ending before the lower median instead of the internal vein. The blotch on the hindwing much larger, not centred with white, 8 mm in diameter. Hindlegs (the others missing) altogether orange. On the under surface of the hindwings the terminal border wider.

**R. tranquilla** Btlr. (3d). Forewings without any cell-spot, with a pale yellow discal band touching *tranquilla*. the apex of the cell, not interrupted and feebly denticulate on the inner side, extending from the costa to the internal vein, its width behind 4 mm, in front 2 mm; hindwing with blue median area, reaching from the subcostal toward the anal angle and being in the apex of the cell overlaid by a patch of dirty yellow scales. Underneath the body, legs, base of forewings and the hindwings orange, the latter broadly bordered with black, the border nearly reaching the middle of the costal margin. The species either varies greatly or the following forms may represent different species, which I cannot at present decide with the scanty material at my disposal. f. *epipales* Mab. has on the forewing the band narrower, not dentate, only reaching the lower median *epipales*. nervule; hindwing above without any yellow in the cell. In f. *tenuis* *form. nov.* the band on the forewing *tenuis*. is above only 1 mm in width, interrupted between the 3. radial and lower median, and blurred, beneath 1⅔ mm wide, reaching the lower median, not interrupted and feebly dentate. The central area of the hindwing not scaled with orange, broadly centred with white; the black border of the hindwings on the underside projecting along the costal margin toward the base almost to the 1. quarter. f. *sinefascia* *form. nov.* refers *sinefascia*. to a specimen mentioned by MABILLE, without any band whatever on the forewing. Madagascar; *tranquilla* from Betsileo, of the others the locality unknown.

**R. nigrescens** Roths. (3a). Body underneath and the legs with the exception of the tarsi orange. *nigrescens*. On the forewings 1 or 2 small sulphur-yellow cell-spots and a similar discal band reaching from the costal to the internal vein; on the hindwings the fringe mottled with white and black. Underneath the base of both wings narrowly orange, the hindwings otherwise purplish-black. — Morondawa, Southwest Madagascar.

**R. pedasus** H.-Schäff. (5a). Abdomen orange, tipped with black, with large black triangular transverse *pedasus*. spots at the base of each ring. Forewing with large white cell-spot and white discal band, widening anally and reaching the lower median (Vein 2). Hindwing with large white area extending to the inner margin. Fringe of both wings at the apex and before the inner angle white. — Madagascar. The ♂ was figured by HERRICH-SCHÄFFER; the ♀ is, according to my recollection, contained in the OBERTHÜR collection.

**R. simplex** Roths. (3b) is perhaps only a subspecies of the following. Underside of thorax, the legs *simplex*. with the exception of the greater part of the tarsi, and the abdomen, all but the very extremity, the base and a few small spots, orange. Forewings above without, underneath either with or without two small cell-spots; a broad discal band touching the apex of the cell, almost reaching the internal vein. The yellowish-white area of the hindwings very large, the black border at the middle below the 3. radial (vein 4) incl. the fringe 6 mm in width. — Morondawa (Southwest Madagascar); 2 ♀♀ in the Tring Museum.

**R. agrius** H.-Schäff. (4g). Abdomen of the ♂ almost completely black above, of ♀ ringed with black. *agrius*. Forewings without cell-spot, the discal band narrower than in *simplex*, in ♂ 2½ mm wide, in ♀ 5 mm at the middle. Hindwings of the ♂ with rhombic yellowish white median area, extending from the inner margin to the upper angle of the cell, 6—7 mm in width; in the ♀ this area is outwardly rounded, dentate below the



lower median nervule, and 10—11 mm wide. On the under surface the area reaches in both sexes the base, leaving only the narrow costal border and the broad termen black. The ♀ has the fringe at the apex of both wings white, as in *simplex*, the ♂ only at the apex of the forewing, with a few white scales. — Eastern Madagascar; 2 ♂♂ from the district lying inland from Mahanoro, 1 ♀ from Tamatave in the Tring Museum; whether this ♀ really belongs to the mentioned ♂♂, remains to be confirmed.

*holli.* **R. holli** Oberth. (5 a). ♂: Abdomen ringed with black and orange above, underneath orange as is also the pectus. Forewings with 2 yellowish white cell-spots and a short similar discal band. Hindwings red, the base and outer margin black, underneath the base yellow and the terminal band narrower than above. Fianarantsoa; unknown to me in natura.

**R. lasti.** Black; femora and part of the tibiae covered with orange hair. Forewings with two white dots in the cell, and a white discal band extending to the lower median nervule, its anterior half or third narrower than the posterior portion. Hindwing with median area white, widely separated from the margins and base, both above and beneath, in ♀ rather larger than in ♂. — **lasti** Roths. (3 b), from Morondawa (South-west Madagascar). The band on the forewing at least 1½ mm wide, the blotch on the hindwings about as wide as the black basal area. — **epiera** subsp. nov. has the band on the forewing narrower than in *lasti*, the blotch on the hindwings only about one half as wide as the black basal area, its outer edge dentate at the nervules, blurred posteriorly, with a faint bluish tinge produced by the superimposition of white scales on black ones, both here and at the outer edge. Northern Madagascar: Diego-Suarez, 1 ♂ in the Tring Museum.

*gracilis.* **R. gracilis** spec. nov. ♂: Frons with a thin, strongly produced appendage, the 3rd segment of the tarsi short, nearly the entire 1st segment, the base and tip of the 2nd and the base of the 3rd yellowish white, head and thorax with the usual yellowish-white markings; pectus, femora, tibiae and underside of abdomen orange, tarsi bluish-black, the segments with white tips; abdomen above and at the sides brownish-black, at the base with a dorsal tuft of scales, yellow in front, at the extremity metallic; anal tip yellow. Forewings and under surface of hindwings blackish-fuscous, nearly chestnut, marked with yellowish-white as follows: On the forewing two spots at the base before the cell, followed by two cell-spots and, beyond the apex of the cell, an almost uniform band from costa toward the inner angle, ending at the internal vein. Hindwings brownish-black, with a large yellowish-white blotch before the anal angle, touching the lower angle of the cell, feebly indented at the upper median, more strongly below the lower median. Under surface almost as above, with the base of both wings faintly orange. Fringe at apex of both wings and at the abdominal margin of the hindwings white. Length of forewing 20 mm. — Ambre, North Madagascar.

**R. rhæo.** Black; femora and part of the tibiae covered with long orange-coloured hair; terminal segments of palpi long and thin. Forewing with 2 small yellowish-white cell-spots and 2 similar, larger, discal blotches; hindwing with an elongate white terminal spot before the anal angle. Madagascar; Nyassa. — In f. **rhæo** Druce (4 c) both cell-spots are small; a white terminal spot before the inner angle of the forewings: *alluaudi.* 1 ♂ in the DRUCE collection, now in the possession of J. J. JOICEY. In f. **alluaudi** Mab. the outer cell-spot is transverse and the above mentioned white terminal spot is absent; 1 ♀ in the MABILLE collection; if *rhæo* really comes from Madagascar, that ♀ belongs surely to it. But we doubt the correctness of the statement that *rhæo* came from Madagascar, since both the British and Tring Museums contain a ♂ specimen each from Nyassa Land, which does not seem to differ in any way from typical *rhæo*. The matter can only be cleared up, when new material will be available.

*panganica.* **R. panganica** Karsch (3 d). Body as above, with the extreme tip of the abdomen orange. Forewings without any cell-spots, but with an uninterrupted discal band; at the apex a few white scales, as in f. *rhæo*. Hindwing with a subanal terminal spot as in the preceding species. — Usambara (German East-Africa): only ♂♂ are known to me.

*fianarantsoa.* **R. fianarantsoa** Oberth. Unknown to me in natura; forewing with yellowish transverse band (touching the apex of the cell?), reaching neither costal nor inner margin and tapering on both sides. Hindwings carmine, with broad black border, on the upper surface the inner half of the wings suffused with blackish. Length of forewings 25 mm. Fianarantsoa.

*dayremi.* **R. dayremi** Oberth. (5 a). Pectus, legs and the underside of the abdomen covered with orange hair, upper surface of the abdomen ringed with black and orange. Forewings blackish-fuscous, with a small and large cell-spot and two discal spots yellowish-white. Hindwings orange, with the black border continuing as a narrow streak along the abdominal margin; the base fuscous. — Antsianaka (Madagascar). This and the following species have the cell in the forewing longer, and are therefore no true *Rothia*.



**R. eriopis** *H.-Schäff.* (3 d); very much like *dayremi*; abdomen with a central row of black spots above, in the ♂ the last two rings black, the anal tip yellow above. On the forewing the spots larger than in *dayremi*, the abdominal margin of the hindwings without the black streak, hindwings yellow (f. **eriopis** *H.-Schäff.*) *eriopis*, or red (f. **carminata** *Roths.*) (3 d), with a white blotch beyond the upper apex of the cell, particularly distinct *carminata*, in f. *carminata*. Known from Morondawa (Southwest Madagascar) and from Ambre in the northern part of the island.

**R. westwoodi** *Bthr.* (3 c). Black. Legs, pectus and underside of abdomen largely orange. Forewing *westwoodi*, with a short, somewhat bulging, yellowish-white discal band; hindwing with large quadrate yellowish-white median area. Underneath the base of both wings as well as the costal and inner margins of the hindwing as far as the black terminal border orange. — Madagascar: Fianarantsoa and Antananarivo.

**R. powelli** *Oberth.* (5 a) principally differs from *westwoodi* in having on the underside the base of the *powelli*, forewing more broadly orange and the pale area of the hindwing altogether orange. — Fianarantsoa; it is possibly the ♀ of *westwoodi*.

I here add still a mainland species the position of which is still doubtful, agreeing neither with *Tuerta* or *Schausia* nor *Aegocera*.

**R. (?) tricolora** *B.-Bak.* (4 a), described as *Aegocera*. Tibiae devoid of spines; frons of ♂ not contracted: *tricolora*, antennae distinctly thickened at the ends, in the ♂ with blunt points; the second segment of the palpi as in *Aegocera*, the 3rd short. Head and upperside of thorax blackish fuscous, with yellowish-white markings. Pectus covered with long yellow hair; abdomen rufous above, with black central streak, beneath yellow. Forewing blackish fuscous with a red stripe before the inner margin, 3 spots at the anterior margin of the cell, a larger one below the cell, and a shortened discal band, all yellowish-white. Hindwings red with black border. Cameroon, Congo, Northeast Rhodesia.

### 3. Genus: **Weymeria** *Karsch.*

Segments 1 and 2 of palpi covered with shorter hair than in *Rothia* and *Xanthospilopteryx*, particularly in ♀; 3 long and delicate. Frons with a truncate appendage, with raised edge. Antennae thin, thicker at the ends, distinctly in ♂, quite feebly in ♀. Tibiae without any unusually long hair; ♂ with the 1. segment of the foretarsi only slightly longer, but much thicker than the 2nd, 2—5 naked, middle and hindtarsi with the 5th segment naked i. e. only provided with a delicate down; in the ♀ segment 5 of all the tarsi densely covered underneath with S-shaped, curved, yellowish hair, the spines of the 1. segment of the hindtarsi of ♂ long and bristling. On the forewing the 1. subcostal nervule arises at about the same height as the lower median, the 2nd at the secondary cell, the upper median very close to the lower angle of the cell; the cell itself, measured to the lower angle, somewhat shorter than the distance from that corner to the apex of the wing; the cell in the hindwing much shorter than half the length of the wings.

**W. athene** *Weym.* (3 d). Upperside of thorax and abdomen as well as the base of the palpi orange, the *athene*, rest of the body black with white markings, abdomen spotted or ringed with black above, tipped with black and white. Wings scarlet to reddish orange, with black, white-spotted border. One ♀ from Lake Tanganyika has the submarginal spots suffused with yellow both above and beneath: = ab. **suffusa** *ab. nov.* The body *suffusa*, varies in the extent of the white colouring; the two large spots on the forewings are in the ♂ smaller than in ♀. German East-Africa: Tanganyika and Kiloa.

### 4. Genus: **Arrothia** *Jord.*

♀ palpi as in *Weymeria*, but the hair on the 2. segment longer than in ♀ of *Weymeria athene*. Antennae distinctly thickening distally; frontal appendage long, thin, truncate. Underside of the 5 segment of the hindtarsi (the other tarsi are wanting in the only known specimen), covered on the sides with S-shaped curved hairs; middle and hindtibiae above covered with moderately long hair. Neuration very much as in *Weymeria*, the 2. subcostal nervule arising, together with 3, 4 and 5, from a common, very short stalk, or originating at the apex of the secondary cell very close to 3, 4 and 5; the stalk of 3, 4 much longer than 5, which is free. The cell in the hindwings short. One species from Madagascar.

**A. bicolor** *Roths.* (5 a). Black, the thorax orange above, abdomen above yellow, with the exception *bicolor*, of the extremity. Wings yellow, broadly bordered with black. — Morondawa (Southwest Madagascar). 1 ♀ in the Tring Museum.

### 5. Genus: **Arctiopais** *Jord.*

Palpi with segments 1 and 2 covered with long hair, 3 thin and very long, evenly scaled and porrect. Antennae of ♂ distinctly, of ♀ indistinctly thickened at end. Frons of ♂ compressed posteriorly, the appen-

clage short, truncate, with a very curious ring-shaped edge which is somewhat less than  $\frac{1}{3}$  as wide as the frons. Femora and tibiae clothed with long bristling hair, in the ♂ also the middle and hind tarsi and the spurs; the 5th segment of the tarsi of ♂ naked underneath, but armed with a few spines, in ♀ with S-shaped hair at the sides, and at the middle with a double row of spines. In both wings the cell short; the 2. subcostal nervule on the forewing arising from the areole. 3 and 4 with a short stalk, the upper median from near the apex of the cell, the 1. subcostal much closer to the base than the lower median. 1 species from Madagascar.

**A. ambusta** *Mab.* (3 e). Orange yellow, antennae, the last segment of the palpi and a spot on the 2. segment, the extremity of the abdomen (♀) or a spot before it (♂) as well as the outer two fifths of the hindwing black; forewings with black fringe, before the margin a faded brown band, which is but faintly indicated in the ♂; on the under surface the forewing of the ♂ with a narrow, of the ♀ with very broad submarginal band, which in the ♀ usually comes right to the border. Many ♀♀ have the abdomen uniformly yellow without black tip (♀ fa. **ambusta** *Mab.*); ♀♀ with black tip I name ♀ fa. **melanura** *form. nov.* — Madagascar; in the Tring Museum a series from Morondawa.

## 6. Genus: **Charilina** *Wkr.*

Palpi with segments 1 and 2 covered with long hair beneath, the scale-hair unusually long at the extremity of the 2. segment; segment 3 very long and thin, feebly clubbed, with sharp-pointed apex. Antennae of ♂ and ♀ fine, almost threadlike, in the ♂ the fine hair on the underside rather long. Frons of ♂ much narrower than of ♀, strongly produced, with very distinct, raised ring-shaped edge, which seen from front, is in ♂ as a rule about  $\frac{2}{3}$  and in ♀ about  $\frac{1}{2}$  as broad as the frons itself, although varying greatly. The ♂ has all the tibiae, the ♀ only the foretibiae clothed with long hair; the 5. segment of the tarsi with a naked central streak beneath. On the forewings the 1st subcostal nervule placed closer to the base than the 2nd median, the 2nd subcostal arising from the secondary cell, the stalk of the 3rd and 4th subcostal short. In both wings the two median nervules are at the cell much farther apart than at the border. 1 African species.

**Ch. amabilis** *Drury* (3 e). Yellow-orange. Antennae, tips of the palpi, tarsi and tibiae (particularly the middle ones) as well as the base of the abdominal segments black. Forewings red with pale yellow blotches, as seen in our figure. Hindwings orange, with black border and discocellular spot. Under surface of the forewings black and orange. The sexes are in markings and colouring alike. The species varies greatly, without, however, developing geographical forms. In f. **amabilis** *Drury* (= *alienata* *F.*) the spots on the forewings are edged with black, the interspaces red. In f. **intercisa** *Fldr.* the interspaces are yellow or yellowish-white. From Abyssinia and Senegal. If the black lines within the pale yellow spots are replaced by red lines, we have f. **accra** *Strand*, quite common at Gold Coast and on the Niger. In f. **nyassica** *Strand* (3 e) the forewing has 5 spots not intersected by lines. From Nyassa Land and (in less typical specimens) also from other localities. f. **abyssinica** *Strand* has the pale yellow subbasal spot at the costa connected with the median area. Underneath *Ch. amabilis* varies especially in the extent of the black markings of the forewing; rarely there occurs a short black longitudinal stripe below the cell in the hindwing. From Senegambia to Erithrea and southward to Natal.

## 7. Genus: **Paida** *Jord.*

Palpi very long, porrect, the 2. segment covered with short hair, the 3rd about as long as the 2nd, smoothly scaled. Antennae distinctly thickened distally. Frons with a trifold or conical projection. Hind tibiae covered with rough hair and, between both pairs of spurs, with spines on the outside, middle tibiae with an outer row of spines. On the forewing the 1. subcostal nervule placed closer to the base than the lower median, the upper median near the angle of the cell. 3 species, greatly differing in structure and colouring.

**P. pulchra** *Trim.* (♂ = *gordoni* *Btlr.*) (3 e). As seen in the figures the sexes differ greatly in the colouring of the hindwings. ♂ with the hindwing on both sides and the forewing beneath a faded ferruginous and yellow, ♀ orange with very sharp black markings. In the ♂ the posterior half of the hindwings and the under surface of the forewings covered with short woolly hair. The projection of the frons trifold the central point being the longest. On the forewing the 2. subcostal arising at the secondary cell. — From Natal northward to Transvaal and German Southwest Africa.

**P. ansorgei** *Jord.* (4 a). ♂: Body orange-yellow, abdomen banded with black, thorax above striped with black and yellow. Forewings rusty red, finely edged with black, with an elongate sock-shaped blotch beyond the middle of the cell, and an 8-shaped discocellular spot, both black, with metallic scales; almost parallel with the termen a black discal line and, quite close to it, marked with metallic scales and not entirely complete between



the median nervules, a second line from which black streaks radiate along the veins to the termen. Hindwings rather paler than forewings, with a black submarginal line connected with the termen by black streaks upon the veins, the interspace completely filled with black toward the anal angle; a discocellular spot likewise black. Underneath the black markings somewhat reduced, the discal line on the forewings single. The wings lack the woolly hair distinguishing the preceding species; on the forewing the 2. subcostal not starting from the secondary cell, but stalked with 3 and 4. Frontal projection long, almost cylindrical, truncate, with raised terminal ring. — Bula Matenga (Angola), 1 ♂ in the Tring Museum.

**P. haemaplaga** *Hmps.* (4a). ♀: Frontal appendage long, flattened, at the extremity scooped out and bifid, not as in *pulchra* trifid, with a transverse ledge projecting at the sides below it. Middle and hindtibiae provided with spines as in the preceding species. Abdomen ringed with yellow and black. Forewings dark reddish-fuscous above with yellow markings, such as a triangular subbasal blotch in the cell, a transverse band placed before the middle, reaching from costa to internal vein where it widens out, and a large discal patch growing narrower behind. Hindwings yellow, bordered with black, on the border before the anal angle a yellow, on the discocellular a small black lunule. Underside of the forewings largely yellow with black markings. From north-eastern Rhodesia, in the British Museum. Type of the genus *Hoplarista* *Hmps.*

### 8. Genus: **Pseudospiris** *Btlr.*

Palpi porrect, but short. Frons with the edge raised to a sharp transverse ledge, the appendage conical, truncate, its extremity somewhat dentate beneath. Antennae short, somewhat thickened distally. Foretibia with a spine at the end, the spurs short, the 1. segment of the hindtarsus much shorter than the 1. segment of the front one. Forewing without or with very small secondary cell, the 1. radial stalked with the subcostal nervules 2—5 or 3—5, the first median rather far apart from the angle of the cell, but the 2. and 3. radials very close together; on the hindwing the costal vein confluent with the cell distally as far as the middle of the cell or even farther; the subcostal nervule stalked with the 1. radial, the 2. median branching off at about the middle of the cell. The hindwing of the ♂ with very long fringe. 1 species.

**P. paidiformis** *Btlr.* Body yellow, marked with black, abdomen ringed with black. Forewings pale yellow, with a rusty red transverse line in the basal area and the discus, between which a black cross-line, a figure 8, a somewhat S-shaped, transversely prolonged discocellular ring and a black cross-line; from the outer red line black intranerval stripes radiate to the termen. Hindwings rusty red, with blackish border and dark discocellular spot, in ♀ orange with black spot and black terminal band marked with orange spots. — Nyassa Land.

### 9. Genus: **Choeropais** *gen. nov.*

Palpi short; frons projected to form a long, truncate, proboscis-shaped appendage, about of equal width in both sexes. Antennae short, feebly thickened distally, with blunt apex. Tibiae almost smoothly scaled, only the ~~middle~~ <sup>hind</sup> tibia of the ♂ rough. Foretibia without apical spine, the spurs rather longer than in *Pseudospiris*, the inner ~~spine~~ <sup>spur</sup> by about one half longer than the outer one, the 1. segment of the hindtarsi but slightly shorter than the foretarsi. Forewings with a secondary cell, from which the 2. subcostal arises, 3 and 4 shortly stalked, 1. radial from the cell, upper median from near the angle of the cell, lower median rather nearer the base than in *Pseudospiris*. On the hindwing the costal vein branching off from the cell at about  $\frac{1}{3}$ , subcostal and 1. radial stalked. Hindwing of ♂ without long fringe. 1 species.

**Ch. jucunda** *Jord.* (3 f). ♂ and ♀ coloured and marked very much as *P. paidiformis*, but the outer black line on the forewing and the accompanying red line S-shaped. — Angola.

### 10. Genus: **Pais** *Hbn.*

Palpi projecting beyond frons, longer than in either of the two preceding species, but much shorter than in *Paida*, the 3rd segment much shorter than the 2nd and rather roughly scaled. 2 and 3 clothed with long hair beneath. Frontal appendage truncate, the edge of the end-surface somewhat projecting ventrally, the upper portion of the frons raised below the cone, with the anterior edge sharply marked. Antennae short, thickened distally. Hindtibiae rough, the 1. segment of the hindtarsi somewhat longer than in the front one. On the forewing the 1. subcostal closer to the base than the lower median, the 2. subcostal arising from the secondary cell, the upper median immediately before the angle of the cell. A purely African genus.

*decora*. **P. decora** L. (= *aestuata* Müll. partim, *julia* Cram.) (3 f as *julia*). In the Cape Colony two species occur side by side that hitherto have been regarded as forms of one single species. CRAMER's figure on Pl. 7 represents one species, whereas Pl. 219 belongs to the other. Judging from the description, *decora* L. is identical with *julia* Cr. Also the figures cited later on by LINNÉ refer to *julia* Cr. (= *decora* L.). This is the darker one of the two species; the yellowish spots on the forewing take up on the whole less room than the red marks, being before the inner margin tinged with olive, and heavily mottled with black; occasionally all light spots are strongly obscured, and the black, yellow and black transverse blotch placed at about  $\frac{3}{4}$  of the hind-margin is almost perpendicular to it. Hindwings ferruginous, with yellow anteterminal spots. Under surface rusty red, with pale spots before the black terminal line, forewings with 2 yellowish cell-spots, of which the inner often is absent, and with a short, broadly interrupted discal band, followed distally by a pale costal spot. On the hindwing beyond the apex of the cell a short pale transverse blotch, and in the cell frequently a pale spot, both more or less blurred and their interspace wider than the transverse spot, often also somewhat darker than the rest of the wing, with the light markings often indicated also on the upper surface. Cape Colony. HAMPSON's and STRAND's "*dubia* Hübn." are based on an error. HÜBNER marked his figure "*Brepha dubium Julia*".

*festiva*. **P. festiva** spec. nov. (= *decora* auct. partim, Cr. Tab. 219, F. G.) (3 f, ♂ as *decora*) has the pale markings broader than in *decora*, and clearer cream-yellow, the ante- and postmedian rusty red interspaces with 1 or 2 pale spots, the hind margin of the forewings shorter than in *decora*, and the border as well as the outer transverse blotch on the inner margin more oblique; hindwing with large, bean-shaped, yellowish blurred discal spot and almost always a pale cell-spot. Underneath all pale markings larger than in *decora*, the light discal patch of the forewing always broader than the rusty red discocellular spot, the underside often yellow or pale yellow and marked with ferruginous. Anal hook of the ♂ longer and more evenly curved than in *decora*, the claspers more slender. The species occurs in two geographical forms: — **festiva** is found in Natal (type) and Transvaal. It has the apices of the middle and hind femora covered with yellow hair, the grey transverse bands on the under-  
*nigripectus*. side of the abdomen reaching the yellow dorsal rings; the palpi very distinctly spotted. — **nigripectus** subsp. nov. is found in Cape Colony together with *decora*; throat and femora black, the spots on the palpi very small or blurred, and the transverse bands of the underside of the abdomen shortened; these characteristics distinguish *nigripectus* also from *decora*, which has the palpi broadly greyish-white, the abdominal bands beneath complete, and the femora covered with yellow hair also beneath.

*moldaenki*. **P. moldaenki** Dew., described from Cape Colony from a ♂ (?), possibly belongs to *decora*. Body quite black, the yellowish markings of the upper surface of the forewings completely superseded by black; underneath both wings rusty red, without any spots, but with black border.

*nyassana*. **P. nyassana** Bart. (3 f). Pale rusty red. Forewings with deeper red submarginal band and black, pale spotted terminal band; the following markings black: an 8-shaped discocellular spot, interrupted by a rusty red longitudinal dash, a nearly circular cell-spot, a more or less distinctly twice broken discal line, accompanied distally by a pale line, in the basal area a cell-dot, and beyond it a short zigzag line, before the inner a small double spot. On the hindwing the terminal line and part of the fringe black, a discocellular spot black or rusty red, an indistinct discal line ochre-red. Abdomen above with yellow, beneath white transverse bands. Nyassa Land, Angola, South Congo.

*nigrobasalis*. **P. nigrobasalis** Bartel (= *subterminalis* Hmps.) (2 a) is the type of *Pseudopais* Bartel, described by HAMPSON as *Rothia*, differs in structure from *Pais* no more than *nyassana* does from *decora*, but recalls in the markings *Xanthospilopteryx*. Abdomen black, with white transverse bands above, spotted with white beneath, tipped in ♂ with black, in ♀ with yellow. Forewings black, spotted with yellow, before the termen a row of greyish-yellow spots. Hindwings red, with almost evenly broad, black terminal border. — In the hill-country at the northend of Lake Nyassa.

## 11. Genus: **Metagarista** Wkr.

Palpi rough, the 3. segment short. Antennae of ♂ rather much thickened distally, of ♀ but slightly. Frons narrower than the height of the eyes seen from front, in ♂ narrower than in ♀, with the conical projection short, broad, truncate,



with raised edge. Hind tibiae (in the ♂ also the tarsi) rough, at the most twice as long as the first segment of the hindtarsi. Neuration as in *Pais*; wings broad, on the forewings the two median nervules farther apart at the cell than at the margin, on the hindwings vice versa. Abdomen with median dorsal crest on the 3 or 4 anterior segments (only in good specimens).

**M. maenas.** Under surface of wings and of body as well as the upper surface of the hindwings orange, abdomen banded with black and orange above. Forewings yellowish-grey, suffused with fuscous, marked in cell and at its apex with blackish-brown lines, and on the disk with a double line; nervures narrowly brown, at the margin black-brown streaks between the veins. Hindwings with a row of brownish-black marginal spots. Under surface of the forewings with a black spot in the cell and another similar one on the discocellular, before the margin in either wing a blackish-brown, distally blurred line. From Senegambia to the Congo and Uganda. — Specimens from Uganda and from the Upper Congo (type) have the marginal spots on the hindwings much narrower than their interspaces, and connected with one another by a fine blurred line: = *disjuncta* *subsp. nov.* In specimens from Senegambia, Sierra Leone, Gold Coast and Nigeria these are broader and usually (at least in part) united: = *maenas* *H.-Schäff.* (2 g). *maenas.*

**M. triphaenoides** *Wkr.* (2 f). Abdomen above black with white transverse bands. Forewings blackish fuscous to red-brown, more or less mottled with white, with a blurred, broadly white discal band. Hindwings orange-red, with the black marginal band nearly uniformly wide, variable, often distinctly widening posteriorly. Under surface of the forewings to the middle or two thirds likewise orange, with black cellspot, and in the black outer area a white discal band. — From Senegambia to the Congo and Uganda. *triphaenoides.*

## 12. Genus: *Apaegocera* *Hmps.*

Resembles *Metagarista*, with the third segment of the palpi longer, 2. subcostal arising either at the secondary cell or beyond it. Might perhaps more justly be united with *Metagarista*.

**A. argyrogramma** *Hmps.* (4 a). Body like that of *M. triphaenoides* (2 f). Forewings brown, darker at costal and posterior margin, with a small round white spot in the upper angle of the cell, and on the disk a white band composed of spots. Hindwings fulvous with broadly black marginal band. Fringe black and white. Smaller than *M. triphaenoides*. On the forewings 2. subcostal arising beyond secondary cell. — Ashanti; 1 ♂ in the British Museum. *argyrogramma.*

**A. aurantiipennis** *Hmps.* resembles *Weymeria athene*; from the preceding species distinguished by the fulvous colour of the basal  $\frac{2}{3}$  of the forewings. 2. Subcostal in the forewings arising at the secondary cell. — Uganda. *aurantiipennis.*

Possibly also *S. (?) ruspina* *Auriv.* should be referred here (cf. p. 17).

## 13. Genus: *Schausia* *Karsch.*

Frons in ♂ very narrow, especially behind. Antennae thickened distally. 3. segment of palpi rough, shorter than in *Aegocera*. Tibiae devoid of spines, the middle and hind ones as well as the 1. segment of tarsi covered with long hair above. Neuration as in *Aegocera fervida* and allies. Differs from *Mitrophrys* in having, at least in ♂, the antennae distinctly thickened distally, in the narrow frons of ♂ and the very rough middle and hind tibiae.

**S. leona.** Blackish-brown, head and thorax chestnut-brown. Antennae with blunt apex. Forewings deep chestnut-brown above, with prominent lead-coloured markings, a large subbasal blotch and a longish transverse discal spot white. Hindwings white, with black marginal border tapering posteriorly. West Africa. — *leona* *Schaus* (2 f) is found in the Northwest, from Sierra Leone to the Niger. On the hindwings the marginal border irregularly doubly sinuous, the abdominal margin not black. — *congoana* *Jord.* has the marginal border of the hindwings less sinuous and narrower posteriorly, the abdominal margin black. Congo. *leona.* *congoana.*

**S. transiens** *Hmps.* (2 e). Body, hindwings, beneath also the base of forewings orange, head, palpi, thorax and forewings above chestnut-brown, abdomen with fulvous longitudinal stripe on the back, tipped in the ♂ with yellow, in ♀ with brown. Forewings as in *leona* with two white spots; distal margin metallic leaden grey. Hindwings with black (♀) or fulvous (♀) marginal band. — Niger, Old Calabar and Uganda.

- gladiatoria*. **S. gladiatoria** Holl. (4 a). Almost coloured exactly as the ♂ of *Aegocera trimeni halans*, but the white basal stripe of the forewings more pointed outwardly, the discal band wider anteriorly, placed more distally, on the hindwings the marginal border before the anal angle with faded, orange-coloured spot. Easy to distinguish from *transiens* by the white frons. Sierra Leone; Ogové.
- confluens*. **S. confluens** Weym. (= *darocana* Druce) (4 b). Type of *Paraegocera Hmps.*, with 3. segment of palpi somewhat longer, but otherwise so closely agreeing in structure with *Schausia* that it cannot very well be separated. Antennae of the ♂ rather strongly clubbed, with blunt apex. Head and thorax brownish-black, broadly marked with white; frons white, abdomen orange, apex, especially beneath, black or spotted with black, on the proximal segments brown dorsal spots. Forewings deep brown, marked with white: in the entire basal half a large blotch deeply notched anteriorly and posteriorly; a small cellspot, a double discal patch, the margin and fringe white, the latter spotted with brown. Hindwings orange, with black marginal border, gradually tapering posteriorly. Underneath also the forewing white as far as the middle, with brown cellspot and short yellow discal band, or  $\frac{2}{5}$  yellow with whitish cellspot and discal band. Coast Region of German and British East Africa.
- obryzos*. **S. obryzos** Mab. (4 b). Distinguished by the triangular forewings having the outer margin about as long as the posterior margin, and by the peculiar front tarsi of the ♂. Frons of ♂ so narrow that the antennae almost touch, fore tarsi lengthened, segment 1 thick, 2—5 thin, 2 about 5 mm, the following  $1\frac{1}{2}$  mm. in length, beneath naked, with a lateral row of fine bristles; claws long and thin (with tooth); on the hindwing the lower median nervule quite close to the angle of the cell. Head and prothorax yellow and black, patagia grey, mottled with chestnut brown, abdomen and breast orange, the former base above at with black median spots, at apex spotted with black both above and beneath. Forewings chestnut-brown, densely mottled with grey and yellow, with a submedian, almost ovoid, white oblique spot and a white, short transverse band touching the costal margin. Hindwings orange, with very broad black terminal band, tapering behind. Under surface of forewings black, at the base narrowly orange with the spots above. Hindwings as above, with a small white spot beyond the upper angle of the cell. Fringe of both wings largely white. Madagascar.
- coryndoni*. **S. coryndoni** Roths. (= *separata* Weym.) may be distinguished from *obryzos* principally by the much narrower terminal band of the hindwings. — Luangwa River (Barotse Land) and German East Africa.
- triangularis*. **S. triangularis** Mab. (= *astrapeus* Holl.) (2 d). Type of *Omphaloceps Hmps.* Head, thorax and forewings deep chestnut-brown above, breast yellow; on the forewings a straight oblique band, on the hindwing a large triangular area, reaching at the base the costal margin, with the posterior margin almost parallel to the abdominal margin of the wing. All these markings yellow; only occasionally white (ab. *mariae* Swinh.). The rest of the hindwing as well as the lower side of the forewing deep brown, base of forewing and a cellspot yellow or yellowish-white. Hind tibiae of ♂ with a similar, though longer, crest than in *Aegocera trimeni*. — Cameroons, Gabun, Congo, Uganda.
- memnonia*. **S. memnonia** Karsch (2 g). Copies some species of *Massaga*. Black, with head, palpi and upper side of abdomen fulvous. Forewings narrow, with the nervures metallic in the outer half and, proximally to the apex of the cell, a perfectly straight white band from costal margin to posterior angle. Forewings with white median band, inwardly straight, outwardly rounded. — From Senegambia to Cameroon.
- cosmetica*. **S. cosmetica** Karsch (2 g). The white band on both wings much wider than in *memnonia*, on the forewings more oblique, reaching the posterior margin a few mm. inwards from the angle, on the forewing the terminal band on the whole barely half as wide as the white median band. On the forewing of the ♂ an elongate area, ribbed transversely between costal nervule and margin; costal and upper subcostal veins curving down as in *Aegocera tripartita*. — Cameroons, Congo.
- S. daria** Druce. 3. segment of palpi as long as in *Aegocera*, the hindlegs equally rough as in *Schausia*; tibiae without spines; frons of ♂ quite narrow posteriorly. Black; thorax and frons marked with white, palpi, fore and hind tibiae partially orange. Wings black, forewings with a transverse patch near the base, a second one in the cell before its apex, and a transverse band on the disk, white or yellow; hindwings correspondingly white or yellow, resp. orange, with broad black border. Under surface almost as above, with the subbasal spot on the forewing larger and the costal margin of the hindwings black. — The species consists presumably of three geographical forms, but the available material is not sufficiently well preserved to decide that question; thus we treat it as individually dichromatic: f. **daria** Druce (= *dispar* Kirby) (2 d); ♂ and ♀ marked with white; f. **tripagiata** Roths. (= *meraca* Karsch) (2 d), with the markings of the forewings pale yellow,



hindwings deep or pale orange. KARSCH reports of *meraca* that its breast is covered with long yellow hair; if that be true, *meraca* must be separated as a subspecies (German Southwest Africa). The type of *tripugiata* (♂) has the hindwings deep orange; abdomen with a large blurred lateral spot of orange. — German Southwest Africa, Rhodesia, Zambesia, the southern portion of German East Africa.

**S. (?) dispar** Roths. (♂ = *Schausia flavifrons* B.-Bak.) (4 b). For the want of a better place I put this *dispar*. species which was described as *Aegocera*, with *Schausia*. Frons of ♂ quite imperceptibly tapering behind, tibiae less rough than in true *Schausia*. Black; head, palpi and collar orange. Forewings with a white, almost straight, shortened, oblique discal band,  $2\frac{1}{2}$ —3 mm in width; before the middle of the cell a white oblique spot, in ♂ large and sharply defined, nearly triangular and almost reaching the internal vein, in the ♀ quite blurred. Hindwings of ♂ with large white median area, of ♀ quite black. Coast Region of British East Africa.

**S. (?) ruspina** Auriv. Unknown to me; seems to be closely allied to *Aegocera*, especially *aurantipennis*. *ruspina*. Black, body spotted with white; abdomen with the basal segments covered laterally with brown-yellow hair, like the breast; wings orange, bordered with black; the border on the forewings reaching the end of the cell, on both wings marked with white. — Bonga (French Congo) 1 ♂ in the Brussels Museum. Very much like *Weymeria athene*; body very robust.

#### 14. Genus: **Aegocera** Latr.

Palpi with 1. and 2. segments clothed with long hair, particularly the apex of the 2. segment, 3 smooth, porrect, or erect, at least 4 times as long as broad. Frons with a low or high appendage, truncate at the apex and provided with a raised rim, in ♂ often narrow, distinctly tapering posteriorly. Hind tibiae in ♂ covered with long hair both above and beneath, middle and hind tibiae or both provided with spines outwardly. Abdomen with 1 or 2 basal crests above. On the forewing the 1. subcostal more proximal than the lower median nervule, 2. subcostal arising from the secondary cell, 1. median near the angle of the cell, on the hindwing the two median nervules closer together at the cell than at termen. An Indo-African species.

**A. rectilinea** Bsd. (4 c) differs from the Indian *venulia* principally in having the longitudinal stripe on *rectilinea*. the forewing not interrupted. Tropical West Africa, from Senegambia as far as Angola, in the East to Abyssinia and Uganda; but not known from British and German East Africa. Pp brown, almost lustre-less, densely strewn with fine sharp grains, cremaster with a transverse row of 6 small points and above these two additional ones.

**A. brevivitta** Hmps. (= *irangiana* Wichgr.) (4 d). On the forewing the longitudinal stripe interrupted, *brevivitta*. the inner portion of the same wider distally than in *rectilinea* and *venulia*, the apical portion shorter. Hindwings of ♂ almost completely ferruginous. British and German East Africa, Angola.

**A. tigrina**. Abdomen yellow anteriorly, with black median stripe, behind black with white rings. Forewings in the basal half with two oblique bands, the former of which often thread-like; near the apex of the cell a short striga within the cell, before the termen a shortened subapical band and a subanal spot; these markings yellow or partially white, with metallic blue lines between them. Hindwings orange-red with black terminal border, fringe spotted with white. Niger to Angola and Uganda. — **tigrina** Druce (4 d) is found from the Niger-*tigrina*. Delta to the Lower Congo. The inner oblique band in the basal half of the forewings at least  $\frac{1}{3}$  as wide as the second one, the latter club-like, widened posteriorly, also the subapical band widening behind, with a small isolated spot beneath it; fringe before the anal angle white, at least underneath; on the hindwings the fringe more white than black, both above and beneath. 4 colour-varieties: *tigrina* f. **castaneimargo** form. nov. *castaneimargo*. Forewing with red-brown border and white (ab. **albifascia** ab. nov.) or yellow (ab. **flavifascia** ab. nov.) discal *albifascia*. band. f. **nigrimargo** form. nov. with black border of the forewings and either white (ab. *albifascia*) or yellow *flavifascia*. (ab. *flavifascia*) distal band. — **fabricata** Karsch has the inner subbasal band on the forewings reduced to a *nigrimargo*. fine line, the 2. tapering to a sharp point posteriorly, the subapical band not widened behind, the fringe *fabricata*. before the anal angle as a rule completely black; underneath the fringe of the hindwings more broadly black than white. The 4 colour-variations mentioned above under *tigrina* are repeated in *fabricata*. Angola, the southern Congo, Uganda. Specimens from Uganda have the 2. oblique band on the forewings not widening posteriorly.

**A. humphreyi** Hmps. (4 c). Body and hindwings as in *A. tigrina*, the markings of the forewing and the *humphreyi*. stripes on head and thorax white. Upper surface of forewings: Markings between cell and posterior margin more or less yellow, blurred; before the end of the cell a transverse patch, in the basal area two oblique



stripes, on the disk a macular band, indistinct posteriorly, before the termen thin longitudinal streaks; ground-colour fulvous, palest in the terminal area. Underneath the base of forewings yellow, two cellspots and a discal band of spots clear white, sharply defined. — Nigeria: Ilesha.

- fervida*. **A. fervida**. Frons of ♂ narrow, tapering posteriorly, hind tibiae armed with spines between the spurs. Body yellow, thorax fulvous above with yellowish-white median stripe continuing over the head, abdomen above with or without black median spots, underneath whitish. Forewings fulvous, with a longitudinal and an oblique transverse stripe yellowish-white, pointing towards the lower part of the termen; hindwings yellow, the border and discocellular spot fulvous. Under surface yellow, marked with dull fulvous: in the forewing a cellspot and an oblique band on the discocellular, in the hindwing a discocellular spot, and on both wings a terminal band, widening anteriorly. ♀ with the markings of the upper surface of the hindwings and partially also of the lower side of both wings black. South and East Africa, northward as far as the Congo and British East Africa. — **affinis** Druce (= *norma* Karsch) (3 g): ♂: Upper surface of the forewings with the costal margin white as far as the discal band. Terminal band on the hindwings narrow, not reaching the anal angle. ♀: Costal margin of forewings black, mottled with grey; terminal band of the hindwings black, reaching the anal angle, before which it is at the most 2 mm wide. Abdomen both of ♂ and ♀ without any black dorsal spots, *fuscicosta*. Coast Region of British and German East Africa. — **fuscicosta** *subsp. nov.* ♂: Costal border of forewings white, densely mottled with black; on the hindwings the terminal band barely any wider anteriorly than in *affinis*, posteriorly almost touching the anal angle, but shortened above, the fulvous triangular patch in the middle of the forewing underneath as small as in *affinis*. Abdomen without any dorsal spots, the basal crest black at the sides. ♀: Like that of *affinis*, but abdomen with a row of black spots above. Nyassa Land; type from *media*. Lilongwe. — **media** *subsp. nov.* resembles the South African *fervida*, but has on the hindwings the terminal band above narrower, in the ♂ this as well as the markings of the under surface of the forewings more clearly defined, the black dorsal spots of the abdomen larger, the posterior ones more or less completely united to transverse bands. The dark portions of the under surface in ♂ clearer rusty-red than in *fervida* ♂; fringe at the apex of the hindwing nearly always very brown (♂) or black (♀). Angola and the southern parts of Congo State. — *fervida*. **fervida** Wkr. (= *triphaenoides* Wallengr., *fimbria* Möschl.) (3 g). Abdomen distinctly spotted with black above; terminal border of the hindwings above broad, contracted in the middle, then again widening out, in the ♂ somewhat blurred posteriorly, also the markings of the under surface of the forewings. On the forewing the fringe less obscured at the apex than in *media*. Cap Colony, Natal, Transvaal.
- A. obliqua** resembles *A. fervida*, but has the longitudinal stripe on the forewing twice narrowly interrupted and the discal stripe more longitudinal, terminating before the 1. median instead of below it. West *obliqua*. Africa as far as Uganda. — **obliqua** Mab. (3 f ♂). Discal band of forewings narrow; terminal band on hindwing fulvous in ♂, in ♀ black. Sierra Leone as far as the Niger. — **isogenis** *subsp. nov.* (3 g ♂, as *obliqua* ♀). Discal *isogenis*. band of forewing broader, terminal band of hindwings black in both sexes. Cameroons, Congo (type). — **remutata** *subsp. nov.* Discal band of forewings likewise wider than in *obliqua*, but on the hindwings the terminal band in ♂ fulvous, in ♀ black. Uganda (type) and Toro.
- geometrica*. **A. geometrica** Hmps. (5 a). ♀ forewings with a fine longitudinal and transverse stripe, which meet before the internal vein. Hindwings without discocellular spot, the inner margin of the terminal band more evenly rounded than in *A. obliqua* and *fervida*. — Kambove (Kongo), 1 ♀ in the British Museum.
- mahdi*. **A. mahdi** Pagenst. ♀ smaller than *A. geometrica*. Body and hindwings yellow. Forewings brownish-grey, on the median a white longitudinal stripe, uniting with a white transverse band near the lower angle of the cell, forming with it an obtuse angle; the longitudinal stripe constricted distally; stripe and band wider than in *A. geometrica*. Hindwing with a black terminal band tapering posteriorly. Southern Abyssinia.
- A. trimeni**. Frons narrowing posteriorly, strongly in ♂, feebly in ♀. In ♂ the hindtibia clothed before the middle above with a tuft of long hair. Frons and abdomen with dark median stripe, thorax with 4 grey streaks, abdomen laterally yellow or white, breast and almost the entire legs yellow, in the ♂ also the underside of abdomen. Forewing with an outwardly widening longitudinal stripe from base to middle of wing, and a discal spot or band, white or pale yellow, the ground fulvous, dusted with bluish-grey. Hindwings of ♂ always orange, of ♀ orange or white, with the terminal band feebly tapering posteriorly, in ♂ brown, in ♀ black. Probably distributed over the entire African Continent south of the Sahara. — **halans** Karsch. Westafrican specimens have the discal spot on the under surface of the forewings invariably clear white, and on either side at least twice as long as broad. The brown or black cellspot on the under surface of the forewings accompanied by a white spot distally. The white underside of the abdomen of ♀ always banded with black. Of the ♀ two main *halans*. forms and a rarer intermediate are known: ♀ f. **halans** Karsch. Under surface of both wings and the sides of the abdomen sometimes deeper, sometimes paler yellow, proximal stripe and discal spot on the upper surface *transita*. of the forewings faintly yellow. ♀ f. **transita** *form. nov.* has the hindwings white, irrorated above with yellow; *agoma*. forewings more broadly yellow beneath than in the following form, abdomen yellow laterally. ♀ f. **agoma** Karsch. Hindwing and under surface of both wings, also sides of abdomen white, the base of both wings somewhat



yellow underneath. — **trimeni** Fldr. (2 f). ♂ and ♀ with orange hindwings, the discal spot on the under surface of the forewings always yellowish. Abdomen of ♀♀ from the more southern districts more broadly black than in specimens from Tropical West and East Africa. The discal spot on the forewing varies greatly in size and shape. In f. **tricolor** Druce (= ovifera Hmps.) (4 a) the forewing is marked with yellow, in **semialba** form. *tricolor*. *nov.* white (very feebly yellowish in ♂), the hindwings orange in either form. These forms are known of both sexes, the following only of the ♀. Markings of forewings as well as hindwings and under surface white, hindwings and sides of abdomen more or less distinctly irrorated with yellow: ♀ f. **trimeni** Fldr. ♀ f. **elegantula** Mab. has only the base irrorated with yellow underneath, all other light parts of the wing white. The ♀ varies remarkably also in the colouring of the underside of the abdomen; most specimens have it black with large white patches, but there occur among the orange as well as white ♀♀ specimens with clear black (ab. **nigriventris** ab. *nov.*) or clear white venter (ab. **albiventris** ab. *nov.*). The descriptive names may of course be applied also to Westafrican specimens, if of *halens* white or black bellied ♀♀ should be found. ♀♀ from German and British East-Africa are for the most part ab. *albiventris*. From tropical East-Africa I have, however, never seen ♀ fa. *elegantula*, whereas this is common in Natal. Tropical specimens are as a rule smaller than those from South-Africa.

**A. thomensis** Jord. (4 d) resembles in structure *trimeni*; hindtibiae of ♂ with a tuft of long hair above, as in that species. Hindwings and under surface of both wings marked very much as in *trimeni*, but the upper surface of the forewings entirely reddish-brown, with feebly indicated pale markings. Hindwings orange, with uniformly broad brown terminal border; abdominal border washed with brown. Under surface, also that of the forewing, orange as far as the middle, with a small black cell-spot; in the brown outer area, near the cell, a short white band, which occasionally (name-type) is nearly obliterated. — St. Thomé, in the Bay of Guinea.

### 15. Genus: **Mitrophrys** Karsch.

Differs from *Aegocera* chiefly in that the tibiae are not provided with spines, and in the thinner antennae. Frons of ♂ not narrower behind, with closely appressed hair and scales. Terminal segment of tarsi long and smooth, 2. segment, especially at the end, covered with long hair, as in *Aegocera*. Antennae of ♂ and ♀ almost bristle-like. Hindtibiae of ♂ moderately rough, 5. segment of tarsi short as in *Aegocera*. All the species greatly resemble each other in their markings; forewings with a frequently interrupted longitudinal stripe, a shortened, oblique discal band and a nearly always round cellspot, all of which yellowish-white. Hindwings yellow or orange, with a discocellular spot and terminal band. From Tropical Africa.

**M. menete** Cr. (= formosa F.) (3 h). Antennae white, usually spotted with black laterally. ♂: Abdomen without the long terminal hair; forewings ferruginous, longitudinal stripe interrupted four times, discal band short, terminating in or proximally to the middle of the upper median nervule; hindwings dull orange, with a terminal band of dull ferruginous, widening and faded behind, the posterior portion of the wing washed with rusty red, the discocellular spot large, as also in ♀. Underneath the ferruginous portions dull and pale. ♀: Forewings fulvous, marked as in ♂; terminal band of hindwing and the discocellular spot blackish fuscous, fringe usually wholly yellow, as in ♂; underneath the extreme borders of either wing, as far as the fringe, faded yellow, terminal border blackish fuscous or reddish-brown. Hindwings above usually clothed with black hair at the base before the abdominal margin. — From Senegambia to the Niger. Varies greatly in size.

**M. rubida** Fldr. (3 h) hardly differs at all from *menete*; on the forewing the fulvous colouring with an admixture of yellow. Underneath the forewing altogether fulvous between cell and posterior margin. — Abyssinia.

**M. magna** Wkr. (= *menete* auct. partim) (4 b c) is as large as the largest sized specimens of *menete*. Discal band of forewings longer, ending at the upper median nervule beyond its middle. Antennae black, only in ♂ feebly scaled with white. ♂: Frons quite white, abdomen covered with long hair at the tip, underneath yellowish-white; discocellular spot of hindwings small, the terminal band sharply defined, projecting tooth-like at the lower median, as in ♀, and terminating in a point at the anal angle. Under surface deeper ferruginous than in *menete* ♂. ♀: Forewings darker than in *menete* ♀, not laved with yellow on the termen underneath; terminal band of the hindwings more strongly sinuous than in *menete*, termen distinctly incurved below the apex (also in ♂); discocellular spot smaller than in *menete*. — Senegambia, Sierra Leone, Gold-Coast, Niger.

**M. mesia** spec. nov. (4 c). Frons in both sexes with brown median stripe. Antennae black; discal band of forewings somewhat shorter than in *magna*, shaped almost as in *menete*, inwardly notched once or twice

before its apex, the yellow spot below the cell on the under surface of the forewings greatly reduced or quite absent. In the ♂ the abdomen is covered with long hair at the apex, as in *magna*. Hindwing of ♂ either laved with rusty red, or clear yellow with the exception of a broad border of ferruginous (type). Discocellular spot on the hindwings varying in size. — From Kongo, Unyoro (type), Uganda quite a number of specimens in the Tring Museum; probably occurs as far north as Cameroon.

*obliquisigna*. **M. obliquisigna** Hmps. (= *kibwezensis* Strand) (3 h) resembles small-sized specimens of the preceding form, but has the frons in both sexes entirely white, without brown median stripe. Hindwings of ♂ more or less laved with fulvous. ab. *aequepartita* Strand, based on a poorly preserved specimen (♂), has the two median spots in the longitudinal stripe of the forewing equally long. — British East-Africa and Taveta (German East-Africa), probably ranging much farther in the eastern part of the continent.

*abyssinica*. **M. abyssinica** Hmps. resembles *obliquisigna* (3.h), but has the abdomen more heavily ringed with black. — Atbara, Abyssinia.

I have described the preceding forms as five separate species, but I do not doubt, that they may be reduced to 2, if more closely examined: 1) *M. menele* with its two geographical forms *menete* from West-Africa (Senegambia to the Niger) and *rubida* (Abyssinia); antennae white. ♀ with short anal tuft. — 2) *M. magna* with the West african form *magna* (Senegambia as far as the Niger), *mesia* from Cameroon (?), Congo, Unyoro and Uganda, *obliquisigna* from East Africa, and *abyssinica* from Abyssinia; antennae black, at the most slightly scaled at the base; abdomen of ♂ with long anal tuft. All the forms of which we have a larger series, vary greatly in size and markings.

*latreillei*. **M. latreillei** Herr.-Schäff. (3 g, h). Antennae black; forewing with the distal band broader and more oblique than in the preceding forms, the longitudinal stripe sharply interrupted near the base. ♂ with long hair at apex of abdomen. — Nyassa Land.

*gynandra*. **M. gynandra** spec. nov. (4.b). ♂ with the terminal border of the hindwing almost as deeply fuscous as in ♀. Antennae black, occasionally clothed with scattering white scales; frons with dark median stripe, the yellowish-white middle stripe of the thorax broad, but lacking on the patagia; the black dorsal spot of the last but one abdominal segment enlarged so as to form a transverse band; anal hair of ♂ long. Forewings fuscous-black above, as dark as in the ♀♀ of the preceding species, the discal band equally oblique as in *latreillei*, reaching to below the 1st median nervule, touching the costal border below which it distinctly broadens; longitudinal stripe inwardly dentate near the base, but not interrupted. Hindwings orange, with the terminal band sharply defined both in ♂ and ♀, equally broad as in *latreillei*. Beneath the dark portions are fulvous in ♂, black in ♀, the forewing between cell and posterior margin orange from base to nearly the lower extremity of the discal band. — Angola; several ♂♂ and ♀♀ in Tring Museum. Type from Bihé.

## 16. Genus: **Syfanoidea** Bartel.

Frons broad, rough, also in ♂; palpi with long hair, the 3. segment short, rather roughly scaled; antennae of ♂ strongly clubbed; tibiae clothed with long hair, but without spines. In the forewing subcostal 2 arising from the secondary cell, 3, 4 and 5 stalked, radial 1 not from the cell, but from the apex of the secondary cell; discocellular deeply incurved, radial 2 and 3, and first median arising closely together at the lower angle of the cell. One species.

*schlenki*. **S. schlenki** Bartel (= *leighi* Jord.) (4 d). Head and thorax yellowish-white, mixed with chestnut; pectus grey, shaded with chestnut-brown, abdomen orange, with a dorsal row of black spots. Forewings chestnut-brown, mottled with yellowish-grey, on the median vein a longitudinal stripe of creamy white dentate on both sides, extending at the base to the costal border; beyond the apex of the cell a similar patch, oblique to the costal border; also the terminal area creamy-white. Hindwings orange, with black discocellular spot and similar submarginal spots. Under surface of both wings yellow, with chestnut-red apex and black discocellular spot; forewing with an additional cellspot, hindwing with several submarginal spots. — Natal.

## 17. Genus: **Chaetostephana** gen. nov.

Frons in both sexes broad, strongly rounded, feebly projecting at the middle, but without any raised ring. Antennae of ♂ and ♀ thickened distally. Palpi almost as in *Hespagarista*; 2. and 3. segments clothed with moderately long hair, 3. rather rough and thick, not pencil-shaped as in *Aegocera*; hind tibiae rough. Abdomen with feeble tuft of hair on the 1. segment, but lacking the long anal hair (♂) of *Hespagarista*. In the forewing the cell exceeds in length half of the wing; 2. subcostal nervule from secondary cell, 3, 4 and 5



stalked, 1. and 2. median somewhat farther apart at the cell than at the termen. Genotype: *Ch. rendalli*. Approaches *Schausia*, from which it may be easily distinguished by the frons and the longer cell in the forewing.

**Ch. rendalli.** Black, with 2.—5. abdominal rings and the tuft on the 1. segment as well as two large spots on the pronotum, a series of spots on the underside of the abdomen, and the hindwings orange. Forewings black, with a large subbasal, a small cellular and a large discal patch paler yellow than the hindwing; all these markings orange beneath. In ♀ the 8. abdominal ring with numerous stiff bristles, which are incurved. Two local races: **rendalli** *Roths.* (2 d) has on the hindwings the terminal band before the middle at least  $3\frac{1}{2}$  mm. *rendalli*. wide, including the fringe; underneath the black space between the subbasal and discal patches on the forewing as broad as the discal patch itself, the latter rarely extending to below the 2. median. — British and German Nyassa Land. — **angolana** *subsp. nov.* has the yellow markings rather larger and paler, especially underneath; *angolana*. terminal band on the forewings before the middle at the most 3 mm in width; underneath the black space between subbasal and discal patches on the forewing rather narrower behind than in the following species, particularly in ♀. — From Angola, Congo, numerous specimens of both subspecies.

**Ch. inclusa** *Karsch* (2 e). ♀: Abdomen above black only at the very extremity, without any distinct *inclusa*. ring of spines on the eight ring. The yellow patches on the forewing larger than in *rendalli*. — Angola.

### 18. Genus: **Hespagarista** *Wkr.*

Antennae in both sexes thickened at the ends; frons with raised ring, very slightly narrower posteriorly in ♂. Palpi almost evenly covered with hair, which is long in ♂, rather short in ♀. Tibiae without spines. Hind tibiae also in ♂ moderately rough, and the 1. segment of the hind tarsi devoid of long hair. In the forewings the cell longer than the distance from the lower angle of the cell to the apex of the wing, otherwise the venation as in *Schausia*. Abdomen of ♂ with long anal tuft. 2 African species.

**H. echione** *Bsd.* (= *interlecta* *Wkr.*, *novemmaculata* *Mab.*) (2 e). Black, head and thorax orange above, *echione*. abdomen and wings spotted with yellowish-white. On the forewings a few spotlets at the base, two spots in the cell, a large roundish blotch below it, and 3 patches before the termen, the two anterior ones close together, or touching one another proximally. Hindwings with a large blotch in, below and beyond the cell, two small spots at its lower apex, and a dash before the abdominal margin. Specimens from Tropical East-Africa have these spots usually reduced in size, particularly in ♀ (ab. **spilota** *ab. nov.*) (2 e as *funnebris*). The most extreme *spilota*. form is ♀ **funnebris** *Roths.* which has only on the forewing a few traces of white markings. — From Natal to Bri- *funnebris*. tish East-Africa.

**H. caudata** *Dew.* (2 e) has only pronotum and patagia orange. Forewings more rounded distally than in *caudata*. *echione*; apex less pointed, before the termen a row of 4—5 spots. Hindwings with broad, yellowish-white median band, which is intersected by more or less distinct black veins, greatly varies in width and usually encloses a fine discocellular lunule. — Angola.

### 19. Genus: **Andrhippuris** *Karsch.*

Frons broad, projecting so as to form a long, truncate appendage flattened beneath, with an almost reniform, raised ring. Antennae thin, not thickened even in ♂. Otherwise quite as *Hespagarista*; forewings with the cell shorter. 1 species.

**A. cauda-equina** *Karsch* (2 d). Body black and orange, abdomen black and banded with orange above. be- *cauda-*neath black with white spots. Forewings greyish-yellow above, feebly laved with pinkish; termen, a terminal band *equina*. tapering behind, the nervures in the outer half of the wing, a cellspot and, connected with it, a discocellular lunule, blackish fuscous, the latter two with pale centres. Hindwings orange, with black terminal band: fringe of both wings mottled white and black. Under surface of both wings orange, with terminal band black, forewings with a black patch composed of a cellular and discocellular spot and prolonged posteriorly in the shape of a band; this is usually the case also above. — Southern Congo Region.

### 20. Genus: **Massaga** *Wkr.*

Frons broad, not narrowing posteriorly, with raised ring; palpi, legs and body with appressed hair and scales. Antennae distinctly thickened distally. In the forewing the 2. subcostal arising not at the secondary

cell, but beyond it, the upper median quite close to the angle of the cell, farther apart from the lower median than from the termen at the cell. 3. segment of palpi in ♂ short, in ♀ long. Hindwings of ♂ with hairpencil at the foremargin of the cell above. Metallic blue, with head, collar and palpi crimson.

- monteirona.* **M. monteirona** Btlr. (= *metallica* Mab.) (2 f). Wings without any white band, but in the outer half with greyish-green stripes more or less completely confluent proximally in ♂. From Cameroon to Angola.
- angustifascia.* **M. angustifascia** Roths. (4 h). Distinguished by having the band primula-yellow, at the most 3 mm. in width, 1—2 mm distant from the apex of the cell on the upper surface of either wing, on the forewing underneath touching the apex; on the hindwing 3 mm from the lower angle of the cell, with the veins underneath between the band and base, at least as far as the cell, of the same colour as the band. — Old Calabar, only 1 ♀ in Tring Museum.
- virescens.* **M. virescens** Btlr. I regard as a ♂ of the following species distinguished by the band on the hindwings tapering posteriorly. Gold Coast (coll. SWANZY, ubi?); unknown to me.
- maritona.* **M. maratona** Btlr. (2 g). Bands white, broader in ♀ than in ♂, on either wing surrounding the apex of the cell. — From Sierra Leone southward as far as Cameroon (probably to North-Angola) and Uganda. Uganda specimens have the band on the whole rather broader than West Africans.
- xenia.* **M. xenia** spec. nov. As the following genus appears doubtful, I do not think it advisable to establish for this peculiar species a separate genus. Secondary cell absent; the second subcostal nervule arises farther distally than the fifth. In one specimen the latter is on the left wing united with the first radial by a transverse bar which gives the appearance of a false secondary cell; the lower median branches off nearer the base than the first subcostal, a peculiarity often met with also in the following genera. Hindwing of ♂, besides the subcostal tuft of hair, with long spreading hairs at the middle of the abdominal margin. Apex of abdomen red, not yellow as in the preceding species. The bands white, as in the preceding species, but on the forewings more oblique, approaching the base more closely at the costa than at the posterior margin; moreover above it is wider posteriorly and somewhat indistinct distally, narrower in ♂ than in ♀. On the hindwing the band resembles that of *maritona*, being slightly indented at the nervures. — Ja River (Cameroon) and Kassai (Congo State), 2 ♂♂, 1 ♀ in Tring Museum.

## 21. Genus: **Massagidia** Hmps.

Differs from *Massaga* only in the 2. subcostal nervule of the forewing arising from the secondary cell, i. e. somewhat beyond the 5. subcostal.

- a/ a/ hesperia.* **M. hesperia** Cr. (♂ = *delicia* Btlr., ♀ = *demena* Druce) (2 g). Head and adjoining parts of thorax crimson, as in *Massaga*; likewise the tip of the abdomen. A white band traversing both wings, on the forewing forming a broad angle distally in ♂, curved in ♀. — From Sierra Leone southward to the Congo Region and Uganda.
- tenuifascia.* **M. tenuifascia** Hmps. (4 e). ♀: Hindwings with the band narrower than in *hesperia*, tapering behind. — Southern Congo Region.

## 22. Genus: **Tuerta** Wkr.

Antennae filiform, not thickened distally, even in ♂. segments 1 and 2 of palpi with bristling hair beneath. Frons slightly projecting, with raised edge, not contracted posteriorly in ♂. Hindtibiae in both sexes rough. Abdomen clothed with dorsal tufts of scales and hairs near base. In the forewing the cell measures more than one half the length of the wing. 1. subcostal nervule arising farther proximally than 2. median; 2. subcostal from the secondary cell, 3, 4 and 5 stalked, or 5 from the apex of the secondary cell; 1. median from near the apex of the cell.

- chrysochlora.* **T. chrysochlora** Wkr. (4 e). Abdomen, upper side of hindwings and under surface of both wings orange, head and thorax deep chestnut, abdomen with a median row of black spots above. Forewings green, outer and posterior margins bordered with fuscous; hindwings with blackish-brown terminal border. Underside of forewings with broad terminal band laved with orange. From Congo to Niger.
- liturata.* **T. liturata** Auriv. (= *aziyade* Mab.). Easy to distinguish from the preceding species by the broader, inwardly straight terminal border of the forewings. — From Sierra Leone to Cameroon, presumably extending even farther south.



**T. rema** Drc. (4 e). On the forewing it is somewhat similar to the preceding species. Thorax chocolate *rema*. brown, abdomen golden yellow. Forewing white at the costal margin as far as beyond the centre. Light green below the cell and at its exterior margin. A double exterior line from the submedian fold to the inner margin is chocolate, filled with green. A white streak at the cross-vein, one white dot each in the cell and at the base of vein 2, besides some others at the median vein. Exterior band chocolate, a black dot behind it at the costal margin. The undulate submarginal line is white, edged with brown outside, marginal area white. Hindwing golden yellow. A small brown streak at the end of vein 1, and a brownish red spot above it. ♀ 38 mm. East Africa.

**T. cyanopasta** Hmps. (4 e). Thorax blackish-brown, abdomen orange with black tufts. Forewing dark *cyanopasta*. chocolate with silvery blue scales. The base at the inner margin blackish-brown. The interior line extends as a black streak from the costal margin to the median vein, and an undulate median line from the submedian fold to the inner margin. Blue spots, intensely edged with black, in the cell-end and at the cross-vein. Exterior line black, strongly dentate, edged with blue outside. Hindwing orange with a blackish-brown marginal band. ♂ 42 mm. East Africa.

**T. rufodiscalis** Rothsch. (4 e). Thorax blackish-brown, abdomen orange, with black dots on the dorsum. *rufodiscalis*. Forewing deep chocolate with silvery blue scales. An exterior and a submarginal line also formed of such scales. White dots at the margin, a larger one at the anal angle. Hindwing orange red, cross-vein broad black, marginal band very broad. ♂ 40 mm. Madagascar.

### 23. Genus: **Acantuerta** Hmps.

Antennae of ♂ somewhat thickened towards the ends. The third palpal joint is somewhat longer than in *Tuerta* and flattened at the end. Abdomen with tufts only on the two first segments. Middle and posterior tibiae spined.

**A. ladina** Jord. resembles *thomenis* Jord. (4 d) which ought also to be placed to this genus. Forewing *ladina*. with one leaden line each in the centre of the cell, at the cross-vein, and behind it. A leaden line from the cross-vein to the inner margin. Hindwing orange, the black marginal band is 5 mm broad in front, 3 mm at the end, not continued at the inner margin. ♂ 45 mm. Lado.

### 24. Genus: **Aletopus** Jord.

Wings shorter, otherwise similar to *Weymeria*. The frontal process similar to that of *Aegocera*, but with a short sharp dent. Tibiae without long hair, without spines on the middle and posterior tibiae. Forewing: vein 3 arises farther off from 4 than the latter from vein 5. Hindwing: veins 6 + 7 stalked.

**A. imperialis** Jord. Antennae, legs and body black. Each abdominal segment exhibits two white spots *imperialis*. laterally, the last segment a spot above besides; the legs also with white dots. Forewing red-brown at the base, at the costal margin 8 mm broad red-brown, at the inner margin 12 mm, obliquely arched between them. The rest of the forewing is black, containing a white band from near the costal margin over the cross-vein to below vein 2; it is straight inside, bent outside, 3 mm broad in front, 5 mm at vein 4. Besides a round spot towards the anal angle. Hindwing carmine with a black marginal band containing 5 white spots. The band is 5 mm broad in front. Fringes of both wings white at the apex. ♂ 45 mm. Tanganyika District.

### 25. Genus: **Lophonotidia** Hmps.

Palpi erect, reaching the frons which shows a triangular projection. Antennae slightly thickened at the ends. Tibiae with long hair. Abdomen with large hair-tufts on the 3 first segments above, the ♂ also with lateral tufts at the base. Neuration normal.

**L. nocturna** Hmps. (4 h). Thorax dark red-brown. Abdomen blackish with red-brown tufts, some white *nocturna*. scales at the end. Forewing dark red-brown. Interior line olive green, composed of two bows, with silvery blue scales inside. A silvery spot edged with olive green is in the centre of the cell. An olive green spot at the cross-vein, before and behind it. An exterior line from vein 3 to the inner margin. A white band from  $\frac{1}{2}$  of the costal margin to the anal angle, with olive green and brown scales. Hindwing black with a large white central spot, dusted brown. ♂ 45 mm. East Africa.

### 26. Genus: **Mimeusemia** Btlr.

HAMPSON places also an Ethiopian species to this purely Indo-Australian genus which was treated in Vol. XI, p. 16; he is presumably wrong; according to JOICEY & TALBOT it is more allied to *Charilinea* Wkr. (p. 12). Yet we range it here, as nothing certain can be said about it. HAMPSON takes *geraldi* and *albigutta* to be identical, which is probably not correct.

**M. geraldii** Kby. Thorax black, abdomen orange. Forewing red-brown, blackish towards the costal *geraldii*. margin, with 4 yellowish-white spots, one of which is very small. An oblique interior line is silvery blue, the

cross-vein and an interrupted exterior line. Hindwing orange with a very broad black marginal band. ♂ 34 mm. *angustata*. Uganda. — In *angustata* *J. & T.*, from the Tanganyika District, the palpi and the spots on the forewing are white instead of yellow. Besides the margin on the hindwing is narrow.

*albigutta*. **M. albigutta** *Karsch* is very similar to the preceding species. The chest is as black as the thorax above, while it is yellow in *geraldi*. Ground-colour of forewing black, spots white. The marginal band of the hindwing is rather broad at the apex, then narrow as far as the anal angle, convex only in the submedian fold, so that two projecting bows of the ground-colour are produced. ♂ 34 mm. West Africa.

## 27. Genus: **Aethodes** *Hmps.*

Palpi very long, the third joint thickly scaled below. Frons with a small conical projection in the centre. Tibiae without spines, short-haired. Forewing very narrow, so that the only species is quite dissimilar to the other *Agaristidae*.

*angustipennis*. **Ae. angustipennis** *Hmps.* Thorax red, abdomen yellow with blackish-brown tufts. Forewing reddish, densely dusted white. Interior band white, faded, directed inwards, distally edged with a darker red. Red spots in and below the cell. A dark red spot at the cross-vein, from where a dark red line extends to the inner margin. Exterior line dark red, faded, widely excurved below the costal margin. Submarginal line dark red, dentate. Hindwing pale orange, pale red at the margin in front. ♂ 32 mm. Nigeria.

The following genera are only conditionally placed to the *Agaristidae*.

## 28. Genus: **Paratuerta** *Hmps.*

Frons with a large truncated cone with projecting margins. Antennae of ♂ strongly serrate, of ♀ feebly serrate. Tibiae and anterior tarsi long-haired. Abdomen with hair-tufts on the first segments.

Type: *marshalli* *Hmps.*

*marshalli*. **P. marshalli** *Hmps.* (4 d as *leucographa*). Thorax and forewing dark reddish-brown. An irregular white band in the submedian fold is slightly bent up towards the exterior line which is white, indistinctly double, undulate. Lighter violettish-brown behind it with 2 dark lines before and at the margin. Abdomen and hindwing orange, narrowly margined with black. 44—50 mm. South and East Africa.

*laminifer*. **P. laminifer** *Saalm.* is quite similar. The white band is very narrow, interrupted before the middle, not bent up at the end. ♀ 46 mm. Madagascar.

*featheri*. **P. featheri** *Fawc.* The red-brown forewing with a narrower, more uniform white band. Exterior line dentate. A pale pink band before the apex at the costal margin. Distal margin also pale pink, with a red-brown spot at the anal angle. The white band is bent upwards as far as vein 4, bordered with dark sap-green; this border extends above and below to the costal margin before the apex. Hindwing dingy yellow with a reddish-brown anal spot. ♂ 46 mm. East Africa. — *abrupta* *Rothsch.* is probably the same. It derives its denomination to the incorrectness of the original figure of *featheri*.

*nana*. **P. nana** *Poult.* ♀: forewing brownish white, marginal area browner. Interior line black, strongly cut out in angles above the inner margin. A bent black streak in the submedian fold extends to the double exterior line. Darker brown below and between. A faded reddish-brown spot in the cell-end is almost connected with a similar one at the cross-vein. Hindwing ochreous, reddish-brown outside almost to the margin. ♂: scarcely lighter at the costal margin of the forewing and in the cell than below them. Ring-macula and reniform macula edged with black. Hindwing yellow with a blackish-brown margin. 26—30 mm. Somaliland.

*P. argentifascia* *Fawc.* is the same as *Aeg. mahdi* *Pagenst.* (p. 18).

## 29. Genus: **Ovios** *Wkr.*

Palpi porrect, rather long. Frons with a large conical process with a truncated point. Antennae of ♂ shortly pectinated, serrate at the beginnings and ends. Base of abdomen with a small tuft. Type: *capensis* *H.-Schäff.*

*capensis*. **C. capensis** *H.-Schäff.* Thorax intensely dusted black, abdomen orange. Forewing olive brown or olive green, the surroundings of the ring-macula and reniform macula white, the costal margin before them dusted black. The distal margin with reddish spots which are accompanied inside by black lunae. Hindwing orange with a black luna and black submarginal spots. 36—44 mm. South Africa. — In *septentrionis* *Hmps.* the tegulae and the base of the forewing are orange-red, the reniform macula is somewhat more angular, otherwise not different. ♀ 50 mm. Mashona Land.



**O. nealces** *Fawc.* Judging from the original figure, it is presumably wrongly placed here. Thorax and forewing violettish-brown, whitish from the reniform macula to the costal margin. Brown spots before the distal margin, with a light line outside. The ring-macula is merely a white dot. Abdomen and hindwing pale ochreous with a broad dark margin. ♂ 36 mm. East Africa.

### 30. Genus: **Leucovis** *Hmps.*

Palpi shorter than in the preceding genus. Antennae of ♂ finely ciliated, abdomen without a tuft. The frontal cone as in *Ovios*. Type: *alba* *Rothsch.*

**L. alba** *Rothsch.* (4 g). Thorax yellowish-white, abdomen orange, yellowish-white at the base. Forewing also yellowish-white, narrowly black only at the costal and distal margins. Fringe black with white patches. Hindwing white. Between vein 6 and the submedian fold there is a black marginal line and black fringe behind it. East and South Africa.

**L. lepta** *Fawc.* was described as a species of *Hylemera*, but according to ROTHSCILD it belongs to this genus here. Thorax and the first half of the abdomen white, the rest yellow. Forewing white, narrowly blackish-brown at the costal margin, very broad (5 mm) at the apex, from vein 4 vertically to the anal angle. Hindwing white, the margin between veins 2 and 6 very narrowly dark. 34 mm. East Africa. — **latifascia** *Rothsch.* is described to be still broader black at the apex of the forewing, but it is presumably identical.

## SUPPLEMENT.

Quite a considerable number of new *Agaristidae*-forms have been described since the 3 first sheets of this volume were printed. We append them here.

### 1. Genus: **Xanthospilopteryx** *Wallgr.*

*X. gruenbergeri* *Wichgr.* (p. 3, pl. 2 b). **medjensis** *Holl.* differs from the nomenclatural form in a large triangular yellowish-white spot on the inner margin of the forewing, divided by vein 1. It begins below the centre of the lower central spot and extends 13 mm inwards. Numerous bluishish-white dots are at the base of the forewing. Hindwing as yellowish-white as the spots on the forewing. Congo.

According to AURIVILLIUS, *medjensis* is a form of *karschi* *Holl.* (2 c).

**X. aurea** *Wichgr.* resembles *karschi-egregia* *Wichgr.* A few bluish spots are at the base of the forewing. The other spots are lemon-coloured. A large triangular spot in the cell is continued to the next subbasal spot above vein 1, which spot is arcuately defined above. The spot at the inner margin is straightly cut off at its anterior edge. The 5 subapical spots are united into one distally arched spot, its interior edge being notched by the black veins. Hindwing orange, also at the base. The margin is about 5 mm broad black. 65 mm. Angola.

*X. longipennis* *Wkr.* (p. 3, pl. 1 f). In **bodaensis** *Gaede* all the spots of the forewing are large, so that the two central spots are only separated 3 mm by the median vein. The spots of the subapical band are also merely separated by the veins. Besides 3 yellow subbasal spots. The spots are brown beneath. Hindwing not different. Cameroons.

**X. buchholzi** *Plötz.* This name mentioned as synonymous on p. 4 is, according to AURIVILLIUS, older than *grandis* *Drc.* — The form **barnsi** *Joic. & Talb.* exhibits, at the inner margin of the forewing, traces of the two spots which are characteristic of *batesi* *Drc.* (4 f). In the subapical band the posterior spots do not extend so far to the distal margin. The spots of the median band are somewhat larger. The hindwing differs more from *buchholzi*. The median area is broadly red, distally projecting most at vein 4, faded red at the inner margin, costal margin yellow in the inner half. Fringe black, white only at the apex. The cell of the forewing beneath shows a spot which is often found in *batesi* above and beneath. Besides there are specimens of *batesi*, in which the hindwing beneath is quite black, beside others with yellow or red centres. The colour of the spots on the

- subfascia*. forewing also varies from yellowish-white to dark yellow. — **subfascia** *Hulst.* is probably allied to *barnsi*. Forewing with some blue dots at the base. A yellow triangle before the centre of the cell. Median band as in *barnsi* and *batesi*. The spot between veins 3 and 4 in the subapical band is much smaller than the others. At the inner margin there are only traces of the upper one of the two spots which are characteristic of *batesi*. Hindwing black, dusted yellow between veins 3 and 6 behind the cell. Fringe of forewing nearly all white, of hindwing all white. The cell-margins and veins on the hindwing beneath are dusted yellow. Congo. — **schoutedeni** *Hulst.* approximates the nominal form. The yellow spots in the cell and at the inner margin are absent. The lower spot of the median band is only square, not elongate. The exterior margin of the subapical band is somewhat dentate, its lower part outside dusted somewhat black. Hindwing above and beneath quite black, only the fringe white. Congo.
- annulata*. **X. annulata** *Auriv.* is very similar to *buchholzi*. The median and subapical rows of spots on the forewing are united into a large square golden yellow area extending not quite to the costal and inner margins. It exhibits at the cell-end a large black spot with a few blue scales. At the anal angle the usual yellow spot, and blue dots at the base. Hindwing black above and beneath. Fringe as in *buchholzi*. ♀ 54 mm. Congo.
- sassana*. *X. hornimani* *Drc.* (p. 5). A subordinate form of *melanosoma* *Drc.* (1 e) is **sassana** *Strd.* from the Congo District. The subapical band has more parallel sides, the band is not so distinctly divided by the black veins as in *melanosoma*. The anterior spot of the median band is more quadrangular, the lower one concave on the inner side. Hindwing more broadly margined with black.
- littera*. *X. superba* *Btlr.* (p. 7, pl. 1 f). This species is rather variable as we have already seen from the text on page 7. Several other forms have been denominated besides. — In *pulchra* *Hulst.* the hindwing is orange-red, the blue spots of the forewing are distinct. It is presumably scarcely different from *basalifasciata* *Bartel*, as also the basal spots are fused. — **littera** *Hulst.* is an extreme form of *maculipes* *Strd.*, the two bands of which at the inner margin are only very little separated. In *littera*, they are united at their lower angles. — In **albocincta** *Hulst.* the otherwise yellow rings of the abdomen are white (rubbed off?). All the forms from the Congo.

## 2. Genus: **Rothia** *Ww.*

- lutescens*. *R. watersi* *Btlr.* (p. 8, pl. 3 c). In **lutescens** *Oberth.* the hindwing is not bright red but yellow.
- martha*. **R. martha** *Oberth.* is somewhat similar to *nigrescens* *Rothsch.* (3 a), but the transverse band on the forewing is yellowish-white, and besides there are 2 small white dots at the base. Fringe white at the apex, the rest black. Hindwing black, without markings. Fringe as in *nigrescens*. Wings beneath yellowish at the bases, abdomen yellow beneath. 48 mm. Madagascar.
- camilla*. **R. camilla** *Oberth.* is somewhat similar to *lasti* *Rothsch.* (3 b), but the transverse band of the forewing shows more parallel margins, as in *nigrescens* (3 a). Besides the 2 small costal-marginal spots of *lasti* there is another smaller spot at the base. A row of greyish-blue dots parallel to the inner side of the main band and a row bent about parallel to the distal margin. The white median spot on the hindwing is radially stretched, and besides there is a smaller one below it towards the anal angle. Legs and under surface of abdomen yellow. 44 mm. Madagascar.
- arrosa*. **R. arrosa** *Jordan* is somewhat like *eriopis-carminata* *Rothsch.* (3 d). Abdomen carmine, more orange towards the end, black above at the base, the black narrowing down towards the 5th segment, beneath also orange. Forewing with yellowish-white spots as in *eriopis*, besides two spots above vein 1, one each before and behind the centre.
- hampsoni*. **R. hampsoni** *Oberth.* resembles *westwoodi* *Btlr.* (3 c), but the spots on the forewing are whitish, shaped as in *panganica* (3 d), on the hindwing similar to *virguncula* (3 c). According to HAMPSON, the position of the species is questionable.

## 4. Genus: **Arrothia** *Jord.*

- melanobasis*. *A. bicolor* *Rothsch.* (5 a). The form — **melanobasis** *Jord.* shows a black basal area on the forewing, so that only a yellow band of about 2½ mm width remains, extending near the cell-end. Basal area feebly dusted yellow. Hindwing broad black at the base. Madagascar.

## 5. Genus: **Arctiopaïs** *Jord.*

- celis*. *A. ambusta* *Mab.* (3 e). The form — **celis** *Jord.* has a rusty brown distal margin on the forewing, being 7 mm broad at the apex, then it grows narrower. The margin on the hindwing is black as in the type, but much narrower. 7 mm broad near the apex, 1 mm at the anal angle. Madagascar.

## 10. Genus: **Pais** *Hbn.*

- haplocraspis*. *P. nyassana* *Bart.* (p. 14, pl. 3 f). In Angola and Uganda the fringes of both wings of this species are black with pale ochreous brown spots, whilst they are quite black in the Congo District; the latter form is named: — **haplocraspis** *Hulst.*



12. Genus: **Apaegocera** *Hmps.*

**A. joiceyi** *Hulst.* Forewing orange-red. A small black triangle at the base, and a black dot below the *joiceyi*. base of the cell. Costal margin finely black; in *aurantiipennis* (p. 15) it is not black. Apical area black, similar to *Wey. athene* (3 d), with a black lobe and a white dot in it as in *aurantiipennis*. The black distal margin is continued to the inner margin. Between veins 7 and 4 there is a narrow, little dentate white band in the narrow margin. Besides one small submarginal spot each is below veins 4 and 3. Hindwing corresponding to *argyrogramma* *Hmps.* (4 a). ♂ 60 mm. Lake Albert.

13. Genus: **Schausia** *Karsch.*

**S. schultzei** *Aur.* has been described as *Tuerta*, but as it is compared with *memnonia* and *cosmetica* *schultzei*. *Karsch* which are dealt with on p. 16 as *Schausia*, we also place it there. The whole body is black, the abdomen with paired red-brown hair-pencils. Forewing black, with blue scales at the base and a purely white median band from the centre of the costal margin to the inner margin a little behind the centre, about 5 mm broad, touching the cell-apex with its inner side. The veins behind it are dusted light blue. Hindwing black, median band broad, white, uniformly bent, not reaching the costal margin. ♀ 50 mm. Congo.

**S. costistrigata** *B.-Bak.* likewise resembles *memnonia* *Karsch.* Body black, the dorsum nut-brown. *costi-* Both wings black with a broad white centre. Forewing with 3 indistinct rows of blue scales, a broad white *strigata*. stripe behind them from the costal margin to the inner margin. From the interior edge of this stripe a subcostal stripe extends into the subapical area. It exhibits erect white scales where it crosses the main stripe, it is grey behind it in the black area. The veins in the distal area are dusted blue. Hindwing with a very broad white median band, so that the base is only black for a short distance. ♂ 48 mm. Cameroons.

14. Genus: **Aegocera** *Latr.*

**Ae. ferrugo** *Jord.* has the size of *rectilinea* (4 c). Both wings rusty red with yellow fringes. Thorax *ferrugo*. creamy with red-brown lines. Abdomen orange brown with black dorsal spots. Forewing black at the costal and inner margin with yellowish-white scales. A yellowish-white faded radial stripe through the submedian fold and a similar marginal line. Similar spots near the base of the cell, before the upper cell-angle and behind it, the latter luniform. Hindwing somewhat less reddish than the forewing, traces of a dark brown cellular spot. Fringe darker yellow than on the forewing. ♂ 36 mm. Abyssinia.

*Ae. brevivitta* *Hmps.* The form — **rectilineoides** *Rothsch.* differs from the typical form in its yellow hind- *recti-* wings. The distal area and the central spot are red. Nigeria. *lineoides*.

**Ae. naveli** *Le Cerf.* Forewing almost the same as that of *trimeni* (2 f), hindwing of *thomensis* (4 d). *naveli*. Forewing brown with two whitish ochreous bands. The one radial band at the lower cell-margin as far as vein 2, the other at the cross-vein as far as the base of vein 3. On both sides of the cross-vein short olive streaks and a similar one from the apex of the radial band to vein 1. Hindwing dingy orange. Marginal band broad brownish black, narrowly continued at the inner margin. Base and costal margin dusted black, a dark spot at the upper cell-angle. ♂ 42 mm. San Thomé.

**Ae. anthina** *Jord.* As large as *Mitr. menete* *Cr.* ♀ (3 h). Thorax orange with black stripes. Abdomen *anthina*. orange ochreous. Forewing with a maize-coloured interior band, 5 mm broad at the ends, 7 mm in its centre. Its interior edge is straight, angled outside below the cell, with a black central spot. A lead-coloured double spot in the basal area, a large yellow spot and a small one at the costal margin. A lead-coloured line and a rusty red spot between the cell and the inner margin. A yellow comma with a leaden line on either side is at the apex of the cell. Behind it a large yellow costal spot 5 mm large. Then follow 2 leaden lines at short distances, filled with rusty red, the edge also rusty red. Hindwing ochreous with the usual dark margin and cellular spot. Nigeria.

**Ae. comorana** *Jord.* Quite unlike the other species. Thorax brown with white stripes, abdomen orange *comorana*. with black dorsal spots. Forewing reddish sandy grey with black scales. A silvery white line on the cross-vein is edged with wood-brown, both enclosed by a blackish-brown ring which is open in front. Basad to it a similar ring-spot. A faded white stripe from the base to the centre of the wing gradually widens, extending upwards into the cell, downwards to the submedian fold. A faded white stripe behind the cross-vein is connected with the radial stripe. Distally to it an indistinct pale olive-red double line. The interior one bent, the exterior one straight. The whole wing is strewn with silvery scales. Hindwing ochreous, with a black narrow margin interrupted at the ends of the veins. Distal margin somewhat undulate in both wings. ♀ 38—47 mm. Greater Comoro.

15. Genus: **Mitrophrys** *Karsch.*

**M. ansorgei** *Rothsch.* (3 h). Thorax red-brown with white stripes. Abdomen orange with black seg- *ansorgei*. mental margins. Forewing red-brown, with yellowish-white scales at the costal and inner margins. A yellow band



in the submedian fold is composed of streaks and spots. A series of small spots in the cell, and a larger square one at the cell-end. An exterior band from the costal margin to vein 3, then excurved, a feeble parallel line behind it, and a submarginal line. Hindwing orange with a broad red-brown central spot the lower end of which is fused with the marginal band. The ♀ is much darker. 40—45 mm. East Africa, Uganda.

### 18. Genus: **Hespagarista** Wkr.

*eburnea*. *H. caudata* Dew. (p. 21, pl. 2 e). The form — *eburnea* Jord. has much more extensive yellowish-white patches on both wings. East Africa, Rhodesia.

## Alphabetical List

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\* signifies that the form is also figured at the place quoted.

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*rema* Tuerta *Drc.* Ann. Mag. Nat. Hist. (8) 6, p. 169.  
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*rendalli* Chaet. *Rothsch.* Novit. Zool. 3, p. 97.  
*rhæo* Roth. *Drc.* Ann. Mag. Nat. Hist. (6) 14, p. 22.  
*rubida* Mitr. *Fldr.* Reise Novara Taf. 107.  
*rufodiscalis* Tuerta *Rothsch.* Novit. Zool. 3, p. 47. \*  
*ruspina* Schs. *Auriv.* Ark. f. Zool. 5 (5) p. 9. \*,

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*schencki* Syf. *Bart.* Verhdl. zool.-bot. Ges. Wien 53, p. 126.  
*schoutedeni* Xanth. *Hulst.* Revue Zool. Afr. 11, p. 202.  
*schultzei* Sch. *Auriv.* Ergeb. 2. Deutsche Z. Afr. Exp. 2 (18).  
 p. 1311.  
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*separata* Xanth. *Jord.* Seitz, *Macrolep.* Bd. 15, p. 7.  
*septentrionis* Ov. *Hmps.* Cat. Lep. Het. Br. Mus. 9, p. 427. \*  
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*subfascia* Xanth. *Hulst.* Revue Zool. Afr. 11, p. 201.  
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*tricolora* Roth. *B.-Bak.* Ann. Mag. Nat. Hist. 3, p. 434 (1909).  
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*triphaenoides* Met. *Wkr.* List. Lep. Het. Br. Mus. 1, p. 61.  
*triplagiata* Schs. *Rothsch.* Novit. Zool. 3, p. 95.  
*triseriata* Xanth. *Bart.* Verhdl. zool.-bot. Ges. Wien 53, p. 125.  
*tristriata* Xanth. *Bart.* Verhdl. zool.-bot. Ges. Wien 53, p. 122.

*ugandana* Xanth. *Jord.* Seitz, *Macrolep.* 15, p. 7.

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*watersi* Roth. *Bllr.* Ann. Mag. Nat. Hist. (5) 14, p. 409.  
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*xanthopyga* Xanth. *Mab.* Bull. Soc. Ent. Fr. (6) 10, p. 124.  
*xenia* Mass. *Jord.* Seitz, *Macrolep.* 15, p. 22.

*zea* Roth. *H.-Schäff.* Außereur. Schmett. f. 34.  
*zenkeri* Xanth. *Karsch.* Ent. Nachr. 21, p. 350. \*  
*zeodita* Xanth. *Niepell.* Ins.-Börse 23, p. 127.

## 2. Family: Noctuidae.

The African Noctuid fauna is relatively poor according to our present knowledge which, we must admit, is the most imperfect of all the faunae; their number attains hardly one third of, for instance, the American *Noctuae*. The general impression is almost palaearctic and, correspondingly, we find chiefly grey and brown tints in most of the genera the greater part of which are well known to us from Vol. 3. More conspicuous forms are especially encountered in Madagascar, dark red insects with black and orange markings. They do not re-occur in any other fauna. For instance, the odd *Epicausis smithii* assigned to the *Momini*, with an abnormal hairy abdomen, and the smaller *Adaphaenura minuscula*. Strange are also the variegated species of *Diaphone* resembling Arctiids, and the yellow and red *Mazuca haemagrapha*.

By far the greatest numbers are represented by the *Cirphis*, *Borolia*, and *Meliana* from the *Hadenidae*, and the mostly somewhat smaller *Acrapex* and *Sesamia* belonging to the *Zenobiinae*. They inhabit especially the grassy steppes which are at the same time the main habitat of the great number of small and diminutive *Erastrinae* which have numerous representatives in Africa. To the *Sarrothripinae* belong the remarkably large and variegated species of *Eligma*, the best known representative of which is the Indian *E. narcissus* which we find numbered yet among the *Arctiidae* in Vol. 2 and figured on pl. 131. Numerous representatives are exhibited by the *Stictoperinae* in the genus *Eutelia*, besides the very strange two species of *Gigantoceras* with their immensely long antennae.

There are no *Catocala* whatever to be found in the African fauna, and compared with the American and Indo-Australian faunae, the Noctuines are also poor. Nevertheless, some larger and also variegated species occur, such as the beautiful *Miniodes* with rosy-red hindwings. As for further particulars, we refer our readers to the introduction to Vol. 3.

### 1. Subfamily: Acronyctinae.

The larvae of this group and the following are hairy. The imagines have elongate forewings which invariably exhibit an areole. Vein 5 of the hindwing, which is much feebler than the other veins, arises from the centre of the cross-vein.

### 1. Genus: **Daseochaeta** Warr.

Proboscis developed, frons even, palpi bent up, the second joint hairy in front, the third rather long, not hairy. Thorax tufted in front and behind, abdomen with a row of tufts. Forewing with a slightly rounded apex. Veins 3—5 close together from the lower cell-angle, vein 6 from the upper angle. 7 and 8 + 9 from the apex of the areole, 10 a little more basad, 11 free. Hindwing: vein 5 from the centre of the cross-vein, feebler than the others, 3 and 4 from the lower cell-angle, 6 and 7 from the upper angle. Type: *viridis* Leech from Japan.

Sections 1—4 not Ethiopian.

Section 5. Antennae of ♂ ciliated.

*verbenata*.

**D. verbenata** Dist. (5 a). Forewing light green. Interior line vertical, white edged with black scales. Ring-macula and reniform macula small, white, laterally black and with a black spot between. A black streak from the costal margin behind the centre. Exterior line black, finely edged with white inside, a few dark spots behind it. Abdomen and hindwing light brown, whitish at the base. ♂ 32 mm. Transvaal.

*malgassica*.

**D. malgassica** Kenr. is similarly coloured as *verbenata*, but with more intense markings. Two radial streaks at the base. The interior, middle, and exterior lines spotted, the two last connected below vein 2. A spot before the anal angle. Abdomen and hindwing as in *verbenata*. ♀ 40 mm. Madagascar.



2. Genus: **Thalatha** Wkr.

Proboscis and palpi normal. Frons with a small hump. Thorax tuftless, the abdomen with but one tuft at the base. Neuration normal. Type: *sinens* Wkr. from India, China.

1. Antennae of ♂ with one row of serrations.

**Th. malagassica** Hmps. (5 a). Thorax red-brown. Forewing pale reddish-yellow, with a faded blackish *malagassica* band in the submedian fold. Interior and exterior lines of black spots, the former reddish-yellow at the inner margin. Ring-macula and reniform macula large, white; the former oblong, the latter with a reddish-yellow centre, blackish between them. Besides darker reddish-yellow from the middle of the costal margin to vein 2. The reddish-yellow submarginal line with a black spot before the middle of the distal margin. Abdomen whitish-ochreous, hindwing yellowish. ♂ 40 mm. Madagasear.

**Th. waterloti** Boursin (5 a). Somewhat similar to *malagassica*, but the antennae of the ♂ are filiform. *waterloti*. Thorax greyish-black, abdomen greyish-brown. Forewing grey. A grey basal ray in the submedian fold, interrupted for some distance in the middle, then extending to the margin. Interior line rather inconspicuous. A median shadow is present, the median area light grey. Ring-macula white, edged with black. A blackish oblique band behind it. Reniform macula well visible, grey. Exterior line black, far excurved, broadly edged with white inside. Submarginal line present. Darker at the margin between veins 4 and 6, as well as at the apex. Hindwing greyish-brown, somewhat darker at the margin. ♂ 40 mm. Madagascar.

**Th. occidentis** Hmps. Thorax reddish-yellow. Forewing lighter reddish-yellow. A dark basal ray is *occidentis*, edged with white above, only as far as the interior line. Interior and exterior lines white, edged with black scales. Ring-macula and reniform macula white, centred and edged with reddish ochreous; a square brown spot between them. Exterior line formed of dentate spots. A light submarginal line as far as vein 3, very indistinct. Black marginal dots inside with white lunae, fringe speckled. Hindwing light brownish ochreous. ♂ 34 mm. Niger Distriet.

**Th. varicolor** Warr. (5 a). Greyish-brown, with a slight green reflection, more distinctly marked. *varicolor*. Interior and exterior lines similarly shaped, but not white. A short black basal ray below the cell. Coniform macula large, fine black; ring-macula somewhat oblong; reniform macula large, grey, nut-brown inside, edged with black. A nut-brown stripe in the distal area. Hindwing white inside, brown outside. ♀ 34 mm. Cape Colony.

2. Antennae of ♂ foliated.

**Th. melanostrota** Poult. (5 a) is quite different. Thorax and forewing greyish-brown, dusted black, *melano-strota*, with indistinct oblique dark lines and black marginal dots. Hindwing white, brownish at the margin. ♂ 24 mm. Somali Land.

3. Genus: **Craniophora** Snell.

Proboscis normal, palpi extending to the frons. Antennae of ♂ and ♀ foliated. Metathorax with a parted tuft. Abdomen with small dorsal tufts. Neuration normal. Vein 5 of hindwing below the centre of the cross-vein. Type: *ligustri* Schiff. from Europe.

**Cr. paragrapha** Fldr. (5 a). Forewing greyish-white, dusted brown more or less, with a black, broadly *para-grapha*, interrupted basal ray, with a spot behind it. Ring-macula and reniform macula edged with black, centred dark. Between them a broad dark median band, very light behind the reniform macula. Two or three black spots behind the notched submarginal line. Hindwing brown, fringe speckled. — **inversa** Gaede (5 b) has the *inversa*, reniform macula filled with wood-brown, the whole distal area beginning from the median band is very dark. 40—44 mm. Cape Colony, (*inversa*) East Africa.

**Cr. adelphica** E. Prout resembles *paragrapha* in which the black horizontal streak of the forewing is *adelphica*, more interrupted towards the margin. The median shadow is much more distinct in *adelphica*. Hindwing somewhat darker. — ♂ 40 mm. San Thomé.

4. Genus: **Acronieta** Ochs.

Differs from *Craniophora* only in the absence of the small dorsal tufts, for which reason *Craniophora* is united with *Acronieta* in Vol. III. Type: *leporina* L. from Europe. Only 3 of the immense number of species of this genus occur in Africa.

**Acr. transvaalica** Hmps. Body brownish-white, forewing greyish-white. A strong black streak below *trans-vaalica*, the cell as far as the interior line, with a lateral spur in the middle below. Interior line black, double, obliquely outward. Ring-macula and reniform macula edged with black, the latter rusty brown inside. The feeble median line is slightly angled inwardly at vein 1. Exterior line double, dentate, excurved as far as vein 4, then sharply

inwards. Dark behind it at the costal margin and behind the cell, a black streak in the submedian fold. Hindwing purely white. ♂ 25 mm. Transvaal.

*mediovitta.* **Acr. mediovitta** *Rothsch.* Thorax and forewing ashy grey. The reniform macula and the space behind it as far as vein 3 pale brown. A broad black band in the submedian fold on  $\frac{1}{3}$  of the length of the wing, with a black streak to the cell. Some undulate dark lines in the centre of the wing. A broad black band at vein 2 as far as the distal margin. Hindwing creamy white. ♂ 22—25 mm. Madagascar.

*pseudobamra.* **Acr. pseudobamra** *Rothsch.* Antennae of ♂ pectinated almost to the tips. Forewing greenish-grey with faded brown transverse lines. Three chocolate brown spots at the costal margin near the base. A white angular streak at the cross-vein. Behind it a black band, broad from the costal margin to the lower cell-angle and then at vein 4 to the margin. The costal margin before this band is cinnamon-brown, the greatest part behind it also cinnamon, and enclosing 3 dark short lines; margin narrowly grey. Hindwing white, diaphanous, brownish at the costal margin. ♂ 48 mm. Madagascar.

## 2. Subfamily: Mominae.

Palpi short, eyes hairy. Legs long-haired. Tibiae without spines. Neuration of forewing as in the *Acronyctinae*. Vein 5 of hindwing well developed, situate a little above the lower cell-angle. Thus the *Mominae* differ considerably from the *Acronyctinae*.

### 1. Genus: **Epicausis** *Btlr.*

Proboscis normal. Palpi short, the third joint somewhat longer than in the other genus. Antennae of ♂ finely dentate. Abdomen somewhat flattened, densely long-haired. Anal tuft very strong. Wings narrow and short. Forewing: vein 5 separated a little from 4, 7 and 8 + 9 from the upper angle of the areole, 10 from its anterior edge. Hindwing: veins 3 and 4 from the same base, 5 a little farther off, 6 + 7 on a short stalk. The strange lepidopteron looks almost like a Sphingid.

*smithii.* **E. smithii** *Mab.* (= *lanigera* *Btlr.*) (5 b). Thorax and anal tuft dark red, abdomen black. Forewing orange, short black streaks at the costal and inner margins, the broad black distal margin traversed by the orange veins. Hindwing lighter yellow, broad black at the base and distal margin. 55—62 mm. Madagascar.

### 2. Genus: **Elaeodes** *Hmps.*

Proboscis stunted. Palpi short, the second joint much longer than the third. Antennae of ♂ finely dentate. Metathorax with a feeble tuft, abdomen with small tufts. Wings normally shaped. Forewing: veins 3, 4 and 5 slightly separated, otherwise as in *Epicausis*. Hindwing: veins 3—5 the same, 6 and 7 from the same base. Type: *brevicornis* *Wkr.*

All the species yellowish-green on the thorax and forewing; the hindwing brownish-white in the ♂, dark brown in the ♀. Transverse lines of forewing mostly white.

#### 1. Antennae of ♂ somewhat more serrate.

*virescens.* **El. virescens** *Btlr.* (= *ochroargyra* *Mab.*) (5 b). The white basal line of the forewing is bordered outside with dark brown. The interior line projects strongly in the submedian fold. Ring-macula and reniform macula white, filled with blackish, the space between them also blackish. Exterior line edged somewhat dark behind the cell; above veins 2 and 5 with a dark shadow as far as the distal margin. White, dark-filled angles are before the greenish-yellow marginal line. Fringe cut by light. — **proteoides** *Kenr.* (5 b) may be only a very dark specimen of the same species from the same habitat. 30—38 mm. Madagascar.

*acatharta.* **El. acatharta** *Hmps.* (5 b). The very distinct white transverse lines of the preceding species are quite faded here. The dark marking is arranged in the same way, but indistinctly defined. Submarginal line feebly notched. Hindwing of ♂ with a dark central spot and a dark exterior line. 36—42 mm. Natal.

*barnsi.* **El. barnsi** *E. Prout.* Forewing whitish-green, similar to *virescens*. The two maculae distinctly white, the median area from the costal margin to the submedian line lighter, more uniformly dark behind the exterior line, only the spot above vein 2 is more prominent. Submarginal line a little more distant from the margin; narrowly bordered with dark outside, bent more inward behind the cell. Hindwing whitish (♂) with a dark central spot. ♂ 36 mm. Tanganyica District.

*thomae.* **El. thomae** *E. Prout* resembles *barnsi*, but the wings are somewhat narrower. The lines and maculae on the forewing are pale green, not white. The cell more darkened between the maculae. The exterior line is dentate. A dark shadow behind it extends to the anal angle. Submarginal line feebler, more dentate than in



*barnsi*. Hindwing somewhat yellowish, especially at the margin, the central luna feeble; sometimes traces of an exterior line. ♂ 33—35 mm. San Thomé.

2. Antennae of ♂ somewhat less serrate.

**El. brevicornis** Wkr. (= *tarara* Holl.) (5 c). Forewing greenish ochreous. The white basal line is mostly *brevicornis*. indistinct. The notched white interior and exterior lines nearing each other in the submedian fold, darker between them as far as the inner margin. The ring-macula is somewhat distinct, the reniform macula is a white streak in dark surroundings. The distinct notched white submarginal line is far remote from the margin. Fringe speckled. Hindwing of ♂ whitish with a brownish margin; the abdomen and hindwing of the ♀ dark brown. 30—38 mm. West Africa, Uganda.

**El. lutescens** H.-Schäff. (5 c) may be only a light ♀ form of *brevicornis*. Forewing almost white in the *lutescens*. median area below vein 2, white also behind the reniform macula. Hindwing also lighter, so that a central spot and two exterior bands, which are only visible beneath in *brevicornis*-♀, appear also above. ♀ 48 mm. Cape Colony. We figure the presumable ♂ of it according to a specimen from East Africa.

**El. prasinodes** Prout is still lighter than the similar *barnsi*. A white spot behind the cell and behind *prasinodes*. it in the distal area. The 3 white lines similar to *barnsi*. Both the maculae orange with black spots, ring-macula edged with white, besides black outside, reniform macula white inside and edged with black, running outside into the white spot; the space between them is also orange, spotted black. The notched submarginal line is edged with orange outside in its posterior part, the rest blackish. Fringe white, spotted orange and black. Hindwing white, in the ♀ with a central spot and exterior band. Under surface: the ♂ purely white, the ♀ forewing broadly greenish at the costal and distal margins. 36—44 mm. Rhodesia.

**El. punctata** n. sp. (5 c) resembles *virescens*. Ground-colour more purely green. Costal margin uniformly *punctata*. spotted dark. The type shows a black circular spot before the less notched interior line below the median vein. The exterior line does not project angularly at vein 5. The white lunar line at the margin is feebly developed, but its exterior dark border is very distinct at the same places as in *virescens*. The exterior dark edge at the exterior line is also somewhat darker. The space behind the light-edged reniform macula in the type as dark as the cell as far as the interior line. The second specimen shows the space behind the reniform macula somewhat lighter, the basal area dark as far as the inner margin. Hindwing (♀) brownish. Beneath with a central luna and exterior band. Tarsi blackish-brown, with fine light rings. ♀ 32—35 mm. Cameroons. Type in the Berlin Museum.

### 3. Subfamily: **Bryophilinae**.

All that is necessary has been said about this subfamily already in Vol. III, p. 18, and Vol. XI, p. 43.

#### 1. Genus: **Mionides** Hmps.

Proboscis absent. Palpi thin, relatively long, somewhat hairy. Frons with a hump. Antennae of ♂ tuftedly ciliated. Vein 5 of hindwing below the middle of the cross-vein, 6 + 7 on a long stalk.

**M. lichenea** Hmps. (5 c). Light olive brown. Interior line indistinctly white, somewhat angular. The *lichenea*. two maculae small, white, edged with black. Exterior line black, edged with white outside, ending at the inner margin far inwards. Submarginal line formed of some small black spots. Hindwing blackish-brown. ♂ 28 mm. Cape Colony, Natal.

#### 2. Genus: **Bryophila** Tr.

Proboscis normal. Palpi extending to above the frons, also the last joint relatively long. Antennae of ♂ ciliated. Thorax only behind with a tuft, small tufts in front on the abdomen. Vein 5 of hindwing from the centre of the cross-vein. Type: *muralis* Forst. from Europe.

**B. leucomelaena** Hmps. (5 c). Creamy white. Forewing with a blackish-brown median band. Ring- *leuco-* macula and reniform macula edged with black, filled with grey, large, the latter in lighter surroundings. Two *melaena*. dark spots before the margin. Hindwing with a dark central spot and exterior line. ♂ 24 mm. East Africa.

**B. fulvifusa** Hmps. Thorax red-brown. Forewing greyish-brown, reddish orange at the base of the *fulvifusa*. inner margin. Median area bordered as in *leucomelaena*, a reddish orange spot behind it at the inner margin. The two maculae reddish-orange, indistinctly bordered, blackish between them. Submarginal line indistinct, blackish, orange-red behind it. Hindwing slightly reddish-brown. ♂ 24 mm. Transvaal.

**B. pica** Strd. Similar to *Polygrammata hebraica* from America. Forewing white with black lines. Near *pica*. the base two spots and an angular mark. Two black transverse streaks in the cell, indistinctly continued to the inner margin. A longitudinal spot at the cell-end. Behind it at the costal margin there are 3 spots from which a band proceeds. Submarginal line undulate, dentate, dark behind it as far as the margin. Hindwing light grey. 20 mm. West Africa.

4. Subfamily: **Euxoinae**.

The subfamily is characterized by its spined tibiae. Claws absent. As in the preceding 3 subfamilies, the number of genera and species to be dealt with is also here very small. If the genera *Agrotis* and *Lycophotia* were united with *Rhyacia*, as it was done in Vol. XI, only two genera would be left with about 60 species.

1. Genus: **Euxoa** Hbn.

Proboscis present. Palpi erect, the second joint hairy in front. Frons with a truncate cone. Prothorax and metathorax with a broad tuft. Tibiae strongly spined. Vein 5 of the hindwing arises from the centre of the cross-vein and is more feebly developed. Type: *decora* W. V. from Europe.

1. Antennae of ♂ bipectinate. Pectinations moderately long. The last third of the antenna serrate.

*longiclava*. **E. longiclava** *Andreini* belongs near *obesa* Bsd. and *crassa* Tr. Thorax and forewing yellowish-brown. Interior line scarcely traceable. The narrow coniform macula edged with black, prolonged to the base. Vein 1 fine white. Ring-macula very oblong, pointed on both sides. Reniform macula edged with black, normal. Black streaks behind it between veins 3 and 7. Hindwing of ♂ dingy white, greyish-yellow in the ♀. 30 mm. Abyssinia, Erythrea.

*longidentifera*. **E. longidentifera** *Hmps.* (5 d). Head yellowish-brown. Thorax and forewing dark red-brown, somewhat darker at the costal margin. Traces of a subbasal line at the costal margin. Interior line double, undulate, strongly extra-angular below the costal margin and above the inner margin. Coniform macula fine, black. Ring-macula terminating outwardly into a long point, edged with white, filled with black. Reniform macula bordered on its basal side by a white angle, the rest black. Exterior line double, dentate. Submarginal line light, notched, somewhat distally convex in the centre. Margin blackish. Hindwing white, in the ♀ darker outside. 32—36 mm. East and South Africa, Madagascar, Greater Comoro.

*cymographa*. **E. cymographa** *Hmps.* Thorax dark brown, abdomen greyish-brown. Forewing red-brown, dusted black. Subbasal line and interior line double, black, filled with white. Coniform macula small, its apex indicated by black scales. Ring-macula and reniform macula large, edged with white. Median line faded blackish-brown, incurved in the cell. Exterior line double, its interior branch black, the exterior one less distinct, filled with white. Small dark streaks behind it on the veins. Dark sagittal spots before the margin, with white scales outside. Marginal line undulate, black. Hindwing white, veins and margins red-brown. Fringe purely white. ♀ 36 mm. East Africa.

*microtica*. **E. microtica** *Hmps.* resembles *segetum* Schff. (Vol. III, p. 25, pl. 5 d). Thorax red-brown, abdomen whitish ochreous. Forewing red-brown, tinged with white, the veins with black streaks. Interior line notched. Coniform macula blackish-brown, edged with black, moderately large. Ring-macula and reniform macula blackish-brown, edged with white, then surrounded by black. A bent median shadow and an indistinct notched exterior line. Submarginal line indistinct, pale, with red-brown spots inside. Hindwing white. ♂ 25 mm. Assumption.

*subalba*. **E. subalba** *Wkr.* (= *nivalis* *Flor.*) (5 d). Thorax and forewing greyish-white with some dark scales. Traces of a subbasal dark line, obliquely outwards. Interior line dark, double, undulate, rectilinear, somewhat obliquely outwards, the exterior branch more distinct. The coniform macula is rarely traceable. The ring-macula is a dark dot, the reniform macula finely edged with dark, sometimes both are quite absent. Exterior line strongly notched, mostly indistinct. Submarginal line diffuse, edged lighter outside. Marginal dots black. Hindwing purely white, brownish at the margin of the ♀. 38—46 mm. Cape Colony.

*cinchonina*. **E. cinchonina** *Guen.* (5 d). Thorax and forewing red-brown, dusted darker. Interior line double, undulate, extra-angular below the costal margin and above the inner margin. Coniform macula large, black, rounded. Ring-macula and reniform macula edged with black, centred black, the former large, round. Exterior line double, slightly undulate, somewhat indistinct, marginal line fine dark. Hindwing dark brown, lustrous yellow. ♀ 34 mm. Abyssinia.

*brachypecten*. **E. brachypecten** *Hmps.* (5 d). Thorax and forewing red-brown with grey and dark brown places. Interior line double, undulate, strongly extra-angular above the inner margin, coniform macula small, black. Ring-macula and reniform macula grey, centred dark brown and edged with black. Ring-macula small, the reniform macula indistinct owing to the blackish median shadow. Exterior line dentate, slightly excurved below the costal margin. Submarginal line grey, dentate, spotted black inside. Blackish behind it except at the apex and anal angle. Hindwing diaphanous white, brownish ochreous at the base, veins and margin dark. 32 mm. Sokotra.

*arsinaria*. **E. arsinaria** *Auriv.* Resembles *canariensis* Rbl. (Vol. III, p. 28, pl. 6 b). Thorax and forewing brown or brownish-grey, somewhat bluish-grey in the ♀. Interior line double, blackish-brown. Coniform macula distinctly black, triangular. Ring-macula white, incompletely edged with black. Reniform macula large,



blackish-brown, laterally edged with black. Median shadow distinct, from the costal margin to the inner margin. Exterior line sometimes double, blackish-brown, filled with whitish-grey. Submarginal line with a dark spot at the costal margin, then parallel to the distal margin. Hindwing greyish-black. Cape Verde.

Besides the following palaearctic species occur in this region: *segetum* Schiff. in East and South Africa, *corticea* Schiff. in Madagascar, and *spinifera* Hbn. in East and South Africa.

2. Antennae of ♂ ciliated (*Rhyacia*).

**E. fumicolor** Hmps. (5 d). Thorax blackish-brown, abdomen somewhat lighter. Forewing dark brown, *fumicolor*, the marking indicated by black scales. An interior line, the ring-macula and reniform macula are traceable. Besides an undulate exterior and submarginal line. Black marginal dots. Hindwing diaphanous white. Veins brown. A dot at the cross-vein and an exterior row of dots. Marginal area brownish. 26 mm. Mashona Land.

**E. rufomixta** Hmps. (5 d) resembles *fumicolor*. Forewing with a double undulate interior line. Coniform *rufomixta*, macula indicated by some black scales. Ring-macula small, laterally marked by black scales. Reniform macula edged with black inside, and with a black dot outside. Exterior line strongly dentate, interrupted. The pale submarginal line is only distinct at the costal margin. Hindwing white, fringe dark. ♂ 28 mm. Cape Colony.

**E. albiorbis** Hmps. Thorax red-brown, abdomen greyish ochreous. Forewing red-brown, dusted dark *albiorbis*, as far as the exterior line. Interior line double, filled with red-brown. Coniform macula edged with black, pointed at the end. Ring-macula white, edged with black. Reniform macula dark brown, edged with black, with a white line on the inside. Exterior line indistinct, pale, a double row of black dots behind it on the veins. Submarginal line with a brown shadow on the inner side. Hindwing brownish, lighter at the base. ♀ 24 mm. Mashona Land.

**E. ruficeps** Hmps. (5 d). Thorax grey, abdomen brown. Forewing grey, dusted dark. A fine black *ruficeps*, streak below the base of the cell. Interior line double, very strongly dentate. Ring-macula and reniform macula small with a dark centre. Exterior line double, strongly dentate, situate very far outside. Marginal area on the veins with dark streaks edged with red-brown. Hindwing purely white, fringe yellowish. ♂ 35 mm. Mashona Land.

**E. pronecta** Hmps. (5 e). Thorax yellowish-brown and reddish. Abdomen brownish ochreous. Fore- *pronecta*, wing grey, strewn with dark brown, darker at the costal margin. Interior line double, undulate, indistinct. Ring-macula as a small black dot, reniform macula black. The exterior line is a row of black dots on the veins. An indistinct row of black dots is at the margin as well as before it. Hindwing diaphanous white, darker at the costal margin. ♂ 30 mm. Mashona Land.

**E. indigna** H.-Schäff. (= *intendens* Wkr.) (5 e). Thorax red-brown, abdomen brownish ochreous, both *indigna*, mixed with black. Forewing brownish ochreous or red-brown with black scales especially at the costal margin. Interior line double, undulate, sometimes with a strong inward angle at vein 1 and an outward angle at the inner margin. Coniform macula indicated by black scales. Ring-macula small, round, as a pale ring with a black centre. Reniform macula edged with black, filled with dark brown. Blackish between the two maculae in the cell. Exterior line indistinct, double, dentate. The marginal area darker distally to the submarginal line, excurved at the apex and anal angle. Hindwing yellowish-white, darker in the ♀ at the margin. 30—34 mm. East and South Africa.

**E. epipyria** Hmps. (5 e). Thorax ochreous red-brown, abdomen dark brown with grey segmental mar- *epipyria*, gins. Forewing brownish ochreous, tinged with reddish, blackish at the costal margin. The two cell-margins from the base to the interior line fine white. Interior line indistinct, strongly extra-angular in the cell, below it and at the inner margin. Ring-macula and reniform macula small, brownish ochreous, the latter centred black. An oblique undulate shadow from the lower cell-angle to the inner margin. The veins in the distal area red-brown. Exterior line indistinct, double, dentate, black marginal dots behind it. Hindwing white, diaphanous. 28—30 mm. East Africa, Mashona Land.

**E. contingens** Warr. (5 e). Thorax greyish-brown, abdomen pale brown. Forewing greyish-brown, *contingens*, costal margin dark grey, a light subcostal streak below it. Interior and exterior lines black, edged with light on the averted sides. The exterior line touches the exterior edge of the reniform macula. Veins in the basal area light. Centre of cell dark brown. Coniform macula edged with black. Ring-macula edged with dark, filled with light, somewhat flat. Reniform macula brown, with a light ring and then black. Submarginal line whitish, edged with dark inside, with triangular spots. Hindwing light brownish with dark veins. ♂ 34 mm. Transvaal.

**E. sordida** Warr. (5 e) resembles *contingens*, but the exterior line is undulate and normally far excurved *sordida*, behind the cell. The maculae also as in *contingens*, but darker. Marginal area darker. Submarginal line indistinct, light, traces of dark triangles before it. Hindwing dingy white, darker at the apex, with dark veins. ♂ 35 mm. Namaqua Land.

**E. acronycta** Rbl. Body greyish-brown. Forewing oblong, greyish-brown, indistinctly marked. A dark *acronycta*, spot near the base is edged with whitish yellow. Interior line whitish-yellow, notched, vertical, edged with black outside. A dark dot at the cross-vein. Exterior line more finely notched than the interior one, uniformly bent. Submarginal line parallel to the exterior line, black marginal streaks between the veins. Hindwing white, with a mother-of-pearl gloss. ♀ 32 mm. Sokotra.



2. Genus: **Agrotis** Ochs.

This genus differs from the preceding one in the absence of a frontal projection. A hair-tuft on the head and on the thorax in front and behind. Middle and hind tibiae spined, anterior tibiae spined only laterally. Abdomen flattened. Neuration not different. Type: *rectangula* W. V. from Europe.

1. Antennae of ♂ moderately strongly bipectinate, ciliated in the apical thirds.

*hemileuca.* **A. hemileuca** Wkr. (5 e). Thorax red-brown, abdomen whitish ochreous. Forewing red-brown, tinged with dark brown. Interior line undulate, faded, extra-angular below the costal margin and very much so at the inner margin. Coniform macula small, black. Ring-macula and reniform macula edged with black. The former small, elliptical, light; the latter centred dark; a diffuse median shadow between them. A black streak from the reniform macula to the notched exterior line. Submarginal line marked by black wedge-spots before and behind it. Hindwing purely white with a few black marginal dots. ♂ 33 mm. Congo.

*consentanea.* **A. consentanea** Mab. (5 e). Body and forewing brownish ochreous, the latter red-brown and dusted somewhat black. Interior line marked by 2 black dots at the costal margin, one below the cell and an angle above the inner margin. Coniform macula and ring-macula extinct. Reniform macula large, filled with black, traversed by a median shadow angled at the lower cell-angle. Exterior line notched, indistinct. Submarginal line marked by black sagittal spots. Hindwing white with a fine brown marginal line. ♂ 40 mm. Madagascar.

*ypsilon.* **A. ypsilon** Rott. (cf. Vol. III, p. 37, pl. 8 c) occurs on the whole earth, therefore also in Africa.

2. Antennae of ♂ ciliated. The hair at the apex of the second palpal joint are dilated into a point.

*atritegulata.* **A. atritegulata** Hmps. (5 f). Body whitish ochreous, somewhat red-brown. Forewing violettish-grey. costal-marginal area greyish ochreous and brown, inner margin whitish at the base. A deep black band in and below the cell extends to the ring-macula, in the cell on to the reniform macula which is edged with black outside. Hindwing white, diaphanous. ♂ 35 mm. Transvaal.

*medioatra.* **A. medioatra** Hmps. Body whitish with brown hair. Forewing greyish-white, dusted brown and dark brown. Whiter at the costal margin as far as the exterior line. Interior line black, edged with white inside, extra-angular at the costal and inner margins, incurved between them. Coniform macula marked by a fine brown and white line. Ring-macula and reniform macula white, edged with black, the cell before and between them black. Exterior line brown, edged with white outside, somewhat dentate. A pale submarginal line is traceable. Hindwing diaphanous white, with a brown marginal line and brown base. ♀ 35 mm. Yemen.

*omochroa.* **A. omochroa** E. Prout. Thorax chocolate, abdomen pale brownish ochreous. Forewing pale yellowish-brown, tinged with reddish-brown. An extensive black radial stripe in the cell, almost from the base. Interior line dark, indistinct, the costal margin before it lighter. Ring-macula and reniform macula yellowish-brown, centred dark and edged with black. A black spot behind the reniform macula. Exterior line black, undulate, punctiform, in a wide bend around the reniform macula, then straight to the inner margin. The costal margin behind it dark like the distal margin, too. Hindwing pale brown, darker at the margin. Forewing of the ♀ more reddish-violet, the exterior line more distinct. 35—37 mm. San Thomé.

*bisignata.* **A. bisignata** Hmps. Thorax red-brown, abdomen greyish-brown. Forewing red-brown, dusted brown, costal margin whitish as far as behind the centre. A black streak below the base of the cell. Interior line double, black, undulate, excurved above the inner margin. Coniform macula marked by a black end-dot. The ring-macula is a white ring, laterally edged with black. The reniform macula is also a white ring, with a black dot outside. A square black spot between them at the costal margin. Exterior line double, dark, dentate. The pale submarginal line is strongly notched inwards, a black spot is before it at the costal margin. Hindwing pale brown. ♀ 38 mm. Nigeria.

*annularis.* **A. annularis** Saalm. (= *transjecta* Dist.) (5 f). Thorax dark red-brown, abdomen brownish ochreous. Forewing brownish ochreous. Interior line hardly traceable. A feeble black streak at the base of the submedian fold. Ring-macula and reniform macula as fine light dots. Around them a blackish-brown longitudinal stripe almost from the base to the distal margin. The exterior line is a row of dots bent parallel to the distal margin. Hindwing purely white, with a fine brown marginal line. 24—26 mm. East and South Africa, Madagascar.

*griseofusca.* **A. griseofusca** Hmps. Thorax lustrous blackish-brown, abdomen brownish ochreous. Forewing blackish-brown, with a silvery blue gloss. Interior line black, strongly dentate outside in the interspaces, inside on the veins. The dent in the cell extends almost to the reniform macula which is small, with a black centre, around the latter brownish ochreous with a black edge. Exterior line indistinctly black, with short outward streaks on the veins. The veins at the margin finely black. Hindwing purely white, the fringe at the apex dark. ♂ 30 mm. East Africa.



**A. rufescens** *Hmps.* Body and forewing dark red-brown, darker in the costal-marginal area, except at the apex, only interrupted at the beginning of the two lines. A few white dots at the base. A bent black streak before the interior line in the submedian fold. Interior line double, brown, filled with white, similarly notched as in *griseofusca*. Ring-macula and reniform macula small, round, edged with black, near together, connected by a black streak. Exterior line double, brown, filled with white, finely dentate, extra-angular at vein 1. black dots behind it at the veins. Hindwing white, brownish at the apex. ♂ 24 mm. North Nigeria. *rufescens.*

**A. sicca** *Guen.* (= *venalis* *Mr.*) (5 f). Thorax dark brown, abdomen somewhat lighter. Forewing brownish ochreous, dark violettish-brown at the costal margin. Pale streaks at the base of the cell-margins and two similar ones in the cell. Interior line indistinct, undulate, double, very strongly introangular at vein 1, extra-angular above the inner margin. Ring-macula and reniform macula dark violettish-brown, small, edged and centred with black. A black stripe from before the ring-macula to the distal margin at vein 5. Exterior line double, dentate and with a double row of dots at the veins. A dark spot above the anal angle. Hindwing yellowish-white, veins and margin somewhat brownish. 30—33 mm. Cape Colony. *sicca.*

**A. coniorita** *Hmps.* (5 f). Thorax greyish ochreous, somewhat reddish, abdomen greyish-brown. Forewing greyish ochreous, slightly tinged with red-brown. A distinct black streak below the base of the cell as far as the interior line which is double, undulate, excurved below the costal margin and above the inner margin. Coniform macula sometimes as a short black streak. Ring-macula and reniform macula small, pale, filled with dark. A black stripe before and between the two maculae. Exterior line undulate, a row of black dots behind it on the veins. Margin blackish-brown, obliquely inwards from below the apex to vein 5, then narrower to the anal angle. Hindwing brownish-white with a brown marginal line, marginal area somewhat brownish. Sometimes also the thorax and forewing are intensely reddened. 26 mm. East Africa. *coniorita.*

**A. elaeopis** *Hmps.* (5 f). Thorax dark brown, abdomen yellowish-brown. Forewing light red-brown. Interior line indistinct, double, almost punctiform. Coniform macula absent. Ring-macula and reniform macula small, dark, in a white ring and edged with black. Ring-macula outwardly somewhat pointed, extending almost to the reniform macula. Exterior line as a double row of black dots. Submarginal line absent. Hindwing whitish, with a dark lunar spot, streaks behind it on the veins. ♀ 30 mm. Ruwenzori. *elaepis.*

**A. mesosema** *Hmps.* Thorax red-brown, tegulae black, metathorax with a white spot. Abdomen pale brown, whitish at the base. Forewing greyish-brown, dusted dark. The basal half with red-brown spots. A black streak below the base of the cell. Interior line indistinct, undulate, edged with red-brown inside, oblique. Coniform macula as a short black streak. Ring-macula and reniform macula centred red-brown, edged with black. A black streak between them. Exterior line of black double dots only distinct at the costal margin. A pale submarginal line is hardly discernible. Hindwing purely white, brownish at the apex. ♀ 40 mm. Transvaal. *mesosema.*

**A. effracta** *Dist.* (5 f). Thorax reddish-brown, abdomen brownish ochreous. Forewing dark violettish-brown. The base at the costal margin brownish ochreous, like the median area at the inner margin and a diffuse oblique band from the apex to the inner margin. Traces of an undulate interior line. Ring-macula and reniform macula small, edged with black and connected by black; black behind the cell as far as the margin. Exterior line indistinct, formed by a row of dots on the veins. Before the margin indistinct brownish ochreous spots above the inner margin. The specimen figured shows the whole area above the inner margin light, not only the centre. Hindwing brownish ochreous. ♂ 30 mm. Transvaal. *effracta.*

**A. talda** *Schaus* (5 f). Thorax dark brown, abdomen lighter. Forewing reddish-brown, dusted dark. Interior and exterior lines hardly discernible. Ring-macula and reniform macula just as indistinct. A black streak between them and one behind it as far as the hardly recognizable submarginal line. Dark streaks at the margin between the veins. Hindwing of ♂ white, of ♀ darker. 24 mm. Cameroons, Sierra Leone. *talda.*

**A. ecstrigata** *Hmps.* (5 g). Thorax black, abdomen dark brown. Forewing brownish ochreous, tinged with dark red-brown especially at the costal margin and in the median area. Basal area purely brownish ochreous, fine black streaks in the marginal area on the veins and broader ones between. Interior line indistinct, double, undulate, filled with grey. Ring-macula and reniform macula small, edged with black, open above and below. Traces of a double exterior line. Black lunae at the margin. Hindwing purely white. ♂ 28 mm. Mashona Land. *ecstrigata.*

**A. melamesa** *Hmps.* Thorax red-brown, abdomen greyish-brown. Forewing grey, dusted with red-brown, blackish-brown at the costal margin except at the apex. Interior line double, blackish, filled with white, oblique, undulate. Ring-macula and reniform macula small, incompletely edged with black. A square black spot between them, 2 small black spots behind the reniform macula. An undulate dark median line from the cell to the inner margin. Exterior line indistinct, double, strongly excurved at the costal margin, with black double dots at the veins. A pale submarginal line is traceable. Hindwing white, somewhat brownish, fringe at the apex whiter. ♀ 26 mm. North Nigeria. *melamesa.*

**A. cinctithorax** (5 g) *Wkr.* Thorax red-brown with a broad black transverse band behind the rusty brown tegulae. Abdomen brownish ochreous. Forewing pale red-brown, dusted with blackish. Base and costal margin more brownish ochreous. Interior line formed of some double dots. The ring-macula is a small oblong black spot. Reniform macula grey, traversed by a black radial streak. Exterior line as a row of black dots. *cincti-thorax.*



A submarginal line is only marked by one spot each on its inner side at the costal margin and in the centre. Hindwing yellowish-white with dark marginal dots. ♂ 34 mm. Cape Colony.

*ustula*. **A. ustula** Hmps. Thorax dark red-brown, abdomen lighter red-brown. Forewing pale ochreous, tinged with fiery red except at the base, in the cell and below it as far as the interior line and the submedian fold. Inner-marginal area blackish except at the base. A fine black streak in the submedian fold as far as the interior line which is blackish, double, dentate, incurved as far as the inner margin. Ring-macula pale ochreous with a fine black central dot, outwardly pointedly extended to the reniform macula which is grey in the centre, black only on the interior side, and in an ochreous ring. An oblique dark median shadow proceeds from the lower cell-angle. Exterior line double black far excurved below the costal margin, then continued as an oblique row of black dots, ochreous dots behind it and black streaks on the veins. An ochreous dot at the apex. Hindwing hyaline ♂ 28 mm. East-Africa.

*catenifera*. **A. catenifera** Wkr. (5 g). Thorax greyish-brown with black scales, abdomen pale brown. Forewing greyish-brown, dusted dark, with a feeble black basal ray in the submedian fold. Interior line indistinct. Coniform macula oblong, black. Ring-macula and reniform macula edged with black and centred dark, close together and connected by a black streak. Exterior line finely dentate, indistinct. Submarginal line marked by a costal spot and black dots on the veins. Hindwing white with a brownish margin. ♀ 40 mm. West Africa.

*rhodopea*. **A. rhodopea** Hmps. (5 g). Body and forewing coloured as in *catenifera*. Interior line beginning with two black streaks at the costal margin, then finely dentate, projecting above the inner margin almost to the exterior line. Coniform macula absent. Ring-macula and reniform macula centred dark and edged with white, the former very elliptical. The dark median shadow below the cell is oblique. The exterior line is a row of double dots. Marginal area darker, distinctly lighter in the original figure. Hindwing brownish white with a central luna and a diffuse exterior line. ♂ 34 mm. Ruwenzori.

*megaplecta*. **A. megaplecta** Joann. In the antennae similar to the European *R. castanea* Esp. (Vol. III, p. 39, pl. 8 g), in the marking similar to *R. plecta* L. (Vol. III, p. 44, pl. 9 k). Thorax pinkish brown, abdomen grey. Forewing pinkish-brown, broadly lighter at the costal margin, below it the wing is yellowish-white as far as into the cell, where it is sharply interrupted. Beginning from the ring-macula the brightening becomes fainter and passes over into the ground-colour behind the reniform macula. A broad dark stripe at the lower cell-margin as far as the reniform macula and below vein 2. The small white ring-macula as well as the pinkish-white reniform macula are partly situate in this stripe. A greenish-yellow radial line behind the cell, similar short lines at vein 5, 6 and below vein 2. Exterior line of faint brown dots, uniformly bent, indistinct. Hindwing white, brownish at the apex. ♂ 38 mm. Réunion.

### 3. Genus: **Lycophotia** Hbn.

Scarcely different from *Agrotis*. All the 3 pairs of tibiae spined. Prothorax with a small tuft, abdomen cylindrical.

*muscosa*. **L. muscosa** Hbn.-Geyer. A most variably coloured species which was therefore given six more names. Tegulae green, thorax red-brown and blackish, abdomen brownish grey. Forewing green, dusted somewhat dark. Interior line white, undulate, somewhat brownish before it at the costal margin. Coniform macula as a black dot or streak. Ring-macula and reniform macula large, filled with the ground-colour, edged with black. The space between the two maculae is filled with dark. Exterior line very fine, white, sometimes only the white tips of the dentation are discernible. A large dark spot behind it at the costal margin, and sometimes traces of a light submarginal line. Hindwing purely white with an interrupted dark line. 30—40 mm. East and South Africa, Madagascar. — Some forms of it have been denominated: — **albifrons** Geyer. Forewing without the green shine. — **decipiens** Fldr. (5 g). Thorax violettish-brown, tegulae white with a black semicircle, thorax behind with white hair. Forewing grey with an interrupted rusty brown median band, the spots at the base, between the maculae and near the apex are more distinct. — **amatura** Wkr. (5 g) has an entirely black thorax. Forewing almost white, the spots deep black, a short white basal ray. The form is much smaller and may be a distinct species.

*ignetincta*. **L. ignetincta** Hmps. Thorax and abdomen whitish and fiery red, abdomen somewhat red-brown in the middle. Forewing likewise whitish and pale fiery red, feebly dusted brown. A small black dot below the cell, and a short oblique streak behind it. Some black scales below the costal margin near the base. The ring-macula is edged with black outside, the reniform macula on both sides; black between them. A red-brown spot near the apex at the costal margin. Distal area dusted brown, the margin itself pale fiery red with black marginal dots. Hindwing white, with a somewhat flesh-coloured tint. ♂ 30 mm. Transvaal.

*bitriangula*. **L. bitriangula** Hmps. (5 h). Forewing greyish red. Interior line indistinct, somewhat undulate, obliquely outward to the inner margin. Coniform macula marked by a black end-dot. One deep black spot each before the ring-macula and reniform macula. The maculae with light edges, inside reddish. The former V-



shaped, the latter with black dots outside. Median band and exterior line indistinct. The latter double, undulate. Hindwing white. 35 mm. Cape Colony. Our figure from an East-African specimen may belong to a closely allied species.

**L. isopleura** *Hmps.* (5 h). Body and forewing greyish-brown, costal margin and distal area darker. *isopleura*. Interior line double, undulate. Coniform macula as a black dot. Ring-macula and reniform macula edged with black, between them black. The former somewhat square, the latter strangulated in the middle. Median line undulate, exterior line double, undulate. Hindwing white. ♀ 30 mm. Mashona Land.

**L. melanephra** *Hmps.* Thorax pale bluish grey, abdomen greyish-white. Forewing bluish grey with some red-brown and black scales. Interior line fine, double, red-brown, undulate, with 2 black dots at the costal margin. Ring-macula small, round, white, edged with red-brown. Reniform macula large, black, edged with white and red-brown. Median line red-brown with a black dot at the costal margin. Exterior line fine, double, red-brown, dentate, with black dots at the veins. Submarginal line whitish, indistinct, edged with red-brown inside and outside. Hindwing purely white. 32—35 mm. Transvaal. *melanephra*.

**L. ecvinacea** *Hmps.* (5 h). Thorax leaden grey, reddish in the middle. Abdomen greyish-white. Forewing lead-coloured. Interior line only marked by a spot at the costal margin. Ring-macula and reniform macula indistinctly defined in violettish-red surroundings, a spot at the costal margin above the ring-macula. Exterior line indistinct, dotted, only 2 dots at the costal margin more distinct. Marginal area reddish-violet with dark streaks at the veins. Hindwing white. ♂ 38 mm. Cape Colony. *ecvinacea*.

**L. atrisparsa** *Hmps.* (5 h). Tegulae pale brown, thorax dark red-brown, abdomen lighter. Forewing whitish ochreous, tinged with violettish-red, especially the costal margin. Interior line undulate, indistinct, with black dots inside at the veins. Ring-macula and reniform macula indistinct, the latter edged with black, with a black spot towards the base. Exterior line dentate, indistinct. A black spot at the costal margin before the very indistinct submarginal line. Fringe black. Hindwing white, somewhat dark at the margin. ♂ 30 mm. East Africa. *atrisparsa*.

**L. fuscirufa** *Hmps.* Thorax and forewing dark red-brown. Somewhat less dark at the base and between the exterior and submarginal lines. Interior line undulate, oblique. Ring-macula and reniform macula with indistinct dark red-brown edges. A black streak in the cell before and between the maculae. Exterior line double, finely undulated. Submarginal line marked by the dark edge. Hindwing yellowish-white, edged darker in the ♀. 30 mm. East Africa. *fuscirufa*.

**L. perirrorata** *Hmps.* (5 h). Thorax dark ochre, abdomen lighter. Forewing dark ochre, densely dusted with black. Costal margin spotted black. Interior line indistinct, marked by black dots. Coniform macula merely a dot. Ring-macula and reniform macula centred black, with grey rings, edged with dark outside. Exterior line marked by black dots at the veins. Hindwing somewhat lighter than forewing. 34 mm. South Africa. *perirrorata*.

**L. postventa** *Hbn.-Geyer* (5 i). Thorax blackish-brown, abdomen violettish-brown. Forewing lilac. Ring-macula and reniform macula centred dark, with grey rings, edged with black, the latter macula with a grey median streak. A blackish spot between them extends to the distal margin. An oblique double line from the lower cell-angle to the inner margin. Exterior line marked by a row of black dots on the veins. Hindwing white, the ♂ with brown veins and marginal area. 50 mm. Numaqualand, Cape Colony. *postventa*.

**L. pudens** *Mab.* (5 i). Thorax greyish lilac, abdomen brownish ochreous. Forewing greyish lilac, dusted blackish, rusty red at the costal margin. Interior line double, extraangular in the cell and above the inner margin. Coniform macula represented by a red-brown streak. Ring-macula and reniform macula centred dark, edged pale, with red-brown around it. Exterior line double, with a double row of black dots behind it. Submarginal line whitish, a red-brown spot before it at the costal margin, and with a series of small red-brown spots outside. Hindwing white, veins and inner margin brownish. ♀ 40 mm. East Africa, Madagascar. *pudens*.

**L. oliveata** *Hmps.* (5 i). Thorax olive yellow and black. Abdomen pale ochreous brown. Forewing olive yellow, dusted black, especially in the basal and marginal areas often intensely black. Interior line irregular, dentate, angled inwards at vein 1. Coniform macula small, black. Ring-macula and reniform macula edged with black. Exterior line strongly dentate. Submarginal line pale, indistinct, with dark sagittal blotches inside. Hindwing whitish ochreous, somewhat brownish. ♂ 40 mm. South Africa. *oliveata*.

**L. leucoplaga** *Hmps.* (5 i). Thorax red-brown with whitish scales, abdomen blackish-brown. Forewing red-brown, dusted somewhat dark. Costal margin and marginal area greyish-white. Interior line marked by dark dots at the veins. Coniform macula and ring-macula absent. The reniform macula is a faded dark spot. Before it there is a square white spot and streak to the costal margin. The exterior line begins as a white streak at the costal margin, then black dots on the veins. Submarginal line grey, indistinct, apex white. Hindwing pale brown, lighter at the base. A lunulate spot at the cross-vein. small dark streaks behind it at the veins. ♀ 25 mm. Ruwenzori. *leucoplaga*.

**L. viridis** *Hmps.* Thorax red-brown with grey hair, abdomen brown. Forewing sap-green, dusted dark brown. The basal half in the costal area and cell white. Interior line black, white inside, undulate. Coniform



macula marked black at its end. Ring-macula white, laterally edged with black. Reniform macula with a brown centre, bordered inside with an undulate white line, outside and below by black dots. A black quadrangle between the maculae, and a spot above it at the costal margin. An oblique indistinct median line from the lower cell-angle. Exterior line whitish, dentate, with black dots at the veins. Submarginal lines fine, whitish, with some black spots inside. Hindwing pale brown. ♀ 32 mm. Nigeria.

*atrisigna.* **L. atrisigna** *Hmps.* Thorax violettish-grey, abdomen whitish-brown. Forewing violettish-grey with some yellowish at the base. Fine black streaks in the base of the submedian fold and in the marginal area between the veins. Interior line indistinct, double, dentate, with some yellow scales. Ring-macula and reniform macula small, grey, edged with yellow, incompletely surrounded by black. An elongate black spot is between them. A dentate exterior line is marked, yellow scales behind it at the costal margin. Hindwing white, fringe dark at the costal margin. ♂ 34 mm. Natal.

*palmistarum.* **L. palmistarum** *Joann.* Thorax red-brown with a slight green reflection. Abdomen greyish-brown, anal tuft greyish-yellow. Forewing pale greenish-yellow, sometimes dusted red-brown. Costal margin black. Interior line white, notched, vertical, projecting more distally below vein 1, edged with black on both sides, especially broad inside. Coniform macula thickly black, sometimes in darkened surroundings. Ring-macula edged with white, with a brown centre. Reniform macula the same, constricted outside, sometimes almost divided. Both the maculae on a dark radial stripe. Exterior line about parallel to the distal margin, dentate, white, finely edged with black. A black spot is behind it at the costal margin, below this spot red-brown as far as the submarginal line which is fine, notched, the margin behind it lighter. Hindwing greyish-brown. 36 mm. Réunion.

#### Subfamily: **Hadeninae.**

Regarding the characters of this group we can only repeat what has been said at the corresponding place in the other faunae. Characteristic are the hairy eyes. The middle and hind tibiae are spineless. Moreover, the vestiture of the thorax and abdomen is rather varied; palpi and antennae variable, the frons rarely with a projection. The larvae mostly feed on low plants.

#### 1. Genus: **Haplocestra** *Auriv.*

Proboscis normal, palpi porrect, the second joint hairy in front. Frons with a crescentiform projection. Forewing with an areole. Vein 5 of hindwing feebly developed, from the centre of the cross-vein. Thorax with a feeble tuft in front and behind. Also the first abdominal segment with a feeble tuft.

*similis.* **H. similis** *Auriv.* corresponds so well to the Indian *Discestra arenaria* *Hmps.* that we may repeat its description. Different are the unicoloured, not dark-ringed tarsi. Antennae of ♂ finely ciliated. Expanse: 24—25 mm. Cape Verde Is. — *arenaria* is whitish on the forewing, dusted with light and dark brown. Interior line double, undulate; exterior line formed of pointed lunae. Submarginal line angled at veins 3 and 4, excurved at the anal angle. Coniform macula moderately large, edged with black, ring-macula and reniform macula centred brown with a black edge. Hindwing white.

#### 2. Genus: **Craterestra** *Hmps.*

Proboscis and palpi as in *Haplocestra*. Frons with a flattened conical projection. Abdomen with a series of dorsal tufts. Type: *lucina* *Drc.* from Mexico.

*media.* **Cr. media** *Wkr.* (5 i). Thorax dark brown, abdomen brownish ochreous, forewing dark brown; brownish ochreous below the cell, before the interior line, and in the marginal area. Interior line light, strongly extra-angular above the inner margin. Coniform macula scarcely prominent. Ring-macula and reniform macula edged with black. Median line indistinct, undulate, exterior line dentate, indistinctly double. Submarginal line dentate, dark behind it except at the apex, with black marginal dots. Hindwing white or somewhat brownish. 32—34 mm. Mashona Land, besides widely distributed in India.

*semifusca.* **Cr. semifusca** *Hmps.* (5 g). Thorax dark brown, abdomen lighter. Forewing greyish-brown, the costal margin as far as the submarginal line and the cell as far as the exterior line dark brown. Dark brown is also the margin behind the submarginal line except at the apex. Interior line black, notched. Ring-macula and reniform macula small, pale brown, with a darker centre and margin. Exterior line with short streaks on the veins. Submarginal line light, somewhat excurved in the middle and at the ends. Hindwing white, margin somewhat brownish. ♀ 28 mm. Uganda.

*subvelata.* **Cr. subvelata** *Wkr.* Thorax dark brown, abdomen greyish-brown. Forewing dark red-brown. A black line at the base. Interior line dark, undulate, straightly obliquely outwards. Coniform macula distinct, black. Ring-macula and reniform macula indistinctly edged dark. Median line undulate, dark, indistinct. Exterior line dentate, distinct. Submarginal line light, with black sagittal blotches inside. Hindwing brown, lighter at the base, fringe white. 34—36 mm. St. Helena.



**Cr. definiens** *Wkr.* (5 k). Thorax and forewing reddish-brown. Touches of rusty red in the cell and behind it, as well as at the inner margin. Interior line dark, double, undulate. Coniform macula thick, black. Ring-macula white with a dark centre, reniform macula large, grey; both the maculae edged with black. An indistinct median shadow. Exterior line of light lunae. Submarginal line yellowish-white with dark sagittal inside. Hindwing ochreous, blackish in the distal half, fringe white. 32—35 mm. South-West, South, and East Africa.

**Cr. sufficiens** *J. & T.* Thorax pale brown, abdomen whitish. Forewing greyish-white, dusted pale brown. The marking is blackish, indistinct. Interior line double, vertical, undulate. Ring-macula large, almost connected with the coniform macula which is short and broad. Reniform macula open above, 8-shaped. Exterior line only double at the costal margin, somewhat notched. Marginal line black, spotted. Hindwing diaphanous white, brownish at the margin, with a distal row of spots. ♂ 34 mm. Tanganyica.

### 3. Genus: **Scotogramma** *Smith.*

Antennae of ♂ ciliated, and also the other characters as in the preceding genera. Frons with a round projection and a vertical edge. Abdomen with a dorsal tuft only at the base and besides with lateral hair. Type: *submarina* *Grote* from America.

**Sc. submedianata** *Hmps.* (5 h). Thorax brownish-grey, abdomen brownish-white. Forewing light brownish-white. A black radial streak below the cell. Interior line indistinct, oblique, undulate. Ring-macula and reniform macula very indistinctly edged with brown. Exterior line double, notched, indistinct. The light submarginal line is formed by dark spots on its inner side and by the dark distal margin. Hindwing diaphanous white with a fine brown marginal line. ♂ 34 mm. East Africa.

### 4. Genus: **Polia** *O.*

Antennae differently shaped in the two groups. Frons without a projection. Abdomen only with a basal tuft. Chest and tibiae long-haired. Veins 6 and 7 of the hindwing sometimes on a short stalk. The genus is better known than *Mamestra* *O.* Beside the species of *Mamestra*, *HAMPSON* has united also the *Dianthoecia* *Bsd.* and various smaller groups with *Polia*. Type: *cappa* *Hbn.* from Europe. The generic name was changed into *Miselia* in the *Novit. Zool.*

I. Antennae of ♂ shortly bipectinate, serrate at the tips.

**P. rufifusa** *Hmps.* Body and forewing whitish, dusted pinkish-brown and dark brown. The marginal area is broadly dark brown as far as vein 2. A small blackish-brown spot below the base of the cell. Interior line double, undulate, indistinct, blackish-brown; also the space before it blackish-brown. Coniform macula large, blackish-brown, faded. The ring-macula is a small faded spot, a larger one is in the cell-end, a small blackish-brown spot at the lower cell-angle. Exterior line indistinct, double, dentate, edged with dark outside as far as vein 2. Submarginal line white, a blackish-brown spot behind it behind the cell. Light marginal lunae. Hindwing whitish-brown, darker at the margin. ♂ 30 mm. Central Africa.

II. Antennae of ♂ ciliated.

**P. consanguis** *Guen.* (5 k). Thorax dark red-brown, abdomen brown. Forewing brownish ochreous. Dark red-brown at the costal margin and between the interior and exterior lines. Dark red-brown also at the margin behind the light submarginal line. Interior line double, undulate, irregular, filled lighter. Coniform macula small, ring-macula and reniform macula edged with black. Exterior line brownish ochreous, dark red-brown behind it at the costal margin. Hindwing diaphanous white, brownish at the margin. 30—36 mm. West, South, and East Africa. The range extends to Australia.

**P. fuscirufa** *Hmps.* (5 i). Thorax dark red-brown, abdomen brown. Forewing lighter or darker red-brown. Interior line light, undulate. Coniform macula absent, ring-macula and reniform macula feebly edged with light. Exterior line indistinct, black, dentate. Submarginal line light, edged with dark on both sides. Hindwing brown, somewhat lighter at the base. 34—36 mm. East Africa, Mashona Land.

**P. venata** *Hmps.* (5 k). Thorax blackish red-brown, abdomen dark brown. Forewing dark red-brown with darker spots, the veins white. Interior line ochreous, rather straight, obliquely outward. Coniform macula long, edged with black. Ring-macula and reniform macula ochreous, centred dark brown. An indistinct black median shadow from the lower cell-angle. Exterior line ochreous, curved behind the cell, then rather straight obliquely inwards. Darker behind the light submarginal line. Hindwing whitish at the base, brownish in the marginal area. ♀ 40 mm. East Africa.

**P. proleuca** *Hmps.* Thorax dark greyish-brown, abdomen lighter. Forewing pale greyish-brown, dusted dark. Costal-marginal area milky white, dusted dark at the costal margin. Interior line black, edged with



grey inside. Ring-macula and reniform macula milky white, centred dark. the reniform macula somewhat triangular. Exterior line faded black. Submarginal line brownish ochreous, with blackish-brown spots inside. Hindwing white. ♀ 34 mm. East Africa.

- atrivena*. **P. atrivena** Hmps. (5 k). Thorax dark red-brown, abdomen lighter. Forewing red-brown. Interior line double, dark, uniformly bent. Coniform macula absent. Ring-macula and reniform macula blackish, the latter edged with white. Exterior line formed of a double dark dentate line, scarcely recognizable. Submarginal line shadow-like. Hindwing greyish-brown, whitish hyaline at the base. 32—40 mm. East Africa.
- dipterigidia*. **P. dipterigidia** Hmps. (5 k). Thorax dark brownish-red, abdomen lighter. Forewing like the thorax. Interior line blackish, double, angled in the middle, and there a short streak basad. Ring-macula and reniform macula edged with black, inside with some yellow scales. Exterior line light, bordered inside with black spots. Submarginal line of ochreous dots, the lowest of which is remarkably large. Marginal dots black and yellow, hindwing greyish-brown, hyaline at the base. 35—40 mm. Cape Colony, Nyassa Land.
- deprivata*. **P. deprivata** E. Prout is very closely allied to *dipterigidia*. Ground-colour more reddish without yellow shadows in the interior aera, without a pale spot in the anal angle. Reniform macula more distinct, with a reddish centre, dark brown at the lower end. The ring-macula is a dark ring, the coniform macula is absent. Lines double, dark, filled with reddish-yellow. Submarginal line pale, dentate, edged with dark inside, with dark streaks outside. Hindwing white, darker at the apex, with traces of a dark exterior band. 44 mm. S. Thomé.
- mesoglauca*. **P. mesoglauca** Hmps. (5 k). Thorax dark reddish-brown, abdomen greyish-brown. Forewing dark reddish-brown, the median area whitish. A fine black streak below the base of the cell as far as the interior line which is somewhat double, black, filled with white. The large coniform macula and the two others are edged with black, filled with white. The space between the latter can be darker. The exterior line behind the cell is inserted semicircularly, widely convex above and below it, incurved again in the submedian fold. Submarginal line ochreous, bordered inside with dark spots. Hindwing dark brown, lighter at the base. ♀ 35 mm. South Africa. 1 ♂ in the Berlin Museum is much lighter, brownish ochreous, somewhat similar to the European *Mam. trifolii* Rott., whereby the basal streak is very distinct.
- speyeri*. **P. speyeri** Fldr. (6 a). Thorax lustrous brownish black, abdomen greyish-brown. Forewing more or less violettish-black, mostly brownish ochreous at the inner margin. Interior line double, black, bent forward below the cell, projecting pointedly above the inner margin. Coniform macula large, black. Ring-macula small, edged with black. Reniform macula narrow, yellow, with a brown ring inside, edged with black, its whole surroundings deep black. Exterior line double, black, dentate, from the edge of the shadow around the reniform macula to the inner margin. Submarginal line yellow, very dentate, with a black spot inside behind the cell. Hindwing purely white, brownish at the costal margin. In dark specimens the whole marking may disappear except the light reniform macula. 40—46 mm. South Africa.
- maura*. **P. maura** Saalm. (6 a) resembles a small *speyeri*. Thorax deep brownish black, abdomen light brownish, the hair on the first segment whitish. Forewing deep brownish black with a scarcely prominent black marking. Interior line double, undulate, straight, obliquely outward, adjoining the deep black coniform macula. Ring-macula edged with black, somewhat pointed outwardly. Reniform macula edged with wood-colour, open or pointed above. The dentate exterior line is followed inside by an anteriorly broader black band. A submarginal line is hardly traceable. Fringe black. Hindwing white in both sexes, brownish at the apex. 28—32 mm. Madagascar.
- cuprescens*. **P. cuprescens** Hmps. (6 a). Thorax dark copper-red, abdomen greyish-brown. Forewing lighter copper-brown, darker only in the median area. Interior line black, oblique. The coniform macula is a black streak to the exterior line. Ring-macula and reniform macula large, edged with black, filled with copper-brown. Exterior line dentate, black, slightly compressed behind the cell. Submarginal line light, light red-brown before it, darker behind it. Hindwing white. ♂ 34 mm. Mashona Land.
- mesomelana*. **P. mesomelana** Hmps. (6 a). Thorax reddish black, abdomen brownish ochreous. Forewing brownish ochreous, the costal margin as far as the exterior line and the distal margin dark brown. Interior line indistinct, double, undulate, filled with light. Coniform macula absent. Ring-macula and reniform macula large, edged with blackish. Exterior line dentate, slightly inserted behind the cell, lighter behind it. Hindwing white, darker in the ♀. 32—34 mm. South Africa.
- geraea*. **P. geraea** Hmps. Body and forewing greyish-white, dusted brown. The veins with fine dark streaks. A bent black streak below the base of the cell. A double interior line is traceable, angled at vein 1. Coniform macula narrow, edged with black. Ring-macula and reniform macula with fine white rings, edged with black, the former elliptic. The exterior line begins with 2 black dots at the costal margin, then it is replaced by black streaks on the veins. The submarginal line is formed by fine brown dentate spots. Behind it also brown. Hindwing white, brownish at the margin, with dark veins. ♂ 32 mm. East Africa.
- fulvilinea*. **P. fulvilinea** Hmps. (6 a). Thorax and forewing light chocolate, the veins somewhat grey. Interior line oblique, slightly excurved in the middle, greyish-white, edged with dark outside. Coniform macula absent, the



ring-macula and reniform macula oblique, oblong, arranged V-like, open above, edged with white. Exterior line indistinct, edged with dark inside, almost parallel to the distal margin like the light submarginal line, too. Hindwing white, more (♀) or less (♂) brownish at the margin. 32—35 mm. South Africa.

**P. viridirufa** *Hmps.* Thorax pale red-brown, abdomen lighter. Forewing whitish, tinged with golden *viridirufa*. green. Interior half at the base red-brown. Interior line red-brown, undulate, interrupted, indistinct. Dark brown from the centre of the costal margin to the submarginal line and downward to vein 2; a similar spot in the middle of the inner margin. Ring-macula and reniform macula white, centred somewhat red-brown in the dark brown area. Exterior line indistinct, white. Submarginal white dots, edged with red-brown outside, the row being excurved at veins 3 and 4. Hindwing copper-brown, lighter at the base. ♀ 32 mm. East Africa.

**P. poliastris** *Hmps.* (6 a). Thorax and forewing white with a greenish reflection. Black spots at the *poliastris*. base. Interior line composed of large white lunae, edged with dark outside. Exterior line black, sharply notched, very much incurved in the submedian fold. The whole median area is often blackish; if it is light, there is a black patch in the submedian fold. Only the reniform macula is present as a black luna, with a distinct white dot below. A black streak outside at veins 2 and 5, thick black marginal dots. Hindwing white, brownish at the margin, browner in the ♀. 28—30 mm. South-West and East Africa. — In *capensis* *Strd.* the otherwise *capensis*. green places are light brown.

**P. renisigna** *Wkr.* (= *praetermissa* *Wkr.*, *depulsa* *Wkr.*, *inculta* *Wkr.*, *ficita* *Wkr.*, *contracta* *Wkr.*, *renisigna*. *servilis* *Wkr.*) (6 b). As the species is rather variable, it has been given six more names by WALKER; another synonym is *submoesta* *Möschl.* enumerated by HAMPSON among the "unrecognised species". Thorax dark red-brown, abdomen lighter. Forewing dark red-brown. Interior line double, black, very convex, somewhat lighter before it. Coniform macula deep black, broad, sometimes almost touching the ring-macula. The latter and the reniform macula oblong, placed V-like, light, mostly with a darker brown centre, in a dark area which extends from before the ring-macula to the exterior line. Reniform macula below with a short sharp inward point. The median area narrows down towards the inner margin. The yellow submarginal line is fine, interrupted, with dark spots on its inside, the area as far as the exterior line mostly lighter, excepting a dark blotch between veins 3—5, sometimes very light below it. Margin dark red-brown. Hindwing dark brown, fringe light. 28—30 mm. South and East Africa.

### 5. Genus: **Odontestra** *Hmps.*

Frons with a rounded projection and a small horn-plate below it. Palpi somewhat longer than in *Polia*. Abdomen only tufted on the first segment. Forewing short and broad. Veins 6 + 7 or 3 + 4 may be stalked in the hindwing. Type: *vittigera* *Hmps.*

**O. vittigera** *Hmps.* (6 b). Thorax violettish-black, abdomen somewhat lighter. Forewing violettish- *vittigera*. black at the base, lighter behind it as far as the double, slightly incurved interior line. Coniform macula long, narrow, edged with black. The ring-macula is a yellowish-white dot. Reniform macula large, yellowish-white, with a brown centre, the surroundings very dark. The middle third at the inner margin is whitish. Exterior line of black lunae, edged with yellow outside. A white submarginal line only at the apex, long black sagittae below it between the veins, bluish-grey before them as far as the exterior line. Hindwing white, brownish at the costal margin, quite brownish in the ♀. 30—32 mm. South Africa.

**O. conformis** *Hmps.* Body greyish red-brown. Forewing leaden grey with red-brown. Interior line *conformis*. reddish-white, edged with blackish-brown outside. Coniform macula large, dark red-brown, edged with black. Ring-macula and reniform macula grey, large, edged with black, the former oblique, the latter open above. Exterior line indistinctly double, the interior part of it black, dentate. A submarginal row of white dots, edged with blackish-brown inside. Hindwing pale red-brown. ♀ 38 mm. Cape Colony.

**O. albivitta** *Hmps.* (6 b). Thorax dark chocolate brown. Abdomen brownish ochreous. Forewing choco- *albivitta*. late-brown. Interior line yellowish, straight, fine. Coniform macula large, black, a broad white stripe above it at vein 2 almost to the margin. The ring-macula is a yellowish-white dot or absent. Reniform macula edged with white, with an inward dent below. Exterior line quite indistinct. White submarginal dots with brown spots inside. The space before and behind the reniform macula is darker. Hindwing whitish ochreous, somewhat darker at the margin. ♂ 30 mm. East Africa.

? **O. mixta** *Pagenst.* (6 b). Thorax olive brown, abdomen yellowish-white. Forewing also yellowish- *mixta*. white. Interior band olive brown, uniformly bent. Median band broad at the costal margin, pointed at the inner margin, incurved in the cell. Before it a row of olive brown dots, behind it a strongly notched line. Marginal area olive brown with an interrupted yellowish-white submarginal line. Blackish marginal lunae edged with light inside. Hindwing whitish, darker at the margin. ♀ 28 mm. Madagascar.

**O. avitta** *Fawc.* (6 a). Body and forewing pinkish-brown, nut-brown in the median area. Interior line *avitta*. black, excurved in the middle. Coniform macula short, thick, black. No whitish ochreous band at the centre



of the inner margin, but a black line near the base. Ring-macula and reniform macula large, pink, edged with dark. Exterior line thick, black. Hindwing white, yellowish at the apex. ♂ 30 mm. East Africa.

*goniosema*.

**O. goniosema** *Hmps.* Thorax greyish-brown, abdomen ochreous. Forewing brown, tinged with grey. A reddish ochreous band at the centre of the inner margin, edged with black above. Interior line double, black, filled with whitish ochreous, oblique. Ring-macula small, pale brown, with a white ring, edged with black. Reniform macula whitish, incompletely edged with black, centred brown, with a dent at the median vein. The maculae in blackish surroundings. Exterior line double, black, filled with white, very concave below vein 2. Submarginal line whitish, with black triangles inside. Hindwing brownish-white. ♀ 28 mm. Nigeria.

## 6. Genus: **Hadena** *Schrk.*

It differs little from *Polia*. The thorax is of a somewhat more square shape. Antennae of ♂ ciliated. Abdomen with a dorsal tuft at the base and with lateral hair. Forewing with a rather pointed apex. Type: *reticulata* *Vill.* from Europe.

*bulgeri*.

**H. bulgeri** *Fldr.* (6 b). Thorax brownish-black, abdomen brownish ochreous. Forewing reddish-brown, the basal area brownish-black, the veins in the median area yellowish-white. Interior line black, double, somewhat undulate, almost straight. Coniform macula short, broad, edged with black. Ring-macula and reniform macula parallel, oblong, centred somewhat dark, edged with yellowish-white. The space around the maculae is a little darker. Exterior line double, notched. Submarginal line yellowish-white, with large dark spots before it. Hindwing purely white, the ♀ somewhat darker at the margin. 30—36 mm. South and East Africa.

*montana*.

**H. montana** *Aur.* is somewhat like *bulgeri*. Thorax and forewing blackish-brown. Ring-macula yellowish-grey, surrounded by black. Reniform macula yellowish, white in front and behind. Submarginal line of yellow spots. Hindwing light, brownish at the margin. ♀ 36 mm. Kilimandjaro. It may be a mountain-form of *bulgeri*.

*caelebs*.

**H. caelebs** *Grünbg.* (6 b). Thorax dark red-brown. Forewing little lighter. The interior line is mostly only a light luna before the luniform black-edged coniform macula, the ring-macula and reniform macula have a small dark centre and are edged with black. Reniform macula somewhat pointed below, bent outward. Exterior line double, filled with a somewhat lighter yellow, almost straight as far as vein 2, slightly pressed in, then angled, obliquely inwards, only close above the inner margin straight on again. White dots at the points of the exterior line. Submarginal line distinct, undulate, black outside, yellowish inside. Hindwing pale brown, hyaline white at the base. 30—35 mm. South-West Africa.

*schönheiti*.

**H. schönheiti** *Strd.* (6 c). Ground-colour somewhat darker than in *caelebs*. Interior line only distinct in one of 3 specimens, double, formed of 3 lunae. Coniform macula as in *caelebs*. From its apex a thick black streak extends to the exterior line which is double, black, filled with yellowish, straight behind the cell, not pressed in, rounded at vein 4, with some white dots at its points. Submarginal line of yellow spots, distinct only in its anterior part. The somewhat dark margin of the hindwing is narrow. ♂ 28—30 mm. East Africa.

*vilis*.

**H. vilis** *Gaede* (6 c) resembles a light *caelebs*. Thorax dark brown, forewing brownish ochreous. A short black basal ray on vein 1. Interior line double, dark brown, filled with light. Coniform macula light, short, edged with dark. Ring-macula and reniform macula light brown, with a dark centre and margin, the former oblong, the latter almost 8-shaped. Dark between the maculae and behind them as far as the exterior line which is shaped as in *schönheiti*, behind it black double dots and some white dots. Submarginal line light, somewhat darker behind it. Hindwing whitish hyaline, somewhat darkened at the margin. ♂ 28—30 mm. East Africa.

*camerunicola*.

? **H. camerunicola** *Strd.* Dark brown, rather indistinctly marked, compared by the author with *Acontia trista* *Snell.* A deep black, narrow, irregular band from the base at the inner margin to the centre of the distal margin. Leaden grey before and behind it. A row of brownish-yellow dots before the margin. Reniform macula light, open above. Hindwing white, only with a dark marginal line. Cameroons.

## 7. Genus: **Chabuata** *Wkr.*

Prothorax with a triangular tuft, abdomen with a basal tuft and some lateral hairs. Antennae of ♂ serrate and tufted. Type: *ampla* *Wkr.* from Brazil.

*amoeba*.

**Ch. amoeba** *Hmps.* (6 c). Thorax dark brown, abdomen brownish ochreous. Forewing greenish-yellow, dusted dark. Interior line dark brown, undulate, slightly bent. Coniform macula as a short black streak. Ring-macula and reniform macula white, centred and edged with brown. The reniform macula forms a large luna with pointed ends. Both the maculae are situate in a large brownish-black area extending to the costal margin near the apex. Below this spot a median and exterior line. A light submarginal line is edged with dark on both sides. Hindwing dark brown. ♀ 32 mm. East Africa.



**Ch. rufilinea** *Hmps.* (6 e) is quite differently marked. Body and forewing dark yellow, dusted somewhat *rufilinea*. reddish-brown. The 3 lines are red-brown. The interior one uniformly bent, the exterior one angled at the costal margin, the submarginal one undulate, parallel to the distal margin. Besides a feeble streak at the cross-vein. Hindwing brownish-yellow. ♂ 30 mm. Rhodesia.

### 8. Genus: **Hyssia** *Guen.*

Palpi erect, also the short third joint with a small hair-tuft in front. Antennae of ♂ finely ciliated. Tibiae long-haired. Abdomen with a tuft on the first segment and lateral hair-tufts. Type: *cavernosa* *Ev.* from Europe.

**H. rufimixta** *Hmps.* Body dark brown with some whitish. Forewing dark brown with leaden grey *rufimixta*. and reddish-brown scales. Interior line black, edged with reddish-brown inside, intro-angular in the submedian fold. Coniform macula edged with black and connected with the exterior line by a spot. Ring-macula and reniform macula large, greyish-brown and red-brown, the latter extending to below the cell. Exterior line black, red-brown outside, dentate. Submarginal line white, with brown spots inside. Hindwing white, veins and margins dark. ♀ 34 mm. East Africa.

**H. pallidicosta** *Hmps.* Thorax grey with red-brown scales. Abdomen light reddish-brown. Forewing *palli-* grey with red-brown places, the veins white. Costal-marginal area white and black, black below the base of *dicosta*. the cell. Interior line fine, beginning with a black oblique streak at the costal margin, then pale and bent. Ring-macula small, white, elliptical. Reniform macula narrow, white and red-brown, dark brown behind it as far as the exterior line which is black, with a black spot at the costal margin. An undulate submarginal line is marked by black scales. Hindwing pale reddish-brown. ♀ 34 mm. East Africa.

### 9. Genus: **Eriopygodes** *Hmps.*

Third palpal joint porrect, thorax only with hair without scales. Abdomen only with lateral hair without the dorsal tuft. Type: *imbecilla* *F.* from Europe.

**E. albipuncta** *Gaede* (6 c). Body greyish-brown. Forewing yellowish-brown, densely dusted dark brown. *albipuncta*. Interior line indistinctly double. Coniform macula absent. Ring-macula and reniform macula faded, orange with a brown centre, reniform macula with a white dot below. Exterior line single, little bent. The median area is somewhat darker than the rest, only behind the undulate submarginal line it is darker again. Hindwing pale greyish-brown, lighter at the base. 23—26 mm. East Africa.

### 10. Genus: **Xylomania** *Hmps.*

Palpi short. Tegulae angled on the sides. Abdomen with a hair-tuft on the first segment. Antennae of ♂ ciliated in the Ethiopian species. Type: *hiemalis* *Grote* from Canada.

**X. norma** *Saalm.* (6 c). Thorax dark red-brown, abdomen brownish ochreous. Forewing reddish-brown, *norma*. lighter at the base as far as half to the interior line. Interior line white, undulate, obliquely outward, slightly bent, edged with black outside. Coniform macula absent or indicated by a small reddish-yellow spot. Ring-macula and reniform macula united into a V-like figure, rusty red with a white streak below. Exterior line slightly notched, situate far outside behind the cell, black and white. Behind it near the apex a dark triangle and then a light stripe. Margin almost black with a white streak at vein 4. Hindwing brownish, fringe light. 28 mm. Betsileo.

**X. natalensis** *Blr.* (6 d). Body brownish-white, tegulae with 3 dark lines. Forewing very pale olive *natalensis*. brown. A short black basal streak below the cell. Interior line indistinct, double, undulate, ring-macula and reniform macula light, united into a V-like figure, situate in a dark red-brown area. Exterior line marked by an incomplete double row of black dots. Margin distinctly dark brown. Hindwing dark brown, lighter at the base. ♀ 32 mm. Natal, East Africa.

**X. nigricincta** *Gaede* (6 d) is somewhat similar to the European *X. conspicillaris* *L.* Thorax bluish-grey, *nigricincta*. abdomen greyish-brown. Forewing greyish-brown. A fine black basal streak in the submedian fold. Interior line fine black, strongly notched, situate relatively far outside, touching the horizontal ring-macula. Coniform macula shaped like the ring-macula. Reniform macula slightly concave inside in the middle, ring-macula a little open above. All 3 edged with black, filled with bluish-grey. Median line brown, strongly bent inwards, beginning below the reniform macula. Exterior line marked by double black dots. Rusty brown spots before the margin. Hindwing white, somewhat hyaline, brownish at the margin. ♀ 30 mm. East Africa.

11. Genus: **Brithys** Hbn.

The genus has been dealt with already in Vol. II, p. 93. It differs from the preceding genera in the feeble proboscis. Apex of forewing strongly rounded. Besides, the thorax is smoothly scaled, the abdomen exhibits a tuft only at the base.

*pancratii.* **B. pancratii** Cyr. This species having been dealt with in Vol. II, p. 93, pl. 20 h. is very common also throughout Africa inclusive of Mauritius and Madagascar.

*russoi.* **B. russoi** Strd. resembles *pancratii*. At the inner margin of the forewing a deep black radial line extends to below the base of vein 2. Interior line also deep black, strongly notched, mostly only distinct in its anterior part. Exterior line fine black, sometimes double and filled with grey, strongly excurved behind the cell. Reniform macula composed of 2 light streaks and 2 reddish-brown ones, incompletely edged with black. Two rows of white dots before the distal margin. Hindwing white. Congo.

12. Genus: **Aspidifrontia** Hmps.

Proboscis feeble, palpi short. Frons with a disc-shaped projection with a raised margin. Antennae of ♂ ciliated. Thorax with hairs and scales. Abdomen with a tuft at the base. Type: *semipallida* Hmps.

*radiata.* **A. radiata** Hmps. (6 d). Thorax red-brown, abdomen brownish ochreous. Forewing brownish ochreous at the costal and inner margins, the rest red-brown. White below the cell and vein 2, white blotches above vein 2 near the margin and behind the cell to the apex. Ring-macula quite narrow, edged with black, filled with brownish ochreous, extending to the reniform macula which is a white-edged strongly curved luna. Exterior line and submarginal line scarcely traceable. Hindwing milky white, brownish at the margin. 30 mm. East Africa.

*abyssinica.* **A. abyssinica** Hmps. Antennae of ♂ shortly dentate and ciliated. Thorax dark red-brown, abdomen lighter. Forewing red-brown, darker brown in the basal area and at the costal margin. Interior line fine, brown, oblique. Reniform macula finely edged with dark brown. Exterior line also feeble. Submarginal line undulate, red-brown. Hindwing white, veins and costal-margin reddish-brown. ♂ 44 mm. Abyssinia.

*semipallida.* **A. semipallida** Hmps. (6 d). Thorax blackish-brown, abdomen brownish ochreous. Forewing blackish-brown, only the cell and the space above it ochreous. The costal margin itself again darker, especially towards the apex. A black spot at the lower cell-angle. A dentate and oblique exterior line may be indicated. The whitish submarginal line is indistinct. Black and white dots at the margin. Hindwing yellowish-white, darker at the apex. 30—34 mm. Mashona Land, Togo.

*glauescens.* **A. glaucescens** Hmps. (6 d). Thorax dark brown, abdomen greyish-ochreous. Forewing greyish-white, with an intense violet gloss. Interior line dark rusty brown, with extremely strong dentations, united with the coniform macula, but not always distinct as far as the costal margin. Reniform macula feebly edged with red-brown, forming a luna with inward points. Exterior line double, very fine black, undulate. Submarginal line whitish, dark red-brown behind it. Hindwing white. 27—32 mm. Mashona Land, Transvaal, Cameroons.

*contrastata.* **A. contrastata** E. Prout. Thorax brownish-grey. Forewing silvery grey. Base, marginal area and reniform macula brownish ochreous. Costal-marginal area almost to the apex dark red-brown. Interior line black, finely dentate, edged with light inside, almost vertical. Coniform macula edged with black. Ring-macula indistinct, oval, red-brown. Reniform macula red-brown inside, blackish outside, paler before it. A dark median shadow in the lower half of the wing. Exterior line double, filled with light, almost vertical near the costal margin and above the inner margin, obliquely inward between. Submarginal line red-brown, strongly notched below the centre, edged with light outside, margin darker. Hindwing brownish white. ♀ 33 mm. Lufira R. (Congo District).

*rufescens.* **A. rufescens** Hmps. (6 d). Thorax light red-brown, abdomen lighter. Forewing light red-brown. The interior line is marked by a black spot at the lower cell-margin and above the inner margin. A dark dot is sometimes at the cell-end. The exterior line is formed of distinct white dots on the veins, edged with black dots on both sides. Hindwing whitish, feebly brownish pink at the margin. 32 mm. Mashona Land, Transvaal.

*pulverea.* **A. pulverea** Hmps. Thorax red-brown, abdomen lighter. Forewing grey, dusted reddish and black. Traces of a double slightly bent interior line, the two black branches being well separated. Exterior line indistinct, dark, black streaks behind it on the veins. Hindwing whitish. 22—26 mm. Nigeria.

13. Genus: **Diaphone** Hbn.

Proboscis feeble, palpi very short, frons with a round projection. Antennae of ♂ serrate and ciliated. Thorax with dense woolly hair, and two round pads of tufts behind. Type: *eumela* Stoll.



**D. eumela** Stoll (= *elegans* F., *sylviana* Stoll, *evidens* Guer.) (6 e). Thorax grey with 6 orange spots *eumela*, which are often indistinct. Abdomen blackish-brown with orange bands. Colouring of forewing most variable, in the ♂ often all white, the distal margin narrowly grey, the inner margin somewhat grey. The grey colour mostly predominates in the ♀. The 3 black transverse lines are only somewhat variable in the ♂, while in the ♀ the exterior line may touch the red reniform macula or encircle it at a great distance. Hindwing of ♂ white, of ♀ brownish-grey. The fringe of the ♀ forewing may be unicoloured orange or spotted dark, the hindwing may also exhibit a blackish exterior band. 32—45 mm. Everywhere in South and East Africa. — **mossambicensis** Hopff. is reported to differ in more strongly dentate antennae of the ♂, but according to the type this is incorrect; the large red reniform spot may occur everywhere. — **angolensis** Weym. has an almost white thorax *angolensis*, which is somewhat orange only in front and behind; the abdomen is unicoloured yellowish-white, though originally it will have been of a pure white colour. The red spot on the forewing is edged with black on both sides. The distal margin is scarcely grey. ♀ 42 mm. Angola. — **libertina** Brtl. (= *barnsi* E. Prout) (6 e) is a further *libertina*, development of *angolensis*. The abdomen is here most positively of a pure white colour. The red spot on the forewing is not edged with black on both sides, the exterior line is situated somewhat distally to it. Cameroons. — *barnsi* ♀ is said to have slightly yellow veins and fringes on the hindwings, whilst the hindwings are purely white in *angola* and *libertina* ♀.

**O. lampra** Karsch (= *pyrsonota* Tams) (6 e) is considerably larger. The whole body and the forewing *lampra* are dark leaden grey. The three bands are broadly yellow, distinctly edged with black. Reniform macula also yellow with a black margin. Hindwing of ♂ white, of ♀ almost like the forewing, fringes of both wings orange. 52—65 mm. East Africa.

#### 14. Genus: **Polytelodes** Hmps.

Proboscis and palpi as in the preceding genus. Thorax clothed with appressed scales. Antennae of ♂ ciliated. Veins 6 + 7 of hindwing may arise on a short stalk.

**P. florifera** Wkr. (6 e). Thorax bluish-black with orange spots. Abdomen with black and yellow ringlets. *florifera*. Forewing brownish black. Basal area with some orange dots. Interior line slightly excurved, yellow inside, black outside. Coniform macula short and broad, black. Ring-macula yellow edged with black. Reniform macula with a white median streak and edge. The black and yellow exterior line distinct behind the reniform macula, then from vein 3 straight to the inner margin. Distally to it a milky white spot in which there are black dots. Spots of the ground-colour at the margin. Hindwing smoky brown, milky white in and below the cell. 34 mm. West Africa.

#### 15. Genus: **Adaphaenura** Hmps.

Proboscis developed, palpi long porrect. Antennae of ♀ ciliated. Thorax with rough hair. Abdomen with a basal tuft.

**A. minuscula** Btlr. (6 f). Thorax red, abdomen black in front, the 3 last segments red. Forewing blackish-brown and dark sap-green with numerous orange bands. Hindwing orange with a black central spot and distal margin. ♀ 35 mm. Madagascar. *minuscula*.

#### 16. Genus: **Graphania** Hmps.

Proboscis normal, palpi erect. Thorax with hairs and scales. Tegulae with projecting angles. Abdomen with a tuft at the base and with lateral hair. Antennae of ♂ ciliated.

**G. atavistis** Hmps. (6 f). Thorax brown and black-haired, abdomen brownish ochreous. Forewing *atavistis*, pale and dark brown. Costal and inner margins ochreous, only vein 1 black with pink scales, an oblique dark streak above the inner margin except at the base. The coniform macula is a long black streak proceeding from the base. Ring-macula guttiform, small, ochreous, edged with black. Reniform macula ochreous above, whitish below and projecting inwards at the median vein. Blackish between the veins behind the cell. A V-shaped white spot before the margin above and below vein 6. The ends of the veins are white. Hindwing whitish ochreous, veins brownish. ♂ 34 mm. Cape Colony.

**A. tortirena** E. Prout. Thorax reddish-brown, abdomen greyish-brown, anal tuft golden yellow. Forewing *tortirena*, dark brown with brownish ochreous scales, violet behind the exterior line. Interior line blackish from  $\frac{1}{3}$  of the costal margin to  $\frac{2}{5}$  of the inner margin, notched. Coniform macula rather long, bent downward at the end, thickly edged with black. Ring-macula grey. Reniform macula narrow, tapering below inwards, edged with white. Exterior line undulate. Submarginal line light, conspicuous owing to dark spots on both sides. Hindwing greyish-brown. Fringes of both wings light. ♀ 32 mm. Ruwenzori.



17. Genus: **Cirphis** Wkr.

Proboscis normal, palpi somewhat erect, the third joint short, porrect. Thorax smooth, clothed with hair and scales. Tibiae long-haired. Abdomen with a basal tuft. Forewing pointed at the apex. Antennae of ♂ ciliated. Type: *costalis* Wkr. from Tasmania.

*prominens*. **C. prominens** Wkr. (= *hispanica* Bell.) is conspicuous by the distinct white dark-edged radial streak (cf. Vol. II, p. 97). It occurs in South and East Africa. Abdomen of ♂ with a lateral hair-tuft at the base.

*loreyi*. **C. loreyi** Dup. Abdomen of ♂ with lateral hair-tufts at the base. This species has also been dealt with in Vol. II, p. 98. Its range is almost larger still than that of *prominens*.

*ptyonophora*. **C. ptyonophora** Hmps. (= *punctosa* Wkr.) (6 f). Body pale reddish-brown. Forewing darker reddish-brown. A faded black band below the cell. Veins white, brown streaks between them. Cell blackish. A white spot at the lower cell-angle. Exterior line rounded off, composed of black dots. A light band behind it from the apex to vein 5. Hindwing yellowish-brown at the margin, lighter at the base. 40 mm. St. Helena.

The next 6 species show a silvery gloss on the forewing beneath.

*nebulosa*. **C. nebulosa** Hmps. (6 f). Thorax reddish ochreous, abdomen ochreous, the hair-tuft black. Forewing ochreous, reddish at the costal margin and between the veins. A black, white-edged dot is at the lower cell-angle, the median vein is also somewhat white. A dark interior line is sometimes traceable. Exterior line composed of 2 distantly separated rows of black dots, more curved at vein 4. An indistinct dark shadow from below the apex to the spot at the cross-vein. Hindwing light pinkish-brown. 30—35 mm. West, South and East Africa, Mauritius.

*usta*. **C. usta** Hmps. (6 f). Body light violettish-brown. Forewing darker violettish-brown, whitish at the costal margin. Interior line composed of a curved row of black dots. A short white streak at the cell-end and sometimes a small black dot at that place. An indistinct flesh-coloured luna at the cross-vein. A very indistinct exterior line of black dots. A flesh-coloured oblique band from the apex obliquely inwards, continued into the cell. Hindwing white at the base, greyish-brown in the marginal half. 30—33 mm. West and South Africa.

*tincta*. **C. tincta** Wkr. (6 f). Body and forewing pinkish-grey. Median vein and vein 4 more intensely white than the others. Darker between the veins. A fine black dot in the lower cell-angle. The exterior line is a uniformly bent fine row of black dots. An indistinct light oblique band from the apex, a triangular dark shadow below it at the distal margin. Black dots at the margin. Hindwing white, broadly pale brown at the margin. Hair-tuft on the abdomen as black as in *usta*. 30—40 mm. East Africa, Transvaal.

*dialeuca*. **C. dialeuca** Hmps. (6 g). Abdomen with a black lateral tuft. Thorax dark brownish ochreous, abdomen lighter. Forewing pale pinkish-brown, pale ochreous at the costal margin. Veins fine white, only the median vein and vein 4 more intensely white. A light oblique band proceeds from the apex. Hindwing brownish white, lighter at the base. ♂ 35 mm. Rhodesia. The species differs from *tincta* only in the more or less absent black dots of the exterior line. Besides the black marginal line runs through.

*pyrausta*. **C. pyrausta** Hmps. Body whitish ochreous and reddish, the hair-tuft black. Forewing pale yellow with fiery red places, especially at the margin. Interior line oblique, undulate, blackish. A white streak at the end of the median vein, a black dot above it. Exterior line of fine black lunae. A faded yellow oblique band from the apex, a brown shadow below it. Hindwing white, darker at the margin behind the cell. ♂ 30 mm. Uganda.

*infrargyrea*. **C. infrargyrea** Saalm. (6 g). Body and forewing brownish ochreous, more yellow in and behind the cell towards the apex. Interior line of black dots, projecting sharply in the submedian fold. A fine black dot edged with white is at the lower cell-angle, with a short streak at the cross-vein. Exterior line as in *usta*. Behind the dark submarginal line sharply interrupted by violettish brown, whereby it is easily discernible from *usta*, of which it may be a small form. Hindwing as in *usta*. Forewing of ♀ beneath pink. 25—26 mm. Madagascar, Mauritius.

*metalampa*. **C. metalampa** Hmps. Body whitish ochreous, the lateral hair-tufts at the base black. Forewing whitish ochreous and flesh-coloured pink. One black dot each below the cell near the base and in the centre. Exterior row of dots plain. A black oblique streak below the apex. Hindwing white, with a row of black dots. ♂ 32 mm. Portuguese East Africa.

*polyrabda*. **C. polyrabda** Hmps. (6 g). Body greyish-brown. Forewing greyish-white. A violettish-brown radial stripe in and below the cell, then obliquely to the apex. Veins fine white, a narrow oblique white stripe proceeds from the apex. Interior and exterior lines marked by a few dots. Hindwing of ♂ purely white, separated thereby from the similar Indian *albicosta* Moore. ♂ 35 mm. Natal.



Abdomen of ♂ without a lateral hair-tuft.

**C. circulus** *Saalm.* (6 g). Body and forewing ochreous. A fine black dot with a white halo at the lower cell-angle, the median vein also somewhat white. Below the latter a dark radial band extends to the distal margin. Hindwing greyish-brown, lighter at the base. 22—25 mm. Madagascar.

**C. homoeoptera** *Hmps.* Thorax whitish pink, abdomen dark brown. Forewing whitish ochreous. The cell, the space close below it and behind it red-brown, some brownish ochreous colour only yet in the cell-end. Median vein white at the end, the marginal veins edged with dark. The exterior line is a row of black dots, inserted behind the cell. The whitish oblique band from the apex to vein 5 is edged by red-brown shadows on both sides. Hindwing greyish-brown, with a dark central luna. 35 mm. East Africa.

**C. atritorna** *Hmps.* Thorax red-brown, abdomen greyish-brown. Forewing red-brown. Black streaks at the costal margin. A white dot at the base of the cell. Interior line composed of a few black dots. The ring-macula is an oblique reddish-white streak extending to the narrow reniform macula which is edged with reddish-white, and with a white streak at the end of the median vein. The exterior line is a row of black dots, 3 black spots behind it at the costal margin. At the margin there is a red-brown spot behind the cell, an oblique black spot is near the anal angle. Hindwing dark brown. ♀ 34 mm. Nigeria.

**C. atrinota** *Hmps.* (6 g). Body and forewing straw-coloured, the veins somewhat red-brown. A fine black streak below the base of the cell. A short white wedge-shaped streak at the end of the median vein, a black dot above it, a triangular spot behind it. The exterior line is a row of fine black dots. A triangular rusty brown spot below the apex is connected with a darker marginal line. Hindwing purely white. ♂ 30 mm. Mashona Land, Transvaal.

**C. perstriata** *Hmps.* Body whitish ochreous and brownish. Forewing whitish ochreous, the veins and lines between them violettish-brown, only the costal margin paler. A white wedge with a black dot at the median vein. Interior line marked by some black dots. The exterior line is a complete row of dots. A pale oblique band from the apex. Hindwing white, somewhat brownish at the margin. ♂ 40 mm. Rodriguez.

**C. insulicola** *Guen.* (= *simplaria* *Saalm.*) (6 g). Thorax ochreous and red-brown. Tegulae with 2 dark lines. Forewing brownish ochreous. Veins whitish, edged with brown, with brown streaks between them. Interior line marked by black dots below the cell. A black dot surrounded by white at the lower cell-angle. The exterior row of dots is somewhat angular at vein 4, and a few dots are before this row. A pale band from the apex is edged with dark on both sides. Hindwing purely white, slightly brownish in the ♀. 32—35 mm. West and South Africa, Madagascar. — In **gambiensis** *Strd.* there is another small dark spot behind the lower cell-angle, the marginal area is darker. Gambia.

**C. leucosticha** *Hmps.* (= *insulicola* *Saalm.*) (6 h) has been placed rather far from *insulicola* by HAMPSON, but it is extremely similar to it. The tegulae have 3 dark lines. The median vein is said to be edged with brownish on both sides. The only actual difference is that there is only a small white dot at the lower cell-end, not a black one surrounded by white. The hindwing seems to be mostly somewhat darker than in *insulicola*. South and East Africa, Madagascar, Mauritius.

**C. clavifera** *Hmps.* Body and forewing brownish white, lighter at the costal and inner margins. Yellowish in the cellular and submedian folds. Median vein with a fine white streak, a black streak below the base of the cell. A reniform macula is marked by single black scales. A wedge-shaped white spot at the cell-end. An exterior row of black dots. A fine white streak below the end of vein 7. Hindwing purely white. ♀ 32 mm. East Africa.

**C. phaea** *Hmps.* (6 h). Thorax dark greyish-brown, abdomen lighter. Forewing dark greyish-brown, darker in the cell, a triangular marginal spot below the apex also darker, median vein faded dark. A white dot or streak at the lower cell-angle. Interior line angled in the submedian fold. Exterior line dentate, especially behind the cell, making the species easily discernible. Hindwing white, somewhat brownish at the apex. ♂ 32 mm. South Africa, Nyassa District.

**C. atrimacula** *Hmps.* Thorax greyish yellow, abdomen lighter. Forewing pale straw-coloured. Interior line very obliquely outwards, strongly notched, with a black dot at vein 1. A black dot with a white halo at the lower cell-angle, an almost square brownish-black spot behind it. An exterior row of black dots, angled at vein 4, a less distinct row before it from the inner margin to the centre of the cross-vein, where it is bent inwards. A triangular dark brown shadow from the apex. Hindwing whitish ochreous, narrowly brownish at the margin. 27—30 mm. Natal.

**C. albimacula** *Gaede* (6 h). Body and forewing pale yellow. A black dot in the submedian fold is the remainder of the interior line. A white dot at the lower cell-angle with a blackish patch distally, both surrounded with a rusty reddish radial shadow. The exterior line is a very incomplete row of dots. Below the apex a rusty



red triangular shadow as far as vein 3 and more narrowly as far as the anal angle. Hindwing yellowish-white. ♂ 22 mm. East Africa.

*unipuncta*. **C. unipuncta** Haw. This species distributed from Southern Europe to Australia has been dealt with in Vol. II, p. 99 and pl. 25 e; according to HAMPSON, it occurs also in South Africa.

*hypocapna*. **C. hypocapna** Joann. Thorax greyish-yellow, abdomen black, whitish-grey at the end. Forewing greyish-yellow, dusted somewhat black, the veins finely yellowish-white, edged with dark. Interior line marked by 3 black dots. A black dot surrounded by white is at the lower cell-angle, continued a little to the median vein. A short blackish shadow behind the dot, between veins 4 and 5. Exterior line composed of a uniformly bent row of black dots. An indistinct triangular shadow at the distal margin below the apex. Hindwing greyish-white, almost blackish at the margin. Fringe light. ♀ 36 mm. Réunion.

*brantsi*. **C. brantsi** Snell. (6 h). Body and forewing brownish ochreous, somewhat more reddish than in the otherwise similar *atrimacula*. The interior line and the marking at the cross-vein also as in *atrimacula*. An exterior row of dots begins only from vein 4, a shadowy rusty red line before it from the inner margin to the centre of the cross-vein. Traces of a marginal shadow from the direction of the apex. Hindwing white, brownish ochreous at the margin. ♂ 30 mm. West Africa. 1 ♂ from the Greater Comoro differs in its greyish-brown abdomen and hindwing, similar to HAMPSON's figure of the Indian *C. hypophaea*.

*corticea*. **C. corticea** Hmps. (6 h) is quite different. Thorax dark red-brown, abdomen lighter. Forewing dark red-brown. Interior line blackish, indistinct, vertical, bent inwards at the costal and inner margins. A black streak at the cross-vein. Exterior line angled at vein 4, then slightly bent inwards. Behind it a row of black and white short streaks on the veins. Hindwing greyish-brown. ♀ 32 mm. Rhodesia.

## 18. Genus: **Borolia** Moore.

Marking exactly the same as in the preceding genus. Abdomen without the hair-tuft at the base, beneath without the large hair-pencil. Type: *fasciata* Moore from North India.

*interciliata*. **B. interciliata** Hmps. (6 i). Body and forewing brownish ochreous with dark red-brown radial stripes in and below the cell and at the distal margin. Costal margin very light. Darker at the inner margin and below vein 2. A short black streak below the base of the cell, and a longer one at the inner margin. A white hook at the lower cell-angle. The veins are sometimes fine white, with red-brown streaks between them. Fringe traversed by white. Hindwing whitish, brownish in the marginal area. 34—38 mm. South Africa, Ruanda.

*pumilio*. **B. pumilio** Gaede resembles a small *interciliata*, but it is darker, the white median streak is relatively longer, hindwing white, feebly brownish at the margin. Forewing brownish ochreous, ochreous on two thirds of the costal margin. A dark streak in the submedian fold, ochreous below it as far as the inner margin. A black dot at the lower cell-angle, the white streak is slightly prolonged outwards at vein 4. ♂ 23 mm. Madagascar.

*apparata*. **B. apparata** Wllgrn. Body and forewing greyish-brown. A black streak below the base of the cell, besides an oblique one above the inner margin before the centre. Traces of an interior line, angled in the submedian fold. A dark blotch in the cell-end. A short white hook at the lower cell-angle, a fine black dot below it. The veins in the distal area as in *interciliata*. An exterior line of black dots parallel to the distal margin, not bent inwards at the costal margin. A light oblique band from the apex, darker behind it. Hindwing as in *interciliata*. 32—34 mm. Cape Colony.

*internata*. **B. internata** Möschl. (= *rhabdophora* Hmps.) (6 i). Thorax and forewing brownish ochreous, the veins brown, brown streaks between the veins. A fine black streak below the base of the cell and one above the inner margin, neither of which is to be seen on the original figure of *rhabdophora*. A short white streak at the end of the median vein. Exterior line of black dots, strongly bent inwards at the costal and inner margins. A triangular dark shadow below the apex at the distal margin. Black dots on the ends of the veins may also be absent. Hindwing white, slightly brownish at the margin. 25—30 mm. Cape Colony, Natal.

*leucogramma*. **B. leucogramma** Hmps. differs from *internata* merely in the longer white streak at the median vein. But in my Natal specimens of *internata* it is just as long as in *leucogramma* from East Africa, figured by HAMPSON.

*acutangulata*. **B. acutangulata** Gaede (6 i) is similar to *internata*, but somewhat larger, the interior angle of the forewing very sharp. Body light brownish ochreous, like the costal and inner margins of the forewing. Olive brown in the cell and towards the apex, also below the cell as far as into the submedian fold. A thick white streak in the exterior part of the median vein forms a hook around a fine black dot at the cell-end. Interior line marked by a few dots. Exterior line composed by a row of dots as in *internata*. An ochreous oblique band from



the apex into the light inner-marginal area, darker behind it. Vein 4 white as far as the distal margin, vein 3 less white. Hindwing greyish-brown, fringe lighter. ♀ 32 mm. Natal.

**B. amens** *Guen.* (= *plana* *Wkr.*) (6 i). Body and forewing whitish ochreous. Veins white. A black *amens*. streak below the base of the cell and above the inner margin. A more intensely white streak at the median vein, continued at vein 4, edged dark on both sides. Dark submarginal streaks as far as the apex between the veins. Hindwing white, somewhat brownish at the margin, more intensely so in the ♀. 30—32 mm. South Africa.

**B. ustata** *Hmps.* (6 i). Thorax brownish ochreous and reddish, abdomen greyish-brown, forewing yellow- *ustata*. ish-brown with reddish-yellow spots in the cell, at the cell-end, and less distinctly below the centre of the cell. Costal margin whitish in its interior half, brown at the end. A brown shadow below the apex. A white streak at the end of the median vein. Ring-macula and reniform macula faded reddish-yellow. The exterior line is a single or double row of black dots, inserted behind the cell. Fine white veins in the marginal area. Hindwing white, pale brown at the margin. The similar *Cirphis usta* is more violettish-brown in the marginal area of the forewing and has a very light marginal line. ♂ 28 mm. Transvaal.

**B. pyrostrata** *Hmps.* (6 i). Body reddish ochreous, abdomen somewhat brownish. Forewing reddish- *pyrostrata*. yellow, with fine white veins, brown streaks between them in the marginal area. Costal margin light at the base. Interior line marked by two obliquely arranged black dots in the submedian area. A black dot at the lower cell-angle. Exterior row of dots introangular behind the cell. A pale oblique shadow with a dark edge proceeds from the apex. Dark shadowy stripes at the subcostal and median veins, no white streak at the median vein. Hindwing blackish-brown. ♀ 32 mm. Ruwenzori, Kilimanjaro. 1 ♀, labelled Ruanda 2700 m, in the Berlin Museum, presumably belongs to this species. Its hindwing is also dark.

**B. inangulata** *nov. sp.* (6 k). ♂ similar to *acutangulata* *Gaede*. Thorax and forewing pale whitish ochreous, *inangulata*. tegulae with dark lines, abdomen dark brown. In and below the cell brown towards the apex. A white streak at the end of the median vein, sometimes quite indistinct, not encircling the black dot at the lower cell-angle; this dot, however, has a rusty yellow halo extending in the cell somewhat basad. The veins in the distal area fine white. Interior and exterior lines as well as the apical area as in *pyrostrata*. Hindwing smoky brown, fringe whitish, lighter than in *acutangulata*. Forewing of ♀ darker. The cell and the space above the centre of the inner margin more extensively rusty red. Abdomen and hindwing almost blackish, but fringe light. On the under surface of the ♂ and ♀ the beginning of the exterior line is distinctly marked by a black spot, the discal luna of the hindwing is black, the exterior line dark again in both wings. 28—30 mm. Kikuyu, East Africa. type in the Berlin Museum. This is the species mentioned as *torrentium* *Guen.* by SAALMÜLLER in *Lep. Madag.* p. 257.

The following species have a somewhat shorter third palpal joint.

**B. uncinatus** *Gaede* (= *melianoides* *Hmps*) (6 k). Body and forewing pale ochreous. A fine black streak *uncinatus*. below the base of the cell, a dark shadow at vein 1. A dark reddish-brown radial stripe through the cell as far as the distal margin, where it widens a little. A white line at the median vein almost to the base, forming a hook at the lower cell-angle. A fine exterior row of dots, which may also be absent. Behind it fine black streaks on the veins, variably distinct. Hindwing white, often somewhat brownish at the margin. Specimens with almost uniformly brownish ochreous forewings and darker hindwings are called: — **mediofusca** *Strd.* 28—34 mm. *medio-* *fusca*. South and East Africa, Abyssinia, Madagascar.

**B. tacuna** *Fldr.* Body and forewing coloured as in *uncinatus*. A black streak below the base of the *tacuna*. cell and one at the lower cell-margin, a black spot at the cell-angle; the streak is an isolated spot in FELDER's figure, which being sometimes the case makes the name *bipunctata* *Strd.* superfluous. In the non-typical normal form the median vein and vein 3 are fine white. Sometimes this fine streak is also absent. Behind the black dot the dark brown radial band extends as far as its upper edge, it widens a little before the distal margin, and is bordered above with a black oblique line. An exterior row of dots and black marginal dots may be present or absent. Hindwing white. — **melianoides** *Mschlr.* has no black streak or spot at the lower cell-margin *melia-* *noides*. and differs therefore somewhat from the two-dotted *tacuna* *Fldr.* 28—32 mm. South and East Africa. — The white streak of the median vein may also be very strong and may somewhat comprise the black corner-dot. This is **melanostrota** *Hmps.* (6 k). East and South Africa. *melano-* *strota*.

**B. rubescens** *Hmps.* (6 k). Thorax pale red-brown, abdomen brownish ochreous, blackish beneath. *rubescens*. Forewing brownish ochreous with light red-brown stripes. Costal margin greyish-violet. A black streak below the base of the cell and from the centre of the inner margin outwards. Median vein white, edged with black on both sides. Veins in the marginal area white, especially veins 3, 4 and 5, brown stripes between them. Hindwing showing through white. 36 mm. Natal.

**B. rufescens** *Gaede* (6 k). Thorax and forewing reddish-brown. Costal margin greyish-violet, also at *rufescens*. the inner margin in the basal part. Median vein as well as veins 3, 4, 7 and 8 white, sometimes also vein 6 somewhat white. A faded light spot at the base of 3 and 4. No dark stripes between the veins. Hindwing white, fringe pale reddish-brown. ♂ 30—32 mm. East Africa.



- fissifascia*. **B. fissifascia** *Hmps.* Thorax reddish ochreous, abdomen greyish-brown. Forewing pale brownish ochreous. A radial stripe through the cell is pale red-brown, continued to the distal margin below the apex. The middle part of the submedian fold also pale red-brown. The terminal half of the median vein intensely white, veins 3 and 4 finely white, a white oblique band from the apex. A submarginal black dot at vein 4. Hindwing whitish ochreous, brown at the margin. ♀ 40 mm. Lagos.
- operosa*. **B. operosa** *Saalm.* (6 k). Body and forewing ochreous. A black streak below the base of the cell. The median vein and vein 4 white. A red-brown shadow below the median vein. A black dot in the lower cell-angle. Above vein 4 as far as the apex a triangular red-brown shadow with an inserted margin above. An exterior row of dots is very indistinct. Hindwing white, diaphanous, somewhat brownish at the margin. ♂ 30 mm. Madagascar.
- citrinotata*. **B. citrinotata** *Hmps.* (6 l). Thorax and forewing somewhat paler than in *operosa*, abdomen whitish, yellow only at the end. The median vein fine white and on vein 4 white, but not to the margin as in *operosa*. A dark streak below the cell and a dot at the cell-angle as usual. A triangular shadow from the apex is feebly developed, but it extends also below vein 4. Hindwing purely white. ♂ 30 mm. East and South Africa.
- melanostrotoides*. **B. melanostrotoides** *Strd.* ♀ ochreous. Median vein of forewing edged darker in front than behind. A deep black dot below the cell before the base of vein 2, and a white dot in the lower cell-angle. An exterior row of black dots is scarcely noticeable. The dark shadow from the apex inwards rectilinear and distinctly defined. Fringe dark. The ♂ has a somewhat lighter marginal area, the white dot is bordered with black outside, the white line on the median vein is more distinct. Otherwise similar to *melanostrotata*. 28—32 mm. Upper Egypt.
- torrentium*. **B. torrentium** *Guen.* (= *infima* *Wllgrn.*, *prinna* *Saalm.*, *bazyae* *Möschl.*) (6 l). Body and forewing ochreous, abdomen somewhat greyish-brown above. Forewing pale at the costal and inner margins. Veins fine white, brown lines between them. A short black basal ray below the cell and above the middle of the inner margin is rarely visible. Median vein very fine white. Faded rusty red in the cell-end and behind it. A fine black dot in the cell-end and sometimes a small triangular one behind it. Interior line sometimes marked by a dot in the submedian fold, exterior line mostly just as scantily developed. A pale band from the apex is noticeable in but one of innumerable specimens. Black marginal dots very small. Hindwing white, darker at the margin. 30—32 mm. Madagascar, South and East Africa, Abyssinia.
- acrapex*. **B. acrapex** *Hmps.* (6 l). Thorax and forewing pale brownish pink. Abdomen whitish ochreous. Veins of forewing fine white. A black dot at the cell-angle. Exterior row of dots complete. A faint dark shadow from the apex. Hindwing yellowish-white. ♀ 32 mm. East Africa.
- rosescens*. **B. rosescens** *Hmps.* Thorax pinkish-white, abdomen whitish ochreous. Forewing pink, whitish at the costal margin. A black dot at the lower cell-angle. Hindwing purely white. ♀ 35 mm. Rhodesia.
- nigrisparsa*. **B. nigrisparsa** *Hmps.* (6 l). Thorax pale brownish ochreous, abdomen whitish ochreous. Forewing reddish ochreous, dusted somewhat black. Median vein and base of vein 4 white. A slight dark shadow below the median vein. A black cell-dot and an exterior row of dots. A faint triangular shadow below the apex. Hindwing purely white. ♀ 38 mm. Cape Colony.
- metasarca*. **B. metasarca** *Hmps.* Thorax pale pinkish-brown, abdomen brownish ochreous. Forewing pinkish flesh-coloured. The cell and the space behind it as far as the exterior line olive brown. Below the cell as far as the submedian fold and at the middle of the inner margin olive brown. A white streak at the median vein and above vein 3. A strong black dot at the lower cell-angle. Exterior row normal. Veins of marginal area olive brown. A pale oblique band from the apex, edged dark above and below. Fringe pink and brown. The cell of the hindwing and the space behind it flesh-coloured pinkish-brown, costal margin and inner-marginal area pale brownish ochreous. ♂ 32 mm. Ashanti.
- phaeochroa*. **B. phaeochroa** *Hmps.* (6 l). Body and forewing pale greyish-brown, slightly suffused with violet, the veins somewhat darker. A reddish-brown stripe on the median vein is bent up before the distal margin to the costal margin. A white spot at the lower cell-angle. Interior line marked by a few black dots. A black central spot in the cell. The exterior row of black dots is uniformly bent, almost fused into a line. Hindwing greyish-brown, lighter at the base. 34—36 mm. South Africa.
- confluens*. **B. confluens** *B.-Bak.* Body whitish-grey. Forewing pale greyish ochreous. A pale brown radial stripe through the cell and at vein 4 on to the distal margin. A similar triangular blotch above the anal angle, and a faded oblique blotch from the apex. Ring-macula and reniform macula pale, narrow, confluent, centred pale brown. Hindwing white. ♂ 30 mm. East Africa.
- parvula*. **B. parvula** *Kenrick* (6 l). Thorax reddish brownish ochreous, abdomen somewhat darker. Forewing reddish ochreous, veins paler, cell darker. A short dark streak below the base of the cell. A black dot below the centre of the cell, a larger one at  $\frac{2}{3}$  of the inner margin. A white dot at the lower cell-angle is not mentioned in the description. Hindwing of ♂ pale ochreous, of ♀ pale grey. 26 mm. Madagascar.



**B. lithargyroides** Kenrick is very similar to *parvula*. The original figures of the two species are scarcely different. Ground-colour more pink. Besides a triangular shadow from the apex to the distal margin. The white streak at the cell-end is provided with a black streak. Interior and exterior lines marked by a few black dots. Hindwing grey. ♀ 28 mm. Madagascar. *lithargyroides*.

**B. diopis** Hmps. (= *scirpi* Hmps.). On the whole similar to the two preceding species. Thorax flesh-coloured ochreous, abdomen greyish-brown. Forewing like the thorax. A feeble dark streak at the end of the median vein and at the base of vein 4. Traces of an interior line, extra-angular in the submedian fold. The ring-macula and reniform macula are faded pale spots. Traces of an exterior undulate line with black dots at veins 4 and 6. Somewhat darker behind it at the margin. Hindwing ochreous at the base, the rest greyish-brown. ♀ 32 mm. Sokotra. *diopis*.

**B. phaeopasta** Hmps. (7 a). Thorax and forewing pale brownish ochreous. Traces of an undulate interior line. Ring-macula and reniform macula small, black, surrounded by a yellow halo. Traces of an exterior line, with dark streaks on the veins behind it. Submarginal line marked by a darkening of the margin behind it, whereas the space before it as far as the exterior line is lighter. Hindwing light greyish-brown. ♀ 30 mm. Ruwenzori, Birunga. In a ♀ from Kikuju, which seems to me to belong to this species, the distal margin of the forewing is not darkened. *phaeopasta*.

**B. alticola** Auriv. may be a form of *phaeopasta*. Thorax and forewing ochreous. Interior line angled in the submedian fold, formed of black dots. Ring-macula and reniform macula are likewise small black spots in a lighter halo. A black spot at the lower cell-angle. Exterior line formed of a double row of dots. A narrow marginal shadow from the apex to vein 4. Abdomen and hindwing dark greyish-brown. ♀ 30 mm. Birunga. *alticola*.

**B. persecta** Hmps. Thorax dark red-brown, abdomen much paler. Forewing pale brownish ochreous, with a reddish-blackish radial band in and below the cell which widens much towards the distal margin. A whitish ochreous stripe below the costal margin in the distal area. Also at the inner margin a stripe as in the cell. A black dot at the lower cell-angle, a black streak inwards to it. Hindwing white, slightly brownish at the margin. ♂ 34 mm. Natal, Kilimanjaro. *persecta*.

**B. carneotincta** Kenrick (7 a). Thorax brownish ochreous, abdomen greyish-brown. Forewing olive yellow, tinged with pink, radially divided into 3 stripes. Costal-marginal area pale pink, an olive brown triangular spot a little before the middle of the costal margin. Traces of a dark interior line. A black spot at vein 5, indicating an exterior line, darker at the anal angle. Hindwing greyish-brown, traces of a central luna. ♂ 28 mm. Madagascar. *carneotincta*.

**B. micropis** Hmps. (7 a). Body and forewing pale yellowish-brown. A blackish shadow at the lower cell-margin widens at the distal margin. 3 black dots above it, the first very small, the third surrounded by an edge of the ground-colour. Exterior line double, its interior branch very indistinct, the row of dots distinct. Intense black lunae at the margin. Hindwing white, diaphanous. ♂ 28 mm. Mashona Land, Transvaal. *micropis*.

**B. cupreata** Hmps. (7 a). Thorax and forewing coppery red. Interior line very indistinct, bent, a black dot behind it in the submedian fold. Behind the base of veins 3—5 an extinct black spot from which a feeble line extends to the inner margin. Close behind it an exterior row of fine black dots. Traces of a blackish-brown submarginal line. Hindwing yellowish-white, narrowly coppery at the margin. 28—30 mm. Gazaland, Uhehe. *cupreata*.

**B. bilineata** Hmps. (7 a). Thorax whitish ochreous, abdomen greyish-white. Forewing pinkish ochreous. Interior line bent. Ring-macula and reniform macula marked by somewhat lighter spots, the latter with a white streak below. According to the original figure, the exterior line is bent only below the costal margin, then oblique and parallel to the distal margin. Submarginal line feeble, undulate. Hindwing white. ♀ 26 mm. Kikuju. The specimen mentioned in the Stett. Ent. Z. Vol. 77 I consider to belong to *phaeopasta* (although it is an alpine species), owing to the colour of the hindwing and the somewhat different shape of the exterior line. *bilineata*.

**B. eriopygodes** Auriv. is the largest *Borolia*. Thorax reddish yellowish-grey, abdomen greyish-yellow. Forewing dark grey, yellowish at the base. Interior line obliquely outwards almost to the middle of the inner margin. The exterior line is a double row of black dots, almost parallel to the distal margin, the two branches separated rather much. Right behind it the yellowish submarginal line. Reniform macula large, faded, edged with black. Hindwing dark grey, darker at the margin. ♂ 45 mm. Kilimanjaro. *eriopygodes*.

**B. rosengreeni** Rbl. Body and forewing reddish-brown, thorax in front more yellowish. Forewing with a distinct apex, paler at the costal margin as far as the exterior line and at the inner margin at the base. Interior line marked by 3 dots. A distinct white dot at the cross-vein is broadly edged with blackish-grey outside. Exterior line of 8 black dots situate on the veins. Hindwing brownish-grey, not lighter than forewing. ♂ 29—31 mm. Sokotra. *rosengreeni*.

19. Genus: **Meliana** Curt.

The species on the whole match those of the preceding genus. The difference consists in the round frontal projection with a horn-plate below it, which is absent in the *Borolia*-species. Antennae of ♂ shortly pectinated only in the first species, ciliated in the others. Type: *flammea* Curt. from Europe.

*pectinata.* **M. pectinata** Hmps. Thorax light greyish-violet, abdomen whitish ochreous. Forewing greyish-violet. A black streak below the base of the cell. Median vein and the veins in the distal area white, brown streaks between them. The white line forms a hook at the median vein. A black band above the end of the median vein is less distinctly continued to the margin and extends almost to the apex. A short black band is also above the anal angle. Hindwing white. 24—30 mm. East Africa. — Specimens in which the black marking is replaced by pale brown or grey are called — **cinereopicta** Strd.

*cinereopicta.* **M. longipennis** Hmps. (7 a). Thorax pale pinkish-brown, abdomen lighter. Forewing brownish ochreous, with a pink tint, lighter at the costal margin at the base, darker, browner at the inner and distal margins. Veins fine lighter. Hindwing white, pale brown at the distal margin, more narrowly margined towards the anal angle. ♀ 42 mm. East Africa.

*tunulata.* **M. lunulata** Gaede (7 b). Very similar to *M. exsul* Wkr. from Tristan d'Acunha in the marking, but more to the following *sacra* Hmps. in the size and colour. Body brown, forewing light brownish ochreous with a violet shine. A dark streak below the base of the cell. Median vein dark brown, prolonged into a stripe which extends at the distal margin to vein 7 and almost to the anal angle. A fine black line at the cross-vein, two stronger black spots inwards to it at the median vein. Hindwing white with a faint reddish shine. ♂ 25 mm. Togo.

*sarca.* **G. sarca** Hmps. (7 b). Body and forewing greyish-white with a slight pink shine. A short black streak below the base of the cell. Median vein white almost from the base, with a hook at the lower cell-angle, edged with black above. A brown stripe above it from the base to the distal margin. A similar faded stripe at vein 2. Fringe spotted light and dark. Hindwing white, slightly brownish pink in the distal half. 24—30 mm. South and East Africa.

*bertha.* **M. bertha** Schaus (7 b). Body and forewing greyish-yellow, with a slight rusty yellow shine. Interior line replaced by 3 blackish-brown dots: A black dot at the lower cell-angle, a black triangle behind it. Exterior line of black dots, more curved behind the cell, obliquely to the costal and inner margins. Abdomen and hindwing whitish ochreous. ♂ 25 mm. Sierra Leone, Cameroon.

*tenebra.* **M. tenebra** Hmps. (7 b). Thorax brownish ochreous, with an olive brown hue, abdomen lighter. Forewing dark red-brown, the interior half of the costal margin lighter. Veins white. A rusty red stripe through the cell towards the apex, a similar one below the cell. Hindwing dark brown, lighter at the base. ♀ browner, the veins not so white. Traces of an exterior row of black dots. 32 mm. East Africa.

The position of the two following genera is not mentioned by the author.

20. Genus: **Agrotana** B.-Bak.

Palpi highly erected, strongly scaled, third joint small. Frons with conus. Vertex and patagia with short tufts, abdomen without tufts. Antennae foliated. Hindwing: veins 3 + 4 stalked, 5 arises below the centre of the cross-vein.

*jacksoni.* **A. jacksoni** B.-Bak. Body greyish ochreous. Forewing ochreous creamy white. Median line indistinct, excurved, exterior line the same. Ring-macula and reniform macula pale, faded. Submarginal line undulate, distinct. Hindwing pale creamy white. ♂ 26 mm. Nairobi.

21. Genus: **Neuranethes** B.-Bak.

Palpi scaled, porrect. Tegulae and patagia with traces of tufts. A tuft also on the thorax behind. Antennae ciliated. No areole in the forewing, veins 7 + 8 stalked, also 9 + 10. Vein 5 of hindwing likewise below the centre of the cross-vein, 6 + 7 stalked.

*angolana.* **N. angolana** B.-Bak. Body dark nut-brown. Forewing greyish-brown with a dark brown marking. Two dark spots at the base, one in the cell, one above it. A short blotch in the submedian fold near the base, a large spot in the centre, a spot above it in the cell, prolonged to the costal margin. Traces of the ring-macula, reniform macula large, pale, a black spot behind it. Hindwing greyish-white. ♂ 32 mm. Angola.



22. Genus: **Neosema** *Rbl.*

Eyes bare. Antennae bipectinate and ciliated almost to the tips. Frons without a projection, proboscis normal. All the tibiae feebly spined, hind tibiae with 2 pair of spurs. The feebler vein 5 of the hindwing arises from near the centre of the cross-vein.

**N. sesamioides** *Rbl.* Thorax and forewing brownish-yellow like the long antennae. Abdomen brown-*sesamioides*. ish-white. Forewing with a white spot at the cross-vein, edged with dark brown. Small blackish-brown triangles at the margin between the veins. Hindwing unicoloured white. ♂ 23 mm. Sokotra.

Subfamily: **Cuculliinae.**

The legs are not spined in this subfamily, only in some genera the anterior tibiae have claws or the anterior tarsi short spines. The naked eyes bear projecting cilia. Neuration normal. The palpi, antennae, and thoracal clothing vary.

1. Genus: **Copieucullia** *Smith.*

Little different from *Cucullia*. Below the frontal projection there is yet a horny plate. The anterior tibia bears a curved claw on the inner side. Type: *eulepis* *Grote* from North America. Only 1 species in Africa.

**C. ruptifascia** *Hmps.* Body greyish-brown, the tufts darker. Forewing bluish-grey, the veins with fine *ruptifascia*. black streaks. A black, white-edged streak below the basal half of the cell. Interior line marked by black dots and a long dent in the submedian fold. Ring-macula and reniform macula marked by yellow spots. The former edged with black dots, the latter with a black streak below the cell. Behind it above vein 6 there is a short black streak and one at the centre of the inner margin. Exterior line quite indistinct. Submarginal line whitish, fine, only a white luna in the submedian fold is stronger and pierces a radial band from behind the centre to the margin at vein 2. Besides a streak above vein 4. Hindwing white, brown at the margin. ♂ 34 mm. Transvaal.

2. Genus: **Cucullia** *Schrk.*

Proboscis well developed, palpi short, densely haired. Frons with a small round projection. Tegulae with a pointed tuft, metathorax with a short tuft. Antennae in both sexes almost plain. Type: *artemisiae* *Hufn.* from Europe.

**C. leucopis** *Hmps.* (7 b). Thorax violettish-grey, abdomen brownish, the 2 tufts black. Forewing *leucopis*. violettish-grey. Interior line thick black, double, undulate. Coniform macula finely edged with black. Ring-macula and reniform macula grey, edged with black, centred somewhat dark. Exterior line double, undulate, extending close behind the reniform macula, another dark line before it proceeding from the cell. Submarginal line notched, grey. A few small sagittal spots before it near the costal margin and behind it at veins 5 and 2. Hindwing white, the marginal third smoky brown. ♀ 36 mm. Cape Colony.

**C. consimilis** *Fldr.* (= *pusilla* *Möschl.*) (7 b). Thorax greyish-brown, abdomen yellowish-brown, the *consimilis*. tufts somewhat black. Forewing greyish-white, dusted brown, the veins with fine black streaks. A fine black radial streak at the base. Interior line double, filled with white, strongly dentate. Coniform macula absent. Ring-macula and reniform macula with double edges, black outside, centred light. Exterior line double, indistinct, except at the costal and inner margins. The inner margin with a black diffuse spot inside. Costal margin dark towards the apex. Instead of the submarginal line a few dark dashes. Hindwing white, broadly brownish at the margin. 30—36 mm. South Africa. We figure the type of *pusilla*. *FELDER*'s figure of *consimilis* looks quite different.

**C. brunnea** *Hmps.* (7 b). Thorax red-brown, abdomen paler. Forewing red-brown. Interior line double, *brunnea*. indistinct, strongly extra-angular in the submedian fold. Ring-macula and reniform macula small, grey, centred brown, edged with black. Exterior line only marked in the submedian fold by a black angle before which there is a slight brightening towards the base. Margin darker. Hindwing red-brown, lighter at the base. 36 mm. Cape Colony.

**C. simplex** *n. sp.* (7 c). Body and forewing greyish-brown. Marking very indistinct. Interior line *simplex*. marked at the costal margin by a somewhat dark spot, then 2 fine dark parallel streaks above and below vein 1 marking a strongly notched interior line. Lighter yellowish behind it in the cell. A few black dots seem to be arranged around the cell-end, forming the edge round the reniform macula. In the distal area the space between veins 2 and 4 is somewhat lighter, darker at the apex and anal angle. Two parallel oblique streaks above and below vein 1 indicate an exterior line the middle of which is almost below the base of vein 3. Another



small spot is outside the upper streak. Hindwing hyaline white with a brown marginal line. ♂ 39 mm. Natal. Type in the Berliner Museum.

*nocturnalis*. **C. nocturnalis** *n. sp.* (7 c). Thorax and forewing blackish coppery brown, abdomen yellowish-brown. Little is to be seen on the forewing owing to the dark ground-colour. Interior line double, black, very strongly notched, far outwards in the submedian fold, far inwards at the median vein and vein 1. Ring-macula slightly compressed laterally, rusty brown, distinctly edged with black. Reniform macula large, almost 8-shaped, somewhat rusty brown below, the rest dark, the type with a middle streak at the cross-vein, edged with black. Exterior line only marked above the inner margin by a short dent. Submarginal line marked by rusty red dashes. A small black marginal triangle at vein 2. Hindwing white, the dark margin less broad at the apex, broader at the anal angle than elsewhere. 32—34 mm. Transvaal. Type in the Berlin Museum.

*clausa*. **C. clausa** *Wkr.* (7 c). Body and forewing greyish-brown, somewhat whitish below the base of the cell and at its end, faint light streaks in the marginal area. Interior line indistinct, dentate, interrupted. Ring-macula and reniform macula whitish, with black marginal dots, a blackish spot between them from the costal margin to the median vein. Exterior line only distinct at the costal and inner margins. Submarginal line faded, black marginal dots distinct. Hindwing whitish, brown at the margin. ♂ 32 mm. Probably from South Africa.

*rufescens*. **C. rufescens** *Hmps.* (7 c). Thorax greyish-brown, abdomen brownish ochreous. Forewing grey, somewhat more red-brown at the base and costal margin. Interior line double, obliquely outwards, strongly dentate. Ring-macula marked by 4 brown marginal dots and a faded brown centre. Reniform macula with brown dots basad and an indistinct brown centre. Exterior line indistinct, marked below vein 4 by double dots on the veins, below vein 2 by an oblique double undulate line. The veins black at the apex. Hindwing white, narrowly margined with brown. ♂ 38 mm. East Africa.

*perstriata*. **C. perstriata** *Hmps.* (7 c). Body and forewing greyish-brown. A variably developed black stripe extends from the base above the median line almost to the margin. Indistinctly red-brown before and behind the cross-vein. Traces of a strongly dentated interior line below the cell. Ring-macula marked by two black dots on its upper side. Reniform macula marked the same and by a black streak below. Exterior line only formed by an indistinct blackish line in the submedian fold. Besides a shadow at the distal margin below the apex. Hindwing white with a narrow brown margin. 42 mm. Cape Colony, Uganda.

*ochribasis*. **C. ochribasis** *n. sp.* (7 c) combines properties of *rufescens* and *perstriata* and may be the ♀ of the former. Thorax pale whitish ochreous, abdomen brownish. Forewing whitish ochreous at the base, behind the reniform macula as far as the apex and above the anal angle. These places as well as the thorax are slightly tinged with pink. Two black dots at the costal margin near the base and two others at the median vein. A strongly notched inwardly directed interior line is recognizable below the median vein. The space behind this line as far as the cell and the exterior line is violettish-black, continued in a narrow stripe to the distal margin at vein 5 and widened towards the apex. The ring-macula is formed by 4 black marginal dots and a horizontally parted black spot, otherwise whitish ochreous like the space as far as the reniform macula and its proximal part. Reniform macula almost oval, edged with black dots, black spots at the cross-vein, the rest dark. Costal margin with black streaks at the apex. Hindwing hyaline white with a brown margin. ♀ 42 mm. Kikuyu. Type in the Berlin Museum.

*extricata*. **C. extricata** *Wkr.* (7 c). Thorax pale red-brown, abdomen brownish ochreous. Forewing very pale red-brown. Interior line indistinct, strongly extra-angular between the veins. A blackish patch from the base to the interior line in the submedian fold. Ring-macula and reniform macula marked by 4 black marginal dots each. A black oblique streak at the centre of the costal margin. Exterior line marked by black dots and a white luna in the submedian fold with a dark spot before it. A black stripe below vein 3 as far as the margin, besides short marginal streaks as far as the apex, where the costal margin is somewhat darkened. Hindwing white, somewhat dark at the margin. 42—48 mm. South Africa.

*terensis*. **C. terensis** *Fldr.* (= *africana* *Auriv.*) (7 d). Thorax bluish-grey, abdomen greyish-brown. Forewing bluish-grey. A fine black basal streak in the submedian fold. Interior line double, projecting very much in the cell, in the submedian fold and above the inner margin. Coniform macula sometimes marked by 2 short streaks. Ring-macula quadrangular with 2 lateral streaks or marked by 4 black dots, reniform macula marked by dots and streaks, very large, mostly both quite extinct. A median shadow from the costal margin to the lower cell-angle is often distinct. Exterior line rarely marked by a double line at the costal and inner margins. Submarginal black patches above and below vein 2, as well as between veins 4 and 7. Hindwing white, broadly brownish at the margin, fringe white. 35—40 mm. South-West and South Africa.

*nubipicta*. **C. nubipicta** *Hmps.* (7 d) is very similar to *terensis*. Colouring the same. Interior line faded in its anterior part, below the cell as in *terensis*. A black dot in the middle of the cell at its upper margin. Reniform macula marked by a black streak and black dots at its upper edge. A black dot above it at the costal margin. Basally to it a whitish-grey spot as far as the lower cell-margin and to the interior line. The indistinct exterior



line proceeding from the spot at the costal margin is strongly excurved, very near to the interior line in the submedian fold. Submarginal band dark, faded, inwardly angled at vein 5. Indistinctly bordered with light inside, with a dark shadow outside behind the cell and below vein 2. The black marginal dots in the middle of the distal margin are bordered inside with a white zigzag line. Hindwing white, the veins outside somewhat brown. 40—44 mm. East Africa.

**C. albilineata** *n. sp.* (7 d). Thorax and forewing greyish-brown, slightly tinged with red-brown, abdomen somewhat lighter brown. Interior line of forewing with a strong oblique streak at the costal margin, then indistinct, projecting far in the submedian fold and above the inner margin, fine and distinct, directed inwards at vein 1 and at the inner margin. 3 black dots at the upper cell-margin, a larger spot above the base of vein 5, then small dots above and below vein 4, and a streak below the base of vein 3. The white exterior line from the centre of the costal margin, below the latter outwards, then notched, indistinct between veins 5 and 3, from there very obliquely inwards almost to the interior line. Black stripes behind it above and below vein 7, a black streak above vein 4, a large spot below vein 2; behind this spot, separated by a white streak, a black oblique stripe. Two white stripes at the margin near vein 7, two larger ones above and below vein 3. Fringe reddish-brown. Hindwing smoky brown, hyaline white in the basal area, fringe white. ♀ 42 mm. Natal. Type in the Berlin Museum. *albilineata*.

**C. atrimacula** *Hmps.* Thorax bluish-grey, abdomen greyish-brown, the tuft blackish. Forewing bluish-grey, the veins blackish, brownish ochreous at the cell-end. Interior line marked by isolated short black oblique streaks. Ring-macula formed by a short fine black streak in the lower cell-margin. Reniform macula marked by a bent streak below the cell-end. Behind it a short streak above vein 6. Exterior line also marked by short streaks, more distinct below vein 3, then incurved to the submedian fold, then excurved at vein 1. Submarginal line marked by white streaks between the veins, and below vein 2 with a more distinct black spot with a light margin. The black marginal lunae white inside. Hindwing white. ♂ 44 mm. Transvaal. *atrimacula*.

**C. minuta** *Möschl.* (7 e). Thorax and forewing grey with fine black longitudinal lines. A fine black streak in the submedian fold as far as the interior line which is extremely fine and strongly notched. The ring-macula is a small rusty yellow spot with a whitish margin. Reniform macula also with a rusty yellow centre, grey like the ground-colour, only below distinctly edged with a bent black line, the other edging indistinct. Exterior line marked by a white angle in the submedian fold, edged on both sides with a black streak. Tiny black streaks in front below the apex form the submarginal line. Hindwing white, brown at the margin. ♂ 30 mm. Cape Colony. The species resembles a light *pusilla* *Möschl.*, though HAMPSON places it far away from it. *minuta*.

**C. platti** *E. Prout.* Thorax aniline-black, patagia and tegulae very pale brown, abdomen dingy white. Forewing pale brown. Costal margin aniline-black, interrupted by the beginnings of the interior and exterior lines and three pale spots before the apex. Ring-macula and reniform macula light-edged, centred nut-brown, the reniform macula nut-brown only in its proximal side. Ring-macula square, reniform macula 8-shaped, with a light spot outside. Black between the maculae. Exterior line pale, rather distinct, with a short black postcellular streak inwards and 2 or 3 spots outside. Inner margin black from near the base to the anal angle. Traces of an oblique shadow from the apex to the exterior line. A double marginal row of black dots. Fringe pale brown. Hindwing lustrous white, browner at the margin, fringe white. The ♀ with a distinct inner line projecting in the middle of the cell. The space between the interior and exterior lines aniline-black. Maculae indistinct. The dark margin on the hindwing is broader. 35—40 mm. Durban. *platti*.

### 3. Genus: **Empusada** *Hmps.*

Very similar to the preceding genus. Below the frontal projection there is yet a horny plate. Metathorax and abdomen tuftless, but the anal tuft very long. Easily discernible from *Cucullia* by the different marking. Type: *lactea* *F.* from Europe.

**E. hutchinsoni** *Hmps.* (7 e). Body greyish white. Forewing light brownish ochreous. A spindle-shaped silvery stripe from the centre of the cell to the distal margin, sometimes small silvery marginal streaks above and below this stripe. Rusty red scales below the base of the cell and below the large silvery streak. A dark exterior line from vein 4, very obliquely inwards. An undulate submarginal line at the middle of the distal margin is scarcely noticeable. Hindwing white, narrowly brown at the margin. 40—45 mm. Natal, Transvaal. *hutchinsoni*.

**E. argentivitta** *Hmps.* Thorax greyish-brown, abdomen brownish ochreous. Forewing pale yellow. Interior line double, very obliquely to the submedian fold, then again inwards. Two small black dots in the centre of the cell. A silvery white band from the cell above the base of vein 2 to close before the distal margin. Exterior line double, undulate from vein 4 to the submedian fold. Submarginal line only marked at the middle of the distal margin. Hindwing white, brown at the margin, especially in the ♀. 38—40 mm. Cape Colony, Basuto Land. *argentivitta*.



- argenti-  
linea.* **E. argentea** *n. sp.* (7 e). Thorax and forewing pale red-brown, abdomen lighter red-brown. Forewing with two equally projecting notches of the interior line in the submedian fold and below vein 1, dark red-brown, inside pinkish-white, quite indistinctly double. A red-brown patch above the base of vein 2 obliquely inwards to the costal margin. A uniformly strong silvery line from the cell above the base of vein 3 to 3 mm distant from the tips of the fringe. An exterior line or a submarginal line are not visible in the only specimen. Hindwing white, somewhat brown at the margin. ♂ 38 mm. Volcano of Kiwu.
- pallidistria.* **E. pallidistria** *Fldr.* (7 e). Body greyish-brown. Forewing violettish-grey. A rusty brown stripe below the cell as far as the base of vein 2 with a black line below it. A rusty brown band from the cell-end above vein 4 to the distal margin, and a white stripe above it. Three black dots in the upper part of the cell. An exterior row of dots at veins 1—3. Hindwing whitish, broadly brown at the margin. ♂ 44—46 mm. Cape Colony, Basuto Land, Transvaal.
- pyrostroma.* **E. pyrostroma** *Hmps.* (7 d). Body brownish white. Forewing pale yellow; the cell, the space close behind and below it as far as vein 2 fiery red, greyish-white below the cross-vein. Median vein with a long black streak, brown radial streaks in the marginal area. Three black dots in the upper cell-end. Hindwing white, brown at the margin. ♂ 42 mm. Transvaal.
- ruficeps.* **E. ruficeps** *Hmps.* (7 e). Thorax greyish-brown, abdomen brownish ochreous. Forewing greyish-brown. Somewhat red-brown in the cell, more intensely red-brown below the cell as far as the base of vein 2, and below this a pale yellow stripe. Traces of 3 black dots at the upper cell-margin. Traces of a dark undulate exterior line. Hindwing whitish, brown at the margin. ♀ 38 mm. Madagascar.
- chrysota.* **E. chrysota** *Hmps.* (7 f). Thorax grey, abdomen brownish white. Forewing violet greyish-brown. Costal margin pale yellow, brownish near the apex. The cell and below it as far as the base of vein 2 red-brown, a yellow curved band below it is a little more distant from the base than in *ruficeps*. The 3 black dots at the upper cell-margin. Hindwing white, brown at the margin. 36—38 mm. East and South Africa.

#### 4. Genus: **Rhodochlaena** *Hmps.*

Proboscis feeble. Palpi porrect, long-haired. Prothorax and metathorax with a feeble tuft, abdomen tuftless. Antennae of ♀ serrate. Forewing somewhat undulate at the margin.

- botonga.* **Rh. botonga** *Fldr.* (= *perrubra* *Hmps.*) (7 f). Thorax chestnut-brown, abdomen greyish-brown. Forewing light chestnut-brown. A dark brown oblique band at the base. Interior line black, somewhat undulate, obliquely outwards. Ring-macula and reniform macula narrow, nut-brown and white, edged with black, fused below the cell, surrounded by dark red-brown. Exterior line black, S-shaped, edged with dark inside. Submarginal line light, with dark triangles inside. Hindwing greyish-brown, lighter at the base. ♀ 30 mm. Cape Colony.
- cuneifera.* **Rh. cuneifera** *Hmps.* Somewhat similar to *U. schaeferi*, and perhaps belonging to *Ulochlaena* owing to the pectinate antennae of the ♂. Body and forewing dark red-brown, the median area still dark except at the costal margin. Interior line indistinct, double, filled with rusty red, from the costal margin obliquely to the lower cell-margin, then vertical. Ring-macula and reniform macula rusty red, edged with white, open above, united into a somewhat H-shaped figure. Exterior line black, white outside, notched, slightly inserted in the submedian fold. Submarginal line marked by white lunae edged inside by black lunae. White marginal dots. Hindwing yellowish-white, reddish-brown at the margin, with a lunar spot and exterior line. ♂ 30 mm. Congo.

#### 5. Genus: **Leucochlaena** *Hmps.*

Proboscis small, palpi shorter than in *Rhodochlaena*. Antennae of ♂ long-combed in the typical palaearctic species, short-combed in the only Ethiopian species. The scheme of markings of the other species corresponds altogether to that of *botonga*, but the Ethiopian species looks quite different. Type: *fallax* *Stgr.*

- trinota.* **L. trinota** *H.-Schäff.* (= *leucogonia* *Hmps.*) (7 f). Thorax ochreous red-brown, abdomen pale red-brown. Forewing dark ochreous red-brown almost as far as the exterior line. Somewhat lighter yellow at the inner margin as far as the interior line in the ♂, more intensely so in the ♀. A short white streak near the base of the cell. A somewhat stronger streak at the median vein from vein 2 to the apex of the cross-vein, more or less split into 3 parts. The dark interior line is uniformly bent, running across the base of vein 2. Exterior line far outside, parallel to the distal margin, somewhat violet before and behind it. Hindwing pale pinkish-brown with a feeble discal luna and an exterior line. 32—40 mm. Mashona Land, Natal.

#### 6. Genus: **Ulochlaena** *Led.*

Proboscis absent, palpi short, long-haired below. Antennae of ♂ strongly pectinated to the tips in the type, ciliated in the ♀. Thorax densely haired. Costal margin of forewing slightly inserted. Type: *hirta* *Hbn.* from Europe.



1. Antennae of ♂ long-combed to the tips, the third palpal joint long.

**U. sagittata** Gaede (7 f). Thorax and forewing brownish-grey. The dark interior and exterior lines *sagittata*. strongly notched, similar to *Cl. yvanii* Dup. (Vol. 3, pl. 2 f). The exterior line is far incurved at vein 2 and almost touches the apex of the interior line, smaller notches at the other places. Distal margin slightly undulate. Abdomen and hindwing slightly brownish, lighter at the base. The ♀ has a less strongly notched exterior line. 29 mm. South-West Africa.

**U. ferruginea** Gaede. Antennae apparently somewhat shorter combed, but this may be due to its being *ferruginea*. badly preserved. Colouring like that of *sagittata*. A dark short basal ray and the brown interior line as far as the median vein rather indistinct, directed inwards at the latter, then obliquely outwards, and from the submedian fold vertically to the inner margin. Exterior line from vein 7 obliquely outwards, from vein 5 parallel to the inner margin, a small yellowish-white spot on the inside of the exterior line above vein 3. One somewhat larger spot each above veins 2 and 5. A dark short oblique line from the apex. Hindwing as in *sagittata*. ♂ 26 mm. South-West Africa.

**U. schaeferi** Gaede (7 f). Body as in the other species. Forewing light grey in the basal and marginal *schaeferi*. areas, darker, browner in the discal area. Interior border of the median area slightly extra-angular at the subcostal vein, below the median vein, and below vein 1. The exterior border almost parallel to the distal margin, angled at the veins, slightly inserted behind the cell. Ring-macula and reniform macula united to a somewhat H-shaped white spot, partly edged with dark outside. The median vein lighter from there inwards. The brown submarginal line strongly notched, distinct outside, faded inside. Fringe speckled. Hindwing of ♂ whitish, grey at the margin, darker in the ♀, fringe white. 28 mm. South-West Africa. — **reducta** Gaede is somewhat *reducta*. darker in the basal and marginal area of the forewing. The H-shaped marking only represented by 2 upper spots. The exterior border of the median area, from vein 4 to the costal margin, forms a distally open bow, whereby the angle behind the cell is abolished. The submarginal line is only marked by some spots. ♂ 29 mm. South-West Africa.

**U. fumea** Hmps. (7 f). Body and forewing dark brownish-grey. Interior line black, somewhat faded, *fumea*. somewhat extra-angular in the submedian fold. The reniform macula is a small black luna. Exterior line somewhat faded, finely dentate, uniformly bent, more inwards only towards the inner margin. Hindwing pale greyish-brown. 26 mm. Cape Colony.

## 7. Genus: **Charidea** Guen.

Proboscis normal, palpi short, long-haired below. Antennae bipectinate. Thorax scaled, with a feeble tuft in front and behind. Abdomen with a hair-tuft at the base. Vein 5 of hindwing arises a little below the centre of the cross-vein.

**Ch. elegantissima** Guen. (7 g). Thorax greyish-brown, abdomen whitish brown. Forewing greyish- *elegantissima*. violet and pink. Olive green spots below the base of the cell, partly edged with white. A black dot in the cell before the interior line. Interior line fine, double, brown, very obliquely to the middle of the inner margin, where it meets the similar exterior line. Ring-macula and reniform macula united into a large V-shaped spot, olive green, its rounding black and white. Submarginal line composed of dentate black spots with white lunae. Hindwing white with a dark central luna, an exterior line, and a dark margin. ♂ 36—40 mm. South Africa.

## 8. Genus: **Ectochela** Hmps.

Proboscis normal, palpi porrect, the third joint rather long. Antennae of ♂ finely serrate and tufted. Anterior tibia with a bent claw outside at the end. Vein 5 of hindwing a little below the centre of the cross-vein. Type: *canina* Fldr.

**E. canina** Fldr. (7 g). Body and forewing whitish-grey, dusted somewhat black. Median vein, besides *canina*. veins 7—5 and the beginnings of veins 4—2 sometimes black. A black streak below the base of the cell, interior line only present at the costal margin, or quite absent, black. The reniform macula is a black streak or luna. Exterior line marked by dots on the veins, parallel to the distal margin. The submarginal line is a faded dark band. Fringe speckled. Hindwing white, with or without a dark margin. ♀ darker on the thorax, abdomen browner, forewing more intensely dusted black, a faded black band below the cell.

**E. nigrilineata** Gaede (7 g). Body as in *canina*. Interior area of forewing whitish or yellowish-white. *nigrilineata*. The median vein distinctly black, a variably distinct white line above it. Somewhat brownish below and behind the cell. Vein 6 black, 4 and 5 only basally black. No luna at the cross-vein. Traces of a brownish oblique band from the apex. Veins in the marginal spot scarcely darker except at their ends. Interior and exterior lines absent. Hindwing white, broad dark at the margin, somewhat yellowish in the basal area of the ♀. 33 mm. South-West Africa.

*albilunata*. **E. albilunata** Gaede (= *dasophrys* Tams) (7 g). Body as in *canina*. Anterior half of forewing greyish-white. Median vein fine black, bordered with white above. Pale brown below it as far as the apex and at the distal margin. Greyish-white again at the inner margin. Veins almost white in the marginal area. White marginal spots at the anal angle, above veins 4 and 5. Black marginal dots between the veins. Interior and exterior lines composed of black dots. Traces of 1 brown angular spot each on both sides of the cross-vein. One white luna each above the bases of veins 2 and 3. Hindwing as in *nigrilineata*. 35 mm. South-West Africa, Cape Colony.

*flavilunata*. **E. flavilunata** Gaede (7 g). Body of ♀ somewhat darker than in the preceding species. Forewing with a white median vein and streak above vein 5, the costal-marginal area greyish-white, somewhat more brownish at the costal margin itself. A small white, dark-centred luna at the cross-vein. One yellowish luna each above the bases of veins 2 and 3. A broad blackish-brown stripe below the cell, more narrowly continued at vein 5, and then to the apex. Inner margin and upper half of distal margin bluish-grey, brownish at the anal angle. Veins partly somewhat white in the distal area, black lines between them, thickened at the margin, extending far inwards. By mistake, the veins are stated to be black in the original description. The exterior row of dots begins at vein 6 with a stronger black dot, besides a black dot behind the cross-vein.] Hindwing yellowish white at the base, the rest brownish. ♀ 39 mm. South-West Africa.

*roseitincta*. **E. roseitincta** Gaede (7 h). Thorax greyish-brown, abdomen light brown. Forewing yellowish white as far as the lower margin of the cell, then above vein 5 to the apex. A rather distinct dark brown stripe below the cell as far as the base of vein 2, continued paler to the apex. A white 8-shaped spot at the cross-vein, 2 small black spots before it, a larger one behind it. Black spots above the bases of veins 2 to 4, surrounded inside by a somewhat reddish shine. A black line above the inner margin, yellowish-white above it. The veins in the marginal area light, black lines between them. A line being white above, black beneath is above vein 5, a less distinct one above vein 6. Hindwing of ♂ white, with a narrow pale brown margin. The ♀ is everywhere more intensely brownish. 38—42 mm. South-West Africa.

*aberrans*. **A. aberrans** Gaede (7 h) is quite different. Thorax greyish-brown, abdomen lighter. Forewing greyish-brown. A yellowish-white streak at the cross-vein replaces the reniform macula. A blackish spot basad to it, then a hazy brightening instead of the ring-macula. An oblong whitish spot below the base of vein 3, a more extinct one below vein 2. Interior line very indistinct, dark, extra-angular as far as the centre of the cell, then vertical to  $\frac{1}{3}$  of the inner margin. Exterior line distinct, inserted behind the cell, distally angled at veins 4 and 1. Submarginal band dark, faded. Black marginal dots between the veins. Hindwing white at the base, the rest pale brown. ♀ 34 mm. South-West Africa.

*turneri*. **E. turneri** Tams seems to differ in the absence of the white spots at the cross-vein and of their interior black border. The dark brown stripe below the cell is narrower. Cape Colony.

### 9. Genus: **Caffristis** Hmps.

Proboscis normal, palpi short, hairy below. Antennae of ♂ very shortly bipectinated, serrated at the tips. Metathorax with a feeble tuft, abdomen tuftless. Neuration normal.

*ferrogrisea*. **C. ferrogrisea** Hmps. (7 f). Thorax dark grey, abdomen greyish-brown. Forewing dark grey, dusted red-brown. Interior line indistinct, oblique, undulate. The ring-macula is a small dark spot, the reniform macula a dark luna. Exterior line blackish, rather indistinct. Submarginal line likewise dark and indistinct. Behind it black streaks at the margin. Hindwing pale reddish-brown, traces of a discal luna and an exterior line. ♂ 26—30 mm. Basutoland.

### 10. Genus: **Eumichtis** Hbn.

Proboscis and palpi as in *Caffristis*. Thorax scaled, with feeble tufts in front and behind. Abdomen with short dorsal tufts and a hairy edge laterally. Neuration normal. Type: *lichenea* Hbn. from Europe.

*rubrimixta*. **E. rubrimixta** Hmps. (7 h). Thorax dark red-brown, abdomen lighter. Forewing red-brown. Interior line black, undulate, somewhat obliquely outwards. Coniform macula broad, short, edged with black. Ring-macula and reniform macula incomplete, edged with black, somewhat dark-centred, a dark spot between the two maculae. Traces of a dark undulate median line. Exterior line black, notched, distally bordered with a lighter red-brown. The submarginal line is a faded dark band, with pointed dark spots inside near the middle. Hindwing greyish-brown with a darker exterior line and marginal band. ♀ 35 mm. Transvaal.

### 11. Genus: **Rhizotype** Hmps.

Proboscis normal, palpi short. Thorax with a feeble tuft in front and behind. Abdomen with a series of dorsal tufts. Wings with an undulate distal margin. Vein 5 of hindwing arises a little below the middle of the cross-vein. Type: *flammea* Exp. from Europe.



**Rh. palliata** Warr. (7 h). Thorax dark red-brown, abdomen greyish-yellow at the base, then light red- *palliata*. brown. Forewing dark red-brown in the basal half and behind the submarginal line, lighter red-brown between them. Interior and exterior lines fine brownish ochreous, edged with dark. An oblique whitish dash at the interior line at the costal margin above the ring-macula. Interior line widely excurved between the lower cell-margin and the interior margin. The exterior line begins also with a whitish spot and extends close behind the upper angle of the reniform macula. Ring-macula small, oval, reniform macula oblong, the ends directed outwards. Both are edged with light brownish ochre, filled with dark. The veins in the marginal area somewhat light. Submarginal line notched, light, with dark triangles inside. Hindwing whitish ochreous with a dark exterior line, dark marginal lunae, edged with light inside. ♂ 40 mm. Cape Colony.

## 12. Genus: **Hypotype** Hmps.

Proboscis normal, palpi somewhat longer than in the preceding genera. Thorax tuftless, abdomen only with a basal tuft. Wings entirely margined. Vein 5 of hindwing branches off below the centre. Antennae of ♂ finely ciliated. Type: *scotomista* Hmps.

**H. nigridentata** Hmps. (7 h). Body reddish greyish-brown. Forewing whitish grey. A black streak *nigri-* below the base of the cell. Interior line indistinct, undulate, black. Coniform macula extinct, edged with black. *dentata*. Ring-macula and reniform macula large, somewhat indistinctly margined, the latter open above and below. Exterior line indistinct, faded, dentate, strongly incurved below vein 4. Submarginal line marked by dentate black spots, faded white behind them. Hindwing dark brown. ♂ 44 mm. Cape Colony.

**H. scotomista** Hmps. Thorax white mixed with dark brown, abdomen brownish ochreous. Forewing *scotomista*. somewhat narrower, white, dusted dark brown. Interior line bent, beginning with a white spot at the costal margin, indistinct. Coniform macula marked by white scales. Ring-macula small, reniform macula larger, surrounded by a white ring. Traces of a dark median shadow. The dentate exterior line begins also with a white spot. Submarginal line white, faded, edged with dark inside. Hindwing white, darker at the margin. The ♀ with a broader forewing and a uniformly dark hindwing. 42—48 mm. Cape Colony.

## 13. Genus: **Trichoridia** Hmps.

Proboscis and palpi as in the preceding genus. Metathorax with a feeble tuft. Abdomen with a basal tuft. Forewing somewhat undulate at the distal margin. Vein 5 of hindwing arises from the middle of the cross-vein. Many species of the genus occur in the Indian Region, only 1 species in Africa. Type: *herchatra* Swinh. from India.

**Tr. ethiopica** Hmps. Thorax dark red-brown, abdomen greyish-brown, anal tuft red-brown. Forewing *ethiopica*. pale red-brown. Base and costal-marginal area dark brown. The discal area dark red-brown, except at the costal and inner margins, laterally bordered by the fine pale interior and exterior lines. The former obliquely outwards below the submedian fold, the latter obliquely inwards below vein 5. Ring-macula and reniform macula brownish-white. The former oblique, both united with a large elliptical spot at and below the lower cell-angle. Submarginal line fine, brown. Hindwing brown. ♂ 34 mm. East Africa.

## 14. Genus: **Dasypolia** Guen.

Proboscis stunted, palpi short. Thorax and abdomen without tufts. Vein 5 of hindwing a little below the middle of the cross-vein. Antennae serrate in the typical species. Type: *templi* Thunbg. from Europe.

**O. informis** Wkr. (7 h). Antennae of ♂ shortly pectinated. Body and forewing brownish olive grey. *informis*. Interior line black, almost vertical, introangular at vein 1. Coniform macula small, finely edged with black, the margins prolonged almost to the base. Ring-macula and reniform macula dark brown, edged with black, the former guttiform. Exterior line black, notched, edged with light outside. Submarginal line pale, indistinct with black sagittate spots inside between vein 4 and 7. Hindwing brownish ochreous, darker at the margin. ♂ 35 mm. South Africa.

## 15. Genus: **Grammoscelis** Hmps.

Proboscis normal, palpi short. Frons with a truncate projection. Antennae of ♂ shortly bipectinate. Thorax with feeble tufts in front and behind, abdomen with a lateral hairy margin. Vein 5 of hindwing close below the middle of the cross-vein.

**Gr. leuconeura** Hmps. (7 i). Body and forewing greyish-brown, the veins whitish. Interior line black, *leuco-* double, filled with whitish, strongly extra-angular below the costal margin and above the inner margin. Coni- *neura*.

form macula pointed, triangular, edged with black. Ring-macula and reniform macula brown, surrounded by white and edged with black. The former obliquely oval, the latter above pointedly outwards. A faint brown median shadow from the costal margin obliquely outwards to the lower cell-angle. Exterior line black, double, filled with white, almost straight and parallel to the distal margin. Submarginal line white, with black triangles inside, introangular at vein 2. Hindwing pale brown, darker at the margin. ♂ 30 mm. Cape Colony.

#### Subfamily: **Amphipyrinae**.

HAMPSON has united the species treated upon here with the *Acronyctinae*. In conformity with the corresponding volumes of the other faunae, we have separated them from the *Acronyctinae*. As in the other faunae, the group of the African *Amphipyrinae* is also very numerous. Common to all the genera are only the spineless tibiae and the bare eyes without hair or cilia. All the rest, such as the size of the proboscis, the shape of the antennae, the presence or absence of frontal projections varies. The larvae are smooth with single hairs on the tubercles, all the pairs of legs are present. Otherwise their properties vary like those of the imagines.

As we noted in the Supplementary Volume 3, the name of this group is changed now by HAMPSON into "**Zenobiinae**" in accordance with the oldest representative of the family: *Zenobia Oken* (= *Dicycla* Guen). oo L.

#### 1. Genus: **Magusa** Wkr.

Proboscis present, palpi normal. Antennae of ♂ finely ciliated, anterior hips of ♂ with hair-tufts. Abdomen with small hair-tufts at the base. Forewing remarkably narrow, neuration normal. Hindwing very large, neuration normal. Type: *orbifera* Wkr. from America.

*versicolora*. **M. versicolora** Saalm. (7 k). Thorax and forewing dark greyish-brown, somewhat reddish; lighter from the submedian fold to the inner margin, enclosing traces of the double exterior line. The two maculae are finely surrounded with black. Submarginal line light, from the centre of the wing to the inner margin, a light streak at its upper end extends to the distal margin; the line is continued to the costal margin by a few white dots. Marginal lunae pale brown. Abdomen and hindwing somewhat lighter brown than forewing. The costal margin of the forewing may also be lighter, and a black basal ray may proceed from below the cell: — **subterminalis** Strd. Or the whole forewing has a grey ground-colour with a light brown costal margin: — **callixena** Strd. (7 i) ♀ 28—45 mm. West, South, and East Africa, Madagascar.

#### 2. Genus: **Stenopterygia** Hmps.

Proboscis present, the second palpal joint somewhat longer than normal. Thorax with a broad ridge. Abdomen with small hairtufts at the base. Wings of a square shape. Vein 5 of hindwing not quite so feeble as it ought to be, arising a little below the middle of the cross-vein, otherwise normal.

*subcurva*. **S. subcurva** Wkr. (= *postica* Wkr., *calida* Wkr.). The species occurs also in India. Thorax and forewing red-brown with black double lines, black sagittae before the distal margin, the maculae scarcely recognizable. Hindwing whitish, brownish in the apical third. — **monostigma** Saalm. has a remarkably white spot behind the exterior line. 30—34 mm. South Africa, Madagascar.

*firmivena*. **S. firmivena** E. Prout. Thorax and marginal half of forewing cinnamon-coloured, hindwing greyish-brown. Forewing entirely darkened as far as the median line and the reniform macula from the costal margin to the reniform macula and from the latter almost to  $\frac{1}{3}$  of the inner margin. The interior lines quite faded. Traces of black double streaks indicate an interior and a median line. Reniform macula somewhat paler than the ground-colour of the forewing, somewhat triangular, more pointed above, edged dark and centred dark. Exterior line double, strongly dentate, incurved below the cell, excurved again to the inner margin. Submarginal line marked by a darker brown shadow on its interior side. Hindwing diaphanous light, discal luna and margin darker. ♀ 29 mm. St. Thomé.

#### 3. Genus: **Parastichtis** Hbn.

Proboscis and palpi normal. Thoracal ridge higher in front and behind. The abdomen also laterally with longer hair. Distal margin especially of forewing somewhat undulate. The feeble vein 5 of the hindwing arises below the middle of the cross-vein. Type: *hepatica* L. from Europe.

*nigricostata*. **P. nigricostata** Hmps. (7 i). Thorax and forewing light wood-coloured. Costal margin dark red-brown, also between the two maculae, which are almost only recognizable by this. A black streak behind the upper edge of the reniform macula. Interior line almost unnoticeable, the exterior line fine, strongly notched. Grey spots at the margin feebly indicate a light submarginal line. Forewing of ♂ with some pink spots. Hindwing white, brownish at the margins, darker in the ♀. 50 mm. Sierra Leone, Mauritius. — **gibbosa** Prout, from St. Thomé, has the hindwing as dark as the ♀ usually has, and besides very intense black marginal spots. Abdomen above with a double chestnut-brown line. The ♂ from Cameroon and the Gold Coast has pure white hindwings without dark margins.



**Par. oxylus** *Fawc.* (7 i). Thorax and forewing reddish-brown with a blackish-brown marking. Dark spots *oxylus*. at the costal margin. Ring-macula and reniform macula relatively large. Only the exterior line is thick and distinct, forming steps inwards at vein 6 and 5, from vein 4 curved to the base of the wing. Dark streaks behind it in the marginal area. Fringe speckled. Hindwing pale brown, lighter in the basal area. ♂ 32 mm. East Africa.

**Par. lysis** *Fawc.* (7 i). Lighter, rusty brown. Exterior line strongly dentate (not to be noticed in the original figure), the distal area behind it light brown with some black streaks between the veins. The macula as in *oxylus*. A sinuous line from the base of the wing above the inner margin, with a small black spot below it near the base. Hindwing somewhat darker than in *oxylus*. ♂ 30 mm. East Africa.

In the following genus we find species most of which are described as *Hadena*. The number of American species belonging to this genus is very great. Relatively few species occur in Africa.

#### 4. Genus: **Trachea** *Ochs.*

Proboscis normal, second palpal joint longer. Prothorax and metathorax with parted tufts. Abdomen with short hair-tufts. Veins as in *Parastichtis*. Distal margin of forewing somewhat undulate. Type: *atriplicis* *L.* from Europe.

Antennae of ♂ finely ciliated in tufts.

**Tr. normalis** *Hmps.* Thorax pale red-brown and blackish-brown. Forewing brownish ochreous with *normalis*. black scales and black marking. Traces of a subbasal line, black behind it at the costal margin. Interior line undulate, bent, edged inside with brownish ochreous. Traces of a short coniform macula, the reniform macula open above, black streaks behind it. A median shadow from the lower edge of the cell to the inner margin. Exterior line double at the costal margin, notched, the costal margin behind it blackish with light spots. Submarginal line angled at veins 7 and 4, small black marginal lunae behind it. Hindwing white, darker at the margin. ♂ 35 mm. Transvaal.

**Tr. melanoleuca** *Hmps.* (7 k). Brownish-white with a dark brown marking and black lines. Subbasal *melano-* line incurved to the base, interior line undulate. The light brown ring-macula is elliptical, the median shadow *leuca*. behind it distinct, angled, ending in a spot above vein 1. Reniform macula large, smoky brown, less distinct, round. Exterior line indistinct, undulate, parallel to the distal margin, bordered with white at the inner margin. Three strong sagittate spots at the margin, and a triangular spot before them at the inner margin. Hindwing brownish, with a light median band edged dark inside. Black-spotted at the anal angle. ♀ 50 mm. Natal.

**Tr. melanodonta** *Hmps.* (= *Bryoph. melanoleuca* *Hmps.*) (7 i). White. Interior band of forewing black, *melano-* broad, projecting outwards below the cell. The broadly edged small ring-macula connected black with the *donta*. cross-vein, black spots above it at the costal margin. A black preapical spot, from which an olive brown shadow proceeds, and a large spot at the anal angle. Abdomen and hindwing light brown. ♀ 24 mm. Natal.

**Tr. melanobasis** *Hmps.* (7 k). Body whitish, tegulae yellowish-brown. Forewing blackish as far as the *melano-* middle, a red-brown spot at the costal margin near the base is divided by a white line. Interior area edged *basis*. with white outside. Only the reniform macula is marked by a black spot in light surroundings. The exterior line in the greyish-brown distal area is marked white only at the costal and inner margins, besides black spots as in *melanodonta*. Hindwing coloured like the distal area of the forewing. ♀ 30 mm. Natal.

Antennae of ♂ uniformly ciliated. Both wings beneath with rusty brown scales in the interior upper halves.

**Tr. leucura** *Hmps.* Body and forewing copper-brown with white marking. Subbasal and interior lines *leucura*. formed of white dots. Ring-macula composed of 3 dots, reniform macula of 7, connected by a black bar. White dots behind them at the costal margin. Submarginal line formed of some dots, another dot before them at the inner margin. Marginal line dark with white dots before it on the veins, a white line behind it. Hindwing paler. ♂ 34 mm. Gold Coast.

**Tr. lobisemastis** *Hmps.* Hindwing of ♂ and ♀ with a large lobe at the base. Thorax and forewing *lobi-* dark red-brown and somewhat greyish-white, especially in, below, and behind the cell. A blackish-brown sub- *semastis*. cellular streak terminates in a triangle. Interior line indistinct, oblique, incurved below vein 1, a blackish-brown spot above it. A dark band from the blackish-brown coniform macula to the submarginal line; ring-macula and reniform macula large, greyish-white and red-brown, edged with dark; between them dark brown. Exterior line fine, dark brown, obliquely inwards below vein 5. Traces of a pale submarginal line. Abdomen greyish-brown. Hindwing red-brown. 34 mm. East Africa.

The following species exhibit a long black lateral pencil on the ♂ abdomen.



- nigri-*  
*barbata.* **Tr. nigribarbata** *Hmps.* (7 k). Body and forewing reddish-brown with black scales. Subbasal and interior lines double, undulate, black. Traces of a black sagittal macula. The two other maculae edged with black, white inside with a darker centre. A dark median shadow behind the elliptical ring-macula. The double exterior line is strongly incurved below the cell, a black spot behind it at the costal margin. Submarginal line notched, brownish-ochreous, marginal dots black. Hindwing just as dark. Forewing of ♀ paler. 32 mm. Natal, East Africa.
- phoeni-*  
*colopha.* **Tr. phoenicolopha** *Hmps.* Body red-brown with white scales. Forewing light red-brown with dark brown places. Subbasal and interior lines double, black, filled with white. Ring-macula formed of 3 dots, reniform macula of 7, edged with black, with white spots inside. Exterior line double, indistinct, filled with white at the costal and inner margins. Submarginal line formed of a white angle at the costal margin and following white dots, edged with black inside. Marginal line black with white dots. Hindwing pale brown, with a central luna and an exterior band. ♂ 32 mm. Delagoa Bay.
- leucopicta.* **Tr. leucopicta** *Kenr.* (7 k). Thorax and forewing dark brown with white spots. Subbasal and interior lines formed of white spots. Ring-macula and reniform macula black, finely edged with white. The broad exterior line is interrupted in the submedian fold, connected in the centre of the wing with a spot at the distal margin. Small white marginal dots. Abdomen and hindwing little lighter. 40 mm. Madagascar.
- Antennae of ♂ uniformly ciliated. Wings normal, no hair-pencil on the abdomen.
- brevius-*  
*cula.* **Tr. breviscula** *Wkr.* (7 k). Thorax rusty brown. Forewing greyish-brown. Ring-macula light, ending obliquely inwards towards the costal margin, edged with dark, situate in a large triangular dark area which is bordered inside by the black double interior line. Reniform macula distinctly marked off by black only inside. Exterior line also double, undulate, finely black. Somewhat darker behind it at the costal margin. The light notched submarginal line with black arrows on the inside, darker behind it. Abdomen and hindwing light brown. 30 mm. Natal, East Africa.
- lucia.* **Tr. lucia** *Fldr.* Thorax dark greenish-brown. Forewing brown. A deep dark brown spot in the base of the cell. The double greenish interior line broadly filled with olive brown, 2 triangular spots before it at the inner margin, also edged with green, with traces of a black coniform macula. The oblong ring-macula and reniform macula edged with green. Exterior band broad, greenish, very oblique, the whole median area before it darkest. More intensely dark before the fine submarginal line than behind it. Abdomen and hindwing dark red-brown. 34—40 mm. South and East Africa.
- atriplaga.* **Tr. atriplaga** *Hmps.* Thorax greyish-brown. Forewing grey and dark brown, reddish-brown behind the middle excepting the costal margin. Subbasal and interior lines indistinct, white, strongly excurved above the inner margin. The coniform macula is a large blackish-brown spot extending to the median vein. Ring-macula and reniform macula large, elliptical, finely edged with white. Exterior line indistinct, white, edged with brown inside, white dots behind it at the costal margin. Submarginal line whitish, marginal lunae black. Hindwing purely white, black streaks at the margin. ♂ 30 mm. Uganda.
- euryscia.* **Tr. euryscia** *Hmps.* Body red-brown, dusted black. Forewing olive green and red-brown, except in the marginal area. A red-brown spot in the submedian fold near the base. Interior line blackish-brown, oblique, bent, darker behind it in the submedian fold. Ring-macula red-brown, with a dark centre and margin; reniform macula square, whitish, blackish-brown on the sides, a similar spot behind it. Exterior line dark brown, incurved from vein 4, and a blackish-brown spot at the costal margin before the light indistinct submarginal line. Hindwing copper-brown. ♀ 26 mm. Gold Coast.
- consum-*  
*mata.* **Tr. consummata** *Wkr.* (= *thoracica* *Wkr.*, *inextricans* *Wkr.*, *tulipifera* *Saalm.*) (7 c). Thorax and forewing brown. Subbasal and interior lines double, black, undulate, obliquely outwards, rather indistinct. Coniform macula very large and distinct. Ring-macula somewhat oblong, reniform macula large, both indistinctly edged with dark. The reniform macula may have fine white dots outside, or also one large yellow or white spot = **tulipifera** *Saalm.* (= *prominens* *Strd.*, *rufomacula* *Strd.*). The mostly indistinct double exterior line projects much distally at vein 5. Distinct black sagittal spots before the fine yellowish-brown submarginal line. Hindwing greyish-brown (*fusca* *Strd.*), sometimes lighter at the base (*virilis* *Strd.*), with or without a central spot and band. 36—40 mm. St. Thomé, East Africa, Madagascar. Also in the Indo-Australian region. Larva greyish-brown, with a hunch on the 4th and 11th segments, subdorsal black spots on the 4th and 5th, irregular dorsal and lateral bands on the 4th, and a dorsal spot on the 12th segment.
- connivens.* **Tr. connivens** *Fldr.* (8 a). Similar, more greyish-brown. Exterior line more distinct, more uniformly bent, notched. Darker before the reniform macula. The undulate line and its arrows feebly developed. Hindwing dark brown. 34—40 mm. South and East Africa, also in India.

The following genera have an unparted tuft on the prothorax and metathorax. Proboscis normal, second palpal joint rather long.



5. Genus. **Oediplexia** *Hmps.*

Frons with a round projection. Abdomen with strong tufts on the basal segments. Neuration as usual.

**O.d. mesophaea** *Hmps.* (8 a). Red-brown, the median area dark brown except at the costal margin. *mesophaea*. Subbasal line marked by black dots. Interior line beginning with a black spot at the costal margin, interrupted, slightly excurved. Traces of a small coniform macula. Ring-macula red-brown, edged with black, touching a black spot below the cell. Reniform macula brownish ochreous, edged with black only inside. Traces of a black median line. The dark exterior line is notched, the submarginal line light, both uniformly bent. Hindwing yellowish-white, darker at the margin. ♂ 32 mm. East Africa.

6. Genus: **Euplexia** *Steph.*

Abdomen with dorsal tufts, that on the third segment large, with lateral tufts on the last segments. Antennae of different shapes, ciliated in the ♂ African species. The main range of the genus is Indo-Australia, but several species occur also in Africa. Type: *lucipara* L. from Europe.

1. The dark median area of the forewing is tapering at the inner margin.

**Eupl. rhoda** *Hmps.* (8 a). Thorax and forewing dark violettish-brown with some black basal dots. The *rhoda*. interior line begins below the costal margin and turns obliquely outwards, the median area behind it is very dark. Ring-macula oblong, oblique, connected below with the somewhat lighter reniform macula which is edged with yellow, with a yellow median streak. The exterior line somewhat notched as far as its lower end. Submarginal line light, edged somewhat dark inside, with a dark spot near the costal margin, inside of it a lighter band of the ground-colour. Abdomen and hindwing dark brown. 32 mm. East Africa, Usambara.

**Eupl. amaranta** *Fldr.* (8 a) is very similar. Ground-colour reddish-brown. Interior line edged light in- *amaranta*. side, somewhat excurved in the middle. The dark ring-macula edged with black, connected with a similar spot below the cell. Reniform macula as in *rhoda*. Traces of a small coniform macula. The space behind the cell is relatively light. Submarginal line somewhat more notched. Hindwing with a dark central spot and an exterior band. 28—32 mm. Transvaal, Natal, Uganda.

**Eupl. chalybsa** *Hmps.* (8 a) also resembles *rhoda*. Ground-colour dark violettish-brown, median area *chalybsa*. very dark. The interior line and the maculae formed as in *amaranta*. The ring-macula is also light-edged, except in front. Reniform macula yellowish or brownish, sometimes united with the light greenish-yellow post-cellular spot. The notched greyish-yellow submarginal line often consists only of spots. Abdomen and hindwing reddish-brown. 28—30 mm. East Africa.

2. The dark median area is broad at the inner margin.

**Eupl. saldanha** *Fldr.* (8 a). Thorax and median area of forewing almost black, the rest dark reddish- *saldanha*. brown. Basal area separated from the median area by a somewhat lighter bent band. Coniform macula edged with black, hardly noticeable; ring-macula dark brown, oblong; reniform macula very narrow, yellowish-brown, edged with white, a dark brown spot behind it. The following exterior band is white or brownish, almost of the ground-colour, parted in the ♀ by a dark dentate line. Inside of this dentate line in the ♂ pale violettish-brown, or in — **saldanhana** *Strd.* ♀ as dark as the rest of the wing. — The dentate light submarginal *saldanhana*. line is incurved behind the cell, the margin behind it dark. Abdomen and hindwing brownish with 2 white dentate lines which are often only distinct at the inner margin. 32—35 mm. South Africa.

**Eupl. nyassana** *Gaede* (8 b) resembles *saldanha* and the following species *augens*. The interior border *nyassana*. of the median area is still farther incurved at the inner margin than in *saldanha*. The ring-macula is rounder. A straight white streak before the white edge of the reniform macula. The margin from the apex to vein 3 narrowly arcuately dark. Somewhat less dark spots at the interior angle. Hindwing as in *saldanha*. ♀ 33 mm. Nyassa District.

**Eupl. augens** *Fldr.* (8 b) differs from *saldanha* almost only in the exterior band being lighter and parted *augens*. by 1 or 2 fine dark lines instead of one broader line. Probably *saldanha* and *nyassana* are only forms of *augens*. 32 mm. South Africa.

**Eupl. debilis** *Btlr.* (8 b). Ground-colour more or less brownish ochreous. The ring-macula is hardly *debilis*. noticeable in the dark median area. The light reniform macula is connected below with an equally light spot behind it, sometimes united with it also outside, from there a less light band to the inner margin. The dentate light submarginal line in the dark marginal area is often only composed of dots. Hindwing brownish-white, darker at the margin. — **habilis** *Saalm.* (8 b). The spot at and behind the reniform macula is not so prominent. *habilis*. This may be the normal form, as the type of *debilis* is much worn. 28—32 mm. Madagascar.

**Eupl. melanocycla** *Hmps.* (8 b) is coloured like *debilis*. Ring-macula elliptical, large, bluish-black, *melano-* with a white median streak, also the space below it deep dark. Reniform macula large, yellowish-white. Sub- *cycla*.



*depravata*. marginal line not very light, strongly dentate. Hindwing somewhat lighter than in *debilis*. — **depravata** Gaede has more faded markings. Ring-macula more slantingly edged outside and somewhat more remote from the

*pullomedia*. narrower reniform macula. — **pullomedia** B.-Bak. has a slate-coloured ring-macula, the reniform macula and the hindwings are all white. 30—35 mm. East Africa.

*azyga*. **Eupl. azyga** Hmps. (8 b) resembles a dark *melanocyclus*. Thorax and forewing red-brown. Ring-macula and reniform macula lighter, edged with black. Exterior band as in *melanocyclus*. Hindwing dark brown, with traces of a white dentate line. ♀ 34 mm. East Africa.

*polifera*. **Eupl. prolifera** Wkr. was found in Natal, but probably only imported from Australia.

## 7. Genus: **Perigea** Guen.

The anterior thoracal tuft is larger than the posterior one. Abdomen with feeble tufts at the base. Type: *spicea* Guen. from India.

1. Antennae of ♂ finely ciliated and tufted.

*semi-umbrosa*. **Per. semiumbrosa** Saalm. Thorax and forewing dark reddish-brown. The basal area is lighter at the inner margin as far as the interior line which is whitish, very convex below vein 1. Coniform macula fine and narrow. The light ring-macula is distinct, the costal margin above it also light. Reniform macula large, light, rather indistinct in the light surroundings, as the darkening extends only to the indistinct median line. Exterior line double, formed of rows of black and white dots. Submarginal line indistinct, almost its whole

*griseata*. inside bordered with tiny dark spots. Abdomen and hindwing dark brown. — **griseata** Kenr. (8 c) is lighter, especially in the basal area, before the ring-macula and also below the reniform macula. The bordering of the

*rubidata*. submarginal line is more irregular, interrupted between veins 3 and 6, otherwise with larger spots. — **rubidata** Kenr. The light ground-colour is somewhat reddened. The dark costal margin in the basal area is more intensely dark and bent down to the base below the cell. The darkening at the submarginal line is similar as in the typical form, but broader. Both the forms have a relatively lighter abdomen and hindwing. 35—40 mm. Madagascar.

2. Antennae of ♂ ciliated.

*quadrimacula*. **Per. quadrimacula** Mab. Greyish-brown. Forewing dusted dark. Darkened between the subbasal line and the double interior line at the costal margin. Coniform macula very large, finely edged with dark, the ring-macula indicated by dark edges. Reniform macula dark, with a blotch to the costal margin and a streak to the exterior line which is dark brown, undulate, vertical to the inner margin. Slightly darker before the faded submarginal line, broader so only at the costal margin. Abdomen and hindwing similarly coloured, lighter at the base. 34 mm. Natal.

*gypsina*. **Per. gypsina** Hmps. Body and forewing whitish. Somewhat rusty brown at the costal margin at the base and below the cell. The rusty brown interior line is broad, triangular as far as the median vein. Ring-macula and reniform macula composed of confluent white spots partly bordered with rusty brown. A median stripe from the costal margin, bordered with white on both sides. The exterior median area triangular dark as far as vein 2, from there a faded band to the distal margin. Exterior line composed of a double row of black dots. Behind it a narrowing stripe at the distal margin, beginning below the costal margin, and black marginal dots. Hindwing brownish-white, lighter at the base, with black marginal streaks, edged with white inside. 36 mm. Gold Coast.

*grandirena*. **Per. grandirena** Hmps. (8 c). Thorax and forewing greyish-brown, with a slight greenish shine. The interior line is a broad blackish-brown band, obliquely outwards to the centre of the wing, then onward as a fine line, a small spot before it at the costal margin. A large spot above the small light ring-macula at the costal margin. Reniform macula very large, finely edged with dark. Exterior line and submarginal line indistinct, a broader dark band between them, dark marginal lunae behind them. Abdomen brownish ochreous, hindwing dark brown, lighter at the base, with fine black marginal lunae. ♀ 34 mm. Natal.

*africana*. **Per. africana** Schaus (8 c). Thorax and forewing dark red-brown. Subbasal and interior lines indicated by a few white dots. Reniform macula somewhat yellow inside, this macula and the ring-macula bordered with white dots, coniform macula finely edged with black. Exterior line mostly only marked by a white spot at the inner margin, submarginal line formed of a few more intense spots. Fine white dots at the margin. Abdomen and hindwing lighter, more reddish. 34—38 mm. Sierra Leone, Cameroons, Natal, East Africa, Madagascar. — **glebosa** Saalm., described as *Dianthoecia*, may have to be ranged here. Ring-macula and reniform macula all white, subbasal and interior lines almost uninterrupted. The two other lines are only traceable at the inner margin. 30 mm. Madagascar.

*capensis*. **Per. capensis** Guen. (= *conducta* Wkr., *pauperata* Wkr., *inexacta* Wkr., *leonina* Wkr., *aenea* Saalm., *meleagris* Saalm.) (8 c). The species occurs also in the Indian region, where it has received some more names. Thorax and forewing lighter or darker red-brown. Subbasal and interior lines yellowish-white or extinct. Ring-macula light, centred dark, sometimes also with a light central dot. Coniform macula indicated by its dark apex, or absent. Reniform macula similar as in *africana*, or edged by an uninterrupted light line. Exterior



line dark, with long black streaks at the veins, lighter between them. The light submarginal line and the marginal dots variably distinct, 32—38 mm. On the Continent and in all the islands. It may be that *aplecta* *B.-Bak.* from Angola is another synonym.

**Per. cupricolora** *Hmps.* Thorax and forewing copper-brown. Base and costal margin as far as the ex- *cupri-*  
terior line dark brown, the veins with dark streaks. The two first lines dark, indistinct, the coniform macula *colora.*  
only marked by a dark dot. Ring-macula and reniform macula finely edged with brown. The undulate ex-  
terior line is more distinct, with black dots behind it. Submarginal line blackish. Hindwing brown, lighter  
inside. ♂ 32 mm. East Africa.

**Per. ethiopica** *Hmps.* Body brownish ochreous. Forewing greenish-yellow, the median area blackish- *ethiopica.*  
brown, a white band from the apex, edged with black beneath. Marginal area below it from the lower cell-  
angle reddish-brown. Interior line and coniform macula traceable. Ring-macula small, round, reniform ma-  
cula narrow, edged with light. Exterior line double, hardly traceable. Marginal dots large, black. ♀ 30 mm Uganda.  
— **camerunica** *Gaede* (8 c). Interior line and coniform macula quite faded. Ring-macula large, edged intensely *came-*  
white below. The light ground-colour around the reniform macula is continued to the inner margin, whereby *runica.*  
the exterior line is more distinct. Forewing beneath with a distinct white spot at the apex. ♀ 25 mm. Came-  
roons.

**Per. multipunctata** *Drc.* (8 d). Thorax and forewing dark red-brown. Numerous pinkish-yellow spots *multi-*  
are strewn from the costal margin to the submedian fold and the cell-end. Behind them at the costal margin *punctata.*  
a few small dots and a parted apical spot. Hindwing lighter in the basal area, with a dark central luna and  
spotted fringe. 42 mm. Gold Coast, Niger District, Ogowe.

### 8. Genus: **Microplexia** *Hmps.*

Palpi long erect, only shortly scaled. Thorax with small tufts in front and behind, a larger tuft on  
the 4th abdominal segment. Vein 5 of the hindwing arises feeble from the centre of the cross-vein. All the  
species from Madagascar. Type: *elegans* *Saalm.*

**Micr. elegans** *Saalm.* (8 d). Creamy white. Thorax violettish-black in front. Two violettish-black *elegans.*  
spots at the costal margin of the forewing near the base, and a similarly coloured median band which contains  
a fine black ring, the ring-macula; its exterior edge is white, sharply incised above the inner margin. The oval  
white reniform macula in an olive brown area with a black edge. Behind it at the costal margin a black  
triangle from which the fine submarginal line proceeds, ending broad at the inner margin. Marginal line black,  
brown inside. Hindwing whitish, broadly edged with dark in the ♀. 18—20 mm. Madagascar.

**Micr. albopicta** *Saalm.* (8 d). Thorax and forewing light reddish-brown. The fine ring-macula and reni- *albopicta.*  
form macula white. Interior and exterior lines double, white, the latter introangular at vein 2. Hindwing  
pale yellow. The ♀ forewing whiter at the base. 20 mm.

**Micr. aurantiaca** *Saalm.* Thorax rusty brown. Forewing dark red-brown at the base and in the median *aurantiaca.*  
area, the latter with a sharply dentate white edge, broader rusty yellow before and behind it. In this the ring-  
macula as a black dot, the reniform macula as a white streak. The dentate white submarginal line in a  
rusty brown area. Hindwing whitish, brownish at the apex. ♂ 21 mm.

**Micr. muscosa** *Saalm.* (8 d). Dark ochreous or red-brown. Interior line white, dentate, lighter behind *muscosa.*  
it. Ring-macula and reniform macula small, edged with black, somewhat lighter inside. The middle of the  
costal margin spotted light and dark. Exterior line white, undulate, a large dark spot behind it at the costal  
margin is bordered below by a light streak. A white lunar line at the margin, with a somewhat dark in-  
ward edge and a darker outward edge. Abdomen and hindwing pale greyish-brown. 24 mm.

**Micr. ferrea** *Hmps.* (8 d) is similar. Interior line rather distinct, white, prominent in the dark brown *ferrea.*  
surroundings. The ring-macula is a fine white dot, the reniform macula a fine white streak. Exterior line  
white, indistinct. A lighter triangle behind it at the costal margin, where *muscosa* shows a dark spot.  
Marginal dots fine white. Hindwing brownish. 20 mm.

**Micr. nephelia** *Mab.* (8 d). Body and wings brownish ochreous. Interior and exterior lines of forewing *nephelia.*  
double, dark red-brown, somewhat faded. Ring-macula marked by a blackish dot, reniform macula by a streak  
extending to the costal margin. The submarginal line begins as a subapical line, then indistinct along the  
distal margin. Marginal dots black. ♂ 18 mm.

**Micr. discreta** *Saalm.* (8 d). Head and tegulae greenish-yellow. Thorax and basal half of the forewing *discreta.*  
rusty brown. Interior line white, almost straight, behind it a violettish-brown shadow, before it at the costal  
margin a black dot. The rest of the forewing is lighter violettish-brown. The fine white, somewhat undulate  
submarginal line is narrowly edged darker inside. Hindwing and abdomen like the forewing outside. ♂ 18 mm.



9. Genus: **Arboricornis** *Hmps.*

Antennae of ♂ strongly pectinated. Palpi projecting by a whole length of the head. The two tufts on the thorax are small, large tufts are on the 2nd and 3rd abdominal segments. Neuration of forewing also very uncommon: veins  $10 + 7 + 8 + 9$  stalked. Vein 5 of hindwing feeble from the middle of the cross-vein,  $6 + 7$  on a short stalk. Type: *rubra* *Hmps.* from India.

*chryso-pepla.* **Arb. chrysopepla** *Hmps.* (8 c). Body yellowish-white, the abdominal tufts black. Forewing golden yellow. Interior line red-brown, undulate, very indistinct, close behind it at the costal margin a shadow from the costal margin to the median vein. Black dots at the cell-angles. Exterior line red-brown, edged white outside as far as vein 6, then indistinct, from vein 2 straight to the inner margin. Submarginal line from the apex to the interior angle, incurved between them, faded. Hindwing white, brownish at the apex and anal angle. ♂ 28 mm. Uganda.

10. Genus: **Oligia** *Hbn.*

Proboscis and palpi normal. Antennae of ♂ ciliated. Tufts on the thorax and the first segments of the abdomen feeble. Vein 5 of hindwing a little below the middle of the cross-vein. Type: *strigilis* *Clerck* from Europe.

1. Middle and hind tibiae of ♂ long-haired. Abdomen with a lateral pencil at the base. Hindwing of ♂ beneath with androconia.

*hypothermes.* **Ol. hypothermes** *Hmps.* (8 e). Body and wings reddish-brown and dark brown. The dark subbasal and interior lines indistinct, double. Coniform macula small, finely black; ring-macula round, small; reniform macula edged with black, only outside with a white streak, projecting inside at the median vein. Exterior line edged rusty brown outside, strongly incurved at vein 2, behind this a light spot. Submarginal line light, forming two arches. Hindwing rusty brown, fiery red beneath almost to the margin. ♀ forewing browner as far as the exterior line. Hindwing above rusty brown and brown, beneath paler. 25 mm. Gold Coast.

*parathermes.* **Ol. parathermes** *B.-Bak.* Body and forewing cinnamon brown and dark brown. Cinnamon brown below the cell. The lines similar to *hypothermes*. The coniform macula is a blackish blotch as far as the exterior line; ring-macula oval, small, grey; reniform macula edged dark, with white dots inside. Submarginal line interrupted, cinnamon brown. Costal margin spotted light and dark. Hindwing grey, browner at the margin. ♂ 24 mm. East Africa.

2. Hindwing of ♂ with androconia only as far as beyond the middle.

*melanodonta.* **Ol. melanodonta** *Hmps.* (8 e). Thorax and forewing rusty brown and dark brown. Interior line black, double, rather distinct. Traces of a coniform macula; ring-macula grey, small, edged with black; reniform macula edged with white, open below, a dark median band before it. Exterior line black, dentate, edged white inside. Submarginal line light, faded, interrupted by 2 dark blotches. Black marginal lunae behind it. Fringe speckled. Hindwing reddish-brown, the interior area beneath pink. ♂ 30 mm. Niger District.

*hypoxantha.* **Ol. hypoxantha** *Hmps.* Red-brown and brownish ochreous. Interior line brown, double. Ring-macula and reniform macula brownish ochreous and edged with black. Median band and exterior line indistinct, brown. Submarginal line excurved below vein 7 and in the middle, marginal dots black. Hindwing reddish-brown. Both wings beneath with brownish ochreous androconia. 24 mm. Gold Coast, Niger District.

*atrivitta.* **Ol. atrivitta** *Hmps.* Body blackish-brown, head brownish ochreous. Forewing reddish ochreous in the basal area and behind the middle; interior, median and marginal areas dark brown. Basal and interior lines blackish, bent. Ring-macula edged with black; the reniform macula is a brownish ochreous spot as far as the costal margin, edged black only inside. A dark blotch from below the ring-macula to the exterior line. The latter indistinctly double, finely undulated, incurved at vein 2, obliquely inwards; behind it at the inner margin bluish-grey. A dark marginal area is divided by the submarginal line. Hindwing dark brown. Forewing beneath at the base of the costal margin light rusty brown, hindwing there and in the cell the same. ♀ forewing browner in the basal area and behind the middle, not rusty brown beneath. Exceptionally above there also ochreous brown like the ♂, with a similar spot at the inner margin: — **atrivitella** *Strd.* 16—18 mm. Gold Coast.

*instructa.* **Ol. instructa** *Wkr.* (= *rubescens* *Wkr.*) (8 e). Thorax and forewing red-brown. Interior line double, black, dentate. Median area somewhat darker. Ring-macula and reniform macula yellowish-brown, edged with black, the former somewhat oblong, the latter narrow. Exterior line undulate, distinct, edged lighter outside. Submarginal line light in a darker marginal area. ♀ brownish ochreous and dark brown. The exterior median area paler, a dark blotch in the submedian fold in the median area. 32 mm. Cape Colony.

*ambigua.* **Ol. ambigua** *Wkr.* (= *exsiccata* *Wllgrn.*) (8 e). Less reddish. Median area darker. Ring-macula round, reniform macula elliptical, both edged with black. A blotch extends from the small black coniform macula to the dentate distinct exterior band which is indistinctly double, filled with grey. An indistinct dark median band. Behind the light submarginal line dark like the median area. Marginal dots black, inside with white lunae. Hindwing brownish at the margin, more intensely in the ♀, with a central luna and a dark band. The



forewing may also be as red-brown as in *instructa*: — **decinerea** *Strd.*, or only the median and marginal areas *decinerea*, may be so: — **ambiguella** *Strd.*, with blackish blotches at veins 5 and 2 from the margin to the exterior line. *ambiguella*. Other specimens again are intensely grey with a dark blotch in the submedian fold almost on the whole length: — **subambigua** *Strd.* The reniform macula may have 3 white dots at its exterior edge: — **tripunctata** *Strd.* *sub-*  
25—30 mm. West, South, and East Africa. *ambigua*,  
*tripunctata*.

### 11. Genus: **Hypoplexia** *Hmps.*

Palpi and proboscis normal. Abdomen with a hair-tuft only at the base. Neuration normal, vein 5 of hindwing from the middle of the cross-vein. Type: *algoa* *Fldr.*

1. Antennae of ♂ with short double pectinations.

**Hyp. conjuncta** *Hmps.* (8 a). Thorax and forewing red-brown, with a slight grey shine. Interior line *conjuncta*, double, with a dark spot at the inner margin inside. Coniform macula large. Ring-macula and reniform macula large, double, edged with black, the latter bluish-grey inside, dark spots below it. Exterior line double, filled and edged with pink. The pinkish-white submarginal line with large bows, with a dark spot in the middle. Distinct black marginal lunae. Hindwing almost white. 30 mm. Cape Colony, Transvaal.

**Hyp. mictochroa** *Hmps.* Antennae of ♀ shortly pectinated. Thorax and forewing violettish-brown. *mictochroa*. Dark spots at the base. Interior line black, edged white inside, oblique, undulate. Coniform macula small, edged with black; ring-macula violettish-brown, edged with white and black; reniform macula lead-coloured, edged with black and red except above. Exterior line white, black inside, with a black patch before it behind the cell and below vein 3. Submarginal line white as far as vein 6, then white dots. Small black marginal lunae. Fringe speckled. Hindwing greyish-brown. ♀ 36 mm. Natal.

2. Antennae of ♂ with one row of pectinations.

**Hyp. algoa** *Fldr.* (8 f). Similar to *mictochroa*, but much lighter, pinkish-brown. Coniform macula small. *algoa*. The median area narrower towards the inner margin. The double exterior line inwards from vein 4. Submarginal line pink, dentate, edged brown inside. Marginal lunae black. Hindwing more yellow. 30 mm. Cape Colony, Natal, Transvaal.

3. Antennae of ♂ ciliated.

**Hyp. externa** *Wkr.* (8 f). Thorax greyish red-brown. Forewing rusty brown and dark brown. A black *externa*, basal streak in the submedian fold as far as the interior line. Coniform macula grey, edged black. Ring-macula and reniform macula greyish-white, centred dark and edged black. The double exterior line is black, filled with white, strongly introangular above the inner margin. Submarginal line light, finely dentate, black streaks behind it as far as the black marginal dots. Hindwing purely white with an interrupted black marginal line. ♂ 32 mm. Cape Colony.

**Hyp. melanica** *Hmps.* Body blackish-brown and grey. Forewing greyish-black. Brownish ochreous *melanica*, scales behind the base. Interior line black, undulate, with a brownish ochreous spot at the costal margin. The pointed coniform macula is black. Ring-macula oblong, brown, reniform macula with a brown ring and median streak, both edged black. Exterior line double, with red scales and a red streak at the costal margin. The black submarginal line is undulate, with sagittal streaks before it and black streaks behind it. Marginal dots white. Hindwing white, brown at the margin. ♂ 40 mm. Transvaal.

### 12. Genus: **Sidemia** *Stdgr.*

Palpi rather short. Vein 5 of hindwing a little below the middle of the cross-vein, otherwise like the preceding genus. Antennae of ♂ ciliated. Type: *speciosa* *Brem.* from Siberia.

**Sid. spodopterodes** *Hmps.* (8 f). Thorax and forewing violettish-grey, mixed with brown. Basal area *spod-*  
inside brown as far as above the interior line. From the reniform macula to the submarginal line blackish-*opterodes*, brown. Interior line black, edged grey inside. Coniform macula large, black; ring-macula and reniform macula grey, centred brown, edged black; darker between. Exterior line black, grey outside. Submarginal line whitish, marginal lunae black. Hindwing white, veins and marginal line brown. ♂ 36 mm. Transvaal.

### 13. Genus: **Conservula** *Grote.*

Palpi short, thick. Antennae of ♂ ciliated. Thorax only behind with a tuft. Very feeble tufts at the base of the abdomen. Vein 5 of hindwing below the middle of the cross-vein, the costal margin slightly concave in the middle. Type: *anodonta* *Guen.* from America.

**Con. alambica** *Gaede* (8 f). Body and forewing light reddish-brown. The broad ring-macula and reni- *alambica*, form macula united below, edged light, flown out into the costal margin. The median area around them and below them tub-shaped, distally narrow as far as half the height of the reniform macula, edged with white. Submarginal line fine white. Hindwing white, with a slight brown shine. ♂ 28 mm. Cameroons.

- rosacea*. **Con. rosacea** *Saalm.* (8 f). Coloured like *alambica*. The dark median area somewhat more undulately defined, tapering from vein 1 towards the inner margin. Submarginal line not different. Hindwing (♀) more brownish at the margin. 32 mm. Madagascar.
- malagasa*. **Con. malagasa** *Gaede* (= *triangulata* *Kenr.*) (8 f). Thorax as dark as the median area of the forewing. The two maculae very light, somewhat more separated. The triangular median area is more broadly edged with white, this marginal line running somewhat inwards at the median vein. The fine straight submarginal line is broadly edged with dark. Hindwing brownish white. ♂ 30 mm. Madagascar.
- minor*. **Con. minor** *Holl.* (8 g). Pinkish-brown. The reniform macula touches the ring-macula only with a point. The lines are pink. Two oblique lines at the base, edged dark. Interior line rectangularly bent. Exterior line slightly bent, submarginal line as straight as the distal margin. Hindwing white, only the fringe darker. ♀ 36 mm. Cape Colony, East Africa.
- cinisigna*. **Con. cinisigna** *Joan.* (8 g) is somewhat more reddish than *malagasa*. A dark blotch below the cell near the base. Interior and exterior lines fine, double, distantly separated at the inner margin. The two maculae as in *malagasa*. Between them very dark, below them somewhat dark as far as the submedian fold. Submarginal line and hindwing as in *malagasa*. 32—40 mm. Cameroons, Cape Colony, Mauritius.

#### 14. Genus: **Calpiformis** *Hmps.*

Palpi and proboscis normal. Antennae of ♂ serrate. Thorax with parted tufts in front and behind. Abdomen only at the base with a large tuft. Vein 5 of hindwing from the middle of the cross-vein.

- craushayi*. **Cal. craushayi** *Hmps.* (8 g). Rusty brown with light places on the forewing. Lines red-brown. Interior and exterior lines double, filled with whitish. Coniform and ring-macula small, edged with red-brown, white inside; reniform macula behind with a dark brown spot; an oblique line extends from it to the inner margin. Submarginal line light, similar to the exterior line. Hindwing reddish-brown. ♂ 26—30 mm. South Africa.

#### 15. Genus: **Syrrusis** *Hmps.*

Proboscis and palpi normal. Antennae of ♂ finely ciliated in tufts. Prothorax with a short tuft, metathorax with a large tuft, abdomen without tufts. Tibiae densely scaled, tarsi also scaled at the ring-edges. Vein 5 of hindwing from the middle of the cross-vein.

- notabilis*. **Syr. notabilis** *Btlr.* (8 g). Thorax dark brown with a grey gloss, abdomen pinkish-yellow. Basal area of forewing like the thorax, somewhat orange at the inner margin. Interior line orange, broadly edged dark outside. Median area pale pinkish-yellow, more pink before the exterior line. The reniform macula is bordered inside by a flesh-coloured line. A white line from the costal margin around the reniform macula to the interior line, the space below the cell also flesh-coloured. Exterior line dark red-brown, undulate, double; 2 less distinct lines behind it. Hindwing yellowish-white. ♂ 38 mm. Madagascar.

#### 16. Genus: **Diparopsis** *Hmps.*

Proboscis stunted, palpi without hair, long, thin. Antennae of ♂ with short double pectinations. Metathorax with a tuft, abdomen tuftless. Frons with a horny plate. Veins as hitherto, but vein 8 of hindwing united with the cell almost to the middle. Type: *castanea* *Hmps.*

- castanea*. **Dip. castanea** *Hmps.* (8 g). Thorax and basal area of forewing dark olive brown. Basal area bordered by a light line which is incurved at the inner margin. Exterior and submarginal lines light, almost parallel, somewhat darker between. Hindwing white, somewhat reddish at the margin. Forewing of ♀ more reddish. The larva is injurious to cotton. 26—28 mm. South Africa, Uganda.

- tephragramma*. **Dip. tephrogramma** *B.-Bak.* Thorax and forewing pale pinkish-brown. A dark grey triangular basal spot in the cell and the submedian fold. Exterior line pale, shaped as in *castanea*; before it an irregular grey line, behind it a dark grey band. Hindwing creamy white. ♂ 30 mm. West Africa. The species may be identical with a specimen determined as *castanea* from Togo in the Berlin Museum, in which the border of the basal area is more rectilinear, so that it looks triangular.

#### 17. Genus: **Scopariopsis** *Strd.*

Proboscis normal, the last palpal joint somewhat longer than in *Diparopsis*. Frons somewhat protuberant, but without an appendage. Antennae also in the ♂ only finely ciliated. Metathorax with a hair-tuft. Areole longer and narrower than in *Diparopsis*. Vein 6 not from the areole. Vein 8 of hindwing arises only shortly before the middle from the cell. Type: *viridigrisea* *Strd.*



**Sc. viridigrisea** Strd. Thorax greyish-green, abdomen greyish-brown. Forewing light grey with greenish *viridigrisea* scales. A black spot near the base at the costal margin and in the middle, another spot a little below the costal margin. Interior line formed of 4 black spots, with a light edge, arcuate. Exterior line of 8 black spots, edged light, strongly excurved behind the cell. The enclosed median area is lighter, as it is less dusted green. A distinct black spot at the cross-vein, a round deep black spot in the submedian fold, very conspicuous. An excurved postmedian stripe intensely strewn with green and narrowed in the middle, behind it a double row of black dots. Hindwing greyish-brown. ♀ 23 mm. Cameroons.

**Sc. grisea** Strd. Similar, somewhat larger, without the green dusting on the thorax and forewing, only *grisea* in the basal area more intensely dusted black. The spots of the interior line mostly confluent, otherwise similar to *viridigrisea*. The similarly coloured median area shows the black spot in the submedian fold less distinctly defined than in *viridigrisea* and distinctly separated from the interior line. The apical part of the median area is dusted black. Hindwing somewhat lighter. 25 mm. Cameroons, Togo. — **pallidegrisea** Strd. shows the fore- *pallidegrisea* wing less dusted black, therefore lighter. The median area is defined by rows of distinct black dots. The innermost dots of the two rows are connected by a white radial line which is edged dark in front, but there is no black spot. Hindwing light grey, darker at the margin. ♂ 24 mm. East Africa.

### 18. Genus: **Eriopus** Tr.

Proboscis and palpi normal. Antennae of ♂ ciliated, often thickened and angled in the middle. Thorax with a tuft in front and behind, a parted tuft in the middle. Abdomen with a long tuft on the first 3 segments. Distal margin of forewing slightly undulate, angled at vein 4. Vein 5 of hindwing below the middle of the cross-vein, the other neuration as usual. Type: *juventina* Cr. (*purpureofasciata*) from Europe.

1. Antennae of ♂ dentate and ciliated, with a hair-pencil on  $\frac{1}{3}$  of their length, then compressed, with 3 thorns. Tibiae and the 1st tarsal joint long-haired.

**E. cornus-copiae** Holl. (8 g). Body and wings dark red-brown. Reniform macula as a white streak *cornus-copiae* from the ends of which curved lines proceed, uniting in a triangle. Before it an indistinct dark interior line with a white spot at the costal margin. Exterior line light, notched. Traces of a dark undulate submarginal line. ♂ 26 mm. Ogowe.

2. Antennae of ♂ with a moderately thickened basal part, bent somewhat downward in the middle.

**E. maillardi** Guen. (= *rectilinea* Saalm., *recurvata* Mr.) (8 h). Thorax and forewing dark red-brown, *maillardi* the veins partly light, white basal streaks. Interior line double, white, rectangularly broken at the median vein. Reniform macula light-edged, with a light median streak, narrow, terminating inwards into a semicircle instead of the ring-macula. A distinct white streak behind it at vein 4. Exterior line black, double, filled light, and with 2 dark lines, incurved in the submedian fold. White marginal lines from the apex downwards and from vein 4 upwards. Abdomen and hindwing of a purer brown. Everywhere in West and South Africa and the islands, apparently not in East Africa, but in India and the Australian islands. The specimens from Madagascar: — **rectilinea** Saalm. differ only in the exterior line being less sinuate in the submedian fold, and *rectilinea* besides the interior line is directed from the inner margin more exactly towards the reniform macula, instead of a place somewhat inwards to it. 28—36 mm.

**E. cariei** Joan. (8 h) may be a form of *maillardi*. Ground-colour more light violettish-brown. The *cariei* basal and interior lines less white, the exterior line very indistinct, behind it narrowly distinctly dark. Margin brown without white lines, with dark dots. ♀ 33 mm. Mauritius.

**E. albivitta** Hmps. Thorax and forewing red-brown and dark brown, somewhat greyish-white in the *albivitta* basal half, a black streak at the base and a white triangle below it. Interior line black, undulate. Reniform macula indistinct, elliptical, white, with a dark centre. Exterior line more excurved in front than in *maillardi*. At the costal margin before the submarginal line a darker spot than in *maillardi*. Abdomen and hindwing greyish-brown. ♀ 32 mm. Cape Colony.

**E. nigeriensis** Hmps. The two lines on the forewing white, edged black inside and outside, the interior *nigeriensis* line excurved as far as vein 1, then inwards, the exterior line extending as in *miranda*. The two maculae as well as the submarginal line somewhat like *maillardi*. The ♀ shows a white spot behind the reniform macula. 30—34 mm. Niger District. — **miosticta** E. Prout, from St. Thomé, is somewhat larger (32—36 mm). No white *miosticta* places at the apex and distal margin, less white at the submarginal line, the white places at the reniform macula are often absent. More intensely black, however, is the space before the interior line and also between the exterior and submarginal lines. According to PROUT, the position of the species at this place is wrong, as the antennae are not thickened. The ♂, however, exhibits a hair-tuft on the second palpal joint, which may extend beyond the head in well preserved specimens.



- miranda*. **E. miranda** *Saalm.* Red-brown. The double black interior line is angled below the cell, a dark spot is in the angle. Ring-macula round, edged with black; the reniform macula is a light streak with a dot below it. Another specimen determined by SAALMÜLLER shows the ring-macula broadly open in front, the reniform macula, as far as it is discernible, large, round, edged dark. Exterior line undulate, double. A dark shadow before the light undulate line which is distally angled in the middle. Marginal dots black. Hindwing brown, lighter at the base. 30 mm. Madagascar. — **tessmanni** *f. n.* (8 h). The maculae as in the deviating specimen mentioned above. A large white spot in the lower end of the reniform macula. Exterior line and submarginal line not different. ♀ 28 mm. Fernando Po.
- cheera*. **E. cheera** *E. Prout.* Colouring similar to *nigeriensis* *Hmps.*, but the interior line is excurved, not angled, hardly any dark spots before it. Darker between the interior and exterior lines than in *miosticta* *Prout*, more brownish bronze. The subapical white dent is more conspicuous. Marginal lunae more distinctly edged white. The spot at the beginning of the exterior line is larger, whiter. Two white oblique dots on the inside of the reniform macula, an oblique white streak outside. ♀ 26 mm. San Thomé. As there is no ♂ at hand, the group cannot be stated for *cheera*.
- nigrosticta*. **E. nigrosticta** *E. Prout.* Thorax and forewing brown, the marking indistinct. The most distinct are dark square spots in the anterior part of the submarginal line. Besides there is a white spot in the submedian fold before the undulate, slightly excurved interior line. Exterior line indistinctly double, the interior branch stronger, extending as in *nigeriensis*, but more dentate. Reniform macula indicated by a faint shadow on both sides, narrow, oblique. The dark marginal spots are rather indistinct, the middle ones edged with white. Hindwing whitish at the base, the rest brown. ♀ 26—30 mm. San Thomé. This species can neither be assigned to a special group, as there is no ♂ at hand.
3. Antennae of ♂ moderately thickened and flawed in the middle, without cilia or thorns.
- benguellae*. **E. benguellae** *Weym.* Forewing olive brown. Basal area violettish-brown. Interior line uniformly incurved, light, edged dark on both sides. Coniform macula large, black; the ring-macula and reniform macula wood-coloured brown, edged with whitish. Exterior line double, formed of black lunae, filled lighter. Black sagittae before the strongly dentate submarginal line, a light spot behind it at the costal margin. Hindwing brownish, lighter at the base. ♀ 34 mm. Benguella.
- yerburii*. **E. yerburii** *Btlr.* (= *promiscua* *Saalm.*) (8 h). Dark violettish-brown. The sides of the rectangularly bent double interior line are somewhat curved. Exterior line strongly bent outwards behind the lower cell-angle, strongly bent inwards in the submedian fold. Marginal area marked as in *maillardi*. 25—30 mm. Erythrea, Nyassa District, Madagascar, distributed as far as India. — *intermissa* *Saalm.* is probably the same species, described from Madagascar.
- imperata*. **E. imperata** *Wkr.* (= *occidens* *Hmps.*) (8 h). Forewing violettish-brown, the light places golden yellow. Interior line double, brown, filled with white, bent. Ring-macula edged with yellow inside and behind. Reniform macula yellowish-white; a dark spot before it to the costal margin, an oblique median line below it. The double exterior line is slightly angular at vein 4. Submarginal line yellowish, somewhat more distinct than in the other species. Hindwing dark brown. ♂ 20 mm. Niger District, Fernando Po.
4. Antennae of ♂ plain, ciliated.
- natalensis*. **E. natalensis** *Hmps.* Red-brown, the light places of the forewing yellowish-white, veins partly light. Interior line double, black, filled with light, strongly excurved; a pale streak before it. Ring-macula small, elliptical, with a black centre and a white ring. Reniform macula white with a black median streak and black lateral streaks. Exterior line as in *yerburii*. Submarginal line white, edged blackish inside, blackish-brown marginal spots behind it. Hindwing reddish-brown. ♂ 30 mm. Natal.
- thermochroa*. **E. thermochroa** *Hmps.* Similar in colour. A small black coniform macula at the interior line. Ring-macula brownish-ochreous and edged with black; reniform macula incompletely edged with black. Exterior line as in *miranda*. Submarginal line double, black, parallel to the exterior line. A faded dark spot in the middle of the distal margin. Hindwing copper-brown. ♂ 25 mm. Niger District.
- nana*. **E. nana** *Hmps.* also resembles *miranda*. A white spot at vein 1 before the double interior line. The ring-macula is a white oblique streak with a black centre-dot; reniform macula pale with a black median streak, strangulated in the middle. Exterior line also as in *miranda*. Traces of a light submarginal line with dark lunar spots before it and a white blotch behind it above vein 4. Hindwing copper-brown. ♂ 22 mm. Niger District.
- nephrosticta*. **E. nephrosticta** *Hmps.* (8 h). Distinguished by the monotonous dark marking. Dark red-brown. Interior line black, double, filled with red-brown; dark spots before it. Traces of a coniform macula; ring-macula elliptical; reniform macula with white dots at the ends and a black median streak. Exterior line formed of



black lunae. Submarginal line represented by a white streak from the costal margin with a spot at vein 4. ♂ 30 mm. Niger District.

**E. cyanopera** *Hmps.* Forewing dark brown and reddish ochreous. Interior line reddish ochreous, *cyanopera*. spotted black outside, distally angled below the costal margin, then undulate inwards. The ring-macula is an oblique brownish ochreous and black streak to the interior angle of the reniform macula which is reddish ochreous and edged with black, pointed above, broad below. Exterior line black, edged with brownish ochre outside, bent outwards at vein 4, inwards above vein 1. Submarginal line white, dentate at the costal margin, with an oblique white streak before it as far as vein 6, then continued brownish ochreous, black inside, concave behind the cell, spotted at the inner margin. The black marginal lunae are bluish-white inside. Hindwing red-brown, fringe speckled. ♀ 35 mm. Niger District.

5. Distal margin of forewing scarcely angled. Antennae normal. Middle tibiae of ♂ long-haired, the first 3 tarsal joints of the ♂ above also hairy, in the ♀ only the first tarsal joint.

**E. latreillei** *Tr.* which has already been described in Vol. III, p. 195 and figured on pl. 44 f occurs also *latreillei*. in the whole of Africa.

**E. complicata** *Holl.* (8 i). Dark brown. Interior line white, slightly excurved. Ring-macula and reni- *complicata*. form macula finely edged yellowish-white; the former somewhat compressed, the latter a narrow oblique luna with a small white spot behind the lower end. Exterior line double, black, filled with yellowish-white. Submarginal line white below the costal margin as far as vein 4, then faded. Fine white streaks at the margin. ♀ 35 mm. Niger District.

The two following species are rather different in their marking.

**E. violascens** *Rothsch.* Thorax and forewing dark umber-brown. Interior band red-brown with a brown *violascens*. median line. Behind it a bluish-grey oblique oviform spot from the costal margin to vein 4. A submarginal angled reddish-brown band from which pale lines extend to the oval spot, 2 dark spots behind it near the margin. Abdomen and hindwing greyish-brown. ♂ 23 mm. Madagascar.

**E. rufulus** *Rothsch.* Thorax reddish wood-brown. Forewing rusty brown with a dark median band. *rufulus*. An interior and exterior undulate band with dark lines in or at them. Large reddish spots at the cell-end and behind the exterior band. Hindwing greyish-brown. ♂ 25 mm. Madagascar.

## 19. Genus: **Chytonix** *Grote.*

Proboscis present. Palpi long, moderately haired. Antennae of ♂ ciliated. Thorax with 2 tufts, the posterior tuft large. Tibial spurs long. Forewing slightly inserted at the distal margin above the interior angle. Vein 5 of hindwing below the middle of the cross-vein. Type: *palliatricula* *Guen.* from North America.

**Ch. melanochlora** *Hmps.* (8 i). Thorax and forewing brownish-green. A thick black streak below the *melano-* base of the cell. Interior line from a black spot at the costal margin, undulate, rather indistinct. A short radial *chlora*. band above vein 1. The reniform macula is a green spot in more brown surroundings. Exterior line double, light, parted by a long dark radial band; besides 2 dark radial streaks below the costal margin. Hindwing blackish-brown with a discal luna. 34 mm. Natal.

**Ch. brunnea** *Gaede* (8 i). Dark brown with hardly any green reflection. The interior line and the two *brunnea*. maculae as in *melanochlora*, but very indistinct. The double exterior line is distinct, from the centre of the wing broadly bordered by dark inside. The slightly dentate light submarginal line is more narrowly edged dark only in front inside. Dark distinct marginal lunae. ♂ 27 mm. Natal.

## 20. Genus: **Jambia** *Wkr.*

Proboscis and palpi normal. Antennae of ♂ ciliated. Metathorax with a feeble tuft, the same at the base of the abdomen. Forewing slightly cut out at the distal margin at vein 3. Type: *inferalis* *Wkr.*

**J. thwaitesi** *Mr.* (8 i). Thorax and forewing dark brown, with many dark transverse lines. Ring-macula *thwaitesi*. and reniform macula grey, indistinctly edged dark. Submarginal line dentate, white, dark spots before it. Marginal area lighter. Abdomen and hindwing reddish-brown. 26—30 mm. West and East Africa.

**J. transversa** *Mr.* has been described in Vol. III, p. 200, and figured on pl. 48 a. Thorax and forewing *transversa*. greyish-brown. Interior line double, indistinct. Ring-macula and reniform macula pale, the latter straight inside, dark brown before it in the cell. A dark median line proceeds from it. The double dark exterior line and the light submarginal line are indistinct, black sagittal spots before the latter, and a large lunar spot at vein 5. Abdomen greyish-brown, hindwing reddish-brown, fringe whitish. 28—30 mm. South Africa, India, Japan.

**J. inferalis** *Wkr.* (= *velutina* *Fldr.*) (8 i). Body and forewing dark brown. Interior line strongly ex- *inferalis*. curved in the submedian fold, to this place a dark radial band extends from the base. Ring-macula and reni-

form macula indistinct, light, with a dark centre and margin. The marginal area behind the double exterior line very light, divided dark above and below vein 5. Marginal dots black. Hindwing dark brown with a dark discal luna and marginal lunae. 30 mm. Natal. East Africa.

*brunnea.* **J. brunnea** Warr. (8 i). Light ochreous. The double interior line only angled below the cell, the dark basal streak extends to the exterior line. Ring-macula and reniform macula large, glossy, edged with dark. Submarginal line only distinct at the costal margin, as far as the radial streaks at vein 5. Abdomen and hindwing lighter. ♂ 32 mm. Natal.

## 21. Genus: **Jambiodes** Hmps.

Antennae of ♀ foliated. Mesothorax with a very small parted tuft. Abdomen with a small tuft at the base. Vein 5 of hindwing from the middle of the cross-vein. Type: *anormalis* Hmps. from India.

*nyctostola.* **J. nyctostola** Hmps. Body dark brown and greyish-white. Forewing brownish and blackish, blackish-brown spots at the costal margin. Interior line double, excurved between the veins. The two maculae small, indistinct, edged with black. Exterior line indistinct, white; black behind it at the costal margin. Then follows a light line in the anterior part, a white spot below it, and submarginal white spots at vein 5. Marginal dots black. Hindwing greyish-brown, the veins darker. 20—24 mm. East Africa.

## 22. Genus: **Aucha** Wkr.

Proboscis normal. Palpi thin, projecting beyond the frons, antennae of ♂ finely ciliated. Metathorax with a broad low tuft. Abdomen with a similar basal tuft. Vein 5 of hindwing from the middle of the cross-vein. Type: *velans* Wkr. from India.

*tenebricosa.* **A. tenebricosa** Saalm. (8 k). Forewing olive brown. Interior and exterior lines double, dark, undulate. Ring-macula and reniform macula small, edged dark, the former with a centre-dot. Lighter behind the submarginal line. Hindwing ochreous, broadly brown at the margin. ♀ 32 mm. Madagascar.

## 23. Genus: **Libyphaenis** Hmps.

Palpi long, the 3rd joint as long as the 2nd, moderately hairy. Frons with a round projection. Antennae of ♂ tuftedly ciliated. Thorax as in *Aucha*. Abdomen with a series of tufts. Neuration abnormal. Veins 6 and 7 of forewing from the cell, 8 + 9 + 10 stalked, the ♂ below this stalk with a groove and swelling before it, towards the costal margin. Hindwing with a short discal cell. Vein 5 from the middle of the cross-vein.

*virescens.* **L. virescens** Hmps. Forewing sap-green and brown, with dark streaks in the marginal area. Interior line brown, fine, oblique, undulate. The median line is a blackish-brown streak at the costal margin and a dot in the cell, then a shadow to above the middle of the inner margin. Exterior line blackish, double, finely undulated, oblique as far as vein 4, incurved below vein 2; a broad dark shadow before it as far as vein 4. The light submarginal line is shaded with dark brown on both sides. Dark spots also at the margin. Hindwing dark greyish-brown. ♂ 30 mm. Niger District.

## 24. Genus: **Araea** Hmps.

Proboscis normal. Palpi long, but the 3rd joint short. Thorax with tufts in front and behind. Forewing: only veins 7 + 8 + 9 stalked. Hindwing: veins 6 + 7 on a short stalk. Type: *attenuata* Hmps. from India.

*indecora.* **A. indecora** Fldr. has much narrower wings than the type of the genus, similar to *Caradrina*. Olive grey with distinct double interior and exterior lines. Coniform macula also distinct. Ring-macula white inside. Hindwing white, brownish at the margin. ♂ 27 mm. Cape Colony.

## 25. Genus: **Cetola** Wkr.

Proboscis stunted, palpi short. Frons with a projection. Antennae of ♂ shortly pectinated. Thorax with a large tuft in front and behind. Abdomen with a large tuft on the 2nd and 3rd segments, and a few small ones before and behind them. Forewing with a dentate margin. Vein 5 of hindwing somewhat stronger than usual and nearer to vein 4. Type: *dentata* Wkr. from India.

*radiata.* **C. radiata** Hmps. (8 k). Body brownish ochreous. Forewing dark chocolate. Brownish ochreous above the inner margin. Marginal area above vein 4 brownish ochreous as far as the apex, indented dark brown outside. Ring-macula and reniform macula large, grey; another grey spot in the base of the cell. Fringe speckled. Hindwing dark brown. ♀ 42 mm. Natal.

*costata.* **C. costata** Gaede (8 k). Antennae of ♂ not pectinated. Costal margin of forewing violettish-brown. The maculae edged yellowish-white, not dark, a rusty brown streak before and behind the ring-macula. The



rest of the wing ochreous, except a dark brown streak at vein 4 and one at the inner margin. Hindwing yellowish-white, somewhat brownish in the ♀. 27—33 mm. East Africa, Transvaal.

**C. vicina** *Joan.* is still lighter than *costata*. Forewing with a grey costal margin and cell. Ring-macula *vicina*, oval, finely edged dark, with a similar spot inwards of it. The large reniform macula edged black inside, red-brown outside and below. Yellowish white from the cell to the inner margin with a red-brown basal ray to the lower edge of the reniform macula. Below its end a kind of a coniform macula edged with brown. A blackish-brown double line at the inner margin. Vein 4 distinctly dark brown. A few marginal lunae at the interior angle. Hindwing grey, lighter at the base. ♀ 32 mm. Erythrea.

**C. phaleroides** *Rothsch.* Thorax bluish-grey with cinnamon-brown margins, abdomen pale reddish-brown, the tufts darker. Forewing brown from the inner margin to the median vein, the anterior half bluish-grey, extending somewhat deeper yet behind the reniform macula. Apical area reddish-brown as far as vein 4 with rusty brown striae. This area reminds us of *Phalera bucephala*. Hindwing silky white with a dark brown lunar spot, fringe pale cinnamon-brown. ♂ 43—47 mm. Madagascar. *phaleroides*.

**C. pulchra** *B.-Bak.* Thorax lavender-grey, patagia whitish, abdomen grey. Forewing broadly lavender-grey at the costal margin, narrower towards the apex. Ring-macula pinkish-grey with a pinkish-white spot below it. Submedian fold olive grey in front, pinkish-brown below it. A dark straight double line at vein 4, creamy white above it. A black double line outside at the inner margin. Hindwing pearly white. ♂ 30 mm. Angola. *pulehra*.

## 26. Genus: **Paralophata** *B.-Bak.*

Proboscis absent, palpi small, porrect. Antennae of ♂ more strongly pectinated, less so in the ♀. Prothorax with a tuft. Forewing broad, rounded at the apex, hollowed out at the distal margin above the anal angle. Vein 5 in the basal part near 4, veins 7 + 10 + 8 + 9 stalked, without an areole. Vein 5 of hindwing below the middle of the cross-vein, just as strong, 6 + 7 stalked.

**P. ansorgei** *B.-Bak.* Head brown. Thorax and forewing lemoncoloured. A short brown patch at the base of the costal margin and a similar broad one at the inner margin. A small brown spot in the centre of the cell and one below it in the submedian fold, traces of one each at the angles of the cell. Exterior line finely double, undulate. An irregular brown spot at the margin does not reach the apex and interior angle. Hindwing straw-coloured, darker at the margin. 42—50 mm. Angola. *ansorgei*.

## 27. Genus: **Matopo** *Dist.*

Proboscis normal, palpi short. Frons with a projection. Thorax with a small tuft in front and behind, abdomen only with a basal tuft. Neuration normal. Vein 5 of hindwing below the middle of the cross-vein. Type: *typica* *Dist.*

1. Antennae of ♂ rather strongly pectinated almost to the tips, less strongly in the ♀.

**M. nigrivittata** *Hmps.* (8 k). Forewing dark brown. A rusty red radial line from the centre of the cell to the distal margin, intensely dark below it. Rusty red again above the inner margin. Ring-macula and the parted reniform macula light. Interior and exterior lines marked by white dots. Hindwing brown. 30 mm. Transvaal, Mashonaland. *nigri-vittata*.

**M. inangulata** *Hmps.* (8 k). Forewing brownish ochreous, darker behind the cell as far as the distal margin, where the veins are partly white. Coniform macula long, edged with black; the ring-macula the same, and a similar line above the inner margin; the reniform macula is a yellow spot. Only the posterior part of the double exterior line is distinct. Hindwing white. ♂ 36 mm. Rhodesia. *inangulata*.

**M. typica** *Dist.* (8 k). Forewing light violettish-brown at the costal margin as far as the apex and cell-end. Ring-macula narrow, reniform macula angled, coniform macula long, black. The posterior half of the wing from the apex to the base is dark reddish-brown. Exterior line marked by short white streaks, black radial streaks before the margin. Hindwing white. The ♀ with light ochreous brown lunae behind the exterior line. Hindwing greyish-brown. 35—38 mm. South Africa. *typica*.

**M. scutulata** *Janse* differs from *typica* in an exterior row of light spots in the ♂, which are more distinct and more distant from the exterior line than in *typica* ♀. The hindwing of *scutulata* ♂ is as dark as that of *typica* ♀. Vein 5 of hindwing stronger, the distal margin of the forewing more undulate than in *typica*. The third palpal joint is longer in the ♀ than in the ♂. Body and forewing brown, the inner margin as far as the exterior line olive brown and grey, more grey in the ♀. Marginal area between veins 2 and 8 dark red-brown. Interior line black and distinct, strongly extra-angular below the costal margin, below the cell in the place of the coniform macula, and above the inner margin. Within the coniform macula a black streak. The ring-macula is indicated by a greyish-brown centre, edged with black scales. The median line is a short black streak from the costal margin obliquely inwards. Reniform macula narrowly edged black inside, broadly outside. Exterior line black, edged with yellowish-brown outside, strongly dentate, strongly incurved between veins 6

and 4. Light yellowish-brown spots behind it, smaller in front, from which black lines extend to the margin. The veins are edged with white on both sides. 38—40 mm. Transvaal.

*actino-phora.* **M. actinophora** *Hmps.* (8 k) resembles an ochreous brown *typica*, but the exterior line is finely double, black, the space behind it lighter. Larger dark spots at the margin. Hindwing of ♂ white, of ♀ brownish. 25—35 mm. East Africa.

*heterochroa.* **M. heterochroa** *Poult.* (8 l). Antennae of ♂ more strongly pectinated, ciliated in the ♀. Forewing light bluish-grey, somewhat brownish at the costal and distal margins, the veins with dark stripes. Interior line fine, strongly dentate, coniform macula distinct. The reniform macula is a yellow spot. Exterior line fine, edged with yellow outside, brown inside above the inner margin. Blackish at the margin above and below the middle. ♀ tinged with red-brown. Ring-macula white, reniform macula and the margin behind the exterior line intensely red. Hindwing reddish-brown. 30—35 mm. Somaliland.

2. Antennae of ♂ finely serrate, of ♀ ciliated.

*hemileuca.* **M. hemileuca** *Hmps.* (8 l). Thorax and the space below the cell of the forewing dark brown. A faded dark stripe in the base of the submedian fold. An interior dark line is traceable above the inner margin. Reniform macula whitish ochreous, rather indistinct in the light ochreous costal margin, only inside and below it is somewhat edged blackish. The exterior line is recognizable from vein 6, and the submarginal line from vein 7, introangular in the submedian fold. Hindwing white, brownish at the apex. ♀ 32 mm. Sierra Leone.

## 28. Genus: **Delta** *Saalm.*

Proboscis and palpi normal. Antennae of ♂ ciliated. The tegulae form an edge in the middle, continued on the thorax. Very small tufts at the base of the abdomen. Neuration normal. Type: *stolifera* *Saalm.*

*intermedia.* **D. intermedia** *Brem.* This species occurs also in Siberia and has therefore been dealt with in Vol. III, p. 202, and figured on pl. 42 c. Separated from the following species by its lighter greyish-brown ground-colour and rounder reniform macula. Ring-macula absent. 28—30 mm. Transvaal, Natal, Eastern Asia.

*stolifera.* **D. stolifera** *Saalm.* (= *campyla* *Hmps.*) (8 l). Forewing violettish-brown at the costal margin and often as far as below the cell, yellowish-brown towards the inner margin, with a distinct dark line below the cell and above the inner margin. Ring-macula small, often very narrow; reniform macula moon-shaped, terminating into a broad rusty red diffuse spot. Black marginal arrows form the usual W below the cell, with light dots in them near the margin. SAALMÜLLER'S figure is not very good, but the W is expressly mentioned in the description. Hindwing hyaline white, brownish at the margin. 35—38 mm. Sierra Leone, Togo, Nyassa District, Madagascar.

*phoenicraspis.* **D. phoenicraspis** *Hmps.* (8 l) is presumably only a form of *stolifera*. Costal margin of forewing redder, the ground-colour a purer yellow. Not rusty red behind the reniform macula. The two dark radial lines are absent. ♀ 38 mm. Rhodesia.

## 29. Genus: **Stomafrontia** *Hmps.*

Proboscis absent, palpi short, thin. Frons with a large pointed bump. Antennae of ♀ serrate. Thorax and abdomen without a tuft. Forewing: veins 7 + 10 + 8 + 9 stalked, vein 3 far before the angle. Hindwing: veins 6 + 7 on a long stalk, 8 united with the cell almost to the middle.

*albifasciata.* **S. albifasciata** *Hmps.* (8 l). Forewing golden brown, with a white radial band in the lower half of the cell and above vein 4, bent up to the apex shortly before the distal margin, darker brown before it. Hindwing purely white. ♀ 38 mm. Cape Colony, Natal.

## 30. Genus: **Hadenella** *Hmps.*

Proboscis normal, palpi short, porrect. Frons with a projection. Antennae of ♂ ciliated. Metathorax with a tuft, abdomen with a tuft at the base. Neuration of forewing normal, veins 6 + 7 of hindwing stalked in the generic type. Vein 5 below the middle of the cross-vein. Type: *pergentilis* *Grote* from America.

*rectiradiata.* **H. rectiradiata** *Hmps.* (8 l). Forewing light violettish-grey with brown radial blotches. More distinctly dark streaks at the margin below the costal margin, in the middle, and above the inner margin. Ring-macula large, white; reniform macula small, with a dark median streak. A white spot at the interior angle. Hindwing brownish-white. ♀ 22—24 mm. Natal, Betchuana Land, East Africa.

## 31. Genus: **Chiripha** *Wkr.*

Similar to the following genus, but the ♂ antennae shortly pectinated, dentate apically. Thorax with a tuft in front and behind. Type: *involuta* *Wkr.* from India.



**C. orestera** *Tams.* Body yellowish-brown and reddish-brown, anal tuft cinnamon-red. Forewing deep *orestera*. dark brown, divided into spots by pale greyish-yellow streaks. Such spots especially at the costal margin in reddish-yellow surroundings. Ring-macula small, filled with reddish yellow, distinctly edged with greyish-yellow, open below. Reniform macula similarly coloured, somewhat larger, parallel to the distal margin, also open below. A greyish-yellow inward oblique blotch below the apex. A similar stripe at the median vein, growing darker towards the cell-end. Short streaks extend from it towards the inner margin. A greyish-yellow marking, almost 3-shaped, between the lower cell-angle and the distal margin, the middle point of this 3 formed by an angle at the margin with the apex inward. A broad greyish-yellow marginal line is edged outside with deep dark brown. Hindwing white, discal luna and margin narrowly brownish. Hindwing of ♀ darker and with a dark exterior line. Antennae not pectinate. 40 mm. East Africa.

### 32. Genus: **Prodenia** *Guen.*

Proboscis normal, palpi extending to the frons. Antennae of ♂ ciliated. Metathorax with a parted tuft. Abdomen with tufts at the base. Neuration normal. Vein 5 of hindwing a little below the middle of the cross-vein. Type: *androgea* *Cr.* from South America.

**P. litura** *F.* This variegated species has been dealt with in Vol. III, p. 206, and figured on pl. 42 i. *litura*. Common everywhere in the Tropics, frequently injurious.

**P. metriodes** *B.-Bak.* is said to differ from *litura* in a less *Prodenia*-like ring-macula and an irregular *metriodes*. exterior line. The space behind it below vein 3 light, a dark spot between veins 3 and 5. Submarginal line pale, dentate. Hindwing pearly white. 32 mm. Niger District. If this is not another (about the 13th) synonym to *litura*, it might also be = *Laph. exempta*.

### 33. Genus: **Spodoptera** *Guen.*

Almost like *Protenia*. The thoracal tuft not parted, the abdomen with but one tuft at the base. Anterior tibiae strongly haired. Type: *mauritica* *Bsd.*

1. Antennae of ♂ finely serrate and ciliated.

**S. abyssinica** *Guen.* (9 a). The range of this species extends from the Mediterranean region to Eastern *abyssinica*. Asia and over the whole of Africa. Described already in Vol. III, p. 206, and figured on pl. 42 f.

2. Antennae of ♂ ciliated. Anterior tibiae still more hairy.

**S. mauritia** *Bsd.* (8 l) has the same range and is still more common. Cf. Vol. III, p. 207 and pl. 42 f, g. *mauritica*.

### 34. Genus: **Laphygma** *Guen.*

Separated from *Spodoptera* by the tibiae being feebly haired. Type: *exigua* *Hbn.* from Europe.

1. Antennae of ♂ finely serrate.

**L. leucophlebia** *Hmps.* Thorax and forewing dark red-brown, lighter at the base of the inner margin. *leuco-phlebia*. The end of the median vein and a part of veins 3 and 4 white. Interior line double, filled with grey, somewhat obliquely outwards. Ring-macula yellow inside, somewhat oblong. Reniform macula narrow, centred dark. The double exterior line excurved below the costal margin, then rather straight obliquely inwards. Submarginal line whitish, indistinct at the costal margin, incurved in the submedian fold, black marginal triangles behind it. Hindwing purely white, brownish at the apex. 32—34 mm. Transvaal, Natal. Also mentioned from Queensland.

2. Antennae of ♂ ciliated.

**L. exempta** *Wkr.* (= *bipars* *Wkr.*, *ingloria* *Wkr.*) (9 a). Forewing greyish-brown, somewhat reddish. *exempta*. Interior line double, excurved in the submedian fold and at the inner margin. Coniform macula moderately distinct. Ring-macula oblique, light, sometimes prolonged by a light blotch. Veins partly white as in *leucophlebia*. Reniform macula broad, filled with dark. The fine double exterior line is slightly inserted behind the cell, more so in the submedian fold. Submarginal line fine white; a white blotch at the costal margin inside, a long black blotch in the centre of the wing. Hindwing brownish-white. ♀ more monotonously dark brown without the light apical blotch. 26—32 mm. Distributed from West Africa to the Australian Archipelago. — *Polia maura* *Saalm.* might be *exempta*-♀ according to the figure, although it is stated to be a ♂.

**L. exigua** *Hbn.* being very common in Southern Europe occurs also everywhere in Africa. Cf. Vol. III, *exigua*, p. 207, and pl. 48 a.

35. Genus: **Neolaphygma** *Hmps.*

Proboscis and palpi normal, the palpi long-haired in front. Antennae of ♀ ciliated. Metathorax with a parted tuft, abdomen long, tuftless. Forewing narrow, somewhat indented below the apex. Neuration quite different. Forewing: veins 10 + 7 + 8 stalked, 9 absent. Hindwing: veins 3 + 4 and 6 + 7 stalked, 5 below the middle of the cross-vein, 8 almost from the centre of the cell.

*leucoplaga*. **N. leucoplaga** *Hmps.* (9 a). Thorax greyish-green. Forewing violettish-grey and red-brown, somewhat greenish in the basal and marginal areas. A large white spot at the costal margin near the base, and a faded one behind the middle. Ring-macula and reniform macula small. Interior and exterior lines very faded, median shadow broad. Hindwing light brown, light inside, semidiaphanous. ♀ 28 mm. Ashanti, Adamaua.

36. Genus: **Lophotarsia** *Hmps.*

Proboscis and palpi normal. Antennae of ♂ feebly ciliated. Thorax and abdomen tuftless. Forewing: veins 7 + 10 + 8 + 9 stalked. Hindwing as in the preceding genus. Type: *ochroprocta* *Hmps.*

*ochroprocta*. **L. ochroprocta** *Hmps.* Forewing greyish-violet, with a distinct black basal line. Ring-macula mostly indistinct, reniform macula with double black margins, lighter before and behind it. Interior line scarcely traceable, the exterior line is represented by a row of black dots or dents. Distal margin narrowly lighter grey, darker before it. Hindwing white. 34 mm. Transvaal, Natal.

*minuta*. **L. minuta** *Hmps.* is smaller, more reddish. Interior and exterior lines bent, dark, indistinct. Ring-macula and reniform macula formed by grey scales. Submarginal line marked by small black sagittae. 20 mm. Niger District.

37. Genus: **Odontoretha** *Poult.*

Proboscis and palpi normal, frons with a projection. Metathorax with a feeble tuft. Antennae of ♂ scarcely ciliated. Forewing narrow. Veins 3 + 4 stalked, and 7 + 8 + 9 + 10. Hindwing as in *Neolaphygma*.

*featheri*. **E. featheri** *Poult.* (9 a). Body and forewing brownish-white. The exterior half blackish with a reniform macula of the ground-colour. Hindwing white. ♂ 24 mm. Somaliland.

38. Genus: **Paracroria** *Hmps.*

Proboscis normal, palpi extending almost to the height of the frons. Frons with a large projection. Thorax with a listle of scales in the middle, abdomen without tufts. Neuration normal. Vein 5 of hindwing below the middle of the cross-vein. Forewing with a dent of scales in the middle of the inner margin.

*griseocincta*. **P. griseocincta** *Hmps.* (9 a). Thorax and forewing reddish ochreous brown. Basal area browner, marginal area grey. Interior line rusty brown, far excurved below vein 2. Ring-macula and reniform macula finely edged light. Exterior line double, far incurved at the costal and inner margins, behind it the undulate brown submarginal line. Hindwing brownish ochreous. ♀ 30 mm. Betchuana Land.

39. Genus: **Centrarthra** *Hmps.*

Proboscis normal, palpi long, the 2nd joint long-haired in front. Antennae of ♂ and ♀ ciliated. Prothorax and metathorax with small tufts. Anterior tibiae with a claw inside at the end. Neuration of forewing normal. Veins 6 + 7 of hindwing on a short stalk, 5 from the middle of the cross-vein. Type: *furcivitta* *Hmps.*

*furcivitta*. **C. furcivitta** *Hmps.* (9 a). Brownish ochreous and red-brown. A black streak at the median vein is forked at the end. A few dark spots at the base replace the interior line. The reniform macula is a somewhat paler lunar spot. Exterior line finely dentate, and traces of a dark submarginal line. Hindwing whitish ochreous, browner at the margin. ♀ 30 mm. Cape Colony.

*brunnea*. **C. brunnea** *Warr.* (9 b). Dark brown, costal margin finely black. Median vein black, with a black spot below vein 2. Interior line dark, feeble, excurved above and below the median vein. Reniform macula fadedly edged dark. Exterior line as in *furcivitta*. Hindwing yellowish-grey with a dark streak at the cross-vein. ♂ 34 mm. Cape Colony. It may be the ♂ of *fuscivitta*.

*fulvinotata*. **C. fulvinotata** *Warr.* (9 b) is somewhat lighter, more reddish. The median vein, one spot each representing the ring-macula and reniform macula, as well as a few small ones below the cell are yellowish-pink. The inner margin at the base, as well as the distal margin are reddish-yellow. Exterior line of black dots, black internerval streaks behind them. A light blotch at the apex. Hindwing as in *brunnea*. ♂ 34 mm. Cape Colony.



**C. ossicolor** Warr. (9 b). Pale brown. Yellowish-white in the anterior part of the cell and above vein 5, as well as the median vein and spots at the base of veins 2—4. Reniform macula indicated by dark sides. The space below and behind the cell darker brown. Black streaks in the marginal area between the veins. Vein 1 white, edged black on both sides. Hindwing whitish, margin broadly brownish. ♂ 42 mm. Cape Colony.

**C. albiapicata** Warr. (9 b) is similar. Median vein black. Reniform macula grey, broad, edged dark. The space below and behind the cell violettish-brown. A white blotch from the apex to the upper cell-angle. Hindwing more intensely brown. It may be the ♀ of *ossicolor*. ♀ 36 mm. Cape Colony.

**C. fulvitincta** Warr. (9 b). The light areas are greyer than in *ossicolor*. The dark areas below and behind the cell blackish-brown. Orange-red spots in the cell and at the base of veins 2—4, reniform macula somewhat orange laterally. Submarginal line very distinct, orange-red streaks behind it. Hindwing brownish. ♀ 43 mm. Cape Colony.

The two following species resemble each other.

**C. cretacea** Warr. (9 c). Yellowish-white. Median vein at the base and submedian fold black, light olive brown between them. Reniform macula finely edged dark, olive brown patches from it to the apex are parted by the light veins. Interior line discernible, exterior line composed in front by dots, below vein 4 by a line. Hindwing with a broad margin, a dark spot at the base of veins 3 and 4. ♂ 42 mm. Cape Colony.

**C. argentea** Warr. (9 c). Forewing slightly brownish. Reniform macula darker. Exterior line not dentate as in *cretacea*, but spotted. On its outside a dark band proceeding from the apex. Hindwing greyish-brown, lighter at the base. ♀ 44 mm. Bushmanland.

**C. pallescens** Warr. (9 c) differs in the pectinated antennae of the ♂ and the other marking. Greyish ochreous, dusted dark. Median vein, vein 1 and the others at the margin yellowish ochreous. A small white spot above the base of vein 3, a larger one below it. Interior line grey, vertical; exterior line more distinct, dentate. Submarginal line grey, faded. Hindwing greyish-yellow, browner at the margin. ♂ 32 mm. Transvaal.

#### 40. Genus: **Mimleucania** Hmps.

Proboscis and palpi normal. Antennae of ♂ finely serrated or laminated. Thorax and abdomen without tufts. Neuration normal. Vein 5 of hindwing below the middle of the cross-vein. Type: *perstriata* Hmps.

**M. leucosoma** Fldr. (= *graminicolens* Btlr.) (9 c). Forewing dark violettish-brown, costal margin light, broadly whitish in the submedian fold, and below it a bent white line near the base. Ring-macula small, distinctly edged white. Reniform macula narrowly greyish-white. Exterior line somewhat angular at vein 5. The distinct white submarginal line with a large W. Behind it the double white marginal line. Hindwing purely white. Ground-colour of ♀ somewhat more reddish. 32—36 mm. South Africa, Madagascar.

**M. perstriata** Hmps. (9 c). Brownish-white. A light stripe in the cell and as far as the apex. A distinct white line at the lower cell-end, darker brown below it, a dark triangle from that line to the margin, shorter streaks below it. A distinct black basal line in the submedian fold. Interior and exterior lines scarcely traceable at the inner margin. Hindwing white, slightly brownish at the margin. 30—33 mm. Transvaal.

#### 41. Genus: **Amphidrina** Stdgr.

Proboscis normal, palpi extending almost to frons. Thorax with a tuft in front and behind, abdomen tuftless. Neuration normal. Type: *agrotina* Stdgr. from West Asia.

1. Antennae of ♂ with short double pectinations.

**A. pexicera** Hmps. (9 d). Forewing red-brown. Interior and exterior lines double, filled with white. The ring-macula is a small black streak; reniform macula small, more broadly edged with black inside. Submarginal line whitish, with blackish-brown sagittal spots inside. Hindwing brownish-white. ♂ 36 mm. Cape Colony.

2. Antennae of ♂ ciliated.

**A. glaucistis** Hmps. (9 d). Forewing white. Interior line black, undulate, obliquely outwards; before it almost to the base a black band which is absent in the type. A large black spot at the middle of the costal margin with a narrow prolongation to the inner margin, enclosing the reniform macula as a white lunule. Exterior line fine black, somewhat angular behind the cell, more angular in the submedian fold. Blackish behind as far as the margin. Hindwing white. 28—30 mm. South Africa.

- callicora*. **A. callicora** *Le Cerf*. Forewing brownish-white. Interior line stronger, only a small black spot before it. The reniform macula is a faded reddish-yellow spot. Exterior line as in *glaucistis*. Black behind it as far as the greyish ochreous margin. Hindwing white. ♂ 26 mm. East Africa.
- spaelotidia*. **A. spaelotidia** *Btlr.* (9 d). Ground-colour brown. Interior line blackish, faded, vertical. Ring-macula and reniform macula absent, but a broad median shadow present. Exterior line very dentate, rather distinct. Submarginal line faded. Hindwing paler. ♀ 32 mm. Madagascar.
- melanosema*. **A. melanosema** *Hmps.* Thorax rusty brown. Forewing greyish-violet. Interior line indistinct, double, oblique. The ring-macula is a black dot, edged white; reniform macula similarly coloured, with a projection at the lower angle, a black spot above it at the costal margin. Exterior line double, filled with white. Black marginal lunae behind it. Hindwing copper-brown. ♀ 32 mm. Delagoa Bay.
- pseudagrotis*. **A. pseudagrotis** *Hmps.* Body and forewing red-brown mixed with white, especially at the base. Costal margin and veins at the margin black. Interior line black, dentate, indistinct, projecting in the submedian fold as far as the exterior line. Ring-macula and reniform macula edged black, close together. Exterior line dentate, black internerval streaks behind it. Hindwing diaphanous white. ♂ 40 mm. East Africa.
- #### 42. Genus: **Athetis** *Hbn.*
- Proboscis normal, palpi extending to frons. Prothorax with a small tuft, abdomen tuftless. Neuration normal, vein 5 of hindwing from the middle of the cross-vein. Type: *furcula* *Hbn.* (= *lenta* *Tr.*) from Europe.
1. Antennae of ♂ finely pectinated.
- chionopis*. **A. chionopis** *Hmps.* (9 d). Body and forewing blackish-brown, mixed with grey. Interior line black, edged grey inside. The ring-macula is a small oblong black spot, the reniform macula a small black spot edged white outside. Exterior line edged grey outside. Submarginal line faded grey, blackish inside. Hindwing white, brownish at the margin. 34 mm. Basuto Land.
- albipuncta*. **A. albipuncta** *Hmps.* (9 d). Forewing copper-brown. Interior and exterior lines scarcely traceable. A white dot at the cross-vein in a short black radial streak. Hindwing lighter brown. ♂ 30 mm. Cape Colony.
2. Antennae of ♂ only very finely pectinated.
- caeca*. **A. caeca** *Hmps.* (9 d). Forewing glossy violettish-brown. Interior line vertical, the intense coniform macula adjoining to it. The ring-macula and reniform macula are large blackish spots. Exterior line distinct, strongly bent around the reniform macula. Ground-colour between this line and the submarginal line more reddish-brown. Hindwing greyish-brown. ♂ 28 mm. Cape Colony, Natal.
3. Antennae of the ♂ serrate.
- melanopis*. **A. melanopis** *Hmps.* (9 d). Forewing dark reddish-brown, with a violet gloss. Interior and exterior lines black, rather indistinct. The ring-macula is an oblong black spot; reniform macula outside with a yellow spot and a black outward streak. The faded light submarginal line is bordered with dark inside. Hindwing brownish-white, darker at the margin. ♂ 30 mm. Transvaal.
- leucopis*. **A. leucopis** *Hmps.* (9 d). Forewing greyish-brown. A black radial streak in the submedian fold and one through the cell. Interior and exterior lines black, distinct, dentate. Reniform macula a white spot. The light submarginal line is marked by dark sagittal spots inside. Hindwing brownish-white. ♂ 34 mm. Cape Colony.
- nephrosticta*. **A. nephrosticta** *Hmps.* (9 e). Dark reddish-brown. Interior line obliquely outwards, exterior line uniformly bent, both edged lighter. The two maculae small, indistinctly black, the reniform macula outside below with a light dot. Exterior line light reddish-brown. Hindwing greyish-brown. ♀ 26 mm. Transvaal.
- capicola*. **A. capicola** *H.-Schäff.* (9 e). Body and forewing yellowish-white. Interior line undulate, obliquely outwards, broadly white inside, then dusted dark as far as the base. Ring-macula and reniform macula rather large, edged black, the latter also centred black. Median band faded. Exterior line distinctly dark; submarginal line light, dark blotches before it at the costal margin and below the cell. Hindwing purely white. 25—28 mm. Cape Colony, East Africa.
- rufipuncta*. **A. rufipuncta** *Hmps.* (9 e). Forewing greyish-yellow. Interior line scarcely traceable. Ring-macula white with rusty red scales, reniform macula represented by a rusty red streak. Exterior line and submarginal line composed of black dots, the latter line with white scales outside. Hindwing brownish-white. 28 mm. Cape Colony.
- poliostrota*. **A. poliostrota** *Hmps.* (9 e). Forewing dark red-brown. The lines and maculae hardly visible on the dark ground. The ring-macula is a black dot; two black dots edged white inside form the reniform macula. Hindwing brownish-white. ♂ 26 mm. Mashona-Land.



**A. microthera** *Hmps.* (9 e) is just as faded. Ground-colour pale brown. The two lines and maculae *microthera* are indistinctly marked dark. Submarginal line edged blackish-brown inside. Hindwing white, brownish at the apex. 24 mm. Mashona Land.

**A. tenebrata** *Hmps.* (9 e). Reddish-brown. Interior and exterior lines double, blackish, broadly filled *tenebrata* with grey. The ring-macula and reniform macula are rusty red spots. Submarginal line edged brown inside. Hindwing brown. The original figure at hand is evidently not good. 26 mm. Cape Colony.

**A. expolita** *Btlr.* (9 e). Reddish greyish-brown. Interior and exterior lines distinct, black dots behind *expolita* the latter. Ring-macula absent, the reniform macula is a faded luna. The light submarginal line is edged dark inside. Hindwing paler, whitish at the base. ♀ 25 mm. Rodriguez.

(?) **A. ochreosignata** *Auriv.* From dark yellowish-grey to brownish-grey, very indistinctly marked. *ochreosignata*. Interior line and coniform macula mostly absent. The ring-macula is a white dot; the reniform macula an ochreous spot, with a white dot in front, a black spot and 2 white dots behind. Exterior line blackish, with long dentations, close to the reniform macula. Submarginal line indistinct, bent inwards behind the cell and in the submarginal fold; with black spots inside. Hindwing dark grey. 20—24 mm. Cape Verde Is.

#### 4. Antennae of ♂ ciliated.

**A. foveata** *Hmps.* (9 e). Whitish ochreous, marginal area dark brown. Ring-macula absent, reniform *foveata* macula small, round, edged dark. Interior and exterior line fine, somewhat obliquely outwards. The light submarginal line vertical to the interior angle. Hindwing whitish, brownish at the margin. The ♂ exhibits a scent-scale spot beneath in the upper cell-angle, and a fovea below vein 6. The ♀ sometimes shows brown traces of the ring-macula. 20—22 mm. Transvaal, East Africa.

**A. atriluna** *Guen.* (9 e). This light greyish-yellow species occurs also in the southern palaearctic region, *atriluna*. cf. Vol. III, p. 208, pl. 42 g. Throughout East, South and South-West Africa.

**A. gonionephra** *Hmps.* (9 f). Pale coppery brown, the veins darker. Interior line rather vertical. Ma- *gonio-* *nephra*. culae edged dark, the reniform macula lighter inside. Exterior line dentate, with black dots on the veins. Submarginal line marked by the darker shadow inside. Hindwing white, brownish at the apex. ♂ 24 mm. Natal.

**A. atrispherica** *Hmps.* Reddish-brown. Interior line double, exterior line single. The ring-macula is a *atrispherica* black dot, the reniform macula elliptical, both finely edged white. Submarginal line blackish, edged white outside. Hindwing reddish-brown with a dark central luna. ♂ 30 mm. East Africa.

**A. leucosticta** *Hmps.* (9 f). Dark reddish-brown. Interior line light outside, whitish inside, rather ver- *leucosticta*. tical. The maculae are faint dark spots, the reniform macula with a white dot outside above. Exterior line bordered with light outside, with whitish at the costal margin. Submarginal line composed of yellowish-white dots and a larger spot at the inner margin, prominent by the dark interior border. The dots may also be absent: — **subleucosticta** *Strd.* Hindwing brown. ♀ 26 mm. East Africa. *subleucosticta*.

**A. melanomma** *Hmps.* Red brown with a few white scales. Interior line undulate, indistinct. The *melanomma*. ring-macula is a black dot, surrounded by white scales; reniform macula finely edged with brown, with white scales outside; below it an undulate line to the inner margin. Exterior line dark, black dots on the veins behind it, except at the costal margin. Submarginal line fine dark, with white scales outside. Marginal streaks black. Hindwing pale reddish-brown, with a dark central luna and an exterior band. ♂ 36 mm. Natal.

**A. satellitia** *Hmps.* (9 f). Red-brown. Interior line straight, obliquely outwards, a white dot before it *satellitita*. at the costal margin. The ring-macula is a fine white dot, the reniform macula a round white spot, one white dot above it, 2 feeble ones below it. Exterior line with a light dot at the costal margin, blackish, projecting at the veins into dots. Submarginal line edged dark inside. Hindwing brownish. 30—32 mm. Natal, Delagoa Bay.

**A. melanosticta** *Hmps.* (9 f). Forewing brownish ochreous, darker at the margin as far as vein 4. In- *melanosticta*. terior, exterior and submarginal lines only marked by black dots. The ring-macula is a black dot, reniform macula of blackish-white dots. Hindwing white. Forewing sometimes darker brown: — **fuscoirrorata** *Strd.* *fuscoirrorata*. 24 mm. South and East Africa.

**A. flavipuncta** *Hmps.* (9 f). Larger, otherwise similar, marked somewhat more distinctly. The ring- *flavipuncta*. macula is a round brown spot. Reniform macula darker, orange outside, with a white dot above it and two below it. Exterior line with a black dot at the costal margin, projecting into dots at the veins. Submarginal line yellowish. Hindwing white, brownish at the apex. 28 mm. Mashona Land.

**A. ignava** *Guen.* (= *pervicax* *Wlgrn.*, *partita* *Hmps.*) (9 f) differs from *flavipuncta* in the punctiform *ignava*. ring-macula and the more undulate submarginal line. 28—30 mm. South and East Africa and adjacent islands.



- pigra*. **A. pigra** Guen. (= *partita* Wkr., *orbata* Möschl.) (9 f). Forewing greyish-yellow with a rusty red gloss. Interior and exterior lines very feeble, dark. The ring-macula is a distinct black dot, the reniform macula a white spot. A series of black dots at the veins behind the exterior line. Hindwing white. ♂ 32 mm. West, South and East Africa. Description according to the type of *orbata*; HAMPSON's figure is quite different.
- mozambica*. **A. mozambica** Hmps. Thorax and forewing whitish red-brown. Interior line fine black, oblique, whitish inside. The ring-macula is a black dot; reniform macula edged with black and white scales, a small white spot in the middle outside. The exterior line is a double row of dots. Submarginal line pronounced by dark brown dusting inside. Margin reddish-brown. Marginal dots black, white inside. Hindwing slightly brownish. 26 to 28 mm. Delagoa Bay.
- croceipuncta*. **A. croceipuncta** Hmps. (9 f). Greyish-brown. Somewhat like the European *quadripunctata* (*clavipalpis*). Interior and exterior lines beginning with a black spot at the costal margin. The ring-macula and reniform macula somewhat darker, the latter also with white marginal dots, otherwise like *flavipuncta*. 24—28 mm. Cape Colony, Transvaal. The species is probably a synonym to *singula* Möschl.
- transversistriata*. **A. transversistriata** Strd. Lines of forewing similar to *croceipuncta*, but finer, more distinct, because the ground-colour is lighter, as in *flavicaput*. Ring-macula smaller, more distinct, nearer to the interior line. Body strong, similar to *pigra*. ♀ 25 mm. East Africa. Type in the Stettin Museum.
- singula*. **A. singula** Möschl. (9 g). Yellowish reddish-brown. Interior and exterior lines beginning with a dark spot at the costal margin. The interior line extends at the median vein outwards, vertically above and below it, with a little angle inwards at vein 1. Ring-macula small, mostly faded, blackish. Reniform macula with a large white spot (which is absent in the type), mostly a few more white dots in the centre outside. Exterior line uniformly bent, with dots behind it at the veins. Submarginal line somewhat undulate, rusty red behind it. Black marginal dots, white inside. Hindwing white, narrowly brownish at the margin. 28—30 mm. South Africa.
- roastis*. **A. roastis** Hmps. Body and forewing light red-brown with a grey gloss. A white dot in the base of the submedian fold. Interior line black, oblique. The ring-macula is a black dot; the reniform macula a white spot with dots above and below it. Behind the exterior line there are black dots on the veins, edged white outside. A marginal row of black dots. Hindwing greyish-brown. ♀ 32 mm. East Africa.
- beliastis*. **A. beliastis** Hmps. (9 g). Dark red-brown. Interior line black with a yellowish dot at the costal margin. Ring-macula often with a yellow dot inside and outside, otherwise not discernible. The reniform macula is a yellowish-white spot surrounded by little dots. Exterior line rather indistinct, ochreous near the costal margin outside, sometimes a double row of dots. Submarginal line sometimes marked by yellow dots. Hindwing brownish. 30 mm. Transvaal.
- melanerges*. **A. melanerges** Hmps. Forewing dark brown with a leaden grey gloss. A white dot at the costal margin near the base and one inside at the black interior line. The reniform macula is a small yellow spot edged with black, surrounded by white dots. Exterior line white outside at the costal margin. Submarginal line dark with some white scales. Hindwing brownish. 24 mm. Central and East Africa.
- anomoeosis*. **A. anomoeosis** Hmps. (9 g). Dark reddish-brown, with a grey gloss. Interior, median and exterior line dark, indistinct. Ring-macula indistinct, dark; the reniform macula is a white streak with a white dot above and below it. Submarginal line light, undulate, in dark surroundings. Hindwing white, fringe darker. ♀ 28 mm. East Africa.
- albivena*. **A. albivena** Hmps. (9 g). Dark brown. Interior and exterior lines dark, very indistinct, the latter line with a fine white dot at the costal margin. The reniform macula is a large white streak. Submarginal line with a white spot at the costal and inner margins. Hindwing light brown, with a discal luna. Fringe light. ♂ 20 mm. Bechuana Land.
- leuconephra*. **A. leuconephra** Hmps. (9 g). Dark brown with brownish ochreous places. Interior line black, white inside at the costal margin. The ring-macula is a black dot with a white ring; reniform macula white with a black median streak; black between the maculae. Exterior and submarginal lines ochreous, fine black streaks before the latter line. Hindwing brown. ♂ 26 mm. Mashona Land, Somali Land.
- soudanensis*. **A. soudanensis** Hmps. Brownish ochreous, darker in the marginal area. Interior and exterior lines dark, indistinct, with a black spot at the costal margin. Reniform macula black on a dark median shadow. Submarginal line white, undulate, black marginal lunae behind it. Hindwing white, brownish at the margin. ♀ 30 mm. Sudan.
- melanosema*. **A. melanosema** Hmps. (= *melanopsis* Hmps.) (9 g). Greyish-brown. Interior line feeble, dark, oblique; the ring-macula is an oblique black spot touching it. Reniform macula also oblique, with 1 black dot above, two below, situate on a dark median shadow. Exterior line indistinct, dark, edged light outside. Marginal dots fine, black. Hindwing white. ♂ 30 mm. Mashona Land.



**A. glauca** *Hmps.* (9 g). Light reddish-brown with fine brownish ochreous streaks in the submedian fold and behind the cell. Interior line blackish, oblique, undulate. Ring-macula round, blackish; reniform macula edged black. Exterior line black, dentate, with white dots behind it on the veins. The light submarginal line edged dark inside. Hindwing white, brownish at the costal margin. Sometimes the ring-macula is also oblong: — **elongata** *Strd.* 24—30 mm. South and East Africa. *elongata.*

**A. melanephra** *Hmps.* (9 g). Similar. Interior line light-edged inside, exterior line outside. Ring-macula oblong. Darker before the light submarginal line, especially at the costal and inner margins, dark also behind it. Hindwing as in *glauca*. 28 mm. South Africa. *melanephra.*

**A. atrirena** *Hmps.* (9 g) is similar to a large light *glauca*.<sup>1</sup> Ring-macula absent; a median band extends through the narrow dark reniform macula. Hindwing somewhat lighter than the forewing. 32 mm. Cape Colony. *atrirena.*

**A. absorbens** *Wkr.* (9 h) is similar to a large *glauca*.<sup>5</sup> Ring-macula smaller, the reniform macula also filled with dark. Some specimens are dark brown before the exterior line: — **kokstadensis** *Strd.* Hindwing uniformly brown. 30—35 mm. Cape Colony. *absorbens.* *kokstadensis.*

**A. pallicornis** *Fldr.* Greyish-brown. Interior line blackish, excurved in the submedian fold. The ring-macula is a fine black dot; reniform macula dark, faded, round; a median shadow before it. Exterior line dentate, with black dots behind it. Submarginal line edged dark inside, with a spot inside at vein 7. Hindwing dark, with a central luna and an exterior band. 32—35 mm. South Africa. *pallicornis.*

**A. discopuncta** *Poult.* (9 h) is similar to a feebly marked *atriluna* *Guen.* Forewing brownish white. Three dark spots at the costal margin. From the last the far excurved exterior line proceeds. The reniform macula is a dark dot in front of it. The veins behind it darker. Distal margin narrowly darker with black marginal dots. Hindwing white. ♀ 28 mm. Somali Land. *discopuncta.*

**A. aeschria** *Hmps.* (9 h). Dark red-brown. Interior line bent, exterior line undulate, not dentate. Ring-macula and reniform macula dark. The faded dark submarginal line is excurved in the middle. Hindwing brown. ♂ 28 mm. Cape Colony. *aeschria.*

**A. nitens** *Saalm.* (9 h). Greyish-brown. The ring-macula is only a fine dot. The median shadow intense below the reniform macula which exhibits an ochreous dot outside. Black dots behind the exterior line. Submarginal line light, almost straight. Hindwing dark. 26—28 mm. East Africa, Madagascar. *nitens.*

**A. smintha** *Hmps.* (9 h). Reddish greyish-brown. Interior line oblique, interrupted, black. The ring-macula is a black dot; reniform macula edged black on the sides; traces of a median shadow below it. Exterior line projecting on the veins. Submarginal line only marked by the dark shadow inside. Hindwing whitish, brownish in the distal half, more so in the ♀. 28—34 mm. Cape Colony, Natal. *smintha.*

**A. atristicta** *Hmps.* Similar to the South-European *aspersa* *Rbr.* Forewing greyish-white, dusted black, darker in the marginal area. Interior line marked by a dot in the cell. Ring-macula marked by a black dot, reniform macula by 4 dots. The exterior line is a double row of dots. Marginal dots black. The light submarginal line of *aspersa* is absent. Hindwing white, brown at the margin. ♀ 28 mm. Mashona Land. *atristicta.*

**A. hyperaeschra** *Hmps.* (9 h). Dark red-brown. Forewing lighter in the basal area and narrowly behind the exterior line. The discal area shows only the reniform macula marked by a paler streak. Submarginal line faded light. Hindwing lighter brown. 32 mm. East Africa. *hyperaeschra.*

**A. ectomelaena** *Poult.* (9 h). Similar to *joveata*. Brownish-white. Interior and exterior lines fine black, beginning from spots at the costal margin, and a basal dot before them. Reniform macula fine dark, round. A fine light submarginal line in the dark distal area. The margin itself finely ochreous with black dots. Hindwing slightly brownish. 20—30 mm. East Africa, Somali Land. *ectomelaena.*

**A. strigata** *Hmps.* is somewhat like *discopuncta*. Whitish ochreous, dusted brown in the distal area. Interior line oblique, undulate. A brown spot in the middle of the costal margin and traces of a dark band from the lower cell-angle. Exterior line with a brown spot at the costal margin, very convex, bordering on the dark distal area. Marginal dots black. Hindwing white. ♀ 30 mm. East Africa. *strigata.*

Finally two more species resembling the others in the marking, but distinguished by the undulate margin of the hindwing.

**A. horus** *Fawc.* (9 i). Ochreous. Interior and exterior lines red-brown, distinct, only faded at the inner margin. Marginal band red-brown, bordered inside by a black S-shaped line. Hindwing with the same marginal band, but its interior border straight. ♂ 30 mm. East Africa. *horus.*

**A. pentheus** *Fawc.* (9 i). Forewing yellow. A red-brown spot at the costal margin and a black one at the cell-end. White dots in the red-brown marginal band. Hindwing the same, but paler. ♂ 24 mm. East Africa. *pentheus.*

43. Genus: **Constantiodes** *Poult.*

Proboscis absent, palpi rising to the frons, thinly scaled. Antennae of ♂ with moderately strong pectinations, ciliated at the tips. Metathorax with a feeble tuft, a tuft at the base of the abdomen. Distal margin of forewing undulate. Neuration normal.

*pyralina.* **C. pyralina** *Poult.* Creamy white. Interior line blackish-brown, obliquely outwards, parted above the inner margin. Reniform macula irregularly bordered with dark on the sides, a line from the lower cell-angle to the inner margin. Whitish before the reniform macula in the cell. Dark spots behind the dentate oblique exterior line at the costal margin, whitish below them. Marginal line dark. Hindwing creamy white, with an undulate brown marginal line. 22 mm. Somali Land.

44. Genus: **Omphaletis** *Hmps.*

Proboscis normal, palpi extending to the middle of the frons which shows a pointed projection. Antennae of ♂ ciliated. Metathorax with a feeble parted tuft. The spines on the anterior tarsi are bent like claws. Neuration normal. Vein 5 of hindwing below the middle of the cross-vein. Type: *florescens* *Wkr.* from Australia.

*ethiopica.* **O. ethiopica** *Hmps.* Forewing red-brown and brownish ochreous. Interior line black, edged inside somewhat ochreous. The ring-macula is a light dot, edged dark; the reniform macula is narrow, rusty red, edged dark; lighter behind it as far as the double exterior line which is filled light. Narrowly lighter behind it; not lighter in specimens from the Kilimanjaro. The light submarginal line with black sagittae inside, rusty brown outside. Hindwing brownish ochreous with dark bands and margin. — **erffai** *Grünbg.* (9 h). Ground-colour lighter, more greyish brown, whitish at the exterior line. Hindwing insignificantly lighter. 24—26 mm. South West, South and East Africa.

45. Genus: **Ariathisa** *Wkr.*

Proboscis and palpi normal, thickly scaled. Antennae of ♂ ciliated. Thorax as in *Omphaletis*. Abdomen with a lateral hair-pencil. Neuration normal. Vein 5 of hindwing below the middle of the cross-vein. Type: *excisa* *H.-Schäff.*

1. Abdomen of ♂ with a long lateral hair-tuft at the base. Forewing beneath with a large androconial spot in the cell, a small one on the hindwing.

*excisa.* **A. excisa** *H.-Schäff.* (9 i). Body greyish-brown, hair-pencil of ♂ reddish-yellow. Forewing greyish-white, dusted rusty red. Interior line double, feeble, with a black spot outside at the costal margin. Ring-macula united with the reniform macula, forming a thick black angle. Exterior line also double, ending vertically at the inner margin. Submarginal line scarcely discernible, somewhat lighter behind it at the apex. Hindwing whitish, margin and veins brownish. 32—34 mm. South and East Africa.

2. Abdomen of ♂ without a lateral hair-tuft. Forewing beneath with androconia only at the base, hindwing without any.

*semiluna.* **A. semiluna** *Hmps.* (9 i). Ground-colour more reddish-brown. The angular marking more intense at the end and thereby somewhat U-shaped. Exterior line more oblique to the inner margin. 30—35 mm. East Africa, Transvaal.

3. Abdomen of ♂ without a hair-tuft. Both wings beneath without androconia.

*angulata.* **A. angulata** *sp. n.* (9 i). Interior line almost straight, finely double, the exterior branch beginning with a spot at the costal margin. Ring-macula narrow and connected only by a fine streak with the large reniform macula through which the median shadow extends. Exterior line fine, forming a double row of dots, of a shape similar to *excisa*, with a spot at the costal margin; at the inner margin the interior branch forms a vertical line, behind it a row of dots at the veins. Submarginal line incurved behind the cell and in the submedian fold. Fine black marginal dots. Hindwing as dark as forewing. ♂ 34 mm. Cameroons. Type in the Berlin Museum.

46. Genus: **Petilampa** *Auriv.*

Proboscis stunted, palpi short and porrect, hairy below. Body slender, without tufts. Neuration normal. Type: *arcuosa* *Haw.* from Europe.

*homora.* **P. homora** *B.-Bak.* Body grey. Forewing glossy pale greyish-brown. Interior line indistinct, exterior line pale, sharply bent below the costal margin, then gradually inwards. Traces of an irregular submarginal line. The reniform macula is a somewhat paler spot. Hindwing paler, also glossy. ♂ 28 mm. East Africa.



47. Genus: **Amefrontia** *Hmps.*

Separated from the following genus by the large pointed frontal projection. Antennae of ♂ with long pectinations.

**A. purpurea** *Hmps.* (9 i). Thorax and forewing deep fiery red. Costal margin, cell and marginal area *purpurea*, dark red-brown, veins brown. Interior line feeble, vertical. Maculae small, edged with ochre. Exterior line undulate, parallel to the distal margin. Hindwing white, brown hair at the inner margin. ♂ 26 mm. East Africa, Sokotra.

48. Genus: **Ethiopica** *Hmps.*

Proboscis stunted, palpi somewhat longer, porrect, thin. Thorax with a tuft in front and behind. Neuration normal. Vein 5 of hindwing below the middle of the cross-vein. Type: *vinosa* *Hmps.*

1. Antennae of ♂ finely pectinated.

**E. vinosa** *Hmps.* (9 i). Forewing claret-coloured. Ring-macula and reniform macula small, yellow, *vinosa*, surrounded with fine white dots. Exterior line somewhat dentate, with black rays and white dots on the veins. Marginal area lighter. Hindwing whitish. 22—24 mm. Transvaal, Mashona Land.

**E. cupricolora** *Hmps.* (9 k) is very similar. Traces of a brown interior line. Maculae white inside in- *cupricolora*, stead of yellow. Light streaks in the marginal area between the veins. Hindwing white. ♂ 22 mm. Delagoa Bay.

**E. exolivia** *Hmps.* Violettish-red with white basal dots. Interior and exterior lines whitish. The two *exolivia*, maculae edged white, the reniform macula with a white dot in the centre of its outside. Marginal area olive yellow, submarginal line fine white, marginal dots white. Hindwing purely white. ♂ 26 mm. Niger District.

**E. polyastra** *Hmps.* (9 k). Dark copper-brown. Ring-macula in a thick white ring. Reniform macula *polyastra*, composed of white spots. Exterior line scarcely discernible. Some light spots below the apex, large white marginal dots and a spot at the interior angle. Hindwing greyish-brown. 24 mm. Niger District to Transvaal.

**E. leucostigmata** *B.-Bak.* Ground-colour and maculae similar to *polyastra*. Only a white basal dot; *leucostig-* interior and exterior lines absent. Submarginal line light; interrupted. Marginal dots and hindwing white. *mata*, ♂ 25 mm. West Africa.

**E. melanopa** *B.-Bak.* Sooty black, base of forewing narrowly grey. Ring-macula absent, reniform *melanopa*, macula grey with a small grey spot above it. Exterior line broad, grey, irregular. Marginal dots white. Hindwing pale grey. ♀ 21 mm. Congo District.

**E. hesperonota** *Hmps.* (9 k). Copper-brown. Interior and exterior lines of greyish-white dots. Ring- *hesperonota*, macula and reniform macula marked by short white streaks. Fine white dots at the veins behind the exterior line. The light submarginal line is interrupted. Marginal dots white. Hindwing greyish-brown. ♀ 25 mm. East Africa.

**E. apicestriata** *B.-Bak.* Dark brown. Forewing with white scales below the middle of the cell and *apicestriata*, around the lower cell-angle. Exterior line dark, somewhat dentate. A broad oblique reddish-yellow blotch from the apex to the exterior line. Hindwing dark brown. ♂ 24 mm. West Africa.

**E. ignecolora** *Poult.* (9 k). Antennae of ♀ pectinate. Forewing fiery red-brown. Interior and exterior *ignecolora*, lines darker red, the former very indistinct. The ring-macula is a white dot, the reniform macula 2 white dots. The submarginal line extends as a white blotch from the costal margin, and some dots below it. The fine marginal dots and the hindwing white. ♀ 26 mm. Somali Land.

**E. phaeocausta** *Poult.* (9 k). Dark violettish-brown. The two dark lines very indistinct. The narrow *phaeocau-* red reniform macula edged somewhat brownish ochreous. Marginal dots brownish ochreous. Hindwing light *sta*, brown, fringe with white tips. ♀ 26 mm. Somali Land.

**E. micra** *Hmps.* (9 k). Forewing brownish ochreous, dusted dark. Interior line blackish, dentate. The *micra*, reniform macula is a black dot with white scales outside. Exterior line black, dentate, indented behind the cell. Interior half of marginal area dark. Marginal dots black. Hindwing white. The forewing may be also dark brown: — **micrana** *Strd.* 20—26 mm. Abyssinia to Natal. *micrana*.

**E. umbra** *Le Cerf.* Very similar to *micra*. Frons whitish ochreous. Reniform macula composed of *umbra*, brown and white scales. Exterior line less distinct. The submarginal shadow is bordered in front by 3 short white streaks, incised at vein 1, somewhat lighter behind it. Marginal dots black. Hindwing brownish ochreous. ♀ 18 mm. East Africa.

2. Antennae of ♂ tuftedly ciliated.

*asteropa.* **E. asteropa** *Hmps.* Dark violettish-brown. Interior line white, undulate. Ring-macula white with a yellow centre, edged black; reniform macula yellow, edged black, surrounded by white dots. Exterior line dentate, white outside, black inside. A submarginal row of white dots. Hindwing white. ♂ 24 mm. Central Africa.

#### 49. Genus: **Paromphale** *Hmps.*

Proboscis and palpi normal. Frons with a projection. Antennae of ♂ ciliated. Metathorax with a very feeble tuft. Veins 3 and 4 of hindwing stalked, the rest of the neuration normal. Type: *caeca* *Sw.* from India.

*chionephra.* **P. chionephra** *Hmps.* Thorax and body dark greyish-brown. Interior line black, undulate. The ring-macula is a white dot edged black; the reniform macula is a white spot edged black inside and outside. Exterior line black, somewhat concave behind the cell, incurved below the macula, outwards at vein 1. Submarginal line marked by an interior black border. Hindwing brownish, fringe with white tips. ♂ 18 mm. Rhodesia.

#### 50. Genus: **Hypoperigea** *Hmps.*

Proboscis and palpi normal, the latter very hairy. Frons with a projection. Antennae of ♂ finely serrated and ciliated. Prothorax, metathorax and base of abdomen with 1 small tuft each. Distal margin of forewing slightly undulate. Neuration normal. Type: *torsa* *Guen.* from Australia.

*medionota.* **H. medionota** *Hmps.* (= *Hadj. atrinota* *Hmps.* ♀). Red-brown. Interior line double, black, undulate, somewhat oblique. Coniform macula black. Ring-macula and reniform macula with a black centre-dot and black edges; connected behind by a black spot from which a faded median shadow proceeds. Exterior line double, black, with black dots behind it at the veins. Submarginal line light, undulate, edged with red-brown inside. Margin darker red-brown. Marginal dots and a blotch in the submedian fold black. Hindwing pale brown. 28—30 mm. East Africa.

The two other species from Madagascar resemble the Indian *leprosticta* *Hmps.*

*minuscula.* **H. minuscula** *Kenr.* (9 k). Blackish violettish-brown with brownish ochreous spots. Interior and exterior lines rather indistinct, separating the median area from the larger spots. Hindwing greyish-yellow. 62 mm. Madagascar.

*variegata.* **H. variegata** *Kenr.* (9 k). Greyish-black with large ochreous spots. Ring-macula discernible as a dark circle. Hindwing pale greyish-yellow. 40 mm. Madagascar.

#### 51. Genus: **Dysmilichia** *Speiser.*

Proboscis and palpi normal. Frons with a projection. Thorax and abdomen without tufts. Neuration normal. Antennae of ♂ ciliated. Type: *gemella* *Leech* from Eastern Asia.

*purpurascens.* **D. purpurascens** *Hmps.* (10 a). Dark red-brown, somewhat violet. Marking finely yellowish. Interior line double, oblique, undulate; coniform macula adjoining to it. Ring-macula and reniform macula finely edged. Exterior line double, filled with grey, dark dots behind it. Traces of a pale submarginal line. ♀ 30 mm. Transvaal.

*proleuca.* **D. proleuca** *Hmps.* Body pale red-brown, abdomen with black lateral dots at the end. Forewing whitish ochreous. Hindwing pale greyish-brown, fringe white. ♀ 20 mm. Central Africa.

#### 52. Genus: **Proxenus** *H.-Schaeff.*

Proboscis normal, palpi thin, porrect. Frons without a hump. Thorax and abdomen without tufts. Neuration normal, veins 3 + 4 of hindwing may be stalked. Type: *hospes* *Frr.* from Europe.

1. Middle and hind tibiae of ♀ hairy outside. Lateral hair-tufts at the base of the abdomen.

*pectinifera.* **P. pectinifera** *Aur.* (10 a). Antennae of ♂ shortly pectinated. Forewing copper-brown. Interior line dark, oblique; exterior line excurved behind the cell, with white scales outside. A dark streak at the cross-vein with a shadowy line to the inner margin. The light submarginal line is edged dark inside. Hindwing lighter brown. ♂ 24 mm. East Africa.



**P. xantholopha** *Hmps.* (10 a). Lateral hair on the legs and abdomen white. Forewing dark brown with reddish stripes. Interior line indistinct, far inwards at the costal margin. The ring-macula is a black dot; the reniform macula a black-edged luna. Exterior line dentate and with black dots at the veins. Submarginal line scarcely traceable, marginal dots black. Hindwing white, brownish at the apex. 30—32 mm. South Africa. *xantholopha*

2. Legs and abdomen without any characteristic features.

**P. xanthopis** *Hmps.* (10 a) resembles *xantholopha* in its colouring. Interior line not so far inwards at the costal margin. Ring-macula and reniform macula small, yellow, edged black. Exterior line strongly bent behind the cell. Submarginal line more distinct. Hindwing white with brownish veins. ♀ 30 mm. Basuto Land. *xanthopis*.

**P. camptogramma** *Hmps.* (10 a). Light reddish-brown, costal margin finely black at the base. Interior line black, vertical. The ring-macula and reniform macula are indistinct dark spots with a distinct median shadow between them. Exterior line not quite so much excurved as in the two preceding species. Submarginal line faded, dark. Hindwing somewhat lighter. ♂ 30 mm. Rhodesia. *camptogramma*.

### 53. Genus: **Monodes** *Guen.*

Proboscis normal, palpi long and thin. Antennae of ♂ finely ciliated. Prothorax and metathorax as well as the first segment of the abdomen with a feeble tuft each. Neuration normal. Vein 5 of hindwing from the middle of the cross-vein. Type: *nucicolora* *Guen.* from America.

**M. plectilis** *Guen.* (10 a). Yellowish-brown, the veins dark. A black streak in the submedian fold extends to the centre of the wing. A dark brown blotch below the cell as far as the margin. Ring-macula and reniform macula small, white, centred brown, edged black, a black streak between them. A rusty red streak behind the cell and one above the submedian fold. Hindwing white. ♂ 26 mm. Sierra Leone. *plectilis*.

### 54. Genus: **Hadjina** *Stdgr.*

Proboscis normal. Palpi as long as in *Monodes*, somewhat more hairy. Antennae of ♂ ciliated. Tufts as in *Monodes*. Veins 6 + 7 of hindwing on a short stalk, the rest of the neuration normal. Type: *lutesa* *Stdgr.* from Asia Minor.

**H. carcaroda** *Dist.* (10 a). Blackish-brown. Interior and exterior lines grey, indistinct, dentate, especially the exterior line. All the 3 maculae are finely edged with grey, the reniform macula is narrow. Long black streaks between the veins. Rusty red marginal spots below vein 6. Hindwing somewhat lighter. ♀ 30 mm. Transvaal. *carcaroda*.

**H. obscura** *Hmps.* Reddish greyish-brown. Interior line dark, indistinct, slightly curved. Ring-macula composed of red and white scales; reniform macula inside with red scales, outside with white dots; a dark median shadow between them. Exterior line also indistinct, concave behind the cell. Submarginal line indicated by its interior dark border. Marginal dots fine black. Hindwing brownish, with a dark central spot and exterior line. ♂ 25 mm. East Africa. *obscura*.

**H. atrinota** *Hmps.* (10 a). Red-brown. Interior line dark, somewhat grey inside, indistinct. Ring-macula round, indistinct; reniform macula edged with grey. Median band broad, faded. Fine dark dots behind the exterior line. Submarginal line pale, broad, edged dark inside. Hindwing greyer brown. The species resembles *Hyp. medionota* (p. 86) so much that the ♀ of it was originally taken to be *atrinota* ♀. 28 mm. East Africa. *atrinota*.

### 55. Genus: **Procrateria** *Hmps.*

Proboscis and palpi normal. Frons with a hump. Antennae of ♂ dentate, of ♀ ciliated. Tufts as in *Monodes*. Neuration normal. Vein 5 of hindwing below the middle of the cross-vein. Type: *noloides* *Hmps.*

**P. pterota** *Hmps.* (10 b). Light ochreous, pink at the costal margin. Interior line brown at the costal margin, red-brown at the inner margin, interrupted in the cell by a pink radial streak. Two black dots at the cross-vein. Exterior line indicated by a short brown streak at the costal and inner margins. Rusty red streaks behind the cell. Submarginal line ochreous, close at the margin. Hindwing of ♂ somewhat paler, with a faded submarginal band. 35 mm. Natal. *pterota*.

**P. noloides** *Hmps.* (10 b). Greyish-white, dusted blackish-brown. Interior and exterior lines fine black, the exterior one very strongly dentate. Two black spots at the costal margin, one at the base, the other before the exterior line. Ring-macula whitish, finely edged with black; reniform macula finely black only inside. The light submarginal line is traceable inside by faint rusty brown streaks. Hindwing greyish-brown. ♀ 34 mm. Mashona Land. *noloides*.

56. Genus: **Catamecia** *Stdgr.*

Separated from the preceding genus by more slantingly erected palpi, as the frontal hump is smaller. Antennae of ♂ ciliated. Vein 5 of hindwing from the middle of the cross-vein. Type: *jordana* *Stdgr.*

*connectens.*

**C. connectens** *Hmps.* (10 b). Greyish-brown and red-brown. Interior line represented by a short white arrow in the submedian fold, where it is connected with the exterior line by a dark blotch. Ring-macula and reniform macula connected as in some species of the genus *Acronycta*, of the reniform macula only the interior edge is present. Hindwing reddish-brown. ♀ 26 mm. Betchuana Land.

57. Genus: **Namangana** *Stdgr.*

Proboscis normal. Third palpal joint porrect. No frontal hump. Type: *cretacea* *Stdgr.* from Central Asia.

1. Antennae of ♂ ciliated. Third palpal joint long, flattened.

*adela.*

**N. adela** *Hmps.* (10 b). Brownish ochreous with red-brown and violettish-white scales, the veins somewhat darker. Interior line double, undulate, filled with white, oblique. Coniform macula long, edged with black; ring-macula and reniform macula white, centred darker, edged with black. Exterior line distinct, dentate, edged white outside. Submarginal line light, indistinct. Hindwing white, brownish at the apex. ♂ 30 mm. Betchuana Land.

2. Third palpal joint short, not flattened.

*atripars.*

**N. atripars** *Hmps.* (10 b). Blackish-brown, with brownish ochreous streaks below the costal margin. Only the ring-macula is represented by a ring at the lower cell-angle. Exterior line oblique, somewhat undulate, lighter behind it, somewhat lighter also at the inner margin. Submarginal line only distinct at the apex. Hindwing pale reddish-brown. ♀ 25 mm. Cape Colony.

*thyatiroides.*

**N. thyatiroides** *Hmps.* Forewing olive-grey, dusted black. Costal and inner margins black at the base. Interior line finely black, oblique; a white blotch in the centre of the wing from the interior line to the exterior line. Coniform macula indicated by black scales; ring-macula large, round; reniform macula edged black inside and below, terminating outside into a large white spot. Exterior line very convex at the costal margin, blackish. An oblique white spot from the apex to the exterior line, and one between veins 4 and 2; next to it and below vein 2 somewhat black. Hindwing brown with black marginal streaks. ♀ 40 mm. Delagoa Bay.

58. Genus: **Tumidifrontia** *Hmps.*

Proboscis absent, palpi short and thin. Frons with a large projection. Antennae of ♂ shortly pectinated. Prothorax and metathorax with a larger tuft, smaller tufts on the abdomen in front. Venation normal. Vein 5 of hindwing below the middle of the cross-vein. Type: *castaneotincta* *Hmps.*

*castaneo-*  
*tincta.*

**T. castaneotincta** *Hmps.* (10 b). Violettish-grey, tinged with pink at the costal margin and base. Interior line pale rusty red, white inside. Ring-macula and reniform macula small, white, edged with rusty red, the latter with a similar median streak. Exterior line indistinct, rusty red, white inside, with blackish spots above the inner margin. Fringe pink. Hindwing white, brownish at the margin. ♂ 28 mm. Mashona Land.

*roseitincta.*

**T. roseitincta** *Hmps.* Light rusty red and pink, basal area below the cell nut-brown, marginal area whitish, except at the interior angle. Interior line double, red-brown, filled with white, grey only at the costal margin. Coniform macula extended to the cell, ring-macula and reniform macula close together; all 3 edged with red-brown. Exterior line double, red-brown, filled with greyish-white, extending close at the reniform macula, somewhat convex below it, a large blackish-brown spot behind it below vein 2. Marginal dots black, fringe rusty red. Hindwing white, broadly edged with brown. ♂ 25 mm. Central Africa.

59. Genus: **Gortynodes** *B.-Bak.*

Proboscis absent, palpi projecting beyond frons. Antennae of ♂ finely pectinated. Prothorax and metathorax with a tuft, but abdomen without it. Veins 3 + 4 of hindwing slightly stalked, 5 below the middle of the cross-vein.

*holophaea.*

**G. holophaea** *B.-Bak.* Dark brown. Still darker in and below the cell as far as the finely double exterior line. A somewhat paler brown band through the centre of the cell, sharply angled outside. Reniform macula edged pale. Marginal line fine black. Hindwing pale brown with a central lina and an exterior band. ♂ 28 mm. West Africa.

60. Genus: **Copifrontia** *Hmps.*

Proboscis normal. Palpi oblique, thin, rather long. Frons with a listel. Antennae of ♂ with one row of serrations. Prothorax with a small tuft, a small edge behind it, abdomen with a basal tuft. As vein 5 of hindwing is normally developed, it may belong rather to the *Noctuinae*.



**C. xantherythra** *Hmps.* (10 b). Yellow, the marking violettish red-brown. Basal area angled below the cell, an interior row of spots behind it. A very large spot with some partition-lines around the light angled cross-vein; many small spots below and behind it. Marginal area separated from the central spot by a fine yellow line. Submarginal line strongly notched inwards. Hindwing brownish-white. 46—50 mm. Mashona Land, East Africa. *xantherythra*.

#### 61. Genus: **Eulymnia** *Hmps.*

Proboscis and palpi normal. Antennae of ♂ filiform. Thorax without a tuft, the abdomen with a basal tuft. Vein 8 of hindwing united with the cell as far as  $\frac{1}{2}$  of its length, 5 arising from below the middle of the cross-vein.

**E. pulcherrima** *Hmps.* (10 c). Yellow, dusted red-brown. Suffused with greyish-violet at the inner margin and behind the median line, except near the apex. Interior line double, red-brown. Ring-macula and reniform macula centred rusty brown. The median line close behind them. Exterior line double at the costal margin, filled with white. Submarginal line of rusty brown spots. Hindwing white, brownish at the apex. 36—38 mm. East Africa, Mashona Land. *pulcherrima*.

#### 62. Genus: **Ethiotherpia** *Hmps.*

Proboscis normal, palpi oblique. Frons with a pointed hump. Prothorax and metathorax with a tuft. Forewing very narrow. Vein 5 above the lower cell-angle. Veins 3 + 4 of hindwing on a long stalk, 6 + 7 on a short one, 8 united with the cell on  $\frac{1}{4}$ . Type: *neavei* *Hmps.*

**E. neavei** *Hmps.* Creamy white. Interior line black, oblique, with traces of a coniform macula. Median line distinctly black, convex below the cell. Exterior line obliquely excurved from the costal margin, incurved from the lower cell-margin. Reniform macula broadly flown into the costal margin. A black triangle behind the exterior line at the costal margin; some brown submarginal spots below it in the centre of the wing. Hindwing hyaline white, brownish at the margin. ♂ 35 mm. Rhodesia. — **janenschi** *Gaede* (10 c). The thorax is without the two black spots in front and in the middle. Interior line more oblique. The submarginal line proceeds from the black triangle at the costal margin. The space inside of it white, outside grey. 30 mm. East Africa. *neavei*, *janenschi*.

#### 63. Genus: **Atimaea** *Hmps.*

Proboscis normal, palpi projecting beyond frons. Antennae of ♂ finely serrate, tuftedly ciliated. Metathorax with a tuft. Veins 6 + 7 of hindwing sometimes on a short stalk, the rest of the neurulation normal. Type: *pictura* *Saalm.*

**A. pictura** *Saalm.* Light reddish-brown. A dark brown spot at the inner margin near the base, many small ones at the costal margin. The ring-macula and reniform macula are large dark red-brown spots, connected U-like. Small brown and white spots before the margin. Hindwing whitish, brownish at the margin. 32 mm. Madagascar. *pictura*.

**A. crescentica** *Hmps.* (10 c). Reddish ochreous. The U-shaped spot of *pictura* is uniformly bent here at the lower end, enclosing a yellowish spot in front. Red-brown scales form the submarginal line. Hindwing similar to *pictura*. ♂ 28 mm. Madagascar. *crescentica*.

#### 64. Genus: **Gonelydna** *Hmps.*

Proboscis normal, palpi projecting beyond frons. Antennae of ♂ ciliated. Thorax and abdomen without tufts. Forewing slightly angled at vein 4. Veins 3 + 4 of hindwing on a short stalk.

**G. acutangula** *Hmps.* (10 c). Greyish red-brown. Interior line yellowish-grey, dark brown outside, vertical. The ring-macula is a fine white dot; reniform macula dark brown, edged with light grey. Exterior line edged dark inside, proceeding from an oblong spot. Submarginal line greyish ochreous, straight. Hindwing dark reddish brown, with a short light line to the anal angle. ♂ 32 mm. Gold Coast. *acutangula*.

#### 65. Genus: **Elydna** *Wkr.*

Proboscis normal, palpi long and thin. Body without tufts. Neurulation normal. Vein 5 of hindwing below the middle of the cross-vein. Antennae of ♂ typically ciliated in tufts. Type: *transversa* *Wkr.* from India.

**E. brunneaplagata** *B.-Bak.* Similar to *plagiata* *Wkr.* from India. Body and wings dingy brown. Forewing somewhat spotted at the base. Traces of an irregular interior line. Exterior line undulate, proceeding from a large triangular red-brown costal-marginal spot which is irregularly edged outside. Traces of a submarginal line of spots. A fine red-brown line before the narrow creamy white margin. ♀ 30 mm. West Africa. *brunneaplagata*.

The other 4 species are not compared to any other species. Nothing is mentioned about the antennae and other properties, which are extremely varied in the Indian species.

- oenictopis.* **E. oenictopis** B.-Bak. Thorax and forewing dark brown. Ring-macula and reniform macula dark grey. Exterior line of black dots and grey scales. Margin with fine white dots. Hindwing dingy white. ♂ 30 mm. Angola.
- glaucopis.* **E. glaucopis** B.-Bak. Body and forewing dingy brown, with pale greyish-brown lines. Interior line undulate, indistinct, exterior line strongly extra-angular behind the cell, then very obliquely inwards. Submarginal line indistinct, faded. Ring-macula and reniform macula indicated by dark spots. Hindwing dingy white. ♂ 26 mm. East Africa.
- percnopis.* **E. percnopis** B.-Bak. Body greyish-brown. Forewing dull brown. The two lines dark, irregular, especially the exterior line strongly notched below the costal margin, a dark vertical median band before it. Submarginal line distinct, with 2 strong bows. Marginal dots fine light. Hindwing dark grey. ♂ 25 mm. Angola.
- scotopis.* **E. scotopis** B.-Bak. Body and forewing cinnamon brown. The dark interior line fine, double, dark, filled with pale brown, thrice angled. Exterior line very convex below the costal margin, notched, edged light brown outside. Submarginal line indistinct, faded. Hindwing whitish, brownish at the margin. ♂ 32 mm. East Africa.

## 66. Genus: **Prolymnia** Hmps.

Proboscis and palpi as in *Elydna*. Prothorax and metathorax with a tuft, abdomen with tufts on the 2 first segments. Antennae of ♂ serrate and tuftedly ciliated, the shaft thicker at the base. Neuration normal. Type: *viola* Hmps.

- viola.* **P. viola** Hmps. Body greyish-brown. Forewing violettish-brown and grey, greyer at the base. Near the base a violettish-brown spot with a grey line outside. Interior line grey, strongly extra-angular below the costal margin, then obliquely inwards. Reniform macula 8-shaped, edged with white. Exterior line fine grey, beginning behind the cell as a streak outwards; before the submarginal line at the costal margin a dark violet spot, square, edged white, obliquely defined inside; the grey submarginal line strongly incurved below vein 6, ending at the interior angle. Hindwing greyish-brown. ♂ 30 mm. Gold Coast.
- atrifera.* **P. atrifera** Hmps. Body and forewing greyish-brown. Interior line as in *viola*, another line before it as far as the submedian fold. Reniform macula elliptical, edged with grey, a blackish-brown lunar spot before it beginning from the costal margin. A grey line from the lower cell-angle to the inner margin and a faded blackish-brown band to the submarginal line. The latter line and the spot at the costal margin as in *viola*. Hindwing dark brown. ♀ 32 mm. Niger District.
- triangularis.* **P. triangularis** sp. n. (10 c). Body reddish-brown. Forewing violettish-brown. Interior line indistinct, vertical, the base before it greyer. Reniform macula narrow, edged white, with a black spot below outside. A triangular chocolate brown spot before it, distinct on both sides, somewhat undulately defined, extending almost to the inner margin. The dark apical spot almost semicircular, edged white. The light exterior line proceeds from it inwards, bent inwards below the cell, then slightly outwards to the inner margin. Black dots before the margin, with white scales inside. Marginal line light. ♀ without the violet reflection. Hindwing dark brown. 24 mm. Cameroons.

## 67. Genus: **Androlymnia** Hmps.

Proboscis and palpi as in *Elydna*. Tufts as in *Prolymnia*, but abdomen only with 1 tuft. Antennae of ♂ plain. Forewing of ♂ produced at the apex. Neuration normal. Type: *emarginata* Hmps. from India.

1. Forewing of ♂ with a very much produced apex. The veins somewhat distorted thereby.

- torsivena.* **A. torsivena** Hmps. (10 c). Brown and violettish-grey. Interior line brown, rectangularly angled in the cell, vertical to the inner margin. Median line brown, obliquely outwards from the costal margin, paler brown outside, extending to a black spot at the lower cell-angle. Reniform macula very large, finely edged dark; two undulate lines below it to the inner margin. A dark brown spot at the apex, the faded submarginal line proceeds from this spot. Hindwing violettish-grey. The ♀ shows the space between the median line and the reniform macula dark brown. 28—30 mm. West and South Africa.

2. Forewing of ♂ with a very little produced apex. Distal margin feebly angled at vein 4.

- clavata.* **A. clavata** Hmps. (10 d) is similarly coloured as *torsivena*. Also the ♂ forewing before the reniform macula with a triangular chocolate brown spot with a black dot at the lower end. The spot edged white outside, the marginal line continuous to the inner margin, a bent dark line before it. Reniform macula large, parted by a dark line. Apical spot larger, with a spur below outwards. Hindwing brown. 22—24 mm. East Africa.



68. Genus: **Hypercalymnia** *Hmps.*

Proboscis and palpi normal. Frons with a hump. Antennae of ♂ plain. Only prothorax and metathorax with a tuft. Neuration normal. Type: *metaxantha* *Hmps.*

**H. metaxantha** *Hmps* (10 c). Forewing yellowish-white, brownish at the base. An oblique faded rusty brown line from the upper cell-angle to the inner margin, white before it. Exterior line whitish, very obliquely outwards from the costal margin, then bent inwards to vein 2; brown behind it at the costal margin. Marginal area rusty brown with a white apical streak. Hindwing pale yellow. ♂ 32 mm. Congo District. *metaxantha*.

**H. gloriosa** *Kenr.* Reddish ochreous. Forewing with an almost semicircular light stripe from the costal margin near the base to the apex, more distinctly bordered with nut-brown on the outside. Fine light traces of the ring-macula and reniform macula. Hindwing as light as the stripe on the forewing. 30 mm. Madagascar. The species may not belong to this genus, since vein 5 of the hindwing arises much nearer to 4 and the scheme of markings is quite different from that in *metaxantha*. *gloriosa*.

69. Genus: **Calymnia** *Hbn.*

Proboscis and palpi normal. Antennae of ♂ finely ciliated. Thorax and abdomen without tufts, abdomen laterally with a margin of hair. Neuration normal. Type: *trapezina* *L.* from Europe.

**C. ethiopica** *Hmps.* (10 d). Brownish ochreous. Forewing slightly dusted blackish. Interior line white, almost straight, black outside. The ring-macula is a black dot, the reniform macula finely edged with black. Exterior line obliquely outwards to the interior angle. The veins at the margin somewhat black. Hindwing pale reddish brown with a dark central luna. ♀ 30 mm. Uganda. *ethiopica*.

**C. monotona** *Hmps.* Somewhat similar to *trapezina* *L.* Greyish-brown, dusted dark brown. Interior line grey, black outside, obliquely outwards, slightly undulate. Maculae absent, the dark median shadow bent. Exterior line grey, edged black inside. Submarginal line light, slightly undulate, somewhat incurved in the submedian fold. Hindwing pale reddish-brown. ♀ 32 mm. East Africa. *monotona*.

**C. natalensis** *E. Prout.* Reddish ochreous. The interior, exterior and submarginal lines reddish-yellow. The interior line somewhat more oblique than in *trapezina*, the exterior line as in the latter. Submarginal line similarly shaped as the exterior line, less angled. Hindwing white, reddish-yellow at the margin. ♂ 38 mm. Natal. *natalensis*.

**C. olivescens** *Hmps.* (10 d). Olive brown, with a slight pink reflection in the cell. Interior line light, excurved in the middle. Close behind it a broad dark olive brown band interrupted in the cell. Ring-macula and reniform macula finely indicated. From the latter a narrow median shadow to the inner margin. The exterior line is a distinct white streak from the costal margin obliquely outwards, then double, dark, filled with light. Submarginal line light, double from vein 4, filled with greenish. Hindwing white. ♂ 30 mm. East Africa. *olivescens*.

**C. gemella** *Saalm.* (10 d). Forewing nut-brown, light violettish brown in the anterior half as far as the exterior line. Interior line blackish-brown, oblique, excurved in the middle; a black dot before it in the cell. Ring-macula and reniform macula small, indicated by dark dotting. Exterior line whitish, finely bordered with dark inside, beginning pale at the apex. Marginal area behind it dark brown. Marginal dots fine black. Hindwing light greyish-brown. ♀ 28 mm. Madagascar. *gemella*.

70. Genus: **Cirrodes** *Hmps.*

Proboscis normal, palpi thin and long erect. Frons with a hump. Antennae of ♂ feebly laminated. Thorax and abdomen without tufts. Forewing with a slight dent of scales at the interior angle. Neuration normal, vein 5 of hindwing below the middle of the cross-vein. Type: *phoenica* *Hmps.*

**C. phoenica** *Hmps.* (10 d). Body yellowish white and somewhat red-brown. Forewing yellowish white with a slight red tint over it, except the margin. Veins darker, cell lighter. Exterior line very convex behind the cell, traces of a median line before it at the costal margin, and a submarginal line from vein 4. Hindwing pale reddish-yellow, darker in the ♀ at the margin. 33 mm. Rhodesia. *phoenica*.

**C. rosaceus** *Rothsch.* Body reddish-yellow. The interior two thirds of the forewing Magenta-red, the border behind the cell sharply angled. A white spot from this angle to the costal margin. The marginal third reddish-yellow and greyish-red, white towards the apex, Magenta-red between the veins. Hindwing creamy white with a silky gloss, brownish at the margin. ♂ 18 mm. Abyssinia. *rosaceus*.

71. Genus: **Cirroiana** B.-Bak.

Proboscis present, palpi long, somewhat hairy. Antennae of ♂ finely pectinated. Prothorax with a tuft. Distal margin of forewing vertical above vein 4, very round below it. Neuration of forewing normal. Vein 5 of hindwing strong and arising above the middle of the cross-vein, 6 + 7 stalked, 8 fused with the cell as far as  $\frac{1}{4}$  of its length. The genus is therefore hardly in the right place here.

*bella*. **C. bella** B.-Bak. Thorax pink, abdomen brownish ochreous. Forewing pink as far as the fine pale, deeply undulated exterior line. Cell pale olive. Ring-macula and reniform macula edged pale olive, the latter inside with pink and white scales. Marginal area pale olive. Hindwing greyish-white, dusted somewhat pink and olive. ♂ 36 mm. Angola.

72. Genus: **Carcharoda** Hmps.

Proboscis normal, palpi oblique, projecting long. Frons with a tricuspid hump. Antennae of ♂ ciliated. Thorax and abdomen without tufts. Forewing: vein 9 also stalked with 7 + 8, not freely from the anterior edge of the areole. Hindwing: veins 6 + 7 on a short stalk, 5 close under the middle of the cross-vein. Type: *flavirosea* Hmps.

*flavirosea*. **C. flavirosea** Hmps. (10 d). Head and abdomen ochreous, thorax red. Forewing ochreous. Costal margin at the base and a fine streak above the base of vein 1 red. A brown spot at the cross-vein. Veins in the distal area red, exterior line also red. 18 mm. East Africa.

*erlangeri*. **C. erlangeri** Roths. Body orange red. Forewing greyish-white. Exterior line white, very thin, sharply bent at vein 7, a similar submarginal line, not angled, more intensely bluish-grey between them, as well as between veins 5 and 6 and between 8 and the costal margin. Fringe olive yellow. Hindwing golden orange. ♀ 20 mm. Abyssinia.

*splendida*. **C. splendida** Roths. Thorax greyish-brown, abdomen reddish wood-coloured. Forewing greyish-brown with short olive brown streaks. A large white spot at the cross-vein with a greyish-brown margin and spots in it. Base of wing green, only the submedian fold and at vein 2 olive brown, a bluish-grey basal spot at vein 1. Fringe olive green. Hindwing greyish wood-coloured, fringe greenish-red. 21—38 mm. Madagascar.

73. Genus: **Ectolopha** Hmps.

Proboscis stunted, palpi projecting obliquely, frons with a hump. Antennae of ♂ finely serrated. Prothorax and metathorax with a tuft, another tuft at the base of the abdomen. Forewing with a dent of scales at the interior angle. Veins 6 + 7 of hindwing on a short stalk, vein 5 below the middle of the cross-vein. Type: *viridescens* Hmps.

*viridescens*. **E. viridescens** Hmps. Body yellowish-white with brown dusting. Forewing pale yellowish-green. A violettish-grey spot at the base at the inner margin and a larger one at the middle of the costal margin, the latter parted by a dark line. A yellowish-white almost triangular spot at the middle of the inner margin. Exterior line obliquely outwards as far as vein 6, then dentate; before it, behind the lower cell-angle, a violettish-grey spot which in a ♀ from the Congo is almost as large as the one at the costal margin. A submarginal row of rusty brown dots. Hindwing greyish-brown, lighter at the base. In — **obsoletipicta** Strd. the central spot at the middle of the costal margin on the forewing disappears almost, and near the costal margin before the distal margin appear dentate white spots. On the contrary — **hypochlora** Gaede (10 e) shows the two central spots at the costal margin about twice as large as those in *viridescens*. The exterior line is very much more distinct. Intense white spots at the apex above vein 6. 34—36 mm. East Africa to Transvaal, Katanga.

*marginata*. **E. marginata** Hmps. (10 e). Body pale reddish-brown. Forewing pale greenish-yellow. Costal margin fine brown, distal margin broader violettish-brown. Hindwing pale reddish-brown. ♀ 35 mm. East Africa.

74. Genus: **Plusiophaes** E. Prout.

Proboscis normal, palpi moderately long, thick. Antennae of ♂ ciliated. Abdomen with a basal tuft, thorax tuftless. Neuration normal. Vein 5 of hindwing from the middle of the cross-vein.

*metallica*. **P. metallica** E. Prout. Thorax brownish-grey, tegulae golden green, abdomen grey, the tuft golden brown. Forewing violettish-grey in front and towards the base, with metallic spots at the base of the costal margin. The marginal half is metallic golden green. Reniform macula creamy white, edged with brown. A fine white line from the costal margin near the base to the anal angle. Close before the reniform macula a fine white line from the costal margin to it. A forked white line from  $\frac{2}{3}$  costal margin outwards, bent up before the distal margin to the costal margin, from the fork a line extends to the lower cell-angle. Submarginal line double, dark. Hindwing white, slightly greyish-brown at the base, broadly greyish-brown at the distal margin. ♂ 26 mm. Tanganyica District.



75. Genus: **Centrogone** *Hmps.*

Proboscis stunted, palpi horizontally porrect, as long as the head. Frons with a hump. Prothorax and metathorax with a very small tuft. Anterior tibia with a claw on the inside. Neuration of forewing normal, vein 8 of hindwing united with the cell almost to the middle of it,  $7 + 8$  sometimes on a short stalk, vein 5 from below the middle of the cross-vein. Type: *chlorochrysa* *Hmps.*

**C. chlorochrysa** *Hmps.* (10 e). Body above somewhat rusty brown, the rest greenish-yellow like the *chlorochrysa*. forewing. Interior line hardly indicated by dark dots. Ring-macula and reniform macula finely edged with rusty brown like the costal margin, too. Distal margin somewhat broader brown. Exterior line of distinct dark dots, submarginal line less distinct. Hindwing white. ♂ 30—32 mm. South Africa.

**C. purpurea** *Gaede*. Forewing claret-coloured at the costal margin as far as the middle of the cell *purpurea*. and from the submedian fold to the middle of the inner margin, also behind the cell from vein 3 to the costal margin. The median vein is white and so are veins 2—5 on two thirds of their length. Ring-macula edged white, somewhat prolonged at vein 2. Reniform macula large, edged white, with a white partition-line. The type shows the edge of the coniform macula indicated by white scales. The white submarginal line below the costal margin, incurved at veins 5 and 2. Olive green behind it and below the cell. Hindwing of ♂ white, of ♀ brownish. Antennae of ♂ and ♀ shortly pectinated to the tips. 28—30 mm. East Africa.

76. Genus: **Ochrocalama** *Hmps.*

Proboscis stunted, palpi erect. Frons with a bicuspid hump. Antennae of ♂ strongly pectinated, ciliated in the ♀. Thorax and abdomen without hair-tufts. Vein 5 of hindwing a little below the middle of the cross-vein,  $6 + 7$  on a short stalk, 8 arises from  $\frac{1}{3}$  of the cell.

**C. xanthia** *Hmps.* (10 e). Body rusty yellow. Forewing dark yellow. Median band rusty brown, in *xanthia*. distinctly bordered inside, somewhat extinct at the inner margin. Ring-macula and reniform macula large, dark yellow. A parallel dentate submarginal band behind the median band. Fringe speckled. Hindwing (♂) pale yellow with a central luna and a fine exterior line or (♀) dark brown with lighter fringes. 28—35 mm. East and South Africa.

77. Genus: **Syncalama** *Hmps.*

Similar to the preceding genns. Antennae of ♂ only serrate. Abdomen with a tuft at the base.

**S. mimica** *Hmps.* (10 e) resembles the preceding species in its colouring and marking. Coniform macula *mimica*. large, edged black. The base darker than in *xanthia*, the centre of the inner margin lighter. Ring-macula and reniform macula edged black, the latter open in front, compressed in the middle. Costal margin yellow, but the space as far as the submarginal line is brown. Hindwing yellowish-white. Both wings with black marginal streaks. ♂ 32 mm. Cape Colony.

**S. turneri** *Tams.* Thorax dark brown, abdomen somewhat lighter. Forewing dark grey. Interior line, *turneri*. ring-macula and reniform macula not distinctly defined. Exterior line light, edged dark outside, parallel to the distal margin as far as vein 2, then vertical to the inner margin. Behind them dark brown streaks at the veins. Dark dusting below the cell from the base to the coniform macula. Hindwing white, narrowly dark at the margin. ♀ 30 mm. South-West Africa.

The two following genera resemble *Notodontidae* (*Phalera*, *Ramesa*), which is indicated by their names.

78. Genus: **Phalerodes** *Hmps.*

Proboscis stunted, palpi thin, projecting beyond frons. Antennae of ♂ ciliated. Prothorax with a parted tuft, metathorax with a feeble tuft, a larger one at the base of the abdomen. Neuration normal.

**P. cauta** *Hmps.* (10 f). Thorax blackish-brown, abdomen brownish ochreous. Forewing brownish *cauta*. ochreous. Finely rusty brown at the costal margin, somewhat grey below it. The lower cell-margin nut-brown, behind it as far as the distal margin more broadly nut-brown. Only the lower part of the white-edged reniform macula is present. Grey below it towards the distal margin, two distinct white lines at vein 4. Distal and inner margins blackish. Hindwing white, brownish in the ♀. 26—30 mm. South Africa.

79. Genus: **Ramesodes** *Hmps.*

Proboscis normal, palpi projecting beyond frons. Prothorax with a small tuft. Neuration normal. Type: *divisa* *Hmps.*

**R. divisa** *Hmps.* (10 f). Antennae of ♂ strongly pectinated. Thorax and forewing blackish-brown. *divisa*. A broad brownish ochreous band almost to the margin at vein 5, fadedly bordered below the costal margin.

distinctly at the median vein. The lower part of the reniform macula finely edged with white. Fine black internerval streaks before the distal margin. Hindwing light brown, lighter at the base in the ♂. 30—33 mm. South Africa.

*micropis.* **R. micropis** *Hmps.* (10 f). Antennae of ♂ ciliated. Thorax dark brown, abdomen brownish ochreous. Forewing light rusty brown. Somewhat bluish-grey at the costal margin. A black basal streak in the submedian fold. A chocolate brown band in and below the cell as far as the margin. Ring-macula and reniform macula small, white, edged dark, with rusty brown scales inside. Black internerval streaks at the margin. Hindwing as in *divisa*. 25—30 mm. Tanganyica District, Mashona Land.

*nycteris.* **R. nycteris** *B.-Bak.* Nothing is mentioned about the shape of the antennae. Similar to *micropis* in colouring, but the maculae are absent, a pale exterior line is present, extending very obliquely inwards between veins 4 and 2, then in 2 bows vertically to the inner margin. ♂ 34 mm. Angola.

### 80. Genus: **Phragmatiphila** *Hmps.*

Proboscis stunted, palpi short, porrect. Small hair-tufts on the prothorax, metathorax, and at the base of the abdomen. Veins 6 + 7 of hindwing stalked. Type: *typhae* *Thunbg.* from Europe.

*serrata.* **P. serrata** *Hmps.* (10 f). Antennae of ♂ finely serrated and ciliated. Dark red-brown. Traces of an interior line, dark, undulate, oblique. Cross-vein with a light luna. Exterior line dark, very dentate, a light band behind it. Submarginal line of light lunar spots. Hindwing greyish-brown. ♂ 32 mm. Uganda.

*bipartita.* **P. bipartita** *Hmps.* (10 f). Antennae of ♂ only ciliated. Forewing brown at the costal margin as far as the median vein and vein 5, dark red-brown below it, turning lighter towards the interior angle. Hindwing greyish-brown. ♀ 36 mm. Transvaal.

*connexa.* **P. connexa** *B.-Bak.* Body brown. Forewing light brown. Interior line dark, irregular, far excurved in the submedian fold. Exterior line dark, very thin, undulate; somewhat darker between the two lines. Only the posterior part of the submarginal line is distinct, light in darker surroundings. Hindwing pale brown. ♂ 34 mm. Angola.

### 81. Genus: **Omphalagria** *Hmps.*

Separated from *Phragmatiphila* by the absence of the abdominal tuft. Frons with a hump. Antennae of ♂ finely ciliated. Type: *hemiochra* *de Joann.*

*hemiochra.* **O. hemiochra** *de Joann.* Thorax blackish, abdomen brownish ochreous. Forewing light brownish ochreous in its anterior half, darker at the apex. Posterior half as far as below the apex blackish. A black streak at the end of the median vein, edged white above and below, terminating into a black spot which is situate before a white one at the cross-vein. A fine light line from below the apex obliquely inwards and then to the white spot. Traces of a white submarginal line, and black marginal dots. Hindwing white, somewhat greyish-brown at the margin. ♀ 28 mm. French Guinea.

*togoënsis.* **O. togoënsis** *Gacde* (10 f) is very similar, but the median vein is rather lighter, edged white only below. A real brown reniform macula is present, edged white with a white median streak. Distinct white submarginal dots, outside with black scales. 24—26 mm. Togo.

### 82. Genus: **Busseola** *Thurau.*

Proboscis stunted, palpi somewhat erect. Prothorax and metathorax with a tuft, abdomen with a tuft at the base. Neuration normal, veins 6 + 7 of hindwing on a short stalk. Type: *fusca* *Hmps.*

*fusca.* **B. fusca** *Hmps.* (10 g). Antennae of ♂ shortly pectinated. Thorax and forewing dark red-brown. Interior line rather indistinct, uniformly bent. Ring-macula and reniform macula somewhat lighter than the ground-colour, edged dark. Exterior line rather distinct, dentate, forming a large bow behind the cell, then rectilinearly inwards. Submarginal line light, rather broad, mostly distinct black sagittal spots before it in a dark area; a lighter band before them as far as the exterior line. Margin dark, with black stripes. Abdomen and hindwing brownish ochreous. 32—38 mm. West, South and East Africa. — **sorghicida** *Thurau* is a small much lighter form. Hindwing almost white. ♂ 30—32 mm. East Africa.

*pallidicosta.* **B. pallidicosta** *Hmps.* (10 f) may be only a dark faded *fusca*. Costal margin broadly light brownish ochreous. Interior line feebly double, adjoining to it a black streak as the reniform macula. Black radial streaks below the base of the cell and behind the reniform macula. Exterior line very indistinct, very convex below the costal margin. Submarginal line composed of indistinct light spots. Hindwing brownish ochreous. ♀ 36 mm. Mashona Land.



**B. convexilimba** *Strd.* (10 g) is extremely similar to *fusca*, but the antennae of the ♂ exhibit much shorter pectinations. The interior line on the forewing seems to be more excurved. The exterior line extends below the costal margin somewhat parallel to it outwards, then sharply bent inwards. The two lines are nearer to each other at the inner margin than in *fusca*. Abdomen and hindwing dark brown, but almost blackish in the only ♀. 34–38 mm. Cameroons. — *Conicofrontia sjoestedti* *Auriv.* is probably a synonym of it.

Antennae of ♂ ciliated.

**B. ochrivirga** *Prout* is coloured like *fusca* *Hmps.* though less red-brown. Interior line faded, far excurved, from  $\frac{1}{2}$  costal margin to  $\frac{2}{5}$  inner margin. Exterior line just as indistinct, somewhat more excurved at the lower cell-angle than in *fusca*. Maculae not visible. An orange brown streak from  $\frac{2}{3}$  of the length of the cell to the margin, the series of black submarginal spots rather oblique. Hindwing brownish white. If the antennae were not different, it might be one of the many *fusca*-forms varying in size and colouring. ♂ 26–32 mm. St. Thomé.

**B. melanodonta** *Hmps.* (10 g). Thorax reddish brown. Forewing light brownish ochreous. Interior line obliquely outwards, projecting far at vein 1. Ring-macula edged with black, rather large. Reniform macula light, narrow. A broad dark rusty brown shadow from the interior line to the reniform macula, continued below vein 3 to the distal margin. Exterior line quite indistinct in front, strongly notched at the interior margin. Distinct blackish sagittae before the whitish submarginal line. Black spots at the margin. Hindwing whitish, the veins somewhat brown. ♂ 26–30 mm. Uganda.

**B. nubifera** *Hmps.* (10 g). Brownish ochreous. Interior and exterior lines distinct, dentate; the exterior line obliquely from the costal margin. Ring-macula and reniform macula finely edged with black, the latter with a black median streak. The median area from the costal margin to vein 2 dark brown like the costal margin behind it and the centre of the distal margin enclosing the light submarginal line. Hindwing similar to *melanodonta*. ♂ 28 mm. Congo District.

**B. obliquifascia** *Hmps.* (10 g). Body and forewing yellowish ochre. Veins whitish. Traces of a black basal streak. Transverse vein whitish. A faded white band from the apex to  $\frac{2}{3}$  of the inner margin is distally bordered by black scales. Black marginal lunae. Hindwing greyish yellow. ♂ 22 mm. Uganda, Transvaal.

**B. stygiata** *Hmps.* (10 g). Thorax and forewing blackish-brown. A black basal streak is united below the cell with the long coniform macula. From the centre of the median vein a black streak is bent up to the apex, edged light in front. Reniform macula composed of 4 black dots. Abdomen and hindwing yellowish-white. ♂ 30 mm. Transvaal.

**B. rufidorsata** *Hmps.* Body greyish-brown. Forewing dark greyish-brown, reddish-brown below the submedian fold. An indistinct reddish-brown radial streak from the centre of the cell outwards, then bent up to the apex. Hindwing greyish-brown. ♀ 30 mm. Niger District.

**B. hemiphlebia** *Hmps.* Thorax dark red-brown. Forewing pale red-brown. A dark band along the median vein is expanded behind the cell to the interior angle and almost to the apex. The veins in the anterior part with grey streaks. A fine black basal streak in the submedian fold. Exterior and submarginal lines composed of fine black dots. Hindwing copper-brown. ♂ 26 mm. Niger District.

**B. unicolora** *Hmps.* Body and wings greyish-brown. A black dot inside in the submedian fold on the forewing. A blackish-brown dot edged with white at the lower cell-angle. Exterior line marked by black dots at the veins. ♂ 28 mm. Congo District.

**B. mesophaea** *Hmps.* Body and forewing pale brown, dusted black, median area blackish. A faded reddish-brown band in the submedian fold and behind the cell. Interior line faded, black, edged with white inside, obliquely to the submedian fold. Ring-macula and reniform macula in indistinct white rings. Median line bent, black, indistinct. Exterior line black, edged with white outside, projecting inwards on the veins. Submarginal line of blackish lunae. Hindwing white with a slight reddish-brown tinge. 26 mm. Niger District.

**B. cuprescens** *Hmps.* Thorax and forewing copper-brown and ochreous. The scanty dark marking consists of a dot at vein 1 near the base, some scales behind the lower cell-end, and an oblique submarginal shadow below the apex. Hindwing white, slightly brownish. ♂ 20 mm. Niger District.

**B. holoscota** *Hmps.* Body and forewing dark brown, dusted grey. A fine black streak in the middle of the submedian fold, the base of the inner margin reddish, a white dot with black scales at the lower cell-angle. Hindwing dark brown. ♂ 22 mm. Niger District.

**B. fuscantis** *Hmps.* Body blackish-brown. Forewing brownish ochreous and red-brown, dusted blackish-brown especially at the costal margin. White dots in and behind the lower cell-angle. Submarginal line faded, blackish-brown, somewhat oblique, from vein 6, with dark dots before it beginning from vein 5. Hindwing light ochreous, margin brown. ♀ 30 mm. East Africa.



83. Genus: **Myalila** Strd.

Proboscis feeble, palpi short, porrect, densely haired. Frons with a flat hump. Antennae of the ♂ laminated. Thorax apparently with a tuft only in front. Veins 6 and 7 of the hindwing from the same base.

*typica*. **M. typica** Strd. (10 g). Light reddish-brown, glossy. Darker at the base of the forewing. Ring-macula large, edged dark. Reniform macula inside with a straight black streak, with a uniformly broad light centre, and a black spot outside. One broad dark blotch each above veins 4 and 5, the ground-colour behind it more reddish as far as the black, white-edged marginal lunae. Hindwing brownish-white. ♂ 26 mm. Sambesi District.

84. Genus: **Rabila** Wkr.

Proboscis absent. Palpi thin, porrect. Frons with a hump. Antennae of ♂ typically pectinated. Thorax with a tuft in front and behind. Veins 6 + 7 of hindwing on a short stalk, 8 arises from the centre of the cell. Type: *frontalis* Wkr. from India, considerably larger and stronger.

*albiviridis*. **R. albiviridis** Poult. (10 h). Antennae of ♂ laminated. Body brownish. Forewing yellowish-green, costal margin white. Hindwing brownish-white. An aberrative ♀ has a deeper golden green spot at the base of the inner margin, edged white, rounded outside, and a similar smaller one before the interior angle. 20—24 mm. Somali Land.

85. Genus: **Arenostola** Hmps.

Proboscis normal, palpi highly erected. Antennae of ♂ ciliated. Prothorax with a keel-shaped tuft. Vein 5 of hindwing from the centre of the cross-vein. Type: *phragmitidis* Hbn. from Europe.

*diamesa*. **A. diamesa** Hmps. Body pale red-brown. Forewing greyish-white, dusted reddish-brown. Basal half and costal margin near the apex dusted black, veins whitish at the costal margin and behind the cell. A blackish radial band below the cell and vein 4, faded behind. A black spot at the cross-vein and small submarginal spots. Hindwing brownish-white. Fringes of both wings white. ♂ 26 mm. Zulu Land.

*interlata*. **A. interlata** Wkr. (10 h). Light ochreous with violettish-brown radial streaks. A blackish-brown streak in the cell and a dot at the cross-vein, a light streak in the submedian fold. Marginal dots blackish-brown. Hindwing yellowish-white, browner at the margin. ♀ 30 mm. Natal.

86. Genus: **Acrapex** Hmps.

Proboscis stunted. Palpi long and thin. Body without tufts. Forewing rather pointed. Veins 3 + 4 and 6 + 7 of hindwing stalked, 5 from below the middle of the cross-vein. Type: *prisca* Wkr. from India.

Antennae of ♂ serrate.

*curvata*. **A. curvata** Hmps. (10 h). Body whitish ochreous. Forewing yellowish ochreous, reddish-yellow at the costal margin, a red-brown tinge above the inner margin. A broad white band at the median vein to the apex, edged dark below from the apex to vein 3. The upper cell-angle with 2 black streaks. Fringe yellowish white. Hindwing white. 24 mm. South and East Africa.

Antennae of ♂ ciliated.

*simbaensis*. **A. simbaensis** Le Cerf. Forewing whitish ochreous, somewhat darker between the veins. The lower cell-margin blackish-brown outside. A broad dark shadow from the apex to vein 2. Four fine black dots around the cross-vein. Hindwing lighter than forewing. ♂ 20 mm. East Africa.

*rhabdoneura*. **A. rhabdoneura** Hmps. (10 h). Forewing yellowish-brown. A broad reddish-brown band from the base to the apex. A fine white line at the median vein with hooks at the cross-vein. The veins behind the cell somewhat white. Hindwing white. 22—25 mm. East Africa.

*metaphaea*. **A. metaphaea** Hmps. (10 h). Thorax and forewing red-brown. Costal margin, median vein and the veins arising from it dark brown. Fine white dots at the lower cell-angle. A series of black dots before the margin and at the margin. A dark oblique apical shadow is traceable. Hindwing dark brown. ♂ 26 mm. South Africa.

*spoliata*. **A. spoliata** Wkr. (10 h). Thorax and forewing reddish-brown, the costal margin narrow, darker, a broad radial stripe below the cell also darker. Median vein white. Hindwing blackish-brown. ♂ 22 mm. West, South and East Africa.

*brunnea*. **A. brunnea** Hmps. (= *leucophlebia* Hmps. part.) (10 h). Thorax and forewing dark brown. A pale band in and behind the cell, as well as at the inner margin. Two white dots at the lower cell-angle. Black



streaks behind them between the veins, black dots at the margin. Hindwing whitish, brownish at the margin. The white dots on the forewing may be absent, the hindwing may be brownish also at the base. 20—30 mm. South and East Africa, as far as Australia.

**A. brunneosa** *B.-Bak.* Body and forewing greyish-brown, with a light stripe in the submedian fold *brunneosa*. and in the cell, rising to the apex. A light angular streak at the cell-angle. Exterior line of dark dots. Margin narrowly dark. Hindwing smoke-coloured grey. ♂ 24 mm. Angola.

**A. albicostata** *Poult.* (10 i) is somewhat similar to *Omph. togoënsis*, but the forewing has a lighter *albicostata*. brown costal margin and some dark streaks at the base. A black streak at the cross-vein and a dot behind it, another dot in the middle of the cell. Exterior line fine, brown, strongly excurved below the costal margin. Submarginal row of brown dots in greyish-brown surroundings. Hindwing white. ♂ 22 mm. Somali Land.

**A. albivena** *Hmps.* (10 i). Thorax and forewing dark red-brown. The veins white and a streak in the *albivena*. submedian fold. A postcellular brightening towards the apex. Marginal dots black. Hindwing light brown. ♂ 36 mm. Cape Colony.

**A. tristrigata** *Warr.* Light ochreous. A dark streak in the interior submedian fold, one from the middle *tristrigata*. of the cell outwards and one obliquely to the apex. The median vein and its branches as well as veins 6 and 7 creamy yellow. Marginal area brownish. Hindwing light yellow. ♂ 20 mm. Transvaal.

**A. carnea** *Hmps.* (10 k). Thorax dark brown. Forewing reddish ochreous. A brown streak at the end *carnea*. of the median vein. Black streaks in the lower cell-end and behind it, and dots at the cell-angles. A light radial band through the cell to the apex. Inner margin lighter. Black dots at the margin. Hindwing greyish-brown. ♂ 28 mm. Basuto Land.

**A. ochracea** *B.-Bak.* Forewing dingy ochreous brown, with a pale radial band to the apex, black dots *ochracea*. outside in the rising part. Median vein with black scales. Black marginal streaks between the veins. Hindwing greyish-white. ♂ 26 mm. East Africa.

**A. aenigma** *Fldr.* Thorax and forewing pale pink, the costal margin white. A white stripe from the *aenigma*. middle of the cell to the margin, and one in the submedian fold inside. The veins at the margin finely white. Hindwing white. 24—26 mm. South Africa.

**A. roseola** *Hmps.* Pale pink. Costal margin with black scales at the base. A fine streak at the median *roseola*. vein as far as small white dots at the lower cell-end. Two black costal-marginal dots near the apex, and some at the distal margin and before it. Hindwing brownish-white, ♀ 28 mm. East Africa.

### 87. Genus: **Elaeodopsis** *E. Prout.*

Proboscis absent. Frons with a long beak-shaped projection, palpi short. Thorax and abdomen without tufts. Exterior similar to the genus *Elaeodes*, but vein 5 as in the *Amphipyrrinae*.

**E. loxoscia** *E. Prout.* Thorax and forewing olive yellow, pale greyish yellow at the inner margin in *loxoscia*. the first third. Similarly coloured in a triangle from the first half at the costal margin with its apex at the anal angle, and an almost square spot below the apex. Interior line from about  $\frac{3}{8}$  costal margin almost to the middle of the inner margin, composed of 3 very convex bows, light. Exterior line dark, dentate, far excurved behind the reniform macula, ending at the inner margin near the interior line, edged white outside. Submarginal line white, dentate, edged somewhat black inside. Hindwing paler than forewing. ♂ 34 mm, ♀ 30 mm. St. Thomé.

### 88. Genus: **Sesamia** *Guen.*

Proboscis stunted, palpi thick, porrect, projecting a little beyond the frons. Antennae of ♂ variable, either pectinated or only ciliated. Thorax loosely haired, body tuftless. Veins 3 + 4 and 6 + 7 of hindwing stalked or not stalked. Vein 5 from the centre of the cross-vein. Type: *vuteria* *Stoll.*

**S. vuteria** *Stoll.* The somewhat reddish ochreous species occurring also in Southern Europe has been *vuteria*. dealt with already in Vol. III, p. 240, pl. 48 f. Its range extends to South Africa and the islands.

**S. calamistis** *Hmps.* (10 i). Pale ochreous, dusted blackish. Forewing with a black spot in the cell *calamistis*. and below it, another one at the cross-vein and behind it, and a strongly bent exterior line. Hindwing white. 36 mm. Cape Colony.

**S. mediastriga** *B.-Bak.* Forewing ochreous, finely dusted grey, median vein scaled dark. A dark spot *mediastriga*. at the cross-vein and behind it, traces of an exterior row of dots. Distal margin somewhat darker than the ground-colour. Hindwing white. ♂ 30 mm. Angola.

- coniota*. **S. coniota** Hmps. (10 i). Thorax and forewing orange, marking similar to *calamistis*, but finer, the two lowest dots of the exterior line almost next to each other. Hindwing white. 18—24 mm. South Africa.
2. Antennae of ♂ finely ciliated. Veins 3 and 4 of hindwing not stalked.
- rubritincta*. **S. rubritincta** Hmps. (10 i). Thorax red-brown. Forewing brownish ochreous, the veins darker brown. Interior and exterior lines thick, fiery red. Fiery red streaks in the cell and below it. A brownish ochreous spot at the cross-vein. Marginal area suffused with fiery red. Submarginal line and marginal dots blackish-brown. Hindwing white, inner margin and veins brownish ochreous. ♂ 42 mm. Basuto Land.
3. Antennae of ♂ serrate and tuftedly ciliated. Veins 3 + 4 of hindwing stalked only in the first species.
- sabulosa*. **S. sabulosa** Hmps. Body brownish-white. Forewing whitish ochreous, dusted reddish-brown. Traces of an interior row of dots. A brownish shadow around the lower cell-angle. An exterior row of black dots at the veins. A faded brown spot at the costal margin before the apex, and an oblique shadow from vein 6 to vein 4. Hindwing brownish-white. 20 mm. Uganda.
- rufescens*. **S. rufescens** Hmps. (10 k). Body and forewing dark red-brown. One rusty brown stripe each in the cell and below it. Median vein and marginal veins lighter, edged dark. Hindwing brownish. 32 mm. Natal.
- steniptera*. **S. steniptera** Hmps. differs in the somewhat lanceolate wing. Body greyish-white. Forewing pinkish flesh-coloured, grey in the anterior part as far as beyond the middle, basal area inside also grey. A fine oblique grey submarginal shadow between veins 6 and 2. Hindwing white. ♂ 30 mm. Transvaal.
- epunctifera*. **S. epunctifera** Hmps. (10 k). Thorax dark ochreous. Forewing brownish ochreous, dusted dark. Interior line only represented by a dot in the submedian fold. A dot at the cross-vein; one behind it and one in the submedian fold. Besides fine marginal dots. Hindwing white, somewhat brownish at the margin. 22—26 mm. South and East Africa.
- fuscifrontia*. **S. fuscifrontia** Hmps. resembles *epunctifera*, but it lacks all the black dots. Forewing browner at the margin, excepting the interior angle. Hindwing whitish ochreous. ♂ 22 mm. East Africa.
4. Antennae of ♂ only tuftedly ciliated, not serrate. Veins 3 and 4 of hindwing not stalked.
- taeniroleuca*. **S. taeniroleuca** Wlgr. (10 k). Thorax and forewing dark red-brown. Costal margin fine white, marginal area darker, the veins somewhat white. A narrow white streak in the submedian fold proceeds from the base, a broader one from the middle of the cell. Hindwing white, somewhat pinkish-brown at the margin. ♂ 30 to 36 mm. West, South-West and South Africa.
- albavena*. **S. albavena** Hmps. (10 k). Thorax and forewing pinkish brown, a grey stripe at the median vein and veins 4, 5 as far as the margin, a black spot at the lower cell-angle. Hindwing white. 26—34 mm. South and Central Africa.
- S. cretica* Led. resembles *vuteria* and has also a similar range. It occurs everywhere from Southern Europe to South Africa. Cf. Vol. III, p. 240 and pl. 48 g. The statement there according to HAMPSON, that *fraterna* Moore is a synonym of it, proves to be incorrect on comparing the type. *fraterna* probably belongs to *inferens* Wkr. from India.
- nigritarsis*. **S. nigritarsis** Hmps. resembles *cretica*. The spurs on the middle and hind tibiae are black. An exterior row of dots on the forewing from veins 6 to 3, and a marginal row of dots as far as vein 2. Hindwing pale brown, costal margin and anal angle blackish brown. ♂ 50 mm. East Africa.

### 89. Genus: **Oria** Hbn.

Distinguished from the preceding genus by the presence of the proboscis. No veins of the hindwing stalked. Type: *musculosa* Hbn. from Europe.

- flavescens*. **O. flavescens** Hmps. (10 k). Body ochreous. Forewing pale yellow, somewhat pink in front, costal margin fine white. The median vein and the veins arising from it somewhat white. Traces of an oblique exterior row of dots. Fringe light. Hindwing whitish at the base, the rest pale yellow. ♀ 26 mm. Cape Colony.

### 90. Genus: **Conicofrontia** Hmps.

Separated from *Sesamia* by somewhat longer palpi and a conical hump on the frons. Antennae of ♂ finely pectinated. Neuration normal. Type: *sesamiodes* Hmps.

- sesamiodes*. **C. sesamiodes** Hmps. (10 k). Body and forewing brownish ochreous, dusted dark. Median vein and cross-vein white, edged dark beneath. Two fine black dots at the lower cell-angle, and a fine exterior row of dots. Hindwing white, the ♀ slightly brown at the margin. ♂ 54, ♀ 42 mm. South Africa.



**C. scotochroa** *Hmps.* Thorax blackish-brown. Forewing reddish-brown and blackish-brown, with a *scotochroa*. fine dark marginal line and a light line at the base of the fringe. Abdomen and hindwing pale reddish-brown. ♀ 40 mm. Transvaal.

**C. mesophaea** *Auriv.* (11 a). Apex of forewing somewhat rounded. Body and forewing ochreous, with *mesophaea*. a dark band at the median vein which is white at the end. Cross-vein with a black dot. An exterior row of black dots on the veins and between them. A submarginal shadow behind the cell, black marginal dots. Hindwing yellowish-white, with an exterior row of dots and marginal streaks. ♀ 40 mm. Kilimanjaro.

**C. mesoscia** *Hmps.* Body pale rusty red. Forewing pale flesh-coloured, dusted brown. At the median *mesoscia*. vein a widening rusty red shadow as far as the exterior line from vein 5 to the submedian fold. The median vein and the veins arising from it white. Fine black dots in and below the middle of the cell and at the cross-vein. An exterior row of dots from vein 6 to the submedian fold, fine marginal dots. Hindwing pale reddish-brown with a fine brown central luna and an exterior line, black marginal streaks. ♀ 40 mm. Natal.

### 91. Genus: **Xylostola** *Hmps.*

Proboscis normal. Palpi projecting beyond frons which exhibits a small hump. Antennae of ♂ ciliated. Body tuftless. Neuration normal. Owing to the broad forewing and the different marking, the genus is not well placed here. Type: *indistincta* *Mr.* from India.

**X. olivata** *Hmps.* (11 a). Thorax and forewing pale reddish-brown, dusted blackish in front. Interior *olivata*. line very indistinct. Ring-macula indicated by denser black scales, reniform macula edged with black streaks. Exterior line undulate, somewhat less indistinct. Submarginal line marked by dark bordering inside. Margin darker, with black dots. Abdomen and hindwing greyer brown. ♀ 40 mm. Ruwenzori.

### 92. Genus: **Calamia** *Hbn.*

Proboscis normal. Palpi extending to frons, long-haired. Antennae of ♂ tuftedly ciliated. Body tuftless, abdomen with a lateral crest of hair. Type: *virens* *L.* from Europe.

**C. flavirufa** *Hmps.* (11 a) shows a much stronger build than the typical species. Thorax and forewing *flavirufa*. greenish yellow. Rusty brown spots at the costal margin, the spot in the middle of the costal margin is large. Grey transverse lines proceed from these spots. Marginal dots and fringe rusty brown. Hindwing yellowish-white with a pale rusty brown central spot, exterior band and marginal spots. ♀ 36 mm. South Africa.

### 93. Genus: **Mazuca** *Wkr.*

Proboscis and palpi as in *Calamia*. Frons with a flat hump. Antennae of ♂ ciliated. Base of abdomen with a very small tuft. Neuration normal. Type: *strigicincta* *Wkr.*

**M. haemagrapha** *Hmps.* (11 a). Thorax and forewing lemon-coloured. Forewing with black streaks at *haemagrapha*. the costal and distal margins. Red streaks at the inner margin and partly at the median vein. One orange red spot each in the cell and behind it, the latter spot connected with the streaks. Abdomen and hindwing pale yellow. ♂ 38 mm. Gold Coast.

**M. strigicincta** *Wkr.* (= *concinna* *Mab.*, *liturata* *Btlr.*, *hebraica* *Auriv.*) (11 a). Black streaks also *strigicincta*. at the inner margin, and 3 streaks in the cell, connected by a red streak. A red semicircle below the base of the cell, and two spots above vein 3. Abdomen and hindwing white. 36—42 mm. West, Central and East Africa.

### 94. Genus: **Chasmina** *Wkr.*

Proboscis normal. Palpi rising to frons, thin. Antennae of ♂ filiform. Metathorax long-haired. Neuration normal. Type: *tibialis* *F.*

**C. tibialis** *F.* Silvery white. Only the palpi and the forelegs orange with black spots. As the range *tibialis*. of the species extends from West Africa to the Australian Archipelago, it has received many names: *vestae* and *dianae* *Guen.*, *cygnus* and *glabra* *Wkr.*, *celebensis* *Snell.*, *mariae* *Mab.* 32—45 mm.

### 95. Genus: **Callyna** *Guen.*

Palpi somewhat longer than in *Chasmina*. Antennae of ♂ more or less strongly pectinated, except at the tips or only ciliated. Type: *siderea* *Guen.* from India.

1. Antennae of ♂ strongly pectinated.

**C. laurae** *Bryk* (11 a). Ground-colour of forewing violettish-black in this species and all the others *laurae*. except *figurans*. A large pink basal spot encloses 2 small black spots, a smaller one is in the middle of the costal margin, a whitish pink spot at the apex. Hindwing white with a broad blackish-brown margin. ♂ 42 mm. Spanish Guinea.

*contrastans.* **C. contrastans** *Hmps.* Forewing with a pink spot at the base, before and in the middle of the costal margin, a larger one at the apex. Hindwing as in *laurae*. ♀ 44 mm. Gold Coast.

The following species show blackish-brown hindwings which are somewhat lighter basally.

2. Antennae of ♂ shortly pectinated.

*nigerrima.* **C. nigerrima** *Hmps.* (11 b). Costal margin of forewing with a small pink spot in the middle, some dots behind it, apex without a spot. 38—42 mm. South and East Africa.

*pectinicornis.* **C. pectinicornis** *Gaede* (10 b). Centre of costal margin with a small light spot, 1 dot before it, 3 behind it, and the apical spot. ♂ 35 mm. East Africa.

3. Antennae of ♂ ciliated.

*decora.* **C. decora** *Wkr.* (11 b). One pink spot each at the base of the costal margin, in its centre and between them, then 3 small dots and a light apical spot. 38—46 mm. Spanish Guinea, South Africa. — Larva white with irregular pink spots, edged black, the last segments only faded pink. Tubercles black with long white hair.

*figurans.* **C. figurans** *Wkr.* (11 b). Lighter violettish-brown than the other species. Interior and exterior lines blackish, edged ochreous on both sides. The large ring-macula and reniform macula chocolate brown, edged light, the coniform macula is a broad spot. A light submarginal line proceeds from the white apical spot. ♀ 38—42 mm. Natal. — Larva pale yellow with some small brown double spots on the dorsum, 3 subdorsal lines and 1 lateral line, with a broad band below it. Head red, legs pink. — **thomae** *E. Prout* has a smaller ring-macula and an almost still smaller coniform macula, and it lacks altogether the strong black postcellular stripe from the exterior line to the margin. St. Thomé.

*obscura.* **C. obscura** *Hmps.* (11 b). Very dark. A white dot before and in the middle of the costal margin. From the latter dot the brownish exterior line proceeds very obliquely, being sharply angled at vein 4 and then incurved. Ring-macula and reniform macula mostly not even indicated by white scaled margins. A larger white spot at the apex, the anal angle with a dark coppery gloss. ♀ 36—38 mm. Togo, Gasa Land, East Africa. It is possible that *obscura* is the first described ♀ belonging to *pectinicornis* ♂. In this case the species would have to be ranged in the preceding group.

*holophaea.* **C. holophaea** *Hmps.* resembles *obscura*. Interior and exterior lines slightly marked by grey borders, the 3 maculae by black margins. Four white dots in the exterior part at the costal margin. A dark submarginal line is present, but no white apical spot. ♀ 30 mm. Niger District.

*cupricolor.* **C. cupricolor** *Hmps.* (11 b) is still less marked. Coniform macula long, chocolate brown, the ring-macula and reniform macula edged with black and connected by a streak. Interior and exterior line hardly traceable, submarginal line absent. Marginal area and a streak at the inner margin reddish. Hindwing white, brownish at the margin. ♂ 34 mm. Mashona Land?

## 96. Genus: **Cytothymia** *Hmps.*

Proboscis normal, palpi short, porrect. Frons with a round hump. Antennae of ♂ finely ciliated. Body tuftless. Neurulation normal.

*obsita.* **C. obsita** *Fldr.* (11 c). Thorax and forewing ochreous. Interior line fine, notched. The ring-macula is a dark brown dot. Reniform macula small, edged with brown. A rusty brown band extends from the lower cell-angle to the inner margin beside the brownish ochreous exterior line. Submarginal line brownish ochreous, rusty brown before it at the costal margin, rusty yellow behind it. Hindwing with a fine brown exterior line and a faded band behind it. In the ♀ the median band begins already at the costal margin, not only at the cell-angle. 26—28 mm. Cape Colony.

## 97. Genus: **Synthymia** *Hbn.*

Separated from *Cytothymia* by somewhat more hairy palpi. Type: *fixa* *F.* from Southern Europe.

*exsiccata.* **S. exsiccata** *Warr.* (11 c). Thorax and forewing ochreous. Traces of a rusty red interior line with a dot in the submedian fold. Ring-macula and reniform macula indicated by lighter spots. Exterior line and submarginal line whitish. Hindwing almost white. The ♀ forewing shows the greatest part of the basal area and the margin lighter. ♂ 30 mm. Sudan.

## 98. Genus: **Pachycoa** *Poult.*

Proboscis normal, palpi thin, projecting beyond frons. Frons with a flat hump. Antennae of ♂ filiform. Metathorax with a tuft. Vein 6 of forewing below the upper cell-angle, 8 + 9 + 10 stalked. Vein 5 of hindwing from below the middle of the cross-vein.



**P. olivacea** *Poult.* (11 c). Body and forewing olive brown, only with a light median and exterior line. *olivacea*. Fringe speckled at the tips. Hindwing brown. ♀ 22 mm. Somali Land.

### 99. Genus: **Acroriesis** *Poult.*

Similar to *Pachycoa*. Vein 6 of forewing from the upper angle, 7 + 8 and 9 + 10 stalked. Vein 5 of hindwing a little above the middle of the cross-vein.

**A. ignifusa** *Poult.* (11 c). Forewing greyish-brown, more red-brown towards the exterior line. The *ignifusa*. strongly excurved, very oblique exterior line is double, dark brown, filled with white. Behind it fiery red, except in the middle, a white line within. Hindwing brownish-white. ♀ 18 mm. Somali Land.

### 100. Genus: **Cyclopera** *Hmps.*

Proboscis stunted. Palpi short, porrect. Frons with a long pointed hump. Body tuftless. Vein 8 of hindwing arises from  $\frac{1}{3}$  of the cell. Type: *similis* *Hmps.*

1. Antennae of ♂ shortly pectinated, of ♀ serrate.

**C. bucephalidia** *Hmps.* Forewing violettish-grey. Ring-macula luniform, yellow inside, edged brown, *bucephali-* extending to below the cell. Reniform macula similarly coloured in a pale yellow area which is edged rusty *dia*. red inside. A dark brown line from the lower cell-angle to the interior angle. Exterior line dark, convex below the costal margin, concave behind the cell, as far as the submedian fold. Submarginal line fine, slightly undulate, light. Hindwing brown. ♀ 16 mm. South Africa.

**C. antemedialis** *n. spec.* (11 c). A distinct double interior line is present, its interior branch brownish, *antemedi-* the exterior one blackish. The ring-macula is a blackish streak. The rusty red, light-edged reniform macula *alis*. is broadly edged with blackish-brown inside, a black line before it as far as the inner margin with an outward angle at vein 1. A rusty brown stripe before it. The exterior line is not concave behind the cell, so that the yellow spots becomes circular. The yellowish-white submarginal line is distinct, with an inward angle at vein 4. Hindwing of ♂ almost white, of ♀ brownish. 20—23 mm. East Africa. Type in the Berlin Museum.

**C. galactiplaga** *Hmps.* (11 c). Reddish-brown, with a slight greenish reflection. Interior line black, *galactipla-* dentate, oblique, bordered lighter inside. Coniform macula large, round, edged black, apex inside white. Ring-macu- *ga*. la elliptical, edged black inside, white outside. Reniform macula large, luniform, with a white double line inside, the exterior distinctly black border-line interruptedly bent over to the margin at vein 3, a light marginal spot above it. Exterior line rather distinct, black, dentate, black spots behind it at the costal margin, paler ones below them, short black streaks above the interior angle. Hindwing reddish-brown, with a centre-spot and a double exterior line. 30—36 mm. Natal.

2. Antennae of ♂ ciliated.

**C. similis** *Hmps.* resembles *bucephalidia*. Interior line of forewing absent. The apical spot and the *similis*. submarginal line as in *antemedialis*. A light stripe through the centre of the wing is more incurved in the middle than in *antemedialis*. Hindwing brownish-white. ♂ 24 mm. Mashona Land.

### 101. Genus: **Selenistis** *Hmps.*

The only species is marked similarly as *Cyclopera*. Antennae of ♂ and ♀ very shortly pectinated. Metathorax with a small tuft. Vein 8 of hindwing arises also from  $\frac{1}{3}$  of the cell. Vein 6 + 7 slightly stalked.

**S. annulella** *Hmps.* (11 c). Body and forewing light ochreous, olive brown at the cell-end and distal *annulella*. margin as well as an oblique stripe proceeding from the apex. Interior line traceable at the inner margin. Ring-macula indicated by an indistinct rusty yellow ring, a black dot before it. Reniform macula large, light, open in front. Exterior line straight, more or less composed of black dots, beginning from near the apex. Submarginal line fine, white, dentate. Hindwing pale reddish-brown. 24—28 mm. South Africa.

### 102. Genus: **Euterpiodes** *Hmps.*

Thorax with a small tuft also in front. Veins 6 and 7 of forewing from the upper cell-angle, 8 + 9 stalked. Hindwing as in *Cyclopera*. Type: *pienaari* *Dist.*

**E. pienaari** *Dist.* (11 d). Thorax violettish-brown, abdomen ochreous. Forewing silvery white. Vio- *pienaari*. lettish-brown at the base, edged black. Fused violettish-brown spots at the costal margin and in the cell, 2 streaks at the cross-vein. Exterior line black, dentate, sharply indented below vein 3, broadly dark behind it at the costal and inner margins. Hindwing white, the ♀ brownish at the margin. 24—28 mm. South Africa.

*blepta*. **E. blepta** Tams. Thorax blackish brown, abdomen greyish-brown. Forewing pale greyish-yellow. Costal margin broadly blackish brown with a violet gloss. Interior line distinct below the cell, blackish brown, forming 3 bows. Ring-macula filled with violettish black, edged pale. Reniform macula similar, extending to behind the cell. Exterior line blackish brown, interrupted, parallel to the distal margin, from vein 2 vertical to the inner margin. A large dot behind the cell, a large spot at the inner margin. Hindwing greyish-yellow ♀ 25 mm. Gold Coast.

The two following species differ in the shape of the wings and in the marking.

*pictimargo*. **E. pictimargo** Poult. (11 d). Antennae of ♂ almost filiform. Body ochreous. Forewing whitish ochreous. Beginning from the interior line light rusty brown from the costal margin to vein 3. Coniform macula red-brown at the end. Ring-macula and reniform macula edged red-brown, the latter white inside; a red-brown median line between them. Exterior line black. Submarginal line white, separated by spots on its inner side. Hindwing white. ♀: body and forewing at the base and in the interior area rusty red; hindwing reddish-brown. 20—22 mm. Somali Land.

*croceisticta*. **E. croceisticta** Poult. (11 d). Body and forewing creamy white. Interior and exterior lines formed by orange dots at the costal and inner margins, by black dots between them. Hindwing silky white. 24 mm. Somali Land.

The following genera are very similar to *Agaristidae* in their size and variegated marking and may, once their larvae being known, be partly placed to them, since the neurulation corresponds to that of the *Agaristidae*.

### 103. Genus: **Eudryas** Brd.

Proboscis normal, palpi erect. Frons with a large round hump. Antennae of ♂ ciliated. Metathorax with a tuft, abdomen with tufts at the base. Anterior tibiae very hairy outside. Neurulation normal. Type: *unio* Hbn. from North America.

*madagascariensis*. **E. madagascariensis** Rothsch. Thorax white and pale grey, metathorax and head golden brown like the abdomen. Forewing greyish-white with irregular undulate olive yellow transverse lines and spots. A large oval red-brown spot above vein 1, and a triangular one below it. A broad greyish-red submarginal band, narrower at the interior angle. It is bordered inside by a brownish-red line and before it by an olive yellow line, outside broadly brownish-red from the costal margin to vein 6, between veins 3 and 4, and with a brownish-red spot above vein 1. Margin olive yellow. Hindwing glossy reddish-yellow. ♀ 40 mm. Madagascar.

### 104. Genus: **Mydrodoxa** Btlr.

Proboscis normal, palpi short, head without a hump. Metathorax with a large tuft. Wings elongated. Veins 6 + 7 of hindwing stalked, vein 5 absent.

*splendens*. **M. splendens** Btlr. (11 d). Head above and the tuft on the black thorax carmine. Abdomen blackish-blue, anal half carmine. Forewing with a metallic yellow gloss at the base, a bluish-black band behind it, the rest and the hindwing glossy dark blue. ♀ 44 mm. Madagascar.

### 105. Genus: **Daphaenura** Btlr.

Shape of wings normal. Palpi somewhat longer, thorax and abdomen without tufts. Abdomen of ♂ with long hairs at the end. The feeble vein 5 on the hindwing arises rather below the middle.

*fasciata*. **D. fasciata** Btlr. (11 d). Head, thorax, and the end of the abdomen carmine, abdomen black. Forewing orange, ring-macula and reniform macula black, the bands also black. Hindwing orange with a black margin. 55—60 mm. Madagascar.

#### Subfamily: **Melicleptriinae**.

This subfamily was united with the *Euxoinae* by HAMPSON, but it differs in the presence of curved claws at the end of the anterior tibiae. They are only absent in the *Adisura*. The middle and hind tibiae are spined, the eyes bare, the frons with a round projection. The imagines flying in the day-time are relatively variegated. The larvae feed on blossoms and seeds. The group is not copiously represented in Africa, the following group which is separated as *Heliothinae* is absent altogether. The imagines of the last genus *Micragrotis*, which is an extreme *Melicleptriina*, since its species are provided with 3 or 4 claws on the anterior tibiae, are very similar to the *Euxoa* and presumably fly at night.

### 1. Genus: **Raghuva** Moore.

Proboscis normal, palpi porrect, hairy below. Frons with a round projection and a plate below it. Antennae of ♂ ciliated. Anterior tibiae with a strong claw inside and a short one outside. Middle and hind tibiae



spined. Neuration normal, vein 5 of hindwing feeble, from the centre of the cross-vein. Type: *confertissima* Wkr. from India.

1. Forewing of ♂ changed. Costal margin thickened in the middle. An oval diaphanous stripe below it and a still longer stripe in the cell.

**R. stigmatia** Hmps. (11 d). Body brownish ochreous. Forewing greyish-brown. Coniform macula long, *stigmatia*. black, proceeding from the base. Median vein somewhat brown. Reniform macula edged brown, centred brown, slightly curved. Exterior line indistinct, brown, dentate, somewhat white outside. Brown sagittal spots at the margin. Hindwing greyish-brown, fringe lighter. ♂ 30 mm. Cape Colony.

**R. albipunctella** Joann. Thorax reddish yellow, abdomen greyish-yellow. Wings of ♂ narrower, with *albipunctella*. the two hyaline areas of *stigmatia*. Ground-colour light reddish grey, more yellow at the costal margin. Interior line indicated by a white dot at vein 1 with a few black scales. 3 small black dots at vein 2, a white streak at the cross-vein. Exterior line white below the costal margin, continuous, then punctiform, ending obliquely at the inner margin. Black marginal dots. Hindwing narrow, distal margin oblique, grey, with a white central luna and a white submarginal line. Forewing of ♀ somewhat broader, more greyish-yellow. Interior line angled, indicated by 3 white dots. Cross-vein white, particularly at the upper angle. A white streak in the cell-fold. Exterior line like that of the ♂, but the white dots are surrounded by greyish-black. Hindwing grey, the luna and the submarginal line less distinct. 26—28 mm. Senegal, Gold Coast.

**R. thomalae** Gaede (11 d). By the marking of the hindwing and the long abdomen it is somewhat similar *thomalae*. to *Chlor. translucens* Fldr. from India, but owing to the strong claw it belongs to *Raghuvu*. Forewing greyish-brown, yellowish-brown at the inner margin. The greyish-brown margin is divided by an ochreous line, and inside of it there is a broader ochreous line widened at the costal margin. The hyaline cellular spot in *stigmatia* is much less distant from the base than from the distal margin, whilst it is equally distant here in *thomalae*. The upper hyaline spot is longer than in *stigmata* and *translucens*. Hindwing similar to *translucens*, yellowish-white, greyish-yellow in front, the discal luna and margin blackish-brown. Forewing of ♀ normally shaped, dark greyish-brown with an ochreous submarginal line; the spot at the cross-vein is faded, large, blackish-brown, the surroundings somewhat lighter. A dark ray below the base of the cell. Hindwing similar to that of the ♂, marginal band broader. 19—20 mm. East Africa. As white colouring is sometimes discernible at veins 2—4 of the forewing, *albivenata* ♀ Poult. may be the same species. The discal spot on the hindwing is isolated in *thomalae* ♀, fused with the distal margin in *albivenata*. Somali Land.

2. Forewing of ♂ without the two hyaline stripes, only two inserted places instead of them.

**R. multiradiata** Hmps. (11 e). Body olive brown, forewing paler olive brown. The blackish interior *multiradiata*. line strongly excurved in the middle, dentate, the adjoining coniform macula very large, edged brown, pale inside. Ring-macula and reniform macula edged and centred dark, the former somewhat elliptical, indistinct, the latter large. Exterior line far incurved at the costal margin, vertical from the submedian fold, dentate, dark, edged light outside. Margin dark olive brown with light partition-lines, and dark streaks proceeding from the exterior line. Hindwing dark brown with a somewhat lighter marginal spot between veins 2 and 4. My specimens from Transvaal exhibit a lighter hindwing; a dark luna, an exterior line and a dark margin are very prominent. 30 mm. South and East Africa.

**R. perdentata** Hmps. (11 c). Forewing brownish ochreous, more reddish at the median vein and also *perdentata*. behind the exterior line. Ring-macula small, round, with a black central dot and edge. Reniform macula somewhat oval, broad. Exterior line black, very dentate, parallel to the distal margin from behind the cell to the inner margin, white outside. Then follows the dark band, the margin itself is light. Hindwing whitish ochreous, with few dark marginal spots. ♀ with a darker margin. 22—24 mm. East Africa.

**R. biocularis** Gaede (11 e). Body and forewing ochreous. Interior line very fine, strongly dentate as in *biocularis*. *perdentata*. Ring-macula and reniform macula with a black centre, surrounded by a light ring and a dark one. Ring-macula similar to that of *perdentata*, not so stretched as in HAMPSON's figure of *multiradiata*. The black edge of the reniform macula is interrupted outside below. The coniform macula does not extend to below the reniform macula as in *multiradiata*, but only to below the ring-macula. Exterior line dark, less dentate than in *multiradiata*, otherwise similarly shaped. Behind it a broader continuous ochreous band with shorter dark marginal spots than in *multiradiata*. Hindwing not different. ♀ 23 mm. Transvaal.

**R. discalis** Hmps. (11 e). Thorax and forewing pale olive brown, abdomen the same and with black *discalis*. segments. Forewing with a faded black band below the cell. Brown above the median vein and at the cross-vein. A double brown submarginal line is filled with light. Marginal dots black. Hindwing yellowish white. The discal luna and the exterior band are broad, blackish, also the inner margin somewhat darker. ♀ 26 mm. East Africa.

**R. cana** Hmps. (11 c). Thorax greyish-white, abdomen greyish-brown, forewing greyish-white in its *cana*. anterior half. Two black dots before the upper angle in the cell, and one behind the cell. Exterior line strongly



excurved at the anterior margin, otherwise oblique and parallel to the distal margin, formed of blackish streaks. Brownish ochreous from the apex obliquely to the exterior line and as far as the distal margin. Besides a dark line from the apex parallel to the exterior line. Hindwing dark brown, lighter at the base. ♀ 26 mm. East Africa.

## 2. Genus: **Chloridea** Westw.

Separated from the preceding genus by shorter claws on the anterior tibiae. The latter are longer and more slender than in *Raghuva*, more normally shaped. Type: *virescens* F. from America. Several species of this genus have an extraordinary range extending over several continents.

- albivenata*. **C. albivenata** Poult. (11 e). Very similar to *R. discalis*. Thorax and forewing brownish ochreous. A dark subcellular stripe extends to the exterior line. Traces of an oblique black interior line only in the anterior part. The ring-macula is a black streak, the reniform macula a blurred black spot. Veins behind the cell as far as the exterior line white. Exterior line white, edged with blackish spots on both sides. More reddish brown behind it. Black marginal dots as in the other species. Hindwing as in *R. discalis*. ♀ 24 mm. Somali Land.
- metachrisea*. **C. metachrisea** Hmps. Thorax dark red-brown, abdomen blackish-brown with orange segmental margins. Forewing pale olive brown. Interior line blackish, strongly dentate, quite indistinct. The ring-macula is a faded black spot, connected with dots extending to the inner margin. Reniform macula with a grey centre and a blackish-brown edge in a faded brown spot which extends to the costal margin and to the middle of the inner margin. Exterior line finely dentate, strongly incurved towards the inner margin. Darker behind it as far as the submarginal line which is composed of lunae. The distal area looks somewhat different in the original figure. Hindwing orange, dusted blackish at the base, margin broadly black. ♀ 32 mm. Madagascar.
- peltigera*. **C. peltigera** Schiff. is distributed from Europe to India and was therefore dealt with already in Vol. III, p. 246 and pl. 45 k. Besides it occurs in North Africa and in the Cape Colony. A South-African ♀ form, in *aurantiaca*, which the hindwing is not brownish ochreous, but orange, has been denominated: — **aurantiaca** Strd.
- nubigera*. **C. nubigera** H.-Sch. is distributed from the Mediterranean districts to India; cf. Vol. III, p. 246 and pl. 50. It is also known from Somali Land.
- armigera*. **C. armigera** Hbn. has a still larger range than the two preceding species. Except the cold parts of the globe there is hardly any country where it does not occur. It is known from the humid Congo District, from South-West Africa as well as from Abyssinia, South Africa, Madagascar. The species can also be enumerated as *obsoleta* F. Cf. also Vol. III, p. 246 and pl. 50 k.
- jefferyi*. **C. jefferyi** Janse resembles *peltigera*. Thorax and forewing yellowish white, abdomen somewhat browner. All the lines and spots on the forewing are red-brown. Interior line dentate. Reniform macula blackish brown, a triangular spot inwards of it at the costal margin. The exterior line begins with a spot at the costal margin close behind the reniform macula, then for some distance parallel to the costal margin and later parallel to the distal margin. Fine dark spots between veins 7 and 2 substitute the submarginal line. Between the latter and the exterior line somewhat darker than the ground-colour. The black marginal dots are more intensified towards the anal angle. Hindwing white. Discal spot, exterior line and marginal band as in *assulta* Guen. 35 mm. Transvaal.
- scutuligera*. **C. scutuligera** Guen. (11 e). Thorax and forewing pale olive brown, abdomen somewhat more orange brown. Forewing pale brownish ochreous in and behind the cell. A brown streak below the base of the cell. The ring-macula is a black dot. The reniform macula a black luna with a grey centre, mostly connected with the costal margin by a dark blotch. Exterior line indistinct, dentate, almost parallel to the distal margin, with white dots outside, and a brown stripe behind it extends to the pale submarginal band. Hindwing ochreous, mostly with a black central luna. Marginal band broad black with a light spot below the middle. 30 mm. South-West and South Africa.
- fuscimaculata*. **C. fuscimaculata** Janse. Similar to *scutuligera*, but separated by the discoidal luna, the absence of white dots at the exterior line, the presence of the interior line, and the different colour on the hindwing. Body and forewing light brown, margined somewhat darker all around. Interior line blackish, describing a semi-circle around the ring-macula which is a blackish-brown spot finely edged with red-brown. Reniform macula dark brown, edged with black and around this a U-shaped red-brown line which is closed by a black spot towards the costal margin. A fine median line proceeds from the reniform macula. Exterior line brown, dentate. Submarginal line fine light, darker brown outside of it as far as the margin. Hindwing dark yellow, discal luna and margins blackish brown, 2 small light marginal spots in the marginal band. ♂ 32 mm. Natal.
- assulta*. **C. assulta** Guen. (11 f) has a range extending from West Africa across India and Japan to Samoa. The pale red-brown species is easily separated from the other Ethiopian species by the distinct interior and median lines. 24—34 mm.



**C. xanthiata** *Wkr.* (11 f). Thorax and forewing olive yellow, metathorax and forewing at the inner *xanthiata*, margin more reddish, abdomen brownish ochreous. The indistinct brown interior line on the forewing is extra-angular below the cell. The ring-macula and reniform macula are small round spots in red-brown surroundings. A red-brown spot at the costal margin before the reniform macula, below the latter an obsolete S-shaped median line to the inner margin. Exterior line dentate, vertical as far as vein 5, then incurved to the inner margin near the median line. Faded red-brown behind it, especially towards the apex and anal angle. Hindwing whitish, margin very broadly black. ♀ 34 mm. Natal, Ruanda.

**C. flavescens** *Janse*. Thorax and costal margin of forewing reddish yellow, abdomen creamy white. *flavescens*. Forewing light brownish yellow, the lines dark red-brown. The interior line begins with a triangular spot at the costal margin, then undulated to the inner margin. The median line begins also with a costal spot, then as a fine shadow to the inner margin. Ring-macula small, indistinct, incompletely margined. Reniform macula large, round, greyish-brown, edged blackish-brown, a spot above it at the costal margin. A small triangular spot behind it is the beginning of the fine dentate exterior line, with black dots at the veins, on the outside of these dots there are sometimes white scales. A large triangular spot in the submarginal area at the costal margin. Hindwing creamy yellow, darker at the margin. Discal luna indistinct, an exterior row of dark spots. ♂ 33 mm. Natal.

**C. conifera** *Hmps.* Thorax brownish white, abdomen yellowish-brown. Forewing whitish brown and *conifera*, darker brown, whiter in the disc. Interior line black, punctiform, obliquely outwards as far as the submedian fold. A conical black spot from the middle of the costal margin includes the reniform macula which is edged light and from which an indistinct oblique line extends to the inner margin. Traces of a dark exterior line, and a dark submarginal line. Black lunae at the margin. Hindwing yellow, blackish brown at the base and margin; the discal luna also blackish brown, 2 light marginal spots in the marginal band. ♂ 30 mm. Transvaal.

**C. flavigera** *Hmps.* is presumably allied to *flavescens*. Body yellow, the thorax and the base of the *flavigera*, abdomen somewhat pink. Forewing yellow, somewhat greenish. Costal margin red-brown, also a spot at the base. Interior line represented by a red-brown blotch at the costal margin, and traces of an undulate line. Coniform macula discernible at its point. Ring-macula with a fine brown dot and edge. Reniform macula grey in the middle, edged with red-brown and brown, adjoining to a brown spot proceeding from the costal margin. Exterior line very indistinct, finely undulated. Submarginal line with a brown triangular spot at the costal margin, then indistinct. Hindwing yellow, traces of a discal luna, and an undulate submarginal band which is broader at the apex. ♂ 32 mm. Rhodesia.

**C. posttriphæna** *Rothsch.* Thorax and forewing olive grey, abdomen dark orange. Forewing with a *posttriphæna*, dark olive grey exterior band edged greyish-yellow inside. Marginal line red-brown. Hindwing dark yellow with a very broad black submarginal band. 30 mm. Madagascar.

### 3. Genus: **Timora** *Wkr.*

Proboscis normal, palpi porrect, short, hairy below. Frons with a round projection and a horny plate below it. Antennae of ♂ ciliated. Anterior tibiae short and broad, with strong claws as in *Raghuva*. Wings oblong, neuration normal. Type: *senegalensis* *Guen.*

**T. metarhoda** *Drc.* (11 f). Thorax and forewing yellowish-green, abdomen reddish ochreous. Forewing *metarhoda*, finely white at the costal margin. From the base one pink band each at the median vein and below it, with white dots at their ends indicating an interior line. A pink spot at the cross-vein and an exterior band enclosing white dots. Hindwing pink, paler at the base. ♀ 26 mm. Gambia. — **buchanani** *Rothsch.* differs in yellowish *buchanani*, white hindwings. — Sometimes with a dark marginal band: — **continuata** *Grünbg.* The exterior red band on *continuata*, the forewing may be very narrow. 19—24 mm. North Nigeria, South-West Africa.

**T. leucosticta** *Hmps.* (11 f). Pale ochreous. Prothorax somewhat pink. Forewing with a broad pink *leucosticta*, band below the costal margin and a pink line at vein 1. White dots indicate the interior line at the median vein and vein 1. An exterior band of pink spots, excurved to the apex, with white centres. Hindwing with pink fringe at the apex. ♂ 26 mm. East Africa. — The form: **continuata** *Grünbg.* occurs also in this species. Hindwing with a rather distinct, irregular submarginal band. The hindwing is mostly yellow in both sexes, sometimes also uniformly grey in the ♀.

**T. decorata** *Moore*, according to ROTHSCILD, occurs also in North Nigeria. That may be, since *leuco-* *decorata*, *sticta* is probably only a later described form of *decorata* which is widely distributed in India. The latter differs in the absence of the two white dots at the inner margin of the forewing.

**T. joiceyi** *E. Prout.* Thorax pink, abdomen whitish. Forewing whitish in the basal and marginal areas. *joiceyi*. Costal margin, inner margin and median area broadly hued with pink. An interior and exterior line of white dots on the veins. The interior row bent, the exterior one obliquely from near the apex to  $\frac{2}{3}$  of the inner margin. Hindwing whitish, probably somewhat darker at the margin. ♂ 28 mm. Congo.

**T. albiseriata** *Drc.* (11 f). Thorax and forewing pale brownish ochreous, white at the costal margin. *albiseriata*. A pink band at the base of the median vein and below it as far as 2 obliquely arranged dots at the median



vein and vein 1. The exterior band is connected with the first in the submedian fold, the latter band being connected with a band in the cell-end. The original figure does not quite agree with this. Submarginal band pink, broad, with a row of white dots inside. Hindwing pale brownish ochreous. 20 mm. Gambia.

- diarhoda.* **T. diarhoda** *Hmps.* Thorax white with some dark scales, abdomen orange. Forewing olive yellow, the costal margin violettish pink with a white dot before the middle and a row of them at the end. A faded pink band from near the base below the costal margin. A similar one above the inner margin from before the middle almost to the angle, both bands somewhat faded. White and black scales at the inner margin. A large pink spot behind the lower cell-angle. A small white dot in the centre of the cell. A pink discal spot with white dots and streaks in it. A double exterior row of white dots, excurved below the costal margin. A marginal row of black streaks. Hindwing purely white. ♂ 22 mm. Transvaal.
- latinigra.* **T. latinigra** *Hmps.* Thorax red-brown, abdomen greyish-brown. Forewing brownish ochreous, hued with copper red, especially in the costal-marginal area, the costal margin itself purely white. A broad black band at the median vein, narrow at the base, extending almost to the margin. A black dot at vein 1 replaces the interior line. An exterior row of small black spots except at the costal margin and a marginal row of small black dots. Hindwing whitish ochreous, browner at the margin, black marginal dots. 30 mm. Uganda.
- senegalensis.* **T. senegalensis** *Guen.* Thorax and forewing pale brownish ochreous, abdomen white. Forewing suffused with pink. A black band at the median vein as far as the distal margin, where it widens, parted by a white line on its whole length, and a pink band above it in the cell. Traces of an exterior row of black dots. Hindwing white. 26—30 mm. Senegal.
- fissa.* **T. fissa** *Auriv.* Thorax red-brown, abdomen yellowish. Forewing dark red-brown above, with a slight pink reflection. Median band blackish-brown, extending from the base almost to the margin at veins 5—7, parted from near the middle of the cell by a white line extending below vein 6. A narrow white line in the submedian fold from the base to the centre of the wing. Black dots or streaks at the veins in the marginal area. Hindwing yellowish white, somewhat darker at the veins. ♂ 30 mm. Sudan.
- chrysitata.* **T. chrysitata** *Joann.* Forewing bright golden yellow, the costal-marginal area brownish almost to the apex. A brown stripe at the median vein is continued at vein 4 almost to the margin. A similar longitudinal streak in the interior of the cell, continued at vein 6 and slightly bent in front near the margin. Vein 1 and the cross-vein also brown. All the brown places are bordered with red scales, and all the veins edged with red. Interior line angled in the submedian fold, the exterior one strongly dentate at the veins, forming a more inward angle in the submedian fold. Hindwing greyish-yellow, the veins somewhat red, traces of an exterior reddish line. Body brown. ♀ 25 mm. Upper Guinea.
- nubila.* **T. nubila** *Hmps.* (11 f). Abdomen brownish ochreous, thorax somewhat more reddish. Forewing golden yellow, somewhat reddish. Grey at the costal margin, also behind the lower cell-angle and at the distal margin below the apex. Hindwing greyish-yellow. ♀ 32 mm. Niger.
- bimaculata.* **T. bimaculata** *Moore* (11 f). Pale brownish ochreous, Thorax and forewing slightly dusted dark. Obsolete pink streaks at the veins, a black dot at the upper cell-angle. Faded dark stripes above the median vein, veins 4 and 1. Hindwing yellowish white. 24 mm. Abyssinia, East Africa. Described first from India. In —
- pulverulentata.* **pulverulenta** *Hmps.* (= *unifasciata* *Gaede*), from East Africa, the band at the median vein is very strong, the lower one more or less obsolete.
- nigrofasciata.* **T. nigrofasciata** *Hmps.* (11 g). Body pale ochreous, thorax somewhat pink. Forewing pale ochreous. Pink at the costal and inner margins and at the veins in the distal area. An intense black band at the median vein and almost to the margin. A black dot at the upper cell-angle and a feeble streak at the base of vein 1. Hindwing pale yellow, the median vein somewhat darker. 34 mm. East Africa.
- trifasciata.* **T. trifasciata** *Hmps.* (11 g). Body brownish white, prothorax reddish. Forewing yellowish white, flesh-coloured red at the costal and inner margins. A black stripe at the median vein and vein 4. A faded black streak also at the end of vein 1. Hindwing grey, whitish in the cell and above the inner margin. ♀ 32 mm. East Africa.
- unifascia.* **T. unifascia** *B.-Bak.* Thorax chocolate brown, abdomen paler. Forewing chocolate brown with a creamy-white stripe in the distal half of the cell, almost reaching the distal margin between veins 5 and 6. Another similar line in the submedian fold. Hindwing creamy white, brownish at the margin. ♀ 30 mm. Lokoja.
- fissifascia.* **T. fissifascia** *Hmps.* (11 g). Body brownish, anal tuft reddish yellow. Forewing claret-coloured, pink at the costal margin. A white streak edged dark on both sides is at the median vein, with prolongations at veins 3 and 4 almost to the margin and a little at vein 2. Short streaks besides at veins 1, 6 and 7. Hindwing yellowish-white, browner at the margin. ♂ 28 mm. East Africa.
- flavirosea.* **T. flavirosea** *Hmps.* (11 g). Body yellow, only the prothorax pink. Forewing pink, costal and inner margins narrowly pale yellow. A yellow band below the base of the cell as far as vein 2. White dots in the



cell-end and at the cross-vein. Fine white streaks at the veins in the marginal area. Hindwing white, somewhat yellowish towards the inner margin. ♂ 36 mm. East Africa.

**T. albirosea** Andr. Prothorax yellowish, the rest of the body white. Forewing very similar to that of *flavirosea*, but white below the cell, also behind it, where it rises obliquely to the apex. Hindwing blackish, white only at the inner margin. ♂ 30 mm. Eritrea.

**T. disticta** Hmps. (11 g). Body ochreous, prothorax pink. Forewing pale ochreous. Costal-marginal area as far as the middle of the cell of a bright pink colour. Orange below the cell from the base to the middle of the cell. A broad pink band at vein 1, the inner margin itself orange. White dots in the middle of the cell and at the cross-vein. Fringe pink. Hindwing white. ♂ 34 mm. Basuto Land.

**T. albisticta** Janse. Thorax and forewing greenish greyish-yellow, abdomen creamy yellow. Forewing pink at the costal margin, the inner margin also pink, but not at the base. An exterior row of white dots from veins 7 to 2, small in front, larger and obliquely arranged behind. White dots at the median vein and above the inner margin. Fringe pink. Hindwing light greyish-brown. 28—31 mm. Transvaal.

**T. perrosea** Joann. Somewhat different owing to the shortly pectinated antennae of the ♂. veins 3 + 4 on the hindwing are stalked. Body and forewing greyish yellow. A pinkish-red band above the median vein, gradually widening from the base to the margin, where it reaches almost to the apex and to vein 2, with a few white dots on it, most of them at the median vein and vein 4, one at the upper cell-angle. Besides two short pink streaks at the base at the costal and inner margins. Hindwing whitish, somewhat blackish at the ends of the veins. ♂ 18 mm. Upper Guinea.

**T. lanceolata** Wkr. (11 g). Thorax pink, abdomen brownish white. Forewing silvery white, golden yellow only at the base, or also entirely golden yellow. Costal margin pinkish grey; inner margin pink, sometimes also yellow or white, fringe pink. Hindwing white, more or less brownish. Fringe pink. 22—32 mm. West, South and East Africa. Besides also in Central America and India. According to AURIVILLIUS, *galathea* Wallgr. is a prior name for this species.

**T. vittulata** Auriv. Body and forewing white or yellowish-white. A short apical band above veins 7 and 8, and a submedian band before the distal margin, both pink. Fringe white, red only in the submedian fold. Hindwing purely white. The ♀ shows narrower bands extending to the base. 24—27 mm. Sudan.

**T. nigrolineata** Auriv. also resembles *lanceolata*. The red band at the costal margin of the forewing is defined inside by a black line reaching neither the base nor the distal margin. The band is pale, whitish as far as the middle. Fringe pink. Hindwing purely white. In the ♀ the red costal-marginal stripe reaches vein 7 outside. 28 mm. Sudan.

**T. rubristria** Hmps. (11 h). Body brownish ochreous. Forewing whitish, with yellowish-brown streaks at the costal margin and the veins, the median vein red, the streak at vein 6 bifurcates at the margin. Hindwing white. The veins, the costal and inner margins brownish. ♂ 24 mm. Niger.

**T. multistriata** B.-Bak. Thorax brownish grey, abdomen yellowish grey. Forewing creamy. The lower half of the cell and a little below it carmine, which colour is continued almost to the margin between veins 4 and 5; shorter red below vein 2. Broad pearl-white above the red principal stripe from the middle of the cell to the margin, the same colour below it on the whole length of the submedian fold. Vein 6 finely red above. Inner margin broadly reddish. Hindwing silvery white. ♂ 26 mm. Lokoja.

**T. umbrifascia** Hmps. Thorax dark greyish-brown, abdomen lighter. Forewing light red-brown. A dark brown band in and close below the cell as far as the distal margin, enclosing a white band from the middle of the cell almost to the margin in the discal fold. Marginal area dark brown. Hindwing white, brown at the margin and at the ends of the veins. ♀ 34 mm. Niger.

**T. rosea** Gaede (11 h). Similar to the Indian *terracotta* Hmps. Thorax and forewing pink, abdomen whitish. A narrow yellowish white streak in the submedian fold from the base to beyond the centre. A similarly coloured broader streak from the middle of the cell to the distal margin, printed at the ends. Lighter yellowish-white above veins 3, 4 and 6 before the margin. Hindwing of ♂ white, of ♀ somewhat pink in the distal half. 28—30 mm. Transvaal, East Africa.

**T. terracottoides** Rothsch. Similar to the Indian *terracotta* Hmps., but different in the ground-colour which may be dark greyish-brown, umber-brown, olive-yellow, or chestnut-brown. The streak above vein 1 is very strong as in *rosea*, besides silvery marginal dots on the forewing. Hindwing creamy white, dusted dark. North Nigeria.

**T. transvaalica** Dist. (11 h). Thorax pink, abdomen yellowish-white. Forewing pink, the veins brown. A broad yellowish-white stripe in the submedian fold from the base to the margin, a similar one in the cell, others between the veins. Hindwing white. ♂ 32 mm. Transvaal.

**T. daphaena** Hmps. is very similar to *transvaalica*. The end of the median vein on the forewing and the beginning of veins 3 and 4 are white. The stripe in the submedian fold as in *transvaalica*, but the other stripe begins only at the cell-end. Besides a light streak above vein 6, and less distinct ones not mentioned in the description at the other veins. Hindwing whitish-ochreous, pink at the margin. ♂ 34 mm. North Rhodesia.



- flavistrigata*. **T. flavistrigata** *Hmps.* (11 h). Thorax pinkish brown, abdomen brownish ochreous. Forewing flesh-coloured, pink at the base, dark brown at the inner margin. Sometimes also quite dark brown, except at the costal and distal margins. Costal margin yellowish. A pale yellow band from the middle of the cell to the distal margin and streaks above veins 6 and 7. Hindwing pale yellow. Specimens which I take to be *flavistrigata* exhibit no brown stripe at the inner margin of the forewing, but traces of a white line in the submedian fold. 26—30 mm. East Africa.
- lineata*. **T. lineata** *Joann.* Thorax pink, abdomen whitish-grey. Forewing pink, inner-marginal area brownish. A narrow white band through the cell, somewhat broader white behind the cell, extending between veins 5 and 6 to the margin, where it is narrower. Costal and inner margin finely white. Vein 1 and the other veins in the marginal area indicated white, and so are short streaks between the veins. Hindwing whitish. ♂ 23 mm. Upper Guinea.
- margarita*. **T. margarita** *Le Cerf.* Thorax pink, abdomen yellowish white. Forewing pink with 3 golden yellow spots. The first below the base of the cell; a median triangular one at the cell-end; the last, being also triangular, from the apex to below the middle of the second at vein 2 and ending at the anal angle, dentate inside at veins 2, 3 and 4. Hindwing pale golden yellow. ♂ 14 mm. Uganda.
- flavocarpa*. **T. flavocarpa** *Hmps.* (11 h). Thorax reddish ochreous, abdomen brownish ochreous. Forewing golden yellow. Costal-marginal area and vein 1 with pale pink stripes. The median vein and the marginal veins pink and white. Fringe pink. Hindwing yellowish white, brownish below and behind the cell. In the ♂, the light stripe begins only behind the cell, the hindwing is of a purer white. 26—30 mm. Abyssinia, Togo.
- flaviceps*. **T. flaviceps** *Hmps.* (11 h). Purely white, only the head orange yellow. Abdomen ochreous at the end. Fringe of forewing orange at the apex and anal angle. Apex of hindwing orange. ♂ 24 mm. Niger.
- hololeuca*. **T. hololeuca** *Hmps.* (11 h). Body brownish white. Wings silvery white, only the costal margin of the forewing somewhat brown. ♂ 24 mm. Abyssinia, occurring also in India.
- albipuncta*. **T. albipuncta** *Hmps.* Antennae of ♂ serrate. Body and forewing ochreous with a hemochrome or violetish red marking. Costal margin finely red. A faded red interior line extra-angular in the submedian fold, and a dot behind it. A small spot in the centre of the cell, the luna at the cross-vein strangulated. A faded submarginal band with white dots behind it. Red marginal dots. Hindwing white, yellow at the margin. 26 mm. North Rhodesia. The original figure is very different from this description.

#### 4. Genus: **Adisura** *Moore.*

Altogether very similar to the genus *Timora*. It differs from the latter and all the genuine *Melicleptriinae* in the absence of the claws on the anterior tibiae. Nearly all the species exhibit a scheme of markings similar to those of the *Timora*-species. Type: *atkinsoni* *Moore* from India.

- atkinsoni*. **A. atkinsoni** *Moore* (11 i). The species is typically distributed in North India and China. Thorax grey, abdomen brown. Forewing grey, brown at the inner and distal margins, but not at the apex. The costal-marginal area and the distal margin itself pink in the typical form. In the form — **leucanioides** *Moore*, occurring in India as well as in East Africa, the costal margin is not pink, the distal margin yellow. Interior line marked by 3 black dots, the exterior row of dots is bent far inwards at the costal and inner margins. Dark traces of a ring-macula and reniform macula. Hindwing ochreous, broadly dark at the margin, especially at the anal angle. 30—40 mm.
- straminea*. **A. straminea** *Hmps.* (11 h). Body and forewing pale straw-coloured. Costal margin narrowly white. Somewhat paler places in, below and behind the cell and at vein 3. Indistinct black dots behind the upper cell-angle, and a curved exterior row of dots. Hindwing white, straw-coloured at the margin. ♂ 24 mm. Ngami Land, 1 ♀ also found in India.
- aerugo*. **A. aerugo** *Fldr.* (11 i). Thorax apple-green in front, brown behind, abdomen orange. Forewing applegreen, narrowly brownish ochreous at the costal margin, 3 white dots near the apex. Cross-vein black, submarginal dots white. There may be also an exterior line beginning and ending vertically to the cross-vein, around which it is excurved, more slanting above the inner margin. Hindwing orange, a black marginal band only at the apex in the ♂, continued to vein 1 in the ♀. 24—26 mm. South Africa.
- affinis*. **A. affinis** *Rothsch.* differs on the forewing from *atkinsoni* in its deeper red-brown dusting. The exterior line is coherent, not composed by single dots, and extends from the middle of the inner margin to vein 6 near the distal margin, forming an oblique line. The distal third of the hindwing is intensely blackened. North Nigeria.
- callima*. **A. callima** *B.-Bak.* Thorax dove-coloured grey. Forewing pink, costal and distal margins more intensely red. Behind the cell a triangular, deep straw-coloured spot with faded edges. Hindwing pale yellow, darker yellow at the margin, with a brown spot at the apex. ♀ 28 mm. West Africa.



**A. malagassica** *Rothsch.* Thorax pinkish-grey, abdomen straw-coloured. Forewing pink, finely white at the costal margin, the distal two thirds of the centre of the wing pale yellow. Hindwing somewhat diaphanous, with a silky gloss, cream-coloured with a golden shine. Distal margin band-like smoky brown. Other specimens from the same habitat — **anerythra** *Rothsch.* are quite brownish without any pink. In this case the ♀ shows a more distinctly brown marginal third of the hindwing. 27 mm. Madagascar. *malagassica*, *anerythra*.

**A. bella** *Gaede* (11 i) resembles *atkinsoni*. Thorax greyish-brown, abdomen yellowish-brown. Forewing finely yellowish-white at the costal margin almost to the apex. Basal and costal-marginal areas pink. Yellowish-red from the cell-end obliquely upwards to the apex. 2 or 3 dark dots at the anterior edge of the cell, as in *atkinsoni*. Interior line absent, sometimes dark dots of the exterior line are visible at veins 2—4. The space around the latter as far as the inner margin more violettish-red, somewhat pink close at the distal margin. Hindwing yellowish-white, pale golden at the margin. 25 mm. East Africa. *bella*.

### 5. Genus: **Cladocerotis** *Hmps.*

Proboscis stunted, palpi short with long hair. Frons with a conical projection. Antennae of ♂ with long pectinations. Anterior tibiae similar to those of *Raghuva*, besides lateral spines. Forewing rounded at the apex. Type: *optabilis* *Bsd.* from Europe.

**C. oeneus** *Fawc.* (11 i). Body and forewing pale red-brown. The veins, as well as the ring-macula and reniform macula pale brownish-ochreous, the latter edged black. Cell darker brown, edged black in front. Coniform macula very long and black. Blackish triangular spots at the distal margin between the veins, those in the middle being larger. Hindwing smoky brown in the distal half, lighter at the base. 36 mm. Meru. *oeneus*.

### 6. Genus: **Micragrotis** *Hmps.*

Proboscis small, palpi short. Frons with a conical projection and a bent plate below it. Antennae of ♂ finely ciliated. Anterior tibiae short and broad, with 2 claws inside, with one or two outside, laterally spined besides. Type: *oxylides* *Hmps.* from India.

1. Anterior tibiae with 2 claws each inside and outside.

**M. exusta** *Hmps.* (11 i). Thorax blackish brown, abdomen brownish ochreous. Forewing dark red-brown as far as the exterior line. Interior line black, undulate, interrupted, indistinct. Coniform macula small, finely edged with black. Ring-macula and reniform macula edged and centred black. Exterior line indistinctly dentate, somewhat concave behind the cell. Brownish ochreous behind it, dark streaks on the veins, and indistinct red-brown ones between them. Hindwing yellowish white, browner at the costal margin. ♂ 34 mm. Mashona Land. *exusta*.

**M. interstriata** *Hmps.* (11 i). Thorax blackish-brown, abdomen brownish-ochreous. Forewing blackish-brown in the costal-marginal area and in the cell, bluish-grey below it, browner in the marginal area, where there are black streaks at the veins and brown ones between them. Interior line fine, double, very strongly dentate inwards. Ring-macula and reniform macula small, edged black, the ring-macula white inside, the reniform macula with a dark centre. From the latter a dark undulate line to the inner margin. Exterior line close behind it, dentate, black. Fringe black and white. Hindwing white, brownish at the costal margin. 30 mm. South Africa. *interstriata*.

**M. semicirculosa** *n. sp.* (11 i) resembles *interstriata* in the somewhat shiny bluish inner margin of the forewing. Thorax dark red-brown, patagia with violettish-grey hair, light reddish brown. Forewing dark red-brown as far as the interior line, in the cell and then more narrowly to the apex. More or less bluish-grey below the cell as far as the inner margin, the other parts ochreous. Interior line black, double, notched, rectilinear. The coniform macula is indicated by a semi-circle at its end. Ring-macula with a black centre surrounded by a light and a black ring. Reniform macula broad, with a grey centre, then with brown and black rings. Darkest between the two maculae. Exterior line double, notched, indistinct in front, beginning from the lower cell-angle. A brownish ochreous stripe from the reniform macula to the apex. A dark brown triangular spot at the margin behind the cell, somewhat brownish ochreous again below it. A smaller less dark spot at the anal angle. Hindwing yellowish white, without a dark marginal line. ♂ 26—28 mm. Urundi. A somewhat smaller specimen from the Cameroons seems also to belong to this species. Type in the Berlin Museum. *semicirculosa*.

**M. strigibasis** *Hmps.* (11 k). Thorax reddish ochreous, abdomen ochreous, forewing reddish ochreous. Interior line very indistinct, double, filled with brownish ochreous, dentate. A fine black streak below the base of the cell. Traces of a coniform macula. Ring-macula and reniform macula light with a dark centre and edged dark. An oblique median line from the reniform macula to the inner margin. Exterior line dark, edged ochreous outside, finely dentate, far excurved at the costal margin, then obliquely inwards, parallel to the distal margin. Dark stripes in the marginal area. Hindwing yellowish-white. 30 mm. Cape Colony, Basuto Land. *strigibasis*.

**M. lacteata** *Hmps.* (11 k). Body greyish-brown. Forewing reddish brown in the anterior half, the rest yellowish-brown with a bluish-grey tint. Interior line double, undulate, straight, somewhat outwards. Coni-



form macula marked by a black dot at the end. Ring-macula and reniform macula small, light, centred and edged dark. From the latter a rusty brown oblique line to the inner margin. Exterior line double, dentate, indistinct, extending close behind the reniform macula as in *interstriata*. Distal margin narrowly red-brown. Hindwing white with an interrupted black marginal line. 28—30 mm. East Africa.

*punctico-  
stata.*

**M. puncticostata** Hmps. (11 k) resembles *lacteata*. Thorax darker. Forewing also red-brown in the anterior half, greyish-brown below the cell, the veins darker. A faded red-brown spot above the inner margin at the base. Interior line light, notched, excurved in the middle. Coniform macula small, edged somewhat black. Ring-macula and reniform macula light, centred and edged dark, the reniform macula very large. Exterior line marked by light and dark dots at the veins, extending close behind the reniform macula. A few conspicuous light costal-marginal dots near the apex. Distal margin dark reddish-brown behind the indistinct submarginal line. Hindwing white, slightly brownish in the anterior half. Traces of a central spot, and streaks on the veins near the margin. 30 mm. Natal, Basuto Land.

*rufescens.*

**M. rufescens** Hmps. (11 k). Body and forewing pale reddish-brown, a short black streak below the base of the cell. Interior line indistinct. Ring-macula and reniform macula normally coloured, the former round or elliptical, the latter strangulated in the middle. The cell black before and behind the ring-macula. Exterior line double, dentate, parallel to the distal margin, a dark spot behind it at the costal margin. Distal margin narrowly dark. Hindwing white, brownish at the costal margin, the ♀ brown also at the distal margin. 36 mm. Cape Colony.

*nigrisigna.*

**M. nigrisigna** Hmps. Thorax blackish-brown, abdomen greyish-brown. Forewing dark brown. Interior line beginning with double black streaks at the costal margin, then indistinct, undulate. Coniform macula small, indicated above and at the end by black edges. Ring-macula and reniform macula edged black, two black streaks between them, the reniform macula strangulated in the middle. Exterior line also beginning with double streaks, indistinctly continued, dentate, projecting at the veins in black dots. The submarginal line proceeds as a green streak from the costal margin; darker before it. Hindwing greyish brown. ♀ 30 mm. East Africa.

2. Anterior tibiae with 1 claw outside, 2 inside.

*marwitzi.*

**M. marwitzi** n. sp. (11 k). Thorax dark red-brown, abdomen ochreous. Forewing light ochreous with a red-brown marking. Interior line dentate, extending with one point almost to the ring-macula, with a double point in the submedian fold. Ring-macula finely edged red-brown. Reniform macula luniform, violettish-brown, edged dark. An undulate median line extends from the latter obliquely inwards. The space towards the ring-macula somewhat red-brown, of the same colour an oblique stripe from the apex of the reniform macula outwards to the costal margin and one from its basal side inwards to the costal margin. The exterior line is a double row of dots excurved as far as vein 4, mostly only the distal row being distinct. The submarginal line is a narrow rusty brown shadow. Black marginal dots, the red-brown fringe with a black partition-line. Hindwing pale yellow with a black marginal line. 23—26 mm. East Africa. Type in the Berlin Museum.

*acydonta.*

**M. acydonta** Hmps. Body dark brown. Forewing dark red-brown as far as the exterior line and as far as the median vein, the rest brownish ochreous. Interior line double, undulate, strongly notched. The coniform macula represented by a black dot at its apex. Ring-macula and reniform macula edged black, filled somewhat white. The cell-end and its surroundings blackish. Exterior line dentate, with black and white dots at the veins, concave behind the cell. Submarginal line marked by brown edging inside and blackish outside. Hindwing whitish ochreous, browner at the margin, with black streaks at the veins. ♂ 26 mm. East Africa.

*microstigma.*

**M. microstigma** Hmps. (11 k). Thorax dark brown, abdomen greyish-brown. Forewing pale brown, darker at the costal margin. Interior line indistinct, dentate, marked by pink. The coniform macula is a short black streak, somewhat pink above. Ring-macula and reniform macula small, round, pink, edged black. Traces of a light exterior line. Margin narrowly dark, fringe with pink spots. Hindwing yellowish white. ♂ 16 mm. Mashona Land.

*prosarca.*

**M. prosarca** Hmps. (11 k). Thorax dark brown, abdomen whitish ochreous. Forewing blackish radially in the middle, with a more bluish-grey tint towards the inner margin. Costal margin broadly light flesh-coloured pink. A black streak below the base of the cell. The ring-macula is a white dot. Reniform macula narrow, brown inside, then edged grey and black. Traces of a strongly dentate exterior line, parallel to the distal margin. Submarginal line marked by a blackish shadow. Besides black marginal streaks above veins 4—6. Hindwing purely white. 26 mm. Mashona Land.

*melanomesa.*

**M. melanomesa** Hmps. Thorax dark red-brown, with a white spot behind, abdomen lighter red-brown. Forewing greyish-white, dusted red-brown. Interior line double, thick, blackish, filled white in front, directed obliquely outwards, the cell behind it black. Ring-macula white, small, fused with a spot at the costal margin. Reniform macula small, white, edged black. Exterior line double, black, filled white in front, very indistinctly continued, with black dots outside. The costal margin behind it black. The submarginal line is marked by a dark shadow. Hindwing diaphanous, white. ♂ 24 mm. East Africa.



**M. cinerosa** *B.-Bak.* Thorax pale red-brown. Forewing ash-grey, with a fine undulate median line from *cinerosa*. which, in the submedian fold, a fine horseshoe-shaped dark line proceeds. Ring-macula finely edged dark brown, reniform macula less distinct. Exterior line directly behind it, very fine, dark, somewhat undulate, and 2 rows of dark blurred spots behind it. A brownish ochreous spot at the apex is surrounded by red. Marginal area brownish ochreous. Hindwing greyish-white, broadly brownish at the margin. ♀ 27 mm. East Africa.

#### Subfamily: **Erastrinae.**

The proboscis is mostly present. Palpi almost invariably erect. Frons sometimes with a round projection. Eyes bare. Tibiae without spines. Abdomen almost invariably without tufts. Mostly small delicate insects, often variegated. Vein 5 of the hindwing arises typically below the centre of the cross-vein and is almost as strong as the others. The larvae exhibit the anterior two pairs of abdominal legs stunted. A considerable part of the very great number of species known occur in Africa. Relatively many of these small insects which are not strong on the wing are distributed far to the east, some as far as Australia. This may be explained by the fact that thousands of years were at disposal for this expansion. It may be also that storms assisted in it.

### 1. Genus: **Araeoptera** *Hmps.*

Proboscis normal, second palpal joint reaching the frons. A small tuft of scales is at the basal joint of the antenna. Tibiae with long spurs. Forewing narrow. Veins 3 + 4 stalked and 11 + 7 + 10 + 8 + 9. Hindwing: veins 3 + 4 and 6 + 7 on short stalks. Type: *pictalis* *Hmps.* from Ceylon.

**A. obliquifascia** *Joann.* (12a). Body whitish, abdomen somewhat flesh-coloured in the middle, brownish *obliquifascia*. at the end. Forewing yellowish white. Interior line black, somewhat undulate, obliquely inwards. Median area dark brown, triangular, the apex situate at the costal margin and extending to the anal angle. A black spot at the upper cell-angle and traces of a curved exterior line. Marginal area lighter greyish-brown, a somewhat darker spot behind the cell. Hindwing whitish at the base, the rest grey. A dark median band is ex-curved behind the cell, bent towards the anal angle at the inner margin. ♀ 14 mm. Mauritius.

**A. griseata** *Hmps.* (12a). The species is described from India, a ♀ is said to have come from Sierra Leone. Body and wings pale red-brown. Forewing with a few black dots at the costal margin, in the cell and below it. Exterior line dark brown, indistinct, only discernible in the inner-marginal half. Traces of a light submarginal line edged with brown. Black marginal streaks. Hindwing with a black central dot, the exterior line fine, undulate, black. Black marginal dots. 8—12 mm.

**A. canescens** *Wkr.* (= *favillalis* *Wkr.*). Body and wings white, slightly tinged with greyish-brown. *canescens*. Forewing with brown oblique, rather straight lines. Interior line composed of 2 spots, 4 more lines proceed from the centre and begin with black dots. Hindwing with 3 blackish lines near the base. Both wings with black marginal dots. 10 mm. The species occurs in Sierra Leone and Nigeria, but also in Australia.

**A. ecphaea** *Hmps.* Thorax brownish white, abdomen blackish. Forewing whitish red-brown, costal *ecphaea*. margin with alternately black and white fine streaks. Fine black dots at the lower cell-angle and behind it. Submarginal line white, edged outside with a faded blackish colour. Hindwing whitish, dusted black. Fringe white and brown. ♀ 10 mm. Nigeria.

### 2. Genus: **Eublemmistis** *Hmps.*

Proboscis stunted, palpi porrect. Antennae of ♂ serrate and tufted. Tibiae feebly hairy. Forewing with a pointed apex, veins 10 + 7 + 8 + 9 stalked. Vein 5 of hindwing from a little below the middle of the cross-vein, rather well developed.

**E. chlorozonea** *Hmps.* Body and forewing whitish olive brown with black scales. Costal margin pale *chlorozonea*. olive green, also the undulate interior line; 2 black discal dots. Exterior line olive green, double, indistinct, introangular in the submedian fold almost as far as the interior line. Black marginal dots and streaks. Fringe olive green with 2 black dots in the middle. Hindwing white with a faded olive green exterior and submarginal band. Fringe likewise olive green. 20—26 mm. Natal.

### 3. Genus: **Oediblemma** *Hmps.*

Proboscis stunted, palpi projecting by 1½ length of the head, hairy above and below. Frons with a large round projection. Antennae of ♀ ciliated. Forewing somewhat pointed at the apex, convex between veins 3 and 5, concave again below it. Veins 3 + 4 and 7 + 8 + 9 + 10 stalked. Hindwing pointed at veins 7 and 2, excurved at veins 4 and 3, hollowed out below them. Veins 3 + 4 stalked, 5 feebler from below the middle of the cross-vein.



*trogoptera.*

**O. trogoptera** *Hmps.* The body and the base of the forewing whitish red-brown. The rest of the wing more intensely red-brown, especially the median area, excepting the costal margin. Interior line reddish ochreous, edged with red-brown and black on both sides, except at the costal margin. Cross-vein oblique, red-brown, with notches at the bases of veins 3 and 4. An oblique dark shadow from the lower cell-angle to the inner margin. Exterior line whitish, fine, oblique from the costal margin to behind the cell from where a blackish-brown streak extends to the margin, very dark red-brown above it in the costal area. A white spot at vein 5 is edged black on both sides, a black spot at vein 3 and a stripe above the anal angle. Hindwing greyish red-brown with a black discal dot and a faded oblique exterior line from vein 6 to the inner margin. 4 undulate red-brown lines behind it. ♀ 28 mm. Pretoria.

#### 4. Genus: **Enispa** *Wkr.*

Proboscis small or absent, palpi narrow, very erect. Antennae of ♂ long ciliated. Tibiae slightly scaled, with long spurs. Forewing notched at the distal margin only in an Indian species, not in the others. Veins 7 + 10 + 8 + 9 stalked. Hindwing: veins 3 + 4 stalked, 5 almost normally developed, from below the middle of the cross-vein. Type: *eosarialis* *Wkr.* from India.

*albipuncta.*

**E. albipuncta** *Hmps.* (12 a). Body and wings pale red-brown with a fiery red gloss. Forewing whitish at the costal margin. Interior line represented by a deep red dot at vein 2 and a white dot at the inner margin. A red dot at the cross-vein. Exterior line very indistinct, dark, slightly incurved below vein 4, small white dots behind it at veins 3 and 2, and a spot at the inner margin. Traces of a pale undulate submarginal line. Traces of a dark discal spot on the forewing, besides an oblique dark exterior line and a light submarginal line. Dark red marginal dots on both wings. ♂ 16—18 mm. Nigeria, Cameroons. A ♂ from the Cameroons lacks all the red places on the forewing, the inner margin is reddish yellow at the end.

*albicosta.*

**E. albicosta** *Hmps.* (12 a). Thorax and the beginning of the abdomen reddish-yellow, the rest blackish. Forewing reddish-yellow, reddish at the base, white at the costal margin. A fine red median line, incurved below the black discal spot, and a notched submarginal line parallel to the narrow dark red margin. Hindwing somewhat more reddish. A faded band from the black discal spot to the inner margin, a dentate band behind it. Margin likewise dark red. ♂ 16 mm. Gold Coast.

*albida.*

**E. albida** *Hmps.* Thorax white, wings and abdomen somewhat brownish ochreous. Interior line of forewing marked by an indistinct black spot at the costal margin. A small black discal spot, a faded dark spot above it towards the costal margin. Exterior line only marked by a faded spot at the costal margin. Black submarginal dots above vein 7 and behind the cell. Hindwing brownish ochreous with a black discal dot. Black marginal dots on both wings. 14 mm. Gold Coast, East Africa.

*flavitincta.*

**E. flavitincta** *Hmps.* Body greyish-brown. Forewing yellowish white. Basal half and costal area almost to the apex suffused with blackish brown. Red brown below the centre of the cell, at its end and behind it. A small black spot at the cross-vein. Exterior line marked by a yellowish luna behind the cell and below vein 4. Submarginal line yellowish white, edged with blackish-brown lunae on both sides. Hindwing blackish-brown with silvery scales, pale yellow at the margin. ♂ 16 mm. Gold Coast.

*flavipars.*

**E. flavipars** *Poult.* (12 a). Thorax red-brown, abdomen pale brown. Forewing strewn with silvery scales. Costal half red-brown as far as behind the cell, the rest of the wing pale olive green with pale yellow bands. Interior band indistinct, interrupted. A small brown spot in the middle of the cell, a dark luna at the cross-vein. Exterior line dark with a yellow spot before it at the costal margin and behind the cell. Submarginal line of yellow spots. Hindwing pale olive green, pale yellow at the margin. ♂ 16 mm. Somali Land.

*atriceps.*

**E. atriceps** *Hmps.* (12 a). Body whitish red-brown. Forewing yellowish white and pale red-brown. Two black dots at the cross-vein. Exterior line whitish, edged red-brown on both sides, oblique, excurved in the middle. A similar interior line is traceable in the figure, but not mentioned in the description. Submarginal line pale, with black streaks outside, excurved to the margin in the middle. Hindwing coloured the same, with corresponding two black dots and the exterior line, before the latter a black spot at the inner margin. Submarginal line pale, indistinct, dentate, a series of black lunae behind it. ♂ 18 mm. Gold Coast, Nigeria.

*acutilinea-**ta.*

**E. acutilineata** *B.-Bak.* Thorax grey, abdomen paler. Forewing whitish with a broad dark green vertical median stripe not quite to the costal margin. Two black dots at the cell-end. Exterior line dark grey, oblique, deeply introangular at vein 2, a finer line behind it. Ground-colour grey, somewhat spotted, a small white marginal spot between veins 3 and 4. Hindwing grey. A small dark cellular spot, a dark brown undulate line behind it, followed by a less distinct one. Marginal area more reddish. ♂ 27 mm. Malange (West Africa).

#### 5. Genus: **Enispades** *B.-Bak.*

Proboscis feeble, palpi erect. Antennae almost plain, with traces of a tuft of scales at the base. Spurs long. Forewing with a pointed apex and a convexity at vein 4. Vein 6 near the upper cell-angle, 7 laterally



from the areole, 8 + 9 from its apex, 10 a little behind. Vein 5 of the hindwing above the lower cell-angle.

**E. angola** *B.-Bak.* Body and wings greyish ochreous, the wings with a slight pink reflection, marked *angola*. dark grey. Traces of a median line on the forewing. A large grey spot at the cell-end, sometimes only its contours are present. Exterior line oblique, deeply and obtusely angled below the costal margin, a finer line close behind it. A series of submarginal spots parallel to the distal margin. Hindwing with an undulate exterior line and accessory line. Submarginal spots as on forewing. ♂ 20 mm. Angola.

**E. nigropunctata** *B.-Bak.* Thorax whitish, abdomen grey. Both wings whitish with a dark marking. *nigropunctata*. Forewing with a black spot at the base at the costal margin, and another one behind it, from which a fine angled dark median line proceeds. Exterior line hardly traceable. Behind it an undulate line with black dots, and behind this line a dark spot in the submedian fold. Margin fine dark with a small triangular spot between veins 4 and 7. Hindwing grey behind the middle, dark diffuse spots at the margin. Fringes of both wings white. ♂ 20 mm. Angola.

## 6. Genus: **Trogoeraspis** *Hmps.*

Proboscis small. Palpi projecting by the length of the head. Frons with a round projection. Antennae of ♂ finely ciliated. Anterior and middle tibiae somewhat scaled, the first tarsal joint above with tufts of scales. Hind tibiae with stronger tufts of scales at the end, and the first tarsal joint with large tufts of hair. Costal margin of forewing slightly concave in the middle, apex projecting with a round lobe. Distal margin cut out below the apex, excurved in the middle, then cut out again. Veins 3 + 4 stalked, 5 close above it, 7 + 8 + 9 + 10 stalked. Hindwing projecting at vein 7, cut out below it, with a point at vein 3, excurved at vein 2. Veins 3 + 4 stalked, 5 almost normal.

**T. durbanica** *Hmps.* Body red-brown. Basal area of forewing greyish-white with a small red-brown *durbanica*. spot at the base of the wing at the costal margin. The rest of the wing red-brown with some dark brown scales. Traces of a brown interior and vertical median line. Cross-vein oblique, blackish-brown. Exterior line oblique, white as far as vein 6, then undulate, indistinct, oblique below vein 4. A submarginal row of black dots, excurved in the middle, a triangular greyish-white spot before it near the costal margin. Hindwing greyish-white at the base and costal margin, the rest more red-brown. An oblique dark brown median and exterior line, dark marginal spots near the anal angle. ♂ 26 mm. Natal.

## 7. Genus: **Eublemma** *Hbn.*

Proboscis normal, palpi thin, very erect. Antennae of ♂ ciliated. Forewing typically with a rounded apex, the distal margin uniformly bent. Veins 3 + 4 rarely stalked, 10 + 8 + 9 stalked. Hindwing: veins 3 + 4 also rarely stalked, 5 almost normal, from below the middle of the cross-vein. Type: *suava* *Hbn.* from Europe.

I. Forewing cut out below the apex, hindwing with 3 angles.

**E. leptinia** *Mab.* Body and forewing violettish red. Interior line indistinct, dark, edged white inside *leptinia*. at the costal margin, very convex towards the inner margin. The ring-macula is a white dot, the reniform macula is a black luna, with a white dot inside. A pale triangular spot close behind the cell from the costal margin to vein 4; continued as an undulate yellowish line. Black submarginal dots, edged white inside. Hindwing somewhat more whitish. A small round black discal spot, then a yellowish white undulate exterior line and submarginal spots as on the forewing. ♂ 16 mm. Madagascar.

II. Forewing produced at the apex, distal margin excurved in the middle. Hindwing rounded at the distal margin, veins 3 and 4 before the cell-angle.

**E. apicimacula** *Mab.* (= *truncata* *Hmps.*). ♀ body and forewing yellowish white and red-brown, *apicimacula*. brownish at the costal margin. Interior line with a black and white dot at the costal margin, then indistinct, red-brown, bent. An indistinct grey discal line. Median line red-brown, faded, obliquely outwards from the costal margin to the lower cell-angle, then incurved. Exterior line fine, brown, white outside, very obliquely outwards from the costal margin to vein 6, inwards as far as into the submedian fold. A red-brown spot behind it at the costal margin, with a white streak below. Submarginal line white, the margin behind it grey. Hindwing yellowish white, marginal area browner. ♂ whiter. A small white spot before the submarginal line below vein 7, a chocolate brown spot below it. 20 mm. East and South Africa, Madagascar.

III. Wings normally shaped, apex of forewing somewhat pointed, small foveae in the wing below veins 8 and 7 near the margin.

**E. trigramma** *Hmps.* (12 a). Body and forewing whitish brown, costal margin white almost to the *trigramma*. apex, distal margin of a bright red-brown. Interior and median lines brown, edged white, angled below the



costal margin, oblique, parallel. Exterior line from the apex obliquely inwards, submarginal line dark, punctiform. Hindwing creamy white, brown at the margin. ♂ 22 mm. Rhodesia, Mashona Land.

*orthogramma*. **E. orthogramma** Snell. Body and forewing pale reddish brown. Interior, median and exterior lines red-brown, oblique, parallel, the last edged white outside. Marginal area red-brown with traces of a whitish submarginal line. A small fiery red spot at the apex. Hindwing purely white with a fine brown exterior line at the inner margin. The ♀ hindwing is brownish ochreous with dark dots at the apex. 18 mm. Sierra Leone.

*quadrilineata*. **E. quadrilineata** Moore (12 a). Body and forewing pale reddish brown, somewhat lighter at the costal margin, darker behind the submarginal line. The 3 transverse lines white, edged fadedly darker inside, the third has a somewhat longer side-piece at the costal margin. Submarginal line bent outwards at the apex, strong, then less intense, slightly excurved in the middle of the wing. Hindwing whitish ochreous, darker at the margin, traces of a dark exterior line. 16—18 mm. East Africa. Distributed across India to the New Hebrides.

*baccalix*. **E. baccalix** Swinh. (= *fasciosa* Moore) (12 a). Thorax and forewing pale red-brown, the costal margin whiter. The three lines whitish, oblique, the last excurved below the costal margin. Submarginal line fine, whitish, excurved in the middle and bright red-brown before it. Hindwing yellowish white, more reddish at the margin. The ♀ hindwing is brown. 18—20 mm. South and East Africa, also in India.

IV. Forewing of ♂ with a small scaled spot at the costal margin behind the middle.

*melanodonta*. **E. melanodonta** Hmps. (12 a). Body and forewing brownish white, the veins partly whiter. Distal margin reddish-yellow. A fine black radial streak in the white cell extends to the spot at the cross-vein. Behind this vein begins the very oblique red-brown exterior line, ending at  $\frac{1}{3}$  inner margin. Reddish-yellow marginal spots with black triangles inside. Hindwing very pale greyish-brown. Fringes of both wings very long. ♂ 26 mm. Transvaal, Betchuana Land.

*foedosa*. **E. foedosa** Guen. (12 b). Body brownish white. Forewing white with a reddish-brown tint. Costal-marginal area white at the base, cell white. A fine black streak in the base of the submedian fold. A black spot in the centre of the cell, a black streak extends from the cross-vein outwards. Marginal area somewhat more reddish. The blackish-brown marginal line is cut by the white veins. A dark oblique patch at the apex, a white streak above it. Hindwing almost purely white. The specimens before me exhibit a brownish white forewing and cell: — ab. **foedosana** Strd. 18 mm. South and East Africa.

*leucodicranon*. **E. leucodicranon** Grünbg. (12 b) (= *flaviceps* Hmps.). Body light brown. Forewing somewhat darker. Rusty yellow in the costal-marginal area and at the base at the inner margin, the edge at the costal margin white. Besides are white: the lower cell-margin, veins 2 and 3, the greatest part of veins 6 and 7, an oblique apical blotch, and the marginal line in both wings. Hindwing as pale as the body. ♂ 19 mm. South and South-West Africa. Both names are of the same year, but *leucodicranon* is older.

*fulvitermina*. **E. fulvitermina** Hmps. (12 b). Body and forewing yellowish white, costal margin orange. Traces of an oblique reddish-yellow median line from behind the cell to the inner margin, and of an exterior line, extra-angular below the costal margin almost to the submarginal line, then oblique to the inner margin. An oblique dark shadow at the apex with an adjoining reddish-yellow submarginal line and a reddish-yellow marginal line. Hindwing almost purely white, browner at the margin. ♂ 20 mm. South Africa.

*punctilinea*. **E. punctilinea** Hmps. (12 b). Body light pinkish brown. Wings greyish-white, slightly dusted black according to the description, but pinkish-brown in the figure. Interior line indistinct, dark, undulate. A faded black luna at the cross-vein, and above it a streak to the costal margin. Exterior line fine, notched, somewhat concave behind the cell. A row of black dots before and at the margin. Hindwing with a median row of black dots and a notched exterior line. Likewise 2 rows of dots at the margin. ♂ 18 mm. Cape Colony.

*goniogramma*. **E. goniogramma** Hmps. (12 b). Body greyish-brown. Forewing reddish yellow, darker brown in the cell and behind the exterior line towards the apex. Costal margin whiter as far as the exterior line which is black, intensely white outside, very obliquely outwards as far as vein 6, where it meets a black and white streak from the apex, then obliquely inwards as far as the middle of vein 1. A black submarginal spot in the submedian fold. Small white marginal dots. Hindwing orange, fringe white. ♂ 22 mm. Transvaal.

*stictilinea*. **E. stictilinea** Hmps. (12 b). Body and wings whitish greyish-brown. Costal margin narrow lighter as far as the exterior line. Interior line marked by a few obliquely placed black dots. A black centre-dot in the cell. Median line, absent in the original figure, finely dentate, indistinct, excurved at vein 4. Exterior line distinct, strongly excurved behind the cell. Marginal line reddish brown. Hindwing somewhat lighter. ♂ 16 to 19 mm. Cape Colony, Betchuana Land.

V. Forewing of ♂ normal.

*eupetecica*. **E. eupetecica** Hmps. (12 b). Body and forewing greyish-brown. Interior line dark, proceeding from a spot at the costal margin, incurved below the cell. Median line with a spot at the costal margin, then extra-angular at the lower cell-angle and continued vertically. Exterior line black, with 2 inward points and 3 out-



ward bows. Submarginal line fine, black, notched. Hindwing browner with indistinct median and exterior lines. Both wings with a black marginal line. ♀ 15 mm. Transvaal.

**E. melasema** *Hmps.* Body brownish white, wings more reddish. Interior line vertical, dark, undulate, with one black dot each at the costal margin, in the centre of the cell, and at the cross-vein. Median line indistinct, dark, excurved behind the cell. Exterior and submarginal lines the same. Hindwing likewise with indistinct lines between the centre and the margin. ♀ 16 mm. Nigeria. *melasema.*

**E. porphyrescens** *Hmps.* Body and forewing pale violettish-brown. Interior line undulate, reddish-brown, with a black spot at the costal margin. An indistinct reddish-brown spot in the centre of the cell. Reniform macula narrow, faded, reddish brown. Median line with a black spot at the costal margin, excurved behind the cell, undulate below it. Exterior line corresponding to the interior line. Submarginal line black, somewhat dentate, edged red-brown inside, blackish outside. Hindwing whitish, blackish and reddish between veins 1 and 4, with an indistinct dentate submarginal line, blackish-brown behind it, except at the anal angle. ♂ 16 mm. Nigeria. *porphyrescens.*

**E. quinaria** *Moore* (12 b). Thorax and forewing red-brown, abdomen and hindwing somewhat lighter. Interior, median and exterior lines dark-brown, beginning with a spot at the costal margin, projecting distally at the median vein, edged white outside. Submarginal line white, notched, blackish behind it. Hindwing with traces of median, exterior and submarginal lines from the inner margin to the centre of the wing. Both wings with black marginal streaks. In — **orientis** *Strd.* the lines on the forewing are more intensely red-brown, on the hindwing only the median line and a spot below vein 4 before the submarginal line. 20 mm. East Africa, distributed also in India. *quinaria.* *orientis.*

**E. pyrosticta** *Jcann.* (12 b). Body and forewing blackish brown. The base as far as behind the interior line whiter, also behind the exterior line from the discal fold to the interior margin. Interior line brown, irregularly undulated. Reniform macula indistinctly edged black. Median line excurved behind the cell, indistinct. Exterior line double, filled with white, broader at the costal margin, obliquely outwards as far as vein 6, then undulated. Behind it a fiery red streak below vein 7. Submarginal line bordered outside by black spots, introangular behind the cell. Fringe brown with a white line. Hindwing brown, blackish at the margin with a white undulate submarginal line from vein 3 to the inner margin. ♀ 22 mm. Réunion. *pyrosticta.*

**E. thermosticta** *Hmps.* (12 c). Body and forewing reddish brown, the lines dark brown. Interior line bent obliquely inwards. Two streaks at the cross-vein, the interior one concave to the base, the exterior one convex. Median line excurved behind the cell, then obliquely inwards. Exterior line double, bent. Submarginal line black, notched, a dark shadow before it at the costal margin, and 2 pale reddish yellow dots in the middle, black marginal lunae. Hindwing greyish-brown, traces of an exterior and a submarginal line in the inner-marginal area, bordered with whitish ochreous inside. Black streaks at the margin. ♂ 20 mm. Transvaal. *thermosticta.*

**E. snelleni** *Wallgrn.* (= *aethiops* *Dist.*) (12 c). Very similar to *thermosticta*. Interior line more straightly inwards, not bent. A black dot in the middle of the cell. Exterior line bordered with white outside, introangular in the submedian fold (not so in the original figure). Submarginal and marginal lines as in *thermosticta*. The remainders of the lines on the hindwing are broken up into spots, reddish yellow before the submarginal row, lighter at the costal margin. — Sometimes the forewing is paler: — **pallidior** *Strd.* — Or the centre of the wing is more intensely red-brown, the interior and exterior lines more distinct: — **discirufa** *Strd.* 20—24 mm. South and East Africa. *snelleni.* *pallidior.* *discirufa.*

**E. postrufa** *Hmps.* Body blackish brown. Forewing pale violettish red-brown, basal area tinged with grey. Interior line black, thicker at the costal margin, undulate, obliquely inwards. Red-brown scales in the middle of the cell. Reniform macula faded red-brown, narrow. Median line red-brown, with a black spot at the costal margin, excurved behind the cell, undulate below it. Exterior line like the interior one, edged grey outside, bent inwards in the submedian fold, the surroundings red-brown. Submarginal line black, dentate, red-brown behind it, blackish only at the apex, anal angle, and in the middle. Hindwing white in the basal area, with a black exterior line, marginal area red-brown, the dark submarginal line dentate. ♂ 20 mm. East Africa. *postrufa.*

**E. atrimedia** *Hmps.* Body and forewing blackish violettish-grey, the median area blackish. Interior line black, undulate. A black dot in the middle of the cell, a streak at the end. Median line as in *postrufa*. Exterior line black, all the 3 lines with a spot at the costal margin. Submarginal line black, dentate behind the cell, edged grey inside. Hindwing blackish violettish-grey, 2 black streaks at vein 2. ♂ 24 mm. Nigeria. *atrimedia.*

**E. tritonica** *Hmps.* (12 c). Body and wings pale reddish brown. Interior line of forewing black, edged darker red-brown outside, forming 3 distal bows, vertical. A black luna at the cross-vein, traversed by the faded dark red-brown median band. Exterior line black, dentate, concave behind the cell and in the submedian fold, submarginal line absent. Hindwing somewhat lighter with 2 faded dark bands. ♀ 35 mm. Mashona Land. *tritonica.*

**E. misturata** *Hmps.* (12 c). Body dark brown. Forewing violettish greyish-brown, greyer at the base and in the marginal area. Interior line dark, bent inwards, somewhat faded. Two black streaks at the cross-



vein. Median band faded, close behind the cell. Exterior line black, distally angled at veins 6 and 3, bent inwards towards the costal and inner margins, submarginal line black, edged grey inside, with a small reddish ochreous luna in the middle, black marginal lunae behind it. Hindwing dark brown with 2 blackish lines. ♀ 20 mm. Uganda.

*sciaphora*. **E. sciaphora** Hmps. (12 c). Body brownish white. Forewing pale reddish yellow. Interior line composed of 3 black spots. Reniform macula finely edged brown, narrow, concave in the middle. Median line proceeding from a black spot at the costal margin, then indistinct, undulate, vertical. Exterior line blackish, forming a large bow from the costal margin into the submedian fold, then in a little bow to the inner margin. Submarginal line blackish, more dentate below the costal margin. Hindwing brownish white with the usual 2 darker lines. ♂ 18 mm. Sierra Leone.

*phaeapera*. **E. phaeapera** Hmps. (12 c). Body and forewing greyish-brown. Interior line blackish, broader at the costal margin, somewhat obliquely inwards, angled inwards at vein 1. The ring-macula is a brown dot, the reniform macula brown with a white centre, S-shaped. Median line thick at the costal margin, blackish, then brown, notched, encircling the cell. Exterior line black, outwards as far as vein 3, then introangular in the submedian fold, a similar line behind it. Submarginal line fine white, dentate, with black spots outside in the dark apical area, dark brown below it. Hindwing dark reddish brown, with the usual lines. ♂ 20 mm. Nigeria.

*anticalis*. **E. anticalis** Wkr. (12 c). Body brownish white. Forewing pale reddish brown. Interior line represented by a black spot at the costal margin and a black streak below it, adjoining to a red-brown line, all finely edged white. Cross-vein with a small red-brown spot and a black streak above it to the costal margin. A red-brown line from the lower cell-angle to the inner margin. Traces of 2 red-brown lines behind the cell. Exterior line thickened at the costal margin, black, excurved as far as behind the cell, edged white, then continued white, introangular in the submedian fold, with black dots inside. Submarginal line white, undulate, dark outside as far as the brown marginal line. Hindwing whitish, pale red-brown from the middle of the cell to the submedian fold, with 2 rows of black dots and a light submarginal line, black marginal dots. ♂ 22 mm. Natal.

*rufimixta*. **E. rufimixta** Hmps. Body and forewing dark greyish-brown, more intensely dusted red-brown in the median area, and a spot in the centre of the postmedian area. Interior line blackish-brown, undulate, beginning with a spot at the costal margin. A fine red-brown dot in the middle of the cell. An 8-shaped spot at the cross-vein shows 2 white centres, the median line begins at the costal margin with a black spot, then red-brown, undulate below the cell. Exterior line black, edged white outside, bent inwards behind the cell and in the submedian fold. Submarginal line also black, edged white outside, notched, a red-brown spot before it above vein 6, black marginal lunae. Hindwing dark greyish-brown, blackish-brown at the margin, the submedian fold pale. Black dots above the centre of the inner margin. Traces of dark, exterior and submarginal lines. Sometimes the thorax and the forewing as far as the exterior line are very bright red-brown. 20—24 mm. Central and East Africa.

*decora*. **E. decora** Wkr. (12 d). Body brownish ochreous. Forewing pinkish flesh-coloured. Interior line black, double, notched, vertical. The ring-macula is a brown dot, the reniform macula finely edged with red, red-brown between them. A dark line from the lower cell-angle to the inner margin. Exterior line black, finely edged with white outside, concave behind the cell, from vein 2 vertically to the inner margin. Submarginal line fine black, undulate, with reddish lunae inside. Black lunae at the margin. Hindwing dark brown, the base and costal margin paler, with a few rows of black dots in the distal half, not extending to the costal margin. Flesh-coloured dots before the marginal row. 22—26 mm. Congo, South and East Africa.

*rubripuncta*. **E. rubripuncta** Hmps. (12 d). Thorax dark brown, abdomen brownish ochreous. Forewing dark brown. Interior line indistinct, blackish, double, slightly edged whitish ochreous outside. The ring-macula is a parted black ring. The reniform macula a black luna with an orange red streak behind it on a whitish ochreous spot as far as the costal margin. An oblique undulate black median line from the lower cell-angle with an orange red spot before it in the submedian fold. Exterior line black, finely edged white outside, extra-angular at vein 6, excurved at the lower cell-angle, then inwards. Submarginal line black, undulate, edged whitish ochreous inside except at the costal margin. Marginal line black with whitish ochreous lunae inside. Hindwing whitish ochreous, the margin dark brown as far as vein 2. Rows of black dots from the inner margin to vein 4, except in the submedian fold. 22—24 mm. East Africa.

*stygiodontia*. **E. stygiodontia** Hmps. (12 d). Body and forewing pale reddish brown. Interior line black, undulate, thicker at the costal margin, a black shadow before it. A black cellular dot and double streak at the cross-vein. Median line thicker at the costal margin, then fine, excurved behind the cell. Exterior line black, oblique as far as vein 6, incurved behind the cell. Submarginal line black, red-brown inside, dentate. Hindwing pale reddish brown, an exterior row of black dots on the veins, a dentate submarginal line. The figure differs still more from the description than in *rubripuncta*. ♀ 28 mm. West Africa.

*thermochroa*. **E. thermochroa** Hmps. (12 d). Body and forewing reddish ochreous. Interior and median lines black, dentate, the latter with a dark shadow behind it. Exterior line with 2 angles behind the cell, then bent in-



wards. Submarginal line whitish, faded brown inside with a few black streaks in the anterior part. Blackish behind it as far as the margin. Hindwing lighter reddish brown, with a fine dark marginal line. ♀ 24 mm. Cape Colony.

**E. flavinia** *Hmps.* (12 d). Thorax light red-brown, abdomen orange. Forewing reddish ochreous. Interior line red-brown, faded, double at the costal margin. A dark streak in the middle of the cell, a luna at the cross-vein. A dark median line with dark dusting behind it, from the costal margin to below the cell, bent. Exterior line double, filled with grey, introangular at the lower cell-angle, excurved above and below it, then vertical to the inner margin. Submarginal line of white lunae, bordered with faded red-brown inside, outside with a faded red-brown line. Hindwing pale orange, the veins partly somewhat red. The ♀ shows a more intensely red-brown abdomen and hindwing, the forewing is silvery violet, much darker. 24—28 mm. Transvaal.

**E. stygiochroa** *Hmps.* (12 d). Body and wings blackish-brown. The black interior line is hardly discernible. Median line white, slightly bent inwards at the costal margin. Exterior line black, somewhat undulate, also very indistinct, a white dot behind it at the costal margin. Fringe thickly white at the apex. The white median line on the hindwing is slightly concave, slightly bent basad at the inner margin. One white spot each in the discal and submedian folds. ♀ 20 mm. Transvaal. The specimen from Dar es Salam, which was used for the figure, is somewhat different. The median line on the forewing is quite straight, and the fringe of the hindwing is white at the apex.

**E. bolinia** *Hmps.* (12 e). Body and forewing reddish brown, especially the basal and marginal areas. Interior line brown, undulate, straight, a black streak before it in the cell. Median line red-brown, edged white outside, bent inwards at the costal margin, faded inside. Exterior line also white outside, undulate, straight, bent inwards at the costal margin. Submarginal line white, indistinctly bordered with dark inside. Hindwing blackish brown, lighter at the base. A light bent interior line, a dark median line and a bent exterior line, both faded, behind the latter a white dot at the costal margin, besides 2 white dots as in *stygiochroa*, 20—22 mm. South Africa. A specimen from Natal, agreeing well with the description, has an expanse of only 12 mm.

**E. reussi** *sp. n.* (12 e) is very similar to *bolinia*. The median line is scarcely bent inwards at the costal margin, traces of a flav at the lower cell-margin. Interior line of hindwing straight, thick, purely white, extending in front to the middle of the cell, the white dot at the costal margin is absent, the 2 spots are present. ♂ 14 mm. Dar Es Salam. Type in the Berlin Museum.

**E. leucozona** *Hmps.* (12 e). Body and forewing olive brown. Interior line black, vertical, dentate, edged lighter inside. Darker behind it as far as the median line. The latter in the middle of the wing, deeper than in *reussi* and somewhat more angled. Behind it lighter as far as the exterior line which forms 3 bows towards the margin. Submarginal line faintly marked, darker before it, somewhat lighter behind it. Hindwing blackish, browner at the costal margin, with a conspicuous white median line which is excurved in the middle. Near the costal margin a white submarginal spot from which a line parallel to the median line proceeds, but which is much less distinct or absent. 12—16 mm. East Africa.

**E. hypozonata** *Hmps.* (12 e). Thorax red-brown, abdomen blackish. Forewing dull reddish-brown. Interior band bent inwards, whitish, indistinct, narrower at the inner margin. Faded black spots behind it in the cell and submedian fold. Traces of a bent median line and behind it traces of a white band before the indistinct exterior line. Submarginal line marked by a darkening before it, behind the cell. Hindwing dark brown, lighter at the base. Fringe white at the apex, behind the cell and the submedian fold. ♂ 20 mm. East Africa.

**E. leucanitis** *Hmps.* (12 e). Thorax and forewing dark red-brown. Interior line black, dentate, vertical, similar to *leucozona*. The median line exhibits beside the angle of *leucozona* another angle in the submedian fold; very dark before it, lightest behind it as far as the undulate black exterior line. Behind the latter at the costal margin a white dot and light edging, submarginal line hardly discernible, apex white. Hindwing just as dark, with 2 vertical black median lines, edged light outside, slightly bent inwards at the inner margin. Exterior line bent outwards in the middle, more so than the median line in *leucozona*, also edged light outside. ♀ 26 mm. Cape Colony.

**E. dissoluta** *Rothsch.* is allied to the palaearctic species *syrtsensis* *Hmps.* and *suava* *Hbn.* (Vol. III, p. 262 and pl. 51 c, n). Body creamy white. Forewing somewhat more yellow. The broad median band somewhat darker, edged brown. A double exterior band is somewhat darker than the ground. Between the apex and vein 6 there are three dark brown spots, some small ones below them. Hindwing creamy white with traces of 2 reddish lines. The ♀ shows a greyer body. Forewing pinkish-brown in the basal half, with a dark band in the centre and at the margin. Distal half paler, more Isabel-coloured yellow. Exterior line grey, undulate, indistinct. Submarginal band brown, faded. Hindwing broadly brown at the margin. 30—35 mm. North Nigeria.

**E. bipars** *nom. nov.* (= *bipartita* *Rothsch.* nec *Hmps.*). Thorax white, abdomen greyish-red. Forewing purely white in the basal half, yellowish rusty brown outside. A small white triangle in it from the costal margin, fringe also white. Hindwing creamy white, browner outside. ♀ 18 mm. North Nigeria.



*perkeo*. **E. perkeo** *Rothsch.* Very similar to a small *arcuinna* *Hbn.* from the palaearctic region. Body pale greyish brown. Forewing lighter and darker smoky brown in the basal half. Distal half whitish grey, clouded brownish-grey. Hindwing blackish, lighter at the base and margin, with a white median line. ♂ 11 mm. North Nigeria. — *Eu. parva* *Hbn.* (Vol. III, p. 263, pl. 51 d) and *griseola* *Ersch.* (Vol. III, p. 269, pl. 51 m) were likewise found in the same district.

*chlorochroa*. **E. chlorochroa** *Hmps.* Thorax olive brown, abdomen brownish ochreous. Forewing pale olive green. A stripe below the costal margin, not reaching the base and apex, whitish ochreous, with a branch towards the anal angle at the base of vein 2. A whitish interior and median line hardly discernible. A fine black dot in the cell. Exterior line of black dots, hardly recognizable. Submarginal dots black, a diffuse white spot above the anal angle. Hindwing of ♂ white, of ♀ dark brown. 26—30 mm. East Africa.

*olivacea*. **E. olivacea** *Wkr.* (= *nebulifera* *Wkr.*, *admota* *Fldr.*) (12 e). Thorax olive green, abdomen brownish ochreous green. Forewing brownish white. The basal area with an olive green spot as far as the median vein and beyond the middle of the inner margin, narrowing down outwards at some distance below vein 2 as far as near the anal angle. A similar spot at the distal margin, bordered from the apex obliquely inwards as far as vein 5, then protruding in a lobe almost to the base of vein 2 and to the margin at vein 1. Costal margin also more or less olive green. Black dots of an exterior and a submarginal line are often present. 4 or 5 light lines above the inner margin, often continued in the dark costal-marginal area. Hindwing of ♂ white, of ♀ dark. 20—25 mm. Throughout West, South and East Africa, besides in India.

*reducta*. **E. reducta** *Btl.* (12 e). Body and forewing lighter or darker brown or reddish brown. A light dentate interior line may be present, as well as an exterior dark one from the costal margin obliquely outwards as far as behind the cell. A black luna at the cross-vein, from which a dark green band proceeds, at first bent downwards, then to the apex. In its bow, behind the cell, a rusty red spot. 2 or 3 black submarginal dots below the apex. Hindwing of ♂ white, of ♀ dark. 15—18 mm. East Africa.

*bipartita*. **E. bipartita** *Hmps.* (12 e). Body yellowish white. Forewing white at the base, dark red-brown in the middle, dark bluish-grey at the margin. A few black dots near the base. The median line, the border of the white area obliquely outwards to the lower cell-angle, forming a dent there, then vertical to the inner margin. 1 or 2 black spots in the dark area in front. Exterior line only distinct at the costal margin, black inside, white inside, forming a large bow as far as the submedian fold. Submarginal line dentate, white, forming 2 bows the apices of which touch the exterior line, with black dots near the apex. White dots at the margin. Hindwing white with 2 brownish lines, the margin brownish. 18 mm. Transvaal.

*leucomelana*. **E. leucomelana** *Hmps.* (12 f). Body creamy white like the base of the forewing, the rest reddish brown, almost black. A few black dots in the basal area. The dark median line is excurved in the middle with a small point at the median vein. A black streak at the cross-vein. Exterior line obliquely outwards at the costal margin, with a white streak outside, bent outwards in the centre of the wing, inwards in the submedian fold. Submarginal line indistinct, with brown spots inside and black dots outside, with an inward point behind the cell and in the submedian fold. Fringe reddish yellow. Hindwing creamy white, marginal area brownish, fringe lighter. 16—18 mm. Cape Colony.

*griseofimbriata*. **E. griseofimbriata** *n. sp.* (12 f) resembles *leucomelana*. The partition line between the basal and distal areas on the forewing is more rectilinear, somewhat obliquely outwards, so that the white basal part at the inner margin is longer than the dark distal part. The white spot at the costal margin is larger and a little more basal. Exterior line as well as the area as far as the median line red-brown, parallel to the median line, darker red-brown spots in this area. Violetish-brown behind it as far as the margin. Submarginal line irregularly dentate from near the apex, bent inwards in the submedian fold, with a darker brown shadow inside. Marginal line white, fringe grey, cut by white. Hindwing as in *leucomelana*. ♂ 17 mm. Transvaal. Type in the Berlin Museum.

*staudingeri*. **E. staudingeri** *Wallgrn.* (= *pretoriae* *Dist.*) (12 f). Body and forewing reddish ochreous brown. A fine black streak in the submedian fold. A similar one in the cell extends to the black discal spot in the faded median band which is extra-angular at the lower cell-angle. A black spot close behind it at the costal margin. Submarginal line white, with an inward point behind the cell, on both sides with an adjoining bow, black inward sagittal lines before it. A red spot at the apex. Hindwing brownish, traces of a dark median line. ♀: body and wings darker brown. 20—24 mm. Niger, Mashona Land, South Africa.

*nigrivitta*. **E. nigrivitta** *Hmps.* (12 f). Body and forewing pale reddish ochreous brown. Interior line black, dentate, obliquely inwards. A black dot in the middle of the cell, a streak at the cross-vein. Median line black, bent outwards as far as behind the lower cell-angle, slightly concave in the middle of the cross-vein, an inward bow in the submedian fold. From it to the interior line, the ground-colour is somewhat darker. Exterior line parallel to the median line, dentate, with white dots at the veins, a grey shadow behind it. Submarginal line



light brown, dentate. Hindwing brownish ochreous, lighter towards the costal margin, dark at vein 1, with 4 darker brown lines from the centre of the wing to the inner margin. Sometimes the basal area of the forewing is dark brown: *basifusca* Strd. 22—24 mm. Cape Colony.

**E. albicosta** Hmps. (12 f). Body reddish yellow. Forewing yellow and fiery red, costal margin white, *albicosta*. the lines reddish. The interior, median and exterior lines are parallel, bent inwards towards the costal margin and in the submedian fold; slightly concave in the centre of the cell. A submarginal row of black dots and a red marginal line. Hindwing coloured like forewing, with traces of a red median and exterior line, as well as a row of black dots behind them. ♂ 16 mm. West Africa.

**E. pyrochroa** Hmps. Thorax pinkish white, abdomen more fiery red. Forewing pinkish violet, white *pyrochroa*. at the costal margin, marginal area fiery red, except at the costal margin. Interior line fiery red, indistinct, excurved in the submedian fold; median line the same, excurved behind the cell; exterior line excurved as far as vein 4, edged white outside. Hindwing pinkish violet, lighter at the base, marginal area fiery red, costal margin white like the inner margin. Two red lines from the centre of the wing to the inner margin, black dots behind them. Both wings with a white marginal line. The wings of the ♀ are more intensely fiery red, only the base of the forewing and the costal margin in both wings remaining white. The ground-colour may also differ and be red-brown, only the costal-margin of the forewing remaining white. 20—22 mm. West and Central Africa.

**E. proleuca** Hmps. (12 f). Body red-brown. Wings hemochrome, finely striated brown. Costal and *proleuca*. distal margins of forewing brownish ochreous. The interior line is represented by a dark dot at the costal margin and by a faded curved red line below the cell. A white oblique streak at the cross-vein. Median line, similar to the interior line, excurved behind the cell. Exterior line faded, red, excurved as far as vein 4, ending at the anal angle. Marginal line brown, fringe with dark dots. Hindwing with 2 faded red lines. ♀ 12 mm. Nigeria.

**E. albifascia** Hmps. (12 f). Body and wings violettish reddish. Costal margin of forewing narrowly *albifascia* white. Interior line fine, dark, directed outwardly at the median vein, inwardly at vein 1. A dark spot at the cross-vein. Median line excurved behind the cell. Exterior line excurved as far as vein 4 and above the inner margin, concave between them. Black submarginal dots. All this marking very faded. Hindwing with traces of a median and exterior line. ♂ 28 mm. Gold Coast, East Africa.

**E. flavicosta** Hmps. (12 f). Body and wings chocolate-brown. Forewing yellow at the costal margin. *flavicosta*. The transverse lines brown, the interior, median and exterior ones parallel, vertical, undulate. Submarginal line excurved at vein 7 and in the middle. Hindwing with 2 or 3 indistinct transverse lines. Fringe with a white line at the base in both wings. ♀ 23 mm. Transvaal.

**E. atrifusa** Hmps. (12 g). Thorax orange, abdomen dark brown. Forewing yellow, somewhat reddish *atrifusa*. outside at the costal margin, with black lines. Interior line interrupted below the costal margin, then notched, vertical. Median line with a wide oblique convexity around the black discal dot. Exterior line just as oblique at the costal margin, with an inward point behind the cell, then undulate, parallel to the margin. Submarginal line in front composed of spots, from the middle as a dentate line. Hindwing yellow, dusted blackish except at the margin, with 3 faded undulate dark transverse lines and submarginal spots. ♀ 20 mm. Gold Coast.

**E. ochrochroa** Hmps. (12 g). Body and forewing brownish ochreous, somewhat reddish, especially at *ochrochroa*. the apex. Interior and median lines dark, obliquely inwards, parallel to the distal margin. A black streak at the cross-vein and a blackish brown diffuse spot behind it. Exterior line fine, somewhat more curved. A submarginal row of black dots. Hindwing ochreous. Traces of an exterior and a submarginal line. ♂ 16 mm. Sierra Leone.

**E. minuta** Hmps. (12 g). Thorax and forewing dark brownish ochreous, costal margin reddish yellow. *minuta*. Interior line dark, obliquely inwards below the cell. A faded black spot at the cross-vein. Median line extending behind this spot. Exterior line very obliquely excurved as far as vein 4, nearing the median line at the inner margin. Marginal line black. Hindwing yellowish white. ♂ 10 mm. East Africa.

**E. apicata** Dist. (= *acrochiona* Mab.) (12 g). Body and wings pale ochreous, the marking blackish *apicata*. brown, traces of a curved interior line. Behind it 1 spot each in the cell and at the cross-vein. Traces of a median line behind the cell. Exterior line oblique as far as vein 6, then undulately inwards. Submarginal line composed of white dots, black spots before it below veins 7, 6 and 2. Hindwing dark in the distal half. ♀: thorax and forewing from reddish brown to blackish brown. Hardly any marking. A large white spot at the apex, a small one above the anal angle, few white dots between them. Hindwing scarcely lighter at the base, fringe white at the apex. 18—24 mm. South and East Africa.

**E. eremochroa** Poult. (12 g). Body and forewing reddish ochreous. Traces of a red-brown undulate *eremochroa*. interior line. Sometimes fine black dots in the cell and at the cross-vein. Traces of a red-brown median line, outwards as far as the cross-vein, then inwards, sometimes with black scales. Submarginal shadow red-brown, parallel to the distal margin, white dots at it. Black dots at the margin, a larger one in the submedian fold.



Hindwing almost white, with traces of a red-brown exterior line, a marginal row of black dots. The ♀ is more intensely red-brown. 18—22 mm. Somali Land.

*nyctichroa*. **E. nyctichroa** *Hmps.* (12 g). Body and wings blackish-brown. Forewing with very indistinct double interior and exterior lines, a blackish median shadow. Submarginal line just as indistinct. Both wings with a fine white marginal line. ♀ 18 mm. Abyssinia, East Africa.

*carneo-*  
*tincla*. **E. carneotincta** *Hmps.* Thorax whitish, wings and abdomen pinkish brown. Forewing with traces of a punctiform black interior line, extra-angular below the costal margin, then inwards. A faded black discal spot and a smaller one before it. Median line very obliquely outwards as far as behind the upper cell-angle, obliquely inwards below vein 4. Exterior line of black dots, just as strongly excurved. Black submarginal and marginal dots. Hindwing somewhat lighter at the costal margin. Traces of an exterior and a submarginal row of dots. ♂ 18—20 mm. Sierra Leone.

*apici-*  
*puncta*. **E. apicipuncta** *Saalm.* (12 g). Thorax yellowish greyish white, abdomen greyish-brown. Forewing reddish grey. Median band olive grey, a few black dots before it. Besides 2 black dots in the cell and 2 at the cross-vein. Exterior band also olive grey, excurved behind the cell, a blackish spot at the apex. Hindwing brownish white, marginal area reddish grey. 11—14 mm. Madagascar, Sierra Leone.

*albivena*. **E. albivena** *Hmps.* (12 g). Thorax and forewing greyish-brown, the veins white, marking blackish-brown. Interior line bent inwards in the cell, outwards at vein 1. A small spot in the cell, a luna at the cross-vein, both finely edged white. Median line excurved as far as vein 4, vertical from vein 2. Exterior line excurved as far as vein 6, then parallel to the distal margin, slightly concave at vein 2. Submarginal line fine white, somewhat undulate. Hindwing yellowish, browner at the margin, traces of an exterior line. ♀ with much darker hindwings. — The lines on the forewing may also be thick and black and the marginal area blackish  
*nigritinea*. = **nigritinea** *Strd.* 28—32 mm. Uganda, South Africa. — **pallesceus** *Le Cerf* differs in its light greyish-yellow  
*pallesceus*. ground-colour and less distinct marking, especially at the margin. East Africa. — **titanica** *Hmps.* differs in  
*titanica*. the absence of the cellular spot of the forewing. The exterior line extends somewhat more steeply to the inner margin than in *albivena*. Our figure shows a medium shape of this line.

*seminivea*. **E. seminivea** *Hmps.* (12 h). Body and basal half of forewing purely white. Marginal half hemochrome. A few black dots at the costal margin at the base. The white area is bordered by a fine vertical black line which is finely extra-angular in the centre of the cell and in the submedian fold. A white spot at the costal margin near the apex. Traces of a white submarginal line. Hindwing white, brownish at the margin. 14 mm. East Africa, also in India.

*hemichiona*. **E. hemichiona** *Hmps.* resembles *seminivea*. Body and base of wing the same, the dots at the costal margin black and red-brown. Median line black, also with 2 slight angles. Behind it a dark brown band with a fiery red spot at the costal and inner margins, bordered outside by an undulate black line with a white spot behind it at the costal margin and red-brown spots behind the cell-angles. Submarginal line white, bordered with violettish brown inside, undulate, a black spot behind it below the costal margin, and black dots above the inner margin. Distal margin violettish-grey with red-brown dots. Hindwing white, brownish at the margin except at the anal angle. Fringe white in both wings. ♂ 20 mm. Central Africa.

*anachoresis*. **E. anachoresis** *Wllgrn.* (= *accedens* *Fld.*, *divisa* *Mr.*, *leonata* *Btl.*) (12 h). Body and base of forewing yellow. Marginal area violettish-red, faded red-brown before the submarginal line, somewhat pink in the base of the cell, fine black dots above it at the costal margin. The yellow basal area bordered by a somewhat oblique black and white line. Exterior line brown, excurved towards vein 7, incurved in the discal and submedian folds, outwards between them. The space before it more or less pink. Submarginal line white, very near to the margin, somewhat pink behind it. Hindwing ochreous, brownish at the margin. 12—14 mm. Throughout Africa to India and Australia.

*dichroma*. **E. dichroma** *Rbl.* is somewhat like *anachoresis* *Wllgrn.* from India and West Africa. Antennae of ♂ shortly ciliated. Body yellowish grey. Forewing yellowish-brown as far as two thirds of its length. Marginal band chestnut brown, sharply obliquely cut off inside. The ground-colour before it is strigiformly purer yellow. Hindwing brownish grey, somewhat lighter at the base. ♂ 11—13 mm. Sokotra.

*sperans*. **E. sperans** *Fld.* (12 h) resembles a large *anachoresis*. Body brownish ochreous, the base of the forewing the same, the border-line black, straight, somewhat inwards. Behind it yellow as far as the median line, corresponding to *anachoresis*. Exterior line more distinct, submarginal line not different. Hindwing reddish brown.  
*natalensis*. — In **natalensis** *Strd.* the wings are more intensely reddish brown. One specimen from the Cape Colony, which we figure, is without the dark base of the forewing. 16 mm. Cape Colony, Natal.

*perobliqua*. **E. perobliqua** *Hmps.* (12 h). Body and base of forewing reddish yellow, the median area dark violettish-brown, lighter behind the submarginal line. Median line red-brown inside, black outside, very oblique, straight.



Exterior line very indistinctly undulate, near the median line as in *anachoresis*. Submarginal line white, straight, proceeding from the apex. Hindwing reddish yellow, traces of a light submarginal line at the anal angle. ♂ 20 mm. East Africa.

**E. acarodes** *Swinh.* (12 h). Thorax white, abdomen brownish. Forewing whitish ochreous. The space from the median line to the submarginal line dark pink, extending at the apex and anal angle to the margin. Median line red-brown, very oblique, straight. Exterior line very fine, white, obliquely outwards at the costal margin, then very obliquely inwards. Submarginal line marked by black dots edged white inside from the costal margin to behind the cell, and by an oblique black streak with a dentate black spot before it in the submedian fold. Margin olive brown. The figure shows the submarginal line only as a white double spot in the submedian fold. Hindwing white, browner at the margin. 14—16 mm. Angola, South Africa.

**E. flavibasis** *Hmps.* Body pale red-brown. Basal area of forewing yellow, somewhat reddish-yellow at the costal and inner margins. Median line black, finely white inside, undulate, defining the basal area. Dark red behind it. An oblique whitish submarginal line, with fine black dots outside. Hindwing yellowish red-brown. ♀ 20 mm. East Africa.

**E. cochylioides** *Guen.* (= *rosita Guen.*, *phoenissa Led.*) (12 h). Body and forewing at the base pale greyish ochreous. The red-brown median line is thick, faded, very oblique. Behind it as far as the submarginal line pale pinkish brown. Exterior line fine, extending at vein 6 almost to the submarginal line, bent almost semicircularly in the submedian fold. Submarginal line composed of a few black-white dots near the apex and 2 white spots in the brown area near the anal angle, distal margin narrowly olive brown, before it, from the apex, a narrow triangle coloured like the base of the wing. — **calida** *Rbl.* is without the pink dusting. 14—18 mm. Canary Is., West and East Africa as far as Australia.

**E. lentirosea** *Hmps.* (12 h). Body whitish ochreous, forewing yellowish white. Median line thickly olive brown, finely white outside, oblique, beginning from below the costal margin, behind it somewhat pink outside at the costal margin, with pink streaks below vein 7. Exterior line pink, white outside, strongly ex-curved as in *cochylioides*. Submarginal line white, edged red-brown inside, not extending to the inner margin, a red spot before it in the submedian fold. Hindwing yellowish white, somewhat browner at the margin, fringe white. ♂ 16 mm. Transvaal.

**E. glaucizona** *Hmps.* (12 h). Thorax brownish ochreous, abdomen greyish brown. Forewing reddish brown in the basal area at the costal margin, greyish brown towards the inner margin. Interior line marked by a few dark scales. Median line rectilinear, oblique, white, broadly washed out red-brown inside. Exterior line yellow, red-brown outside, ex-curved below the costal margin, from veins 6—3 parallel to the distal margin, strongly incurved as far as the submedian fold. Before it at the costal margin a yellow spot as far as the median line, blackish below it, the rest grey, red-brown above it at the costal margin. Hindwing light brown. 18—20 mm. Cape Colony.

**E. postrosea** *n. sp.* (12 h) is allied to *roseana Moore* from India. Thorax and basal area of forewing pale yellow. Median line olive brown, thick, straight, faded at the costal margin. The faded border of the pink median area extends from the apex, parallel to the median line. A dark brown spot at the anal angle, growing narrower in front, the rest of the margin coloured like the base. Fringe brownish. Abdomen and hindwing pink. ♂ 14—15 mm. East Africa, Madagascar. Type in the Berlin Museum.

**E. ochrobasis** *Hmps.* (12 i). Body and base of forewing yellowish white. Median area blackish, marginal area red-brown. Median line red-brown, extra-angular below the costal margin, then rectilinear, obliquely inwards. Cross-vein finely black. Exterior line parallel to the interior line, lighter behind it. Submarginal line yellowish, faded red-brown before it. Hindwing yellowish, browner at the margin. 15—18 mm. Cape Colony.

**E. thermobasis** *Hmps.* (12 i). Body pale yellowish. Forewing ochreous at the base, more reddish distally as far as the fine black median line which is somewhat oblique, edged white outside. Grey behind it as far as the exterior line which is notched behind the cell, strongly incurved in the submedian fold, edged white outside. Submarginal line white, ending at vein 1 at the exterior line, brownish ochreous before it, grey behind it, a black spot at the apex. Hindwing white, slightly brownish at the margin. 10—12 mm. Aden.

**E. rivula** *Moore* (= *pusilla Btlr.*) (12 i). Body and base of forewing whitish ochreous. Median band olive brown, oblique, the white marginal line somewhat undulate. Two black dots at the cross-vein. Exterior line brownish ochreous, white outside, very S-shaped. A light brown spot in darker surroundings is behind it in the submedian fold. An oblique brown shadow from the apex, light before it at the costal margin, bordered outside by a light line. Hindwing greyish-white, browner at the margin. The median and marginal areas may also be redder, or more brownish ochreous from behind the middle, except at the costal margin, or finally the whole forewing may be suffused with brownish ochreous. 16—20 mm. South and East Africa, as far as Australia.

**E. exigua** *Wkr.* (= *nuga Snell.*, *parvula Mr.*). Judging from the figure of *nuga*, it differs from *rivula* in a somewhat steeper median line. The spot at the anal angle is light in brown surroundings. Sometimes the basal and postmedian areas are much darker except at the costal margin. 14—20 mm. West, South and East Africa, distributed as far as Tonkin.



*flavida*. **E. flavida** Hmps. Body whitish ochreous, forewing pale yellow. Median band oblique, brownish ochreous, somewhat faded inside. A black central dot. Exterior line brownish ochreous, pointedly extra-angular below the costal margin almost to the submarginal line, then very obliquely inwards. Submarginal line also brownish ochreous, proceeding from the apex, somewhat faded and undulate. Hindwing white, broadly pale brown at the margin. Fringe white. 16—18 mm. Cape Colony, Natal.

The 3 next species are much alike.

*ornatula*. **E. ornatula** Fldr. (12 i). Body brownish white, forewing white. Base at the costal margin pale clive brown. An olive brown median band behind it, narrower than the basal area. Then follows a stripe of the ground-colour, twice as broad in front, behind just as broad as the median band, though in front the exterior widening is feebly dusted brown. The centre of the wing with a strong white dentiform projection outwards. Marginal line olive brown, the distal third lighter, especially whitish at the apex, with black marginal dots. Hindwing brownish white, somewhat darker in the ♀. — **brunneo-suffusa** Strd. shows the white places on the forewing more or less brownish. 14—16 mm. South and East Africa.

*odontophora*. **E. odontophora** Hmps. (12 i). Body white. Forewing white. Median band from reddish brown to blackish brown. The following white band is narrower than the brown one, with a feeble angle outside below the costal margin, with a small outward projection in the centre of the wing. Marginal area uniformly dark without a brightening. Hindwing brownish white. The ♀ exhibits a brown body and hindwing, the fringe being also somewhat darker. 12—14 mm. Sokotra, East Africa.

*bifasciata*. **E. bifasciata** Moore (12 i) almost exactly resembles a faded *odontophora*. The brown median band and the following white one are almost equally broad; fringe relatively lighter. Nigeria, East Africa as far as India.

*sabia*. **E. sabia** Fldr. (12 i). Body and forewing whitish ochreous. Median line black, somewhat extra-angular below the costal margin, then undulate to  $\frac{2}{5}$  inner margin. A black dot in the middle of the cell. Exterior line of black streaks, incurved at the costal margin, excurved in the middle, greyish brown between the two lines. Submarginal line white, close behind the exterior one. Hindwing whitish ochreous, darker at the margin. ♂ 20 mm. Cape Colony.

*mesophaea*. **E. mesophaea** Hmps. (12 i). Body and forewing greyish brown. Interior line dark, slightly incurved to the inner margin, rather indistinct. Median line white, indistinctly bordered with dark brown inside, bent obliquely inwards. Exterior line fine brown, bent from the costal margin to behind the middle of the cell, where it forms a small angle, somewhat excurved below it, incurved in the submedian fold. Submarginal line white, from the apex, almost straight, darker brown before it, especially at the apex. Hindwing brownish white. ♀: the band before the median line is broader, the hindwing darker. 16—18 mm. Natal, Transvaal.

*delicata*. **E. delicata** Fld. (12 i). Body brownish. Basal area of forewing brownish. Interior line black, edged white outside, undulate, excurved in the cell. The space as far as the exterior line grey. A black dot at the cross-vein. Exterior line black, edged white outside, with a feeble inward point behind the cell, forming a bow above and below it, then straight to the inner margin. Marginal area brown as far as the undulate white submarginal line, a dark brown spot before it below the costal margin. Grey behind the line. Hindwing greyish-white, darker in the ♀. 12—14 mm. Cape Colony. The figured specimen from South-West Africa is more intensely red-brown, but it is somewhat like that figured by FELDER. — **delicatula** Strd. are specimens, which are less red on the forewing (as HAMPSON denotes the ground-colour).

*therma*. **E. therma** Hmps. (12 i) is very similar to *delicata*. A black cellular dot and 2 dots at the cross-vein. Thorax and forewing dark red-brown. The median line projects in two notches, and is somewhat more curved than in *delicata*. The area behind it is browner, not so grey. Exterior line more intensely white at the costal margin, but otherwise similar. Hindwing dark also in the ♂. It is probably only a form of *delicata*. 12—16 mm. South-West, South and East Africa.

*minima*. **E. minima** Guen. (= *pennula* Fld.) (13 a). The species is distributed in North and South America and described from there, *pennula* Fld. is described from Cape Colony and looks different on the figure, but according to HAMPSON it is the same species. Body whitish ochreous. Forewing pale ochreous. Median band oblique, brown, faded inside, undulate on the outside, a faded brown spot before it at the costal margin. Two black dots at the cross-vein. Exterior line white, with 2 angles in front, submarginal line white, broader at the costal margin and enclosing a black dot, a triangular spot behind it in the submedian fold, and some dots above it. Hindwing white, slightly brownish at the margin. 14—18 mm. Cape Colony.

*mesozona*. **E. mesozona** Hmps. Body and forewing creamy white, the costal margin at the base blackish. Interior line absent. Median line black, extra-angular in the cell-end, then undulate, nearing the exterior line, brown between them. Cross-vein creamy white, 1 black dot each at the angles. Exterior line blackish, introangular at the upper cell-angle. Submarginal line brown, undulate, whitish before it at the costal margin. Hindwing creamy white and brown, black marginal lunae. ♀: forewing quite brown, interior and exterior lines browner, more separated. Hindwing also browner. 24 mm. Gold Coast.



**E. scitula** *Rbr.* is widely distributed in Africa, also in India. As it occurs also in Southern Europe, *scitula*, it has been dealt with in Vol. III, p. 262 and pl. 51 d (by the generic name of *Coccidiphaga* *Spul.*).

**E. scituloides** *Rbl.* is allied to *scitula* *Rbr.* which occurs also in the Sudan. Forewing with a much less *scituloides*, distinct violettish-grey and brown median band than in *scitula*. A brown stripe at the costal margin at the base. The deep black median streak of *scitula* as well as the rusty red colouring of the marginal line below the apex are absent here. ♀ 13 mm. Sudan.

**E. flavescens** *Hmps.* Body and forewing yellowish white. Interior line white, indistinct, slightly undulate. Median area more yellow, except at the costal margin, the median line forming its outer edge, bent inwards behind the cell and in the submedian fold. Behind it broadly white, diffuse. An oblique black streak at the cross-vein. Exterior line absent, traces of a white submarginal line. Hindwing yellowish white, brownish white at the margin. ♂ 18 mm. Central Africa.

**E. lacteicosta** *Hmps.* (13 a). Thorax and costal margin of forewing white, the rest of the body and wings pale red-brown. Lines darker brown. Interior line bent inwards, indistinct. Median and exterior lines parallel, bent inwards at the costal margin, behind the cell and at vein 2. A white luna at the cross-vein. Submarginal dots black, white inside. Hindwing with traces of a median line. Fringe more red in both wings. ♂ 18—19 mm. Nigeria, Cameroons.

**E. brachygonia** *Hmps.* Body and wings pale reddish yellow. Forewing with traces of a dark interior line beginning with a black dot at the costal margin. Besides black dots in the middle of the cell and at the cross-vein. Median line dark, edged white outside, sharply extra-angular as far as behind the cell, then obliquely inwards. Exterior line obliquely outwards as far as vein 7, then indistinct, undulate, inwards. Traces of a white submarginal line, two black dots below it below the costal margin, a small red dot at the apex. Hindwing with a dark median line, edged white outside, and a punctiform exterior line. Traces of a submarginal line. 18 mm. Sierra Leone, Nigeria, besides in Ceylon.

**E. versicolora** *Wlk.* (= *rubricosa* *Snell.*, *angulifera* *Moore*). Body and wings reddish yellow. Forewing with a few black dots at the base. Interior line marked by a black oblique streak at the costal margin. A black dot at the cross-vein. Median line red-brown, very strongly extra-angular below the costal margin almost to the exterior line, then inwards. Exterior line red-brown, extra-angular below the costal margin, where it meets a blackish shadow from the apex, indistinctly continued, bent inwards below vein 4. Hindwing with a red-brown median line, not extending to the costal margin. Exterior line indistinct, undulate, only near the inner margin. Both wings with black submarginal dots. Some specimens are paler, whitish ochreous: — **purpureo-cinerea** *Strd.* — In **purpurascens** *Strd.* the body and wings are suffused with reddish violet. 18—28 mm. Mashona Land, besides from India and Australia.

**E. aurantiaca** *Hmps.* is somewhat similar to *brachygonia*. Body reddish ochreous, wings orange red. Some black dots at the base of the forewing. Interior line marked by a black streak at the costal margin and a dot below it, then an oblique red-brown line from the cell to the inner margin. Black dots in the middle of the cell and at the cross-vein. Median line red-brown as in *brachygonia*, extending almost to the exterior line. Exterior line with a diffuse spot from the apex as in *versicolora*, continued below it by a row of black dots. Hindwing as in *versicolora*. ♂ 18 mm. Gold Coast.

**E. daphoena** *Hmps.* Body greyish-brown, forewing reddish brown with darker brown lines. Interior line extra-angular below the costal margin and a little in the submedian fold. A brown streak at the cross-vein. Median line widely extra-angular behind the upper cell-angle. Exterior line angled at vein 6 and a little at vein 4, then both lines parallel inwards. Costal margin red at the apex with some yellow dots. A black oblique streak from the apex. Traces of a white submarginal line. Hindwing brownish white. Traces of brown exterior and submarginal lines. ♂ 20 mm. Transvaal.

**E. albivia** *Hmps.* Body reddish brown. Forewing red-brown, dotted white and brown. Costal margin as far as behind the centre and the interior line whitish, oblique, bent. A small black discal spot. Median line red-brown, white outside, extra-angular at vein 6 almost to the apex and connected with a streak from the apex. Exterior line black, very oblique to the apical streak, then white, undulate, with black dots, nearing the median line. Submarginal line fine, whitish, undulate, ending at the anal angle. Margin blackish. Hindwing of the same ground-colour. A red-brown spot behind the cell, an oblique white median line, exterior line fine, whitish, dentate, with black streaks at the veins. ♂ 22 mm. Gold Coast.

**E. roseocincta** *Hmps.* (13 a). Body pale red-brown. Forewing olive brown in the middle. Costal margin white as far as beyond the middle, broadly pink below it and at the distal margin. Exterior line double, beginning at the costal margin with two oblique red-brown streaks, then indistinct, olive green. Exterior line with white dots from the costal margin to vein 4, then obliquely to the inner margin before the middle. Two black dots and a white oblique streak at the apex. Hindwing white, somewhat pink at the inner and distal margins. ♂ 15 mm. East Africa.



- heterogramma*. **E. heterogramma** Mab. (13 a). Thorax white, abdomen somewhat brownish. Forewing silvery white with a black spot at the apex. A fine red-brown line from near the apex to the inner margin near the base, and another line from the apex, more bent, to  $\frac{2}{3}$  inner margin. Black dots at the margin. Hindwing reddish brown. ♀ 30 mm. Congo.
- basialbida*. **E. ragusana** Frr. occurring in Europe, Africa and Australia has been dealt with already in Vol. III, p. 266 and pl. 51 g. — Beside the typical form another: — **basialbida** Strd. occurs in Africa, showing a whiter basal half of the forewing. An oblique brown shadow from the apex extends along the inside of the double exterior line to the inner margin. Hindwing whiter. Gold Coast.
- melabasis*. **E. melabasis** Hmps. Body and forewing brownish white. Basal area dusted blackish as far as the inwardly bent black interior line. A black ring at the cross-vein, a dot above it at the costal margin. Exterior line black, very obliquely outwards, above vein 4 almost to the margin, then indistinct. An oblique black apical streak, extra-angular at vein 7. Black dots before the middle of the distal margin. Hindwing brownish white. Two black dots near the anal angle. ♂ 18 mm. Nigeria.
- costimacula*. **E. costimacula** Saalm. (= *plagiopera* Hmps.) (13 a). Body and forewing olive brown. A distinct white line in the cell before the interior line which is forked at the costal margin, slightly incurved at the inner margin. The exterior line forms a semicircle at the costal margin, the exterior part of which is less distinct and frayed out, meeting the fine submarginal line at vein 3. The latter line fine and indistinct, darker before it, dark also at the anal angle. Hindwing whitish with a dark marginal band in the ♀. 15—20 mm. South, Central and East Africa, Madagascar.
- brunneifusa*. **E. brunneifusa** n. sp. (13 a) is somewhat like *ignefusa* Hmps. from Singapore. Thorax yellowish brown, abdomen dark brown. Forewing light olive brown at the base as far as a little behind the interior line which is dark, double, vertical, somewhat inwards in the cell and at vein 1. A blackish double streak is marked at the cross-vein, obliquely inwards towards the costal margin. Exterior line fine, white, also semicircularly forked at the costal margin around a dark spot, but here the interior branch is more faded, darker, then indistinctly continued to vein 4 outwards and vertically to the anal angle. Rusty yellow behind it at the apex with a few black dots. Hindwing brownish, lighter at the base. ♂ 20 mm. Cameroons. Type in the Berlin Museum.
- ecthaemata*. **E. ecthaemata** Hmps. Thorax white, abdomen brownish (but vice-versa in the original figure). Forewing white with small black dots near the base. A triangular dark red-brown spot before the exterior line, enclosing the reniform macula, metallic blue inside, black outside. Exterior line fine, double, filled with white, excurved as far as vein 4, somewhat inwards at vein 2, with a black streak below it inside, and a red-brown spot behind it at the costal margin. Submarginal line marked by a brown shadow outside. Hindwing white with indistinct brown exterior and submarginal lines, pink behind them. In the ♂ the spots before and behind the exterior line are hemochrome, the reniform macula red inside. 16 mm. Arabia, Natal.
- flaviciliata*. **E. flaviciliata** Hmps. (13 a). Thorax white, abdomen somewhat yellowish. Forewing yellowish white, more greyish yellow at the margin. Two oblique dark orange streaks from the costal margin behind the middle. A deep black short streak from the apex, edged white outside. Fringe orange with a white basal line. Hindwing and fringe yellowish white. 17—20 mm. Nigeria, Togo.
- plumbosa*. **E. plumbosa** Hmps. (13 a). Thorax and forewing lead-coloured grey, the last third of the costal margin orange. Only one oblique orange exterior line, edged white outside, extending to vein 7, where it is bent round in a single specimen before me and parallel to the margin rectilinear to the inner margin. Fringe orange. Hindwing pale yellowish, darker below at the costal margin. 18—20 mm. South and East Africa.
- monotona*. **E. monotona** Le Cerf. Similar to *plumbosa*, but larger, more uniformly coloured. Forewing light grey, with a very fine yellow line at the costal margin, fringe greyish yellow. Hindwing somewhat lighter than forewing, fringe yellow. Body grey. ♀ 20 mm. East Africa.
- xanthocraspis*. **E. xanthocraspis** Hmps. (13 b). Thorax and forewing blackish grey, finely dusted silvery white, broadly yellow at the costal margin, where two short black streaks indicate the beginnings of two white exterior lines which hardly recognizably extend to the inner margin, where they are more separated. A white spot at the apex with two black dots. Hindwing pale yellow. ♂ 20 mm. East Africa.
- colla*. **E. colla** Schaus. Body greyish white. Forewing light grey, paler at the costal margin, a small black spot at the apex, edged white inside, fringe yellowish. Hindwing yellowish white. 18 mm. Sierra Leone. Probably only a badly marked *plumbosa*.
- flavistriata*. **E. flavistriata** Hmps. (13 b). Body and wings pale yellowish white. A fine black dot at the cross-vein. In the exterior half at the costal margin there are 3 oblique dark orange streaks followed by two hardly discernible exterior lines. A black streak from the apex, submarginal dots black, with an orange marginal line. Hindwing without any marking. 18—20 mm. East Africa.



**E. pyrastis** *Hmps.* (13 b). Thorax white, abdomen browner. Forewing fiery red, paler at the inner margin. A few small brown spots at the costal margin at the base. Traces of a dark cross-vein and a brown median band. Black submarginal dots, with a white line outside. Hindwing pale brown. — Specimens with less distinctly red forewings are called: — **pyrastodes** *Strd.* 18—20 mm. Transvaal.

*E. griseola* *Ersch.* (cf. Vol. III, p. 269 and pl. 51 m) occurs also in North Nigeria.

**E. exanimis** *Hmps.* Body pale red-brown. Forewing silvery white, pale red-brown in the basal half, and a similarly coloured submarginal shadow from the apex obliquely inwards with some black adjacent scales from the costal margin to vein 6, and a short black streak behind the cell. Hindwing silvery white, pale red-brown at the costal margin at the beginning and end. ♂ 16 mm. Central Africa.

**E. ochricosta** *Poult.* (13 b). Thorax greyish-brown, abdomen whitish ochreous. Forewing brown, broadly brownish ochreous at the costal margin. Black dots in the cell-end and at the cross-vein, a white streak between them. Fine white internerval streaks also at the margin. Hindwing whitish ochreous. ♀ 18 mm. Somali Land.

**E. arenostrota** *Poult.* (13 b). Body and forewing pale greyish brown, faded brownish ochreous at the median vein and above vein 2 as far as the greyish-brown submarginal shadow. Costal margin white, brown dots around the cross-vein and at the margin. Hindwing greyish-white. ♂ 20 mm. Somali Land.

**E. psamathea** *Hmps.* (13 b). Body and forewing pale whitish ochreous, some black scales in the cell-end, and a submarginal row of black dots. Hindwing still paler. ♂ 16 mm. East Africa.

**E. uninotata** *Hmps.* (13 b). Thorax white, abdomen whitish ochreous. Forewing pale brown with a black spot at the cross-vein and an adjoining faded streak. Somewhat oblong black spots behind the cell and in the submedian fold. Hindwing creamy white. 24—30 mm. South Africa.

**E. caniceps** *Rbl.* Head grey. Body and forewing light yellow, a black dot at the lower cell-angle. Exterior line blackish, faded, punctiform. Hindwing light yellowish-grey. Veins in both wings somewhat dark. ♂ 17 mm. Sudan.

**E. penicillata** *Hmps.* (13 b). Thorax whitish ochreous, abdomen somewhat more reddish. Forewing brownish ochreous with a black spot at the cross-vein. From the apex a brown faded oblique shadow, and black dots at the margin. Hindwing greyish-brown at the margin, brownish ochreous at the base. The ♀ is more intensely brown, only the veins pale, darker on the hindwing. 22 mm. South Africa.

**E. chionophlebia** *Hmps.* (= *albivena* *Hmps.*) (13 c). Body whitish ochreous, somewhat darker on the forewing, only the veins white, marginal line fine brown. Hindwing somewhat lighter, also with a brown marginal line. Fringe white. ♀ 20 mm. Transvaal.

**E. leuconeura** *Hmps.* (13 c) can be described as a dark *chionophlebia*. The darker forewing has a white costal margin. ♀ 20 mm. Cape Colony.

**E. conistrota** *Hmps.* An Indian species occurring also in Somali Land. Similar to *chionophlebia*. Forewing besides with a radial stripe of black scales through the centre of the cell and in the submedian fold, black scales also at the margin. ♀ darker. 20—28 mm. Somali Land.

**E. bulla** *Swinh.* This Indian species is to be described as a *chionophlebia* without light veins on the forewing. 1 ♂ taken in North Nigeria.

Regarding the position of the following species, their authors have not mentioned anything, they may therefore be appended here.

**E. brunneosa** *B.-Bak.* Body cinnamon-brown like the basal third of the forewing, bordered by a vertical velvety brown band, reniform macula blackish-brown. Behind it the fine pale grey exterior line, the interior angle of which is filled with cinnamon-brown. Behind it reddish brown to the margin, enclosing a fine grey undulate submarginal line. Hindwing brown, darker at the margin. ♀ 18 mm. East Africa.

**E. bicolora** *B.-Bak.* Body and forewing brownish ochreous. Median area broad, irregular, brown, with a pale reniform macula behind which there is a brown triangular spot at the costal margin. Hindwing dark grey. ♂ 18 mm. East Africa.

**E. crenularia** *B.-Bak.* Body pale brownish ochreous. Forewing greyish ochreous with a greyish-red marking. Interior line pale, very undulate, a similar median line, both ending at the lower edge of the cell. Exterior line strongly excurved, very undulate. The reniform macula is an indistinct spot, the spaces between the veins somewhat grey. Apical area pale grey, with 4 dark stripes at the costal margin. Hindwing greyish-brown. ♂ 19 mm. Portuguese West Africa.

**E. basi plagata** *B.-Bak.* Body dull brown. Forewing close at the base greyish-brown, bordered by a dark line. From there as far as behind the cell dark brown, sharply obliquely cut off. Pale brown behind it. Traces of a dark diffuse spot in the cell, reniform macula the same. Hindwing greyish-brown. ♂ 22 mm. West Africa.



- nyctopa*. **E. nyctopa** B.-Bak. Body smoky grey. Forewing smoky brown, a double dark line at the base, D-shaped. Median line fine, dark, with 2 angles, close behind it a similar line. Margin finely dark. Hindwing pale grey. ♂ 20 mm. Angola.
- scotopis*. **E. scotopis** B.-Bak. Body and forewing dark brown, especially the basal half. Exterior half at first greyer, then again very dark towards the margin. Fringe pale grey. Hindwing dark, similarly divided as the forewing. 28 mm. Lokoja.
- nigribasis*. **E. nigribasis** B.-Bak. Body dark brown. Forewing blackish-brown in the basal third, the distal two thirds creamy white, spotted dark at the margin. Hindwing dark grey. ♂ 20 mm. Portuguese West Africa.
- insignifica*. **E. insignifica** Rothsch. Body greyish-white. Forewing whitish, the distal third more olive grey, the basal third reddish yellow. The double exterior band yellowish-brown, edged white outside. Hindwing pale red-brown, greyish brown in the marginal third, the two areas separated by a white undulate line. ♂ 20 mm. Madagascar.
- tephroclytioides*. **E. tephroclytioides** Rothsch. Thorax dull pink, abdomen ash-grey. Forewing dull pink, the basal half dusted somewhat black and bluish grey, only the base below the median vein is white. The marginal half below vein 2 is black mixed with bluish grey, more narrowly so at the margin as far as vein 5, then widened at the costal margin almost to the centre of the wing. Two black spots in the middle of the costal margin, and some pinkish brown undulate lines through the centre of the wing. Hindwing mouse-coloured grey, some dark spots at the anal angle, pink spots in the centre of the wing. ♀ 20 mm. Madagascar.
- subrufula*. **E. subrufula** Rothsch. Thorax pinkish grey, abdomen rusty red. Forewing dingy white, dusted greyish red. Interior line indistinct, dentate, pale olive brown. Median band of the same colour, broader, oblique, white outside. Exterior and marginal lines connected at the apex, white. Another indistinct dentate olive brown line behind the median band. A black spot at the apex. Hindwing reddish yellow. ♀ 18 mm. Madagascar.
- rufocastanea*. **E. rufocastanea** Rothsch. Thorax nut-brown, abdomen more yellow. Forewing nut-brown and pink. Interior, median and submarginal lines pale yellow, notched. The median line double, enclosing the reniform macula, chocolate brown spots before it, a similar one behind the reniform macula. Marginal line brown and yellow. Hindwing pinkish nut-brown. ♂ 18 mm. Madagascar.
- postrufa*. **E. postrufa** Rothsch. Body pale olive grey, dark cinnamon brown at the end. Forewing pale olive grey in the basal third, a smoky brown spot below the base of the cell. The rest chocolate brown, separated from the basal area by a broader darker band. Besides a similar apical spot. Hindwing light red-brown. ♂ 18 mm. Madagascar.

#### 8. Genus: **Eublemmara** B.-Bak.

Palpi densely scaled, very erect. Antennae finely ciliated. Proboscis stunted. Forewing: veins 3—5 close together, 6 and 7 from the cell. 8 + 9 from the apex of the areole, 10 from its anterior edge. Hindwing: vein 5 arises close above the cell-angle, 3 and 4 as well as 6 and 7 from the lower and upper cell-angles.

- tandoana*. **E. tandoana** B.-Bak. Thorax blackish brown, abdomen paler. Forewing uniformly blackish brown with a single creamy white spot at the cell-end. Hindwing smoky grey. ♂ 18 mm. Angola.
- simplex*. **E. simplex** Rbl. Body and forewing light reddish grey, thorax somewhat whiter. Forewing with hardly any markings, a dark spot only at the cross-vein, and black scales before the margin. Hindwing whitish at the base, brownish grey at the margin. ♂ 13 mm. Sokotra.
- ragusana*. **E. ragusana** Frr. Hitherto known from Europe to Australia. It occurs also in East Africa.

#### 9. Genus: **Pagetia** Prout.

Proboscis stunted, palpi short, antennae of ♂ ciliated. Forewing with a round apex, veins 7 + 8 + 9 + 10 stalked. Hindwing: veins 3 + 4 and 6 + 7 stalked.

- larentiodes*. **P. larentiodes** Prout (13 c). Very similar to a *Larentia*-species owing to the delicate shape and the scheme of markings. Forewing yellow with a dark red-brown base and median band, which are edged with black lines. Basal area straightly defined. Interior line dentate, uniformly bent. Cross-vein black. Exterior line very dentate, projecting behind the cell and at the inner margin. The light submarginal line with a black streak in the middle. Hindwing greyish-brown. ♂ 17—20 mm. South Africa.

#### 10. Genus: **Holocryptis** Lucas.

Proboscis normal. Palpi erect, thin, the third joint short. Antennae of ♂ laminated. Thorax with hair and scales, without tufts. Tibiae feebly scaled, the interior spurs long. Abdomen tuftless. Forewing with a rectangular apex. Veins 3—5 near the lower cell-angle, 6 below the upper angle, veins 7 + 8 + 9 stalked.



Hindwing cut out at the costal margin behind the middle. Veins 3 + 4 on a short stalk, 5 normally developed, little above the lower cell-angle. Type: *phasianura* Luc. from Queensland.

**H. permaculata** Hmps. (13 c). Body and forewing white, slightly brownish. A blackish-brown spot *permaculata* at the base below the cell. Interior line coloured the same, extra-angular in the cell and at vein 1, introangular between them. A black dot in the middle of the cell, a brown triangle at the cell-end. Exterior line dark, fine, projecting much at vein 4, with a brown lunar spot behind the cell. Submarginal line brown, faded, interrupted below the costal margin. A brown spot in the middle of the distal margin. Hindwing almost a copy of the forewing. 16—18 mm. Sierra Leone.

**H. erosides** Hmps. (13 c). Body and wings purely white. Two small brown spots at the base. Interior *erosides* line brown, notched, bent inwards at the costal and inner margins. A black dot in the middle of the cell. Exterior line brown, obliquely outwards from the middle of the costal margin, bent inwards below the cell, with a black dot outside at the costal margin. Submarginal line indistinct, a brown double line behind it. Hindwing with a large brown ring below the middle of the costal margin, with a black central dot. Submarginal line double, faded, not reaching to the inner margin. ♂ 18 mm. Natal.

**H. melanosticta** Hmps. (13 c). Body and wings white. Forewing with a brown median band beginning *melanosticta* below the costal margin, finely edged black outside, a black spot behind it at the inner margin. Submarginal line pale brown, excurved behind the cell, a black spot in the angle produced thereby, slightly excurved again at the inner margin. Black scales and streaks at the margin. Hindwing with a few pale brown spots in the anterior part. 12—16 mm. Sierra Leone, Niger District, East Africa.

**H. albida** Hmps. Body and wings white. Forewing with a black dot near the cell-end and small black *albida* submarginal dots at vein 5. Hindwing with a slight red-brown hue, indistinct bent exterior and marginal bands, both white. ♂ 12 mm. Gold Coast.

### 11. Genus: **Lophocryptis** Hmps.

Proboscis and palpi as in *Holocryptis*. Antennae of ♀ ciliated, thorax with scales, without tufts. Tibiae somewhat hairy, abdomen tuftless. Forewing slightly cut out below the rectangular apex, excurved at vein 4. Neuration of forewing as in *Holocryptis*, only vein 6 from the upper cell-angle, not below it. Hindwing with a long hair-pencil in the cell-end on the upper surface. Veins 3 and 4 from the cell-angle.

**L. argyrophora** Hmps. Body and wings creamy white. Forewing with a few black and silvery white *argyrophora* scales. Interior line fine, brownish ochreous, with convexities in and below the cell. An oblique brownish ochreous streak behind it at the costal margin. A similar one with silvery white scales at the cross-vein and a streak above it at the costal margin. A postmedian black and silvery dot above vein 5. Exterior line from the costal margin behind the middle excurved to the anal angle. Red-brown before it in the centre and in the space behind it. A silvery subapical spot, followed by a parted silvery line as far as vein 4 at the margin, silvery scales below it. Black streaks close at the margin. Hindwing with black scales at the base, black spots before the margin, a silvery marginal line. ♀ 18 mm. Gold Coast.

### 12. Genus: **Haemaphlebia** Hmps.

Proboscis normal. Palpi projecting far, the second joint with long hair below. Antennae of ♂ ciliated. Thorax with scales, tuftless, abdomen also tuftless. Forewing with a round apex. Vein 3 far before the lower cell-angle, 6 from the upper angle, 7 + 10 + 8 + 9 stalked. Hindwing: veins 3 + 4 stalked, 5 almost normally developed, arising a little below the middle of the cell. Type: *atripalpis* Hmps.

**H. atripalpis** Hmps. Body and wings whitish ochreous with brown and black scales. Forewing with *atripalpis* such scales especially on the veins in the discal area. Veins of marginal area somewhat red. Subbasal and interior lines fine, black, undulate. A small black luna at the cross-vein, a faded black spot above it at the costal margin, and one at the inner margin. Exterior line black, finely notched, uniformly bent, edged white outside. Blackish-brown behind it, radially interrupted white in the middle. Then 2 black undulate faded lines as far as the margin. Fringe parted by white. Hindwing with blackish-brown radial stripes and a white exterior line. ♂ 15 mm. Gold Coast.

**H. phaeomicta** Hmps. Wings somewhat undulate at the margins. Body and wings white, somewhat *phaeomicta* brownish. Subbasal and interior lines black, undulate. 2 faded dark brown median lines. Exterior line indistinct, dark, undulate, bent. A blackish-brown spot behind it between veins 3 and 5, and white and dark brown dots at the costal margin. Submarginal line white, undulate, with brown spots outside. Hindwing with an indistinct, double, black median line and a similar single exterior line. Submarginal line white, dark spots behind it. ♀ 22 mm. Central Africa.



13. Genus: **Lamprolopha** *Hmps.*

Proboscis normal. Palpi very erect. Antennae of ♂ ciliated. Abdomen with tufts except on the 2 basal segments. Forewing rounded at the apex. Veins 3—5 from the lower cell-angle, 6 from the upper angle, 7 + 8 + 9 stalked. Veins 3 and 4 of hindwing not stalked.

*melanonephra.*

**L. melanonephra** *Hmps.* Body brownish ochreous and greyish brown. Abdominal tufts silvery, situate on black spots. Wings similarly coloured as body. Forewing with an indistinct undulate brown interior line, the median line more distinct, with a black oblique streak from the costal margin. A small black luna at the cross-vein. Exterior line double, black, filled with white, oblique as far as vein 6, excurved between veins 4 and 2, incurved below it. Behind it black and white dots at the costal margin. Submarginal line greyish-brown, excurved at vein 7 and in the middle. Hindwing with a more red-brown marginal area. The cross-vein and the exterior line black, undulate. Submarginal line pale, undulate. Both wings with a parted black line at the margin. 15 mm. Gold Coast.

14. Genus: **Toana** *Wkr.*

Proboscis normal, palpi long, obliquely rising, the second joint with long hair above at the end. Antennae of the ♂ ciliated. Abdomen tuftless. Vein 3 of forewing more separated from 4 and 5, the other veins as in *Lamprolopha*. All the veins of the hindwing as in *Lamprolopha*. Type: *semiochralis* *Wlk.* from Borneo.

I. Metathorax with a recumbent tuft. Distal margin of forewing slightly cut out below the apex.

*craspedica.*

**T. craspedica** *Hmps.* (13 c). Body and wings yellowish white. Forewing with a black dentate interior line. A black luna at the cross-vein. Median shadow brownish, excurved around the cross-vein, from the submedian fold vertical to the inner margin, with black connecting streaks to the exterior line below the costal margin. Exterior line finely black, undulate, parallel to the median shadow, from vein 2 vertical to the inner margin. Submarginal line fine, black, with a black spot at the costal margin, concave behind the cell and in the submedian fold, broadly edged with brown inside. A large dark spot at the margin behind the cell. Hindwing with an oblique exterior row of black dots, a dark brown shadow at the margin, angled inwards. ♂ 18 mm. Gold Coast.

II. Metathorax without a tuft. Distal margin of forewing rounded.

*flaviceps.*

**T. flaviceps** *Hmps.* Body and forewing greyish brown with a small black dot at the lower and upper cell-angles. Hindwing greyish brown without any markings. 15 mm. East Africa.

*acidalica.*

**T. acidalica** *Hmps.* (13 c). Body and wings pale olive brown. Forewing with a few silvery scales. Interior line fine, black, strongly excurved below the cell. A black dot in the middle of the cell, and two at the cell-angles. Exterior line black, notched, excurved around the cell, from vein 4 vertical to the inner margin. Narrowly brown at the margin, with black marginal dots. Hindwing with silvery scales. A black luna at the cross-vein, traces of a bent exterior line, and a marginal shadow, with black marginal dots. ♀ 15 mm. Sierra Leone.

*nigrilineata.*

**T. nigrilineata** *Poult.* (13 c). Body and forewing pale greyish-brown. Interior line strong, black, somewhat excurved towards the submedian fold, then inwards. A feeble brown median line, slightly excurved behind the lower cell-angle, from vein 2 straight to the inner margin. Exterior line strong, black, close behind the median line, more undulate. A brown submarginal line is hardly traceable. Hindwing somewhat lighter. A black exterior line is more distinct only near the inner margin. Both wings with a black marginal line. ♀ 15 mm. Somaliland.

15. Genus: **Cerynea** *Wlk.*

Proboscis normal. Palpi long porrect, the second joint hairy. Antennae of ♂ ciliated. Thorax scaled, tuftless. Abdomen also tuftless. Forewing rather pointed at the apex. Veins 3—5 from the lower cell-angle, 6 from the upper cell-angle, 7 and 8 + 9 from the apex of the areole, 10 from its anterior edge. Veins 3 and 4 of hindwing from the same base or stalked. Anterior tibiae of ♂ widened and hollowed out, forming a double chamber, with a membrane between. Type: *omphisalis* *Wkr.* from Borneo.

I. ♂ with a hair-tuft between the antennae, bent backwards. Both wings more hairy at the base.

*rhodotrichia.*

**C. rhodotrichia** *Hmps.* Body and forewing reddish ochreous. Interior line indistinct, black, slightly bent. A black dot behind it in the cell, and two at the cell-angles. An indistinct dark line from the lower cell-angle to the inner margin. Exterior line strongly excurved below the costal margin, then black, notched, obliquely inwards, a slight shadow behind it. Submarginal line yellowish, indistinct, excurved at vein 7 and in the middle. Margin darker. Hindwing with a black central dot and 3 undulate black bent lines and a similar submarginal line. Margin dark. ♂ 22 mm. East Africa.



## II. Only the forewing more hairy at the base.

**C. ignealis** *Hmps.* (13 d). Body red-brown. Wings fiery red with black scales. Forewing narrowly *ignealis*. dark brown at the costal margin as well as at the distal margin behind the cell and at the anal angle. Interior line dark, extending somewhat inwards. A black dot behind it in the cell and two at the cross-vein, a dark diffuse spot before them. Exterior line black, straight, somewhat outwards, dentate, with white dots at the veins. From the lower cell-angle to vein 2 inwards, then straight to the inner margin. Hindwing with 2 black dots at the cross-vein. Exterior line finely black, dentate, with white dots, ending with a larger white dot at the inner margin. Both wings with black dots before the margin and with a black marginal line. ♂ 25 mm. East Africa.

**C. thermesialis** *Wkr.* (13 d). Body pale red-brown. Forewing brownish yellow, the marking darker *thermesialis*. red-brown. Interior line distally angled in the cell, indistinct. The 3 black dots as in *ignealis*. A brown median band, enclosing the cross-vein, with 2 angles behind it, broad in front, narrower behind. Exterior line black, notched, with white dots at the tips, followed behind by a brown band. Margin broad, dark, shaped as in *ignealis*, only the inward projections less strong. Hindwing chiefly red-brown, with a double dot at the cross-vein, the exterior line behind it as on the forewing, and a light submarginal line. Marginal dots as in *ignealis*. 19—22 mm. South and East Africa.

## III. Both wings of the ♂ more hairy at the base, without a hair-pencil between the antennae.

**C. trichobasis** *Hmps.* Body and wings pale ochreous red-brown, ♂ with a brown hair-tuft at the base *trichobasis*. at the inner margin of the forewing. Interior line dark, indistinct. The usual 3 black dots. Median line narrow, excurved around the cross-vein, then strongly inwards, from vein 2 vertical. Exterior line black, notched, the median line parallel, dark behind it. Then a light yellowish submarginal line. Margin as in *thermesialis*. Hindwing same as forewing. Sometimes both wings exhibit a browner marginal area: — **limbobrunnea** *Strd.* *limbobrunnea*. 18—20 mm. West Africa, Sudan.

## IV. Only the forewing of the ♂ very hairy at the base, without a hair-pencil between the antennae.

**C. endotrichalis** *Hmps.* Body dark brownish red. Wings also brownish red, somewhat more yellow. *endotrichalis*. Forewing with traces of a black interior line, with a black spot behind it in the cell and a black streak, edged yellow outside, at the cross-vein. Traces of a dark line from the lower cell-angle to the inner margin. Exterior line strongly notched, about parallel to the distal margin, with white dots at the veins. Behind it a yellow apical spot with red-brown scales. Hindwing with 2 black dots at the cross-vein, the exterior line as on the forewing, with more intense white spots towards the inner margin. 24—28 mm. South and East Africa. — **capensis**. *capensis* *Strd.* lacks the yellow apical spot on the forewing.

**C. albivitta** *Hmps.* Body and forewing greyish red-brown. Interior line of forewing fine, black, incurved *albivitta*. at vein 1, with a white dot at the costal margin. A round black spot at the cross-vein, with white and red-brown scales on it. Exterior line likewise black with a white dot at the costal margin below which it is strongly excurved, then finely dentate, with white dots at the veins and a white spot at vein 6, incurved below vein 3. Submarginal line pale, edged black outside as far as vein 4. Hindwing with a black streak at the cross-vein and from there a dark shadow to the inner margin. Exterior and submarginal lines coloured as on the forewing. Marginal line black in both wings, with black spots between the veins. ♀ 20 mm. Central Africa.

**C. flavibasalis** *Hmps.* (13 d). Thorax and anterior half of abdomen reddish yellow, the rest red-brown. *flavibasalis*. Wings dark red-brown. Basal area of forewing yellow, except at the costal margin. A bent dark interior line is traceable. Two black dots surrounded by yellow at the cross-vein. Exterior line fine black, strongly excurved below the costal margin, then punctiform, with white accessory dots, a stronger dot only at vein 6. An oblique yellow apical spot extends to vein 6. Hindwing likewise yellow at the base. Exterior line fine white, with black dots inside. Both wings with a black marginal line. ♀ 20 mm. Gold Coast.

## V. Both wings of the ♂ normal, tibiae not widened, not hollowed out, everything normal.

**C. flavicostata** *Holl.* (13 d). Body and wings blackish brown. Prothorax narrowly ochreous. Forewing *flavicostata*. with an ochreous band at the costal margin, growing narrower towards the apex. Traces of an exterior dark line parallel to the distal margin. Hindwing without markings. 24 mm. Gabun.

**C. fissilinea** *Hmps.* Body and forewing red-brown, a white spot at the frons. Forewing darker at the *fissilinea*. costal margin. Interior line straight, fine white. A black and white streak at the cross-vein, from which a straight oblique white line extends to the inner margin. Exterior line white, projecting far and pointedly below the costal margin, then inwardly convex to the inner margin; a branch from the apex to the distal margin. Submarginal line white, distinct only in the anterior part. Hindwing paler. Exterior line fine white, excurved from the costal margin to vein 4. Traces of a white submarginal line. ♂ 20 mm. Madagascar.

**C. porphyrea** *Hmps.* (13 d). Body and forewing olive brown. Traces of an interior line, obliquely in- *porphyrea*. wards, black. A fine black dot at the cross-vein. Exterior line black and oblique as far as vein 6, then finer,



whitish, edged brown inside, incurved below vein 4. Submarginal line of white dots, whitish behind it at the apex. Hindwing somewhat darker, with a black central dot. Exterior line fine white, edged brown on both sides, straight. Both wings with black marginal dots. ♂ 18 mm. Madagascar.

*digonia*. **C. digonia** Hmps. Body violettish red, orange at the end. Wings violettish-red with a few silvery scales. Forewing with a triangular yellow antemedian spot from the costal margin to a little below the cell. A similar spot outside the cell. Apex yellow, distal margin also somewhat yellowish. Hindwing with traces of a pale bent exterior line. Margin also yellowish. ♀ 15 mm. Niger District.

*virescens*. **C. virescens** Hmps. (13 d). Body white, somewhat brownish. Forewing pale greenish white. Interior line blackish as far as below the cell, introangular above vein 1. A black luna at the cross-vein. Exterior line projecting in two angles behind the cell and above vein 1. White dots behind it at the costal margin with a black streak between them. Submarginal line black, dentate, extending to behind the cell. Hindwing white. Brownish behind the dark central luna and the feeble exterior line. ♂ 18 mm. Cape Colony.

### 16. Genus: **Epicerynea** Hmps.

Proboscis stunted. Palpi highly erect, also the third joint long. Antennae of ♂ with long cilia. Thorax scaled, tuftless. Forewing with a rectangular apex. Vein 3 before the cell-angle, 6 below the upper angle, 7 + 8 + 9 + 10 stalked. Veins 3 and 4 of hindwing from the lower cell-angle, 6 and 7 from the upper one.

*goniosema*. **E. goniosema** Hmps. Body creamy white. Wings the same, with a slight pink tinge. Forewing brown at the base at the costal margin. A blackish-brown L-mark at the cross-vein, a similar triangle above it at the costal margin. Exterior line brownish, fine, oblique as far as vein 5, then vertical, edged white outside, beginning with a blackish-brown spot at the costal margin, and another similar triangular spot behind it. Hindwing also pink except at the base. A red-brown shadow from the lower cell-angle to the inner margin. Exterior line pale red-brown, white outside, bent. Both wings with dark submarginal and marginal streaks. ♂ 15 mm. Gold Coast.

### 17. Genus: **Lophoruza** Hmps.

Proboscis normal, palpi reaching the frons. Antennae of ♂ ciliated. Thorax scaled, abdomen with small dorsal tufts. Forewing with a rather pointed apex, the distal margin slightly undulate. Veins 3—5 from the lower cell-angle, 6 from the upper one, 7 and 8 + 9 from the apex of the areole, 10 from its anterior edge. Hindwing normal. Middle tibiae of ♂ very hairy on both sides. Type: *vacillatrix* Hmps. from India.

*lithina*. **L. lithina** Holl. (13 d). Thorax very light red-brown, abdomen dark red-brown, forewing dark red-brown, the costal margin broadly light. Two black dots at the cross-vein, from the lower one an oblique dark shadow extends to the inner margin. Exterior line white, notched, projecting far and pointedly at vein 6, then bent inwards and indistinct. Submarginal line white, extending to vein 4, edged black, light behind it like the costal margin. Then white marginal dots bordered with black inside. Hindwing as light at the base as the costal margin of the forewing, with 2 dark undulate transverse lines. Submarginal line of white dots only distinct in the anterior part. 20—24 mm. West, South and East Africa.

*longipalpis*. **L. longipalpis** Joan. (13 e) resembles a darkened *lithina* by a less light costal margin of the forewing. A double interior line and a median line beginning from the lower cell-angle, black, very oblique. Exterior line double, filled with white, as strongly extra-angular behind the cell as in *lithina*, and also above the inner margin outwards. Hindwing light also at the inner margin. Exterior line double, filled with white. A series of white submarginal spots. ♂ 22 mm. Mauritius.

### 18. Genus: **Oruza** Wkr.

Proboscis normal, palpi more or less highly erect. Antennae of ♂ ciliated. Thorax with scales without a tuft, abdomen tuftless. Tibiae normal, not very hairy, spurs long. Neuration as in *Lophoruza*. Type: *costata* Wkr. from India.

I. Palpi long and pointed, without hair; areole of forewing triangular.

*dolichognatha*. **O. dolichognatha** Hmps. Body very pale reddish brown. Forewing of the same colour as far as the middle and also at the costal margin as far as the apex. The rest of the median area greyish brown. The area behind the exterior line whiter, somewhat greyish-brown in the centre. Interior line fine, blackish, interrupted, incurved in the cell, then undulate. A black dot in the middle of the cell. Reniform macula white, black laterally, a black streak behind it. Exterior line blackish, slightly excurved below the costal margin and between veins 5 and 3, incurved above and below that place. Submarginal line white, edged greyish-brown outside, with black spots at vein 7 inside. A brown oblique shadow at the apex. Hindwing also reddish brown, greyer



in the anterior half. Exterior line undulate, dark red-brown, edged white outside, 2 indistinct brown lines before it. Traces of an undulate white submarginal line. ♀ 30 mm. Niger District.

II. Palpi less long, areole normal.

*O. divisa* Wkr. This small brown and white species has a range extending from West Africa across India, China to Japan and has therefore been dealt with already in Vol. III, p. 271 and pl. 51 k.

**O. latifera** Wkr. (= *costalis* Btlr., *discifascia* Holl.) (13 e). Thorax and anterior half of forewing greyish-white, abdomen and the rest of the wing reddish brown. Two black dots at the cross-vein. Exterior line horizontal at the costal margin, purely white, acutely angular at vein 6, then rectilinear, obliquely to the inner margin, in the second part edged dark inside. Submarginal line white, undulate, edged dark inside. Hindwing coloured corresponding to the forewing. A black streak at the cross-vein. A band behind it, edged white outside on both sides, then brown, and yellow in the middle, uniformly bent. Both wings with black marginal dots. 15—18 mm. West, South and East Africa. *latifera*.

*O. mira* Btlr. (= *pallicostata* Stgr.). This species occurring from West Africa to the Amur R. and Japan has been dealt with already in Vol. III, p. 272 and pl. 51 k.

**O. rupestre** Fryer (13 e) is quite different. Body and wings pale ochreous. Forewing with very oblique undulate pinkish-brown interior, exterior, and submarginal lines, the first of which is very indistinct. A black dot at the cross-vein and some at the submarginal line. Hindwing similar, a black spot in the middle of the inner margin. Both wings somewhat pink and with black dots at the margin. 28—30 mm. Seychelles Is. *rupestre*.

### 19. Genus: **Metasada** Hmps.

Proboscis normal, palpi erect, the second joint hairy at the end in front and behind, the third short. Antennae of ♂ ciliated. Thorax scaled, abdomen with a basal tuft. Forewing with a pointed apex. Accessory cell triangular, veins 7 and 10 + 8 + 9 from its apex. Hindwing normal. Type: *polycesta* Trnr. from Australia.

**M. fuliginaria** B.-Bak. Thorax and forewing dark red-brown. Interior and median bands irregular, broad, dark. Exterior line dark, notched, behind it an irregular dark submarginal shadow. A pale spot at the cell-end. Hindwing smoky grey. 20—24 mm. Portuguese West Africa. *fuliginaria*.

### 20. Genus: **Pseudocraspedia** Hmps.

Proboscis normal, palpi thin, erect. Antennae of ♂ somewhat laminated. Abdomen with small tufts. Forewing narrow. Veins 3 + 4 on a short stalk, 7 + 10 + 8 + 9 stalked. Veins 3 + 4 of hindwing on a short stalk, 5 feebly from the centre of the cross-vein, 6 + 7 stalked. Type: *punctata* Hmps.

**P. punctata** Hmps. Body red-brown, black tufts on the abdomen. Forewing red-brown with a grey reflection and small black dots. Exterior line from a black spot at the costal margin, continued brown and undulate to the inner margin. Black dots behind it at the costal margin. Submarginal line undulate, indistinct, marked by brown edges on both sides. Hindwing red-brown, with an indistinct undulate brown median and exterior line. Submarginal line as on the forewing. Both wings with black marginal dots. 14 mm. Uganda, India, Tonkin. *punctata*.

### 21. Genus: **Steganiodes** Hmps.

Proboscis, palpi and thorax as in the preceding genus. Abdomen only with a basal tuft. Forelegs of ♂ with long hair. Forewing rounded at the apex. Veins 3—5 close together, 6 below the upper cell-angle, 7 + 10 + 8 + 9 stalked. Hindwing with a very short cell, veins 3 and 4 from the lower cell-angle, 6 and 7 from the upper cell-angle, 5 almost normally strong, arising from below the centre of the cross-vein. Type: *mesophaea* Hmps.

**S. mesophaea** Hmps. Body yellow and red-brown. Wings yellow and fiery red. Costal margin of forewing and median area dark chocolate brown. Interior line dark brown, obliquely excurved, forming the inner margin of the median area. A yellow luna at the cross-vein. Exterior line brown, bordering on the median area, outwardly angled at the costal margin, at vein 4 and at the inner margin, bent inwards between. Submarginal line red-brown, double, extending at vein 3 to the margin, then bent to the anal angle. Hindwing with a red-brown spot at the cross-vein. Exterior line also red-brown, outwardly angled at vein 4 and at the inner margin, inwardly at vein 2. Submarginal line double, dentate, the veins behind it red-brown. ♂ 22 mm. Niger District. *mesophaea*.

### 22. Genus: **Lophocyttarra** Hmps.

Proboscis stunted. Palpi thin, erect. Antennae of ♂ ciliated. Abdomen without hair-tufts. Anterior and middle tibiae with long hair. Veins 3—5 of forewing from near the lower cell-angle, 6 from the upper one, 7—10 from the areole. A small hair-tuft in the centre of the cell and 2 at the cross-vein. Hindwing as in *Steganiodes*. Type: *phoenicoxantha* Hmps.



*phoenicoxantha*. **L. phoenicoxantha** *Hmps.* Body dark brownish red. Forewing yellow, base and costal margin dark red with silvery scales. Interior line indistinct, excurved, pink on a yellow ground. The 3 hair-tufts black with silvery scales. Pink around the cross-vein and on a band from there to the inner margin. Exterior line yellow, pink outside, excurved below the costal margin, incurved behind the cell and below vein 3. Submarginal line marked by a pink spot behind its middle. Hindwing pink with silvery scales, yellow at the margin. Interior, median and exterior lines faded, dark, bent. Both wings with pink dots at the margin. ♂ 20 mm. Natal.

*argyropasta*. **L. argyropasta** *Hmps.* Thorax dark red-brown, abdomen yellow, browner towards the base. Forewing yellow, base and costal margin dark brown with silvery scales as far as the submarginal line. Interior line oblique, red-brown, from the cell to the inner margin. Reniform macula dark brown with silvery scales, fused with the costal margin. Median line from a yellow streak at the costal margin, red-brown, with 2 angles behind the cell. Exterior line dark red-brown, dark brown outside, with silvery scales, excurved below the costal margin, faded below vein 3, incurved. Submarginal line faded red-brown. Hindwing yellow with red-brown lines. Interior and median lines united below the cell, exterior line faded, with silvery scales. Traces of a submarginal line. ♀ 20 mm. Central Africa.

### 23. Genus: **Chrysozonata** *Hmps.*

Proboscis stunted, palpi thin, erect, antennae of ♀ ciliated. Abdomen tuftless. Forewing with a double areole. Hindwing as in *Steganiodes*. Type: *purpurascens* *Hmps.*

*purpurascens*. **C. purpurascens** *Hmps.* Thorax dark grey with silvery scales; abdomen dark grey, pink at the base. Forewing dark grey with silvery scales at the base and at the costal margin almost to the apex. Interior half before the interior line and in the median area pinkish flesh-coloured. Marginal area yellow. Interior line yellow, edged black on both sides on the dark ground, slightly angled outwards below the costal margin, in the cell and the submedian fold. Two oblique dark streaks at the middle of the costal margin. Exterior line also yellow with black margins, forming a yellow luna behind the cell, strongly incurved at vein 2. Dark behind it between veins 3 and 5 as far as the margin. Hindwing grey and pinkish flesh-coloured, marginal area yellow, with 3 bent dark lines. ♀ 22 mm. Mashona Land.

### 24. Genus: **Syngatha** *B.-Bak.*

Proboscis and palpi short. Apex of forewing somewhat pointed, distal margin slightly cut out as far as vein 4, very oblique below vein 3. Veins 3—5 near the lower cell-angle, 6 from the upper one, 7—10 from the areole, 11 forms with 10 a small accessory cell. Hindwing normal, only vein 5 almost from the centre of the cross-vein. Type: *elegans* *B.-Bak.*

*elegans*. **S. elegans** *B.-Bak.* Both wings pale straw-coloured, pink in the basal half. Forewing reddish-brown at the base and at vein 3 as far as the margin, more orange behind the cell. A small triangular spot of the ground-colour in the centre of this area. The middle of the costal margin and the subapical area pale straw-coloured. A dark line below the cell-end to the inner margin. Hindwing pink on  $\frac{3}{4}$  of its length. Interior and exterior lines irregular, fine, dark. Straw-coloured behind them, the margin darker. ♂ 20 mm. Angola.

*semipurpurea*. **S. semipurpurea** *Hmps.* Body dark red. Forewing dark red in the basal half, at the costal margin as far as the discal fold and the submarginal line; with silvery scales. Erect dark brown scales in the centre of the cell and at the cross-vein. Exterior line yellow on the dark ground, excurved behind the cell, then inwards and marked by dark red scales. Submarginal line indicated by the edge of the dark red area as far as the discal fold, then faded dark red. Hindwing dark red as far as behind the middle, oblique as far as vein 5, then bent. Marginal area yellow. ♀ 18 mm. Portuguese East Africa.

### 25. Genus: **Paroruza** *Hmps.*

Proboscis normal, palpi erect, thin. Antennae of ♂ with short double pectinations. Abdomen tuftless. Forewing with a pointed apex. Vein 3 far before the lower angle, 6 from the upper angle, 7 and 10 + 8 + 9 from the apex of the areole. Hindwing normal. Type: *subductata* *Wkr.*

*subductata*. **P. subductata** *Wkr.* Body and wings dark red-brown. Forewing with traces of a pale interior line, straight, slightly outwards, edged black outside. Exterior line light, edged dark on both sides, straight, rather obliquely inwards. Submarginal line of fine white lunae, edged black on both sides. Hindwing with a black dot at the lower cell-angle. Exterior line and submarginal lunae as on forewing. Both wings with black marginal dots. — Sometimes there is also on the forewing at the lower cell-angle a black spot with a white central dot:

*albipunctata* *Strd.* 26—30 mm. Natal, Cape Colony.

*albipunctata lateritia*. **P. lateritia** *Fldr.* Described as a Geometrid, but later on placed here by HAMPSON. Body and wings brownish pink. Forewing with double interior, exterior and submarginal lines, filled lighter, slightly curved. Hindwing without the interior line. ♂ 32 mm. South Africa.



26. Genus: **Hyposada** *Hmps.*

Proboscis normal, palpi extending rather much beyond the head. Antennae of ♂ ciliated. Spurs of tibiae long, anterior femora of ♂ with a hair-pencil. Abdomen tuftless. Apex of forewing rather pointed. Neuration as in *Paroruza*, but vein 10 is slightly separated from 8 + 9. Veins 3 + 4 of hindwing on a short stalk, the rest as in *Paroruza*. Type: *postvittata* Mr. from India.

**H. melanosticta** *Hmps.* (13 e). Body and wings brownish white. Costal margin of forewing black at the base. Interior line obliquely inwards, undulate, red-brown, very indistinct. A black streak at the lower cell-angle. Exterior line whitish, edged red-brown inside. From the costal margin obliquely outwards as far as vein 7, then finely dentate as far as vein 4. Submarginal line of pale lunae, edged red-brown inside and outside. A dark diffuse spot from the apex. Hindwing with a black central dot. Exterior line white, edged black inside, undulate, straight. Submarginal line indicated by black dots. 22 mm. Niger District. *melano-sticta.*

**H. carneotincta** *Hmps.* Body and wings pinkish brown. Forewing with a black dot at the lower cell-angle. Exterior line indistinct, oblique, rusty brown, slightly excurved at vein 4. Submarginal line beginning with a dark spot behind the cell, then as a fine light undulate line from vein 4 to the inner margin, with a few black dots outside. Hindwing also with a dark dot at the cell-angle, with a broad pinkish brown median shadow, close behind it the dark brown exterior line. Submarginal line pale, undulate, edged pinkish-brown inside, with dark brown spots outside. ♀ 22 mm. Central Africa. *carneo-tincta.*

**H. hydrocampata** *Guen.* (= *posticaria* Wkr., *fraterculata* Mr., *pallescent* *Hmps.*, *partita* Luc.) (13 e). Body and wings pale reddish ochreous. Forewing somewhat lighter at the costal margin. A white dot, edged black inside, at the lower cell-angle. Exterior line marked dark, straight, obliquely inwards. Submarginal line represented by a double row of black dots, introangular and blacker at vein 5, excurved above and below it, with a black spot below the apex. Hindwing also with a spot at the cell-angle. Exterior line white, straight, edged blackish inside. Submarginal line uniformly bent, light, with dark spots on both sides. 18—24 mm. West and Central Africa, distributed as far as Australia. *hydrocampata.*

**H. juncturalis** *Wkr.* (13 e). Body and interior halves of wings pale ochreous from the apex of the forewing to the middle of the inner margin of the hindwing. Darker reddish brown behind it. Two white dots at the cell-angles on the forewing, besides a pale submarginal line. Hindwing with a black central dot, and alternately light and dark brown lines in the distal half. 18 mm. Sierra Leone. Distributed as far as West China. *juncturalis.*

27. Genus: **Cauthata** *Hmps.*

Proboscis normal, palpi shorter than usual. Frons with a conical projection. Antennae of ♂ ciliated. Abdomen tuftless. Forewing with a pointed apex. Vein 3 before the cell-angle, 6 from the upper angle, 7 and 10 + 8 + 9 from the apex of the areole. Veins 6 + 7 of hindwing on a short stalk. Type: *phoenicea* *Hmps.*

**C. phoenicea** *Hmps.* Body and wings brown and fiery red. Marginal area of forewing dark hemochrome, except right below the apex. Costal margin fiery red. Interior line the same, indistinctly double, undulate. Then 2 black discal dots. Exterior line fiery red, double, indistinct, excurved as far as vein 5, then somewhat inwards. Submarginal line of pale dots, with 2 black dots below the costal margin. Hindwing somewhat more yellow, the margin reddish with black dots. ♂ 18 mm. Gold Coast. *phoenicea.*

28. Genus: **Corgatha** *Wkr.*

Proboscis normal, palpi thin, obliquely porrect. Antennae of ♂ ciliated. Forewing with a rather pointed apex. Vein 3 before the lower cell-angle, 6 from the upper one. Veins 7 and 8 + 9 from the apex of the areole, 10 from its anterior edge. Hindwing normal. Type: *zonalis* *Wkr.* from India.

I. Forewing cut out below the apex, excurved in the middle.

**C. polyostrotata** *Hmps.* Body and wings dark red-brown, dusted somewhat grey. Forewing brownish white at the costal margin and behind the middle. Interior line broad, white. Then a white spot at the cross-vein. Exterior line indistinct, double, dark, filled with white, bent inwards behind the cell and below vein 4. Submarginal line indicated by the dark edge and brown spots before it. Hindwing with traces of white undulate interior and submarginal lines. ♀ 18 mm. Gold Coast. *polyostrotata.*

**C. enispodes** *Hmps.* (13 e). Body and wings pale reddish brown, darker at the margin with a fine black central dot. Forewing with traces of a brown submarginal line with a black dot in the submedian fold. A small black-white dot at the apex and white streaks before the margin. Hindwing with a few silvery scales. Exterior line undulate, red-brown. Black submarginal dots and white lunae behind them. ♀ 15 mm. Gold Coast. *enispodes.*



- laginia*. **C. laginia** Gaede (13 f). Body and wings dark yellow. Costal margin of forewing violettish red, a streak at the cross-vein of the same colour. Interior line marked dark. Exterior line notched, straight as far as vein 4, then obliquely inwards. Hindwing with traces of a median and exterior line. Fringe dark violettish red in both wings. 18 mm. Cameroons.
- producta*. **C. producta** Hmps. (13 f). Body and wings pale reddish brown. Interior line of forewing marked by 3 black dots. An oblique dark shadow from the cross-vein to the inner margin. Exterior line parallel to it, composed of fine black dots. Submarginal line fine white. Hindwing with a continuation of the dark median shadow. Exterior line excurved in the middle, fine dark, edged white outside. Submarginal line of white dots. ♂ 16 mm. Natal.
- macariodes*. **C. macariodes** Hmps. (13 f). Body and wings straw-coloured. Interior line of forewing double, red-brown, shortly extra-angular below the costal margin. Cross-vein finely brown. Exterior line also double, red-brown, sharply extra-angular as far as vein 6, then straight to  $\frac{4}{5}$  of the inner margin of the hindwing. Submarginal line brownish, with a brown spot behind it from the apex to vein 4. Hindwing with a distinct black central dot. Submarginal line marked by brown spots. ♂ 22 mm. Gold Coast.
- ozolica*. **C. ozolica** Hmps. (13 f). Body and forewing whitish ochreous. Interior line finely double, filled with white, bent inwards. A brown streak at the cross-vein. Exterior line also double, excurved as far as vein 7, then obliquely inwards. A submarginal line of dark dots, excurved in the middle. Hindwing whiter, red-brown in the center and at the distal margin. ♂ 16 mm. Gold Coast.
- drepanodes*. **C. drepanodes** Hmps. (13 f). Body and wings reddish brown. Interior line of forewing dark, double, notched, a black dot close before it in the cell. A large black spot at the cross-vein. Exterior line dark, double, filled with light, excurved as far as vein 6, then somewhat obliquely inwards. Submarginal line fine white with intense black dots outside. Black marginal dots behind them. Hindwing with a fine dot at the lower cell-angle. Exterior line fine brown, white outside, bent S-like. Submarginal line white, notched. Black marginal dots. ♂ 26 mm. East Africa.
- tenuilineata*. **C. tenuilineata** Gaede (13 f). Body and forewing greyish-brown. Interior line dark, obliquely outwards below the costal margin, then vertical to the inner margin. Two dark dots at the cross-vein. Exterior line dark brown inside, whitish outside, excurved as far as vein 6, then straight obliquely inwards. Submarginal line fine white, notched, extra-angular at veins 7 and 4. The distal margin darker from a little before this line. Hindwing as dark as the marginal area. A black dot at the lower cell-angle. Exterior line dark brown and whitish, bent parallel to the distal margin. A light submarginal line is hardly discernible. ♀ 20 mm. Cameroons.
- crassilineata*. **C. crassilineata** Gaede (13 f) is very similar to *tenuilineata* in the scheme of markings. Body and wings light pinkish brown. Interior line of forewing dark olive brown, slightly extra-angular below the costal margin, then thick, straight, somewhat obliquely outwards. Two fine black dots at the cross-vein. The exterior line extends in a somewhat more pointed bow around the cell and is slightly concave at vein 3. Submarginal line light, concave behind the cell and above the inner margin, the marginal area behind it darker brown. Hindwing only with the lower dot at the cross-vein. The exterior line is slightly concave in the submedian fold. Marginal area according to the forewing ♀ 25 mm. Cameroons.
- II. Forewing uniformly bent at the distal margin. Middle and hind tibiae of the ♂ moderately hairy.
- chionocraspis*. **C. chionocraspis** Hmps. Body and forewing red-brown with some silvery scales. A white band at the costal margin, the distal margin mixed with white. Interior line indistinct, dark, undulate, edged white inside. Cross-vein indistinct dark. Exterior line blackish, edged white outside, excurved as far as vein 4. Traces of a dark submarginal line. Hindwing red-brown, whitish at the costal margin as far as behind the middle, basal area white. A dot at the cross-vein and the exterior line black, edged white outside. ♀ 16 mm. Natal.
- porphyrea*. **C. porphyrea** Hmps. (13 f). Body and wings dark pink. Forewing with a few silvery scales, costal margin yellowish white. A dark red spot at the cross-vein. Hindwing also with silvery scales. Fringe pinkish yellow in both wings, purely white at the inner margin of the hindwing. ♂ 16 mm. Niger District.
- hypoxantha*. **C. hypoxantha** Hmps. (13 g). Body and wings reddish yellow, with brown transverse lines. Interior, median and exterior lines of forewing undulate, vertical to the inner margin. Submarginal line parallel to the distal margin, undulate. A black dot in the centre of the cell. The interior, exterior and submarginal lines on the hindwing also undulate, bent parallel to the distal margin, the exterior one with fine white dots. Both wings with a red marginal line. ♂ 24 mm. Rhodesia.
- terracotta*. **C. terracotta** Joan. (13 g). Marked exactly like *hypoxantha*, but the ground-colour is browner. Hindwing also with traces of an undulate median line. The red marginal line is absent. ♂ 20 mm. Mauritius.



**C. ochrida** *Hmps.* Body and wings dark ochreous. Interior line of forewing fine, dark, undulate. A black dot in the middle of the cell and at the lower cell-angle. A fine dark median line somewhat oblique from the costal margin to vein 2, then bent inwards. Exterior line obliquely outwards as far as vein 7, bent inwards behind the cell as well as below vein 4. Hindwing also with a black dot at the cell-angle, exterior line dark, bent, undulate. Both wings with traces of a black submarginal line and with black marginal dots. ♀ 22 mm. Uganda.

**C. arcuata** *B.-Bak.* Body and forewing greyish ochreous, dusted darker grey. A black dot in the middle of the cell. A blackish median shadow from the upper cell-angle to the inner margin, where it widens, bordered outside by a broad oblique greyish ochreous band from the costal margin. Submarginal line creamy white, bent from the apex to the inner margin, edged dark brown on both sides. Hindwing creamy white with 2 short dark median lines. Submarginal line broad, dark, oblique. ♂ 22—24 mm. East Africa.

**C. subindicata** *Kenrick* (13 g). Contours of wings similar to those of the *Thyridid* genus *Dysodia*. Body and wings pale brownish ochreous, the end of the abdomen browner. Interior line of forewing dark, slightly notched, vertical. Median band darker brown, rectilinear, oblique. Reniform macula indicated by a light edge. Exterior line finely white, excurved below the costal margin, then straight to the middle of the inner margin. Behind it the interior half of the marginal area is as brown as the median band, extending in front to the apex. Hindwing with a double median line, dark brown, straight, the exterior line edged white. 22 mm. Madagascar.

A similar larger nameless species is figured by SAALMÜLLE in *Lep. Madag.* f. 198.

**C. thyridoides** *Kenrick* (13 g) is somewhat similar to the genus *Thyris*. Body and wings reddish ochreous. Interior line of forewing dark brown, somewhat notched, straight. Behind it a black cellular spot and an extra-angular median line. Reniform macula edged dark. Exterior line strongly extra-angular below the costal margin, then obliquely to the middle of the inner margin. A faded reddish band behind it. Margin paler, with 3 black submarginal spots. Hindwing with 2 dark median lines. Margin broadly reddish. 25 mm. Madagascar.

## 29. Genus: **Protarache** *Hmps.*

Proboscis normal, palpi short, frons with a large projection, antennae of ♂ ciliated. Metathorax with a tuft which is bent down. Abdomen with a tuft at the base. Forewing with a round apex. Veins 3—5 near the lower cell-angle, 6 from the upper one, 7 and 8 + 9 from the apex of the areole, 10 from its anterior edge. Vein 5 of hindwing normally developed. Type: *eulepidia* *Hmps.* from India.

**P. melaphora** *Hmps.* (13 g). Body reddish brown. Forewing darker. Interior line whitish, very distinct, erect black scales before it in and below the cell. Median area lead-coloured, very dark behind it as far as the exterior line which is indistinctly double, filled with white, far excurved at vein 4, obliquely inwards above and below it. Submarginal line whitish, edged brown inside, excurved at vein 7 and in the middle, grey behind it. Hindwing reddish brown. ♀ 19 mm. Betchuana Land.

**P. fuscibasis** *Gaede* (13 g). Body pale red-brown. Forewing somewhat darker red-brown at the base. Interior line composed of two inward bows, double, with erect scales. Behind it a somewhat lighter oval spot. From the latter to the exterior line almost black, erect scales at the cell-end and below it. Exterior line black, undulate, obliquely outwards as far as vein 2, where it is semicircularly cut out, edged yellowish-brown outside. Marginal area behind it somewhat brownish inside. Hindwing greyish-brown. ♀ 20 mm. East Africa.

## 30. Genus: **Uncula** *Swinh.*

Proboscis feeble, palpi short, frons with a bump. Body tuftless. Forewing broad, vein 7 a little below the apex of the areole, the rest as in *Protarache*. Veins 3 and 4 of hindwing stalked. Type: *herbaria* *Swinh.* from India.

**U. tristigmatias** *Hmps.* Body and forewing dark red-brown, marginal area somewhat lighter. Interior lines double, black, filled with grey. Coniform macula, ring-macula and reniform macula red-brown, edged black. The two first small, round, the reniform macula inwardly angled at the median vein. Exterior line double, black, filled with grey, undulate, excurved as far as vein 4. Submarginal line pale, edged brown inside. Hindwing copper-brown with a dark marginal line. 20 mm. South and East Africa.

## 31. Genus: **Xantholeuca** *Hmps.*

Proboscis normal, palpi short, frons with a large projection. Antennae of ♂ finely ciliated. Metathorax with an appressed tuft, abdomen with a basal tuft. Forewing with a pointed apex. Vein 6 below the upper cell-angle, 7 from the angle, 8 + 9 stalked. Hindwing normal. Type: *staudingeri* *Stfs.* from Europe.

**H. leucophaea** *Poult.* Body and forewing greyish-white, somewhat brown. Interior line blackish, double, edged white on its inside, a black diffuse spot behind it in the submedian fold. Ring-macula white with a black



centre, black behind it as far as the white cross-vein. Exterior line brown, edged white on both sides, slightly excurved behind the cell, then parallel to the distal margin. Submarginal line white, undulate, a large brown spot before it at the costal margin. Hindwing greyish-brown. 14 mm. Somali-Land.

### 32. Genus: **Hiccoda** Mr.

Proboscis normal, palpi short, frons with a round projection. Antennae of ♂ finely ciliated. Thorax with feeble double tufts. Abdomen with a hair-tuft at the base. Neuration of forewing normal, with the usual areole. Veins 3 + 4 of hindwing on a short stalk. Type: *dosaroides* Moore from India and Africa.

*dosaroides*. **H. dosaroides** Mr. Body and forewing reddish ochreous. Interior line indistinct, double, filled with white, interrupted. Coniform macula indicated by black and white scales at its apex. Ring-macula and reniform macula indistinct, pale, the former edged black outside, the latter inside, a brown spot between them. Exterior line indistinct, double, red-brown, filled with white. A dark spot outside at the costal margin, then notched, excurved as far as vein 3, an inward bow at vein 2. Traces of a red-brown submarginal shadow, connected with an oblique diffuse spot from the apex. Marginal dots black, fringe speckled. Hindwing greyish-brown. 18—20 mm. East Africa, Comoros to India.

*nigripalpis*. **H. nigripalpis** Wkr. (= *frausa* Swinh.). Body and forewing brownish ochreous, costal margin dark brown. Interior line marked by double black streaks at the costal margin and in the cell. Ring-macula outside and reniform macula inside edged with black, a dark brown spot between them. Exterior line faded in front, indistinctly double below vein 4, filled with white, incurved. A faded black oblique patch from the apex. Hindwing greyish-brown. The ring-macula may also be almost entirely edged with black. In — *codana* Strd. the forewing is dark brown especially at the costal margin and in the distal area, the interior and exterior lines are complete. The forewing may be of a bright yellow or pale yellow, in the latter case the hindwing is also whiter. *pallida*. — **pallida** Hmps. is similar, but with an extinct marking. Ring-macula and reniform macula marked by few black scales, without the dark spot between them. 18—20 mm. South and East Africa to India.

*roseitincta*. **H. roseitincta** Hmps. Thorax creamy white, abdomen pale red-brown, tuft white. Forewing creamy white, pale pink behind the cell except at the costal margin, marginal area mostly olive brown. A square deep black spot in the cell-end is extended to the costal margin. Below it a bent black spot in the submedian fold, and a streak at the inner margin. Exterior line finely black, excurved behind the cell, dusted dark outside near the inner margin. Marginal line finely black, interrupted by white dots. Fringe black with white spots. Hindwing white, brownish at the margin. ♂ 16 mm. East Africa.

### 33. Genus: **Phyllophila** Guen.

Proboscis normal, palpi short, frons with a round projection and a horny plate below it, antennae of the ♂ finely ciliated. Abdomen with a basal tuft. Forewing with a normal areole. Hindwing normal. Type: *obliterata* Rmb. from Europe.

*griseola*. **P. griseola** Fldr. (= *leucostigmata* ♀ Hmps.). Thorax grey, abdomen whitish ochreous. Forewing grey, marginal area somewhat red-brown. Interior line fine, black, extra-angular below the costal margin and at the median vein. Ring-macula absent, reniform macula fine, pale, inwardly angled at the median vein. An undulate black line from the lower cell-angle to the inner margin, faded brown behind it as far as the exterior line. The latter is indistinct, double, filled with white, excurved at the costal margin, incurved below vein 4. Submarginal line fine, pale. Hindwing greyish brown. Exterior line dark, excurved behind the cell. The ♀ shows a somewhat whiter basal area of the forewing, with distinct black lines. Maculae white, edged black, ring-macula small, reniform macula quadrangular, strongly angled inwards at the median vein. Submarginal line distinct, white. 30—32 mm. South Africa.

*atripars*. **P. atripars** Hmps. Body and forewing brownish grey, dusted black. Costal margin paler with black streaks at the veins, a black band below the median vein. Ring-macula small, black, round. Reniform macula edged black, elliptical. Exterior line black, quite indistinct in front, strongly excurved as far as vein 4, incurved below the cell-end. An oblique black shadow from the apex to vein 6, then continued between the exterior and submarginal lines as far as vein 3. Black marginal dots. Hindwing greyish brown, browner towards the margin, with a black central dot and a fine marginal line. The costal margin of the forewing may also be black as far as below the cell and as far as the submarginal line. ♂ 26 mm. East Africa.

*rufescens*. **P. rufescens** Hmps. (13 g). Thorax and forewing yellowish brown. Interior line almost indiscernible, double, undulate. A black dot at the lower cell-angle with an indistinct oblique line to the inner margin. Exterior line indistinct, double, finely filled with white, excurved close below the costal margin, then straight and parallel to the distal margin. Submarginal line yellowish white, straight, excurved towards the anal angle. Hindwing reddish brown, lighter at the base. The ♀ is more intensely dusted dark, the submarginal line distinct, yellow. 28 mm. Cape Colony.



**P. flavitermina** *Hmps.* (13 g). The body and the costal margin of the forewing yellowish white almost *flavitermina* to the apex, the rest of the wing olive brown, only a light streak in the submedian fold at the base. The ring-macula is a black dot, the reniform macula a small circle. Exterior line dark brown, slightly dentate, from the apex to behind the middle of the inner margin. The marginal area behind it light in the middle. Hindwing yellowish white, darker at the apex. The ♀ is browner on the forewing, the marking indistinct, especially the oblique band from the apex. Hindwing darker. 24 mm. Cape Colony.

**P. torrefacta** *Dist.* is very similar to *flavitermina*. Forewing with traces of strongly extra-angular interior and median lines. The double exterior line is lighter than in *flavitermina* and strongly incurved at the costal margin. Hindwing light-brown, narrowly darker at the margin, in the ♀ brown, unicoloured. — **orientalis** *Strd.* are specimens with darker greyish-brown forewings. 20—22 mm. South-West, South and East Africa.

### 34. Genus: **Oedicodia** *Hmps.*

Proboscis normal, palpi rather long porrect, frons with a large round projection. Antennae of ♀ plain. Body without tufts. Veins 3—5 of forewing arise from the lower cell-angle, 6 below the upper angle, 7 from the latter, 10 + 8 + 9 stalked. Vein 5 of hindwing arises close above the lower cell-angle, fully developed. Type: *violascens* *Hmps.*

**O. violascens** *Hmps.* Body and forewing reddish greyish-brown. Interior line double, dark, filled with grey, strongly incurved at vein 1. The reniform macula is a white streak, edged with a faded black, from which an indistinct dark median shadow proceeds. Exterior line indistinct, double, filled with grey, undulate. Submarginal line pale, undulate. Black spots at the ends of the veins. Hindwing greyish-brown. ♀ 18 mm. East Africa.

**O. strigipennis** *Poult.* (13 h). Body and forewing dark greyish-brown, with black streaks at the veins. Interior line indistinct, dark brown, undulate, double at the costal margin. Cross-vein with a black streak and a black dot above it at the costal margin. Exterior line dark brown, edged white towards the costal margin, incurved at the costal margin, then parallel to the distal margin. Somewhat darker brown before it. Submarginal line white, edged dark inside. Hindwing pale red-brown. ♂ 20 mm. Somali Land.

**O. melanographa** *Poult.* Body and forewing pale red-brown. Interior line black, notched, somewhat outwards. The black median line is bent inwards behind the spot at the cross-vein, then outwards at the lower cell-angle. The notched exterior line close behind it, excurved at the lower cell-angle. Submarginal line faded, black, undulate. Hindwing pale red-brown, somewhat darker at the margin. ♀ 24 mm. Somali Land.

### 35. Genus: **Cretonia** *Wkr.*

Proboscis normal, palpi projecting beyond the frons which shows a round projection. Antennae of ♂ ciliated. Thorax with tufts. Forewing with a normal areole, hindwing normal. Type: *platyphaeella* *Wkr.*

**C. ethiopica** *Hmps.* (13 h). Thorax and forewing red-brown. Interior line whitish, edged dark brown outside, darker brown behind it in the middle, and a black spot before it above the inner margin. Reniform macula edged white, in dark red-brown surroundings beginning from the costal margin, continued to the inner margin as a median line. Exterior line fine double, filled with white, excurved below the costal margin, in the middle and above the inner margin. Submarginal line marked by the interior blackish-brown border. Hindwing yellowish-brown. — **obsoletimacula** *Strd.* is without the black spot before the interior line on the forewing. 24 mm. South and East Africa, Abyssinia.

**C. platyphaeella** *Wkr.* (13 h). Body and base of forewing pale reddish-brown, the rest of the wing blackish brown. Interior line yellow, edged black outside, notchedly excurved in the cell, an inward angle in the submedian fold, then obliquely outwards. Reniform macula edged yellow, horizontally interrupted in the middle. A dark median shadow indicated from the reniform macula inwards to the costal margin and downwards to the inner margin. Exterior line broad, uniform, greyish-yellow, concave behind the cell. Hindwing greyish-brown. 20 mm. West Africa.

**C. atrisigna** *Hmps.* (13 h). Body and forewing greyish red-brown. Interior line indistinct, double. A black dot in the middle of the cell and a large triangular spot at the cross-vein. From the latter spot a dark median band extends to the inner margin. Exterior line dark, uniformly excurved behind the cell, then obliquely inwards, angled in the submedian fold. Somewhat darker in the apical area. Submarginal line pale, excurved in the middle. Hindwing greyish brown. ♀ greyer. The white submarginal line on the forewing is more distinct. Hindwing dark brown. 16 mm. East Africa.

### 36. Genus: **Neochrostis** *Hmps.*

Proboscis normal, palpi erect, frons with a beak-shaped projection. Antennae of ♂ laminated and ciliated. Abdomen with a tuft at the base. Vein 6 of forewing below the upper cell-angle, 10 + 8 + 9 stalked. Hindwing normal. Type: *diplogramma* *Hmps.*



*diplogramma.* **N. diplogramma** *Hmps.* Body and forewing dark red-brown. Interior line double, black, uniformly bent. Ring-macula small, round, with a black edge and central dot. Reniform macula edged black, with a brown centre, far inwards at the median vein with a terminal spot below the ring-macula. A dark median shadow from the costal margin to the inner margin. Exterior line double, black, thickened at the costal margin, excurved below the costal margin, somewhat concave behind the cell, a dark shadow behind it as far as vein 4. Submarginal line yellowish, parallel to the distal margin. Hindwing orange with brown streaks in the cell and towards the inner margin. Besides a dark streak at the cross-vein and a submarginal line. ♂ 28 mm. Transvaal.

### 37. Genus: **Ozarba** *Wkr.*

Proboscis normal, palpi thin, highly erect. Antennae of ♂ typically ciliated. Abdomen with a hair-tuft at the base. Neuration as in *Neochrostis*. Type: *punctigera* *Wkr.*, distributed from Africa to Australia.

I. Antennae of ♂ laminated, with one row of serrations at the tips.

*plagifera.* **O. plagifera** *Rbl.* (13 h). Similar to the Indian *destituta* *Mr.* which also flies in Sokotra, but smaller. Forewing blackish-brown. Interior line yellowish-brown, notched, situate before the middle of the wing. An oblong spot at  $\frac{2}{3}$  of the costal margin extends widening to the centre of the wing, with 2 short outward notches. The upper notch touches a brownish-black subapical spot which extends to the costal margin, but is not prominent in the dark ground-colour. Black marginal streaks. The rest as in *destituta*. ♂ 16 mm. Sokotra.

*destituta.* **O. destituta** *Mr.* Although the species is chiefly Indian, it may be briefly mentioned here. Forewing pale red-brown. Four dark lines at the base, undulate, vertical. Reniform macula edged black, narrow. Median line before it black, oblique as far as the median vein, then vertical, edged dark outside. Exterior line double, bent inwards towards the costal margin and submedian fold. A large black spot behind it. 22 mm. Sokotra, India.

II. Antennae of ♂ finely ciliated.

*orthozona.* **O. orthozona** *Hmps.* (13 h). Body greyish-brown, forewing reddish-brown. Interior line and maculae absent. Median line blackish, edged white outside, almost straight, vertical, followed by a yellowish band with a dark marginal line. Interior half of the marginal area somewhat darker, irregularly bordered outside. Hindwing orange with a brown marginal band. ♂ 22 mm. Cape Colony.

*abscissa.* **O. abscissa** *Wkr.* (= *fasciata* *Willgr.*) (13 h). Body and forewing dark greyish red-brown. Interior band somewhat lighter, slightly extra-angular below the costal margin and in the submarginal fold. Median band straight, its interior half whitish, the exterior half greenish brown, with a distinct black edge, darker before it. Behind it an oblique blackish band from near the apex to behind the cell and then to the margin above the anal angle; the band is mostly divided into 3 or 4 spots. Hindwing dark brown. — In *partita* *Mab.* the band of the forewing is only half as broad. 15—17 mm. South Africa, Madagascar.

*flavicilia.* **O. flavicilia** *Hmps.* Body and forewing blackish brown. Interior line indistinct, double, blackish, notched, with 2 orange streaks at the costal margin. Median line indistinct, black, undulate. Median band pale yellow, edged black, straight, with a faded brown line outside. Submarginal line indistinct, black, dentate. Hindwing dark brown with a coppery gloss. ♂ 22 mm. Uganda.

*punctifascia.* **O. punctifascia** *Le Cerf* (= *rectifascia* *Le Cerf* 1911, nec *Hmps.* 1910). Forewing blackish-brown with an almost uniformly broad yellow transverse band containing a black streak at the cross-vein, another small streak behind it at the costal margin. The band is finely bordered with black on both sides. Hindwing dark grey. ♀ 18 mm. East Africa.

*regula.* **O. regula** *Gaede* (13 h). Forewing also blackish brown. The yellow band not straight inside, but arched basad around the black double streak at the cross-vein, forming an angle above it and turning basad again at the costal margin. Two brown indistinct lines extend from the black streak at the costal margin to the inner margin. Close behind the band an undulate light line with strongly notched black spots outside. A narrow dark blotch from the apex. Hindwing dark brown. ♀ 18 mm. Togo.

*domina.* **O. domina** *Holl.* (13 i). Forewing dark brown. Interior band as in *abscissa*, edged black outside. The yellowish white median band is straightly defined inside, slightly arched outside behind the cell, narrower towards the costal margin. A brown line near its exterior edge widens sometimes band-like as far as the margin. Behind it at the costal margin a broad black spot from which a narrower band may proceed. Submarginal line white, strongly notched, darker behind it at the margin. Hindwing dark brown. 17—21 mm. Gabon, Togo, a large specimen from East Africa.

*orthogramma.* **O. orthogramma** *Hmps.* Body and forewing greyish-brown with a slight coppery gloss. Interior line dark brown, edged whitish on both sides, straight, vertical. Median line blackish, slightly bent inwards, with



whitish scales inside, a dark brown band behind it, narrow at the costal margin, broad at the inner margin. An oblique white streak in the cell-end, 2 small black-white dots behind the upper cell-angle. Exterior line dark brown, edged whitish on both sides, straight, vertical. Faded dark brown behind it from the costal margin to vein 5. Submarginal line whitish, only traceable. Hindwing brown with a coppery gloss. ♀ 22 mm. Niger District.

**O. madanda** *Fldr.* (= *dignata* *Möschl.*) (13 i). Forewing chocolate brown at the base. Interior line *madanda*, black, double, only discernible at the costal margin. The dark area is bordered by a black line which is somewhat extra-angular at the lower cell-angle. The marginal area behind it whitish, the margin itself olive brown. Three black dots at the cross-vein. Exterior line beginning with a black spot at the costal margin, then almost straightly continued, olive brown. Submarginal line whitish, ending at the anal angle, broadly rusty brown before it, and before this black scales above the inner margin. Hindwing orange with a blackish submarginal band. 18—24 mm. South Africa.

**O. microcycla** *Mab.* (13 i). Thorax reddish brown. Forewing very pale reddish brown at the base and as far as the exterior line at the costal margin, dark brown in the median area, rusty brown in the marginal area. Interior line oblique, forming the border-line of the median area. The reniform macula is a light spot. Exterior line fine brown, edged white on both sides, excurved behind the cell. Submarginal line light, a whitish spot behind it in the submedian fold. A dark spot at the margin behind the cell. Hindwing orange with a dark margin. ♂ 22 mm. Madagascar. This species is probably identical with *centralis* *Pgst.*, not with *cryptochrysea* *Hmps.*

**O. accincta** *Dist.* (13 i). Quite similar to a dark *microcycla*, but the border extends at the basal area *accincta*, with an opposite incline. Basal area violettish-brown, median area the same, but darker, the margin red-brown. Interior line indistinct, double, dark, with 2 black dots at the costal margin. Border-line of the basal area straight slightly outwards. Reniform macula whitish, slightly edged black on both sides, darker the median area below it. Marginal area as in *microcycla*, but with a convexity of the submarginal line in the middle. Hindwing somewhat darker than in *microcycla*. 22 mm. Transvaal.

**O. variegata** *Le Cerf.* Forewing greyish yellow at the base, the median area darker brown, straightly *variegata*, cut off inside. Exterior border-line distinct, white, broader yellow at the costal margin. Reniform macula oblique, light brown. A brownish ochreous spot behind the exterior line at the costal margin, continued as a line. Antemarginal line fine white. Hindwing greyish brown. ♀ 19 mm. East Africa.

**O. punctigera** *Wkr.* (13 i). Body and forewing dull red-brown. Interior line light, double, almost straight, *punctigera*, only slightly extra-angular in the submedian fold. Median line straight, slightly concave in the middle. Distally to it dark red-brown, this colour also at the inner margin almost as far as the exterior line. The reniform macula is a blackish spot edged white outside. Exterior line white, double, slightly oblique, straight. Darker behind it, especially at the costal margin. Submarginal line very fine white, notched, white marginal lunae. Hindwing coppery brown. 18—22 mm. West and South Africa, South Asia, Australia.

**O. lepida** *Saalm.* Thorax and forewing light red-brown as far as the straight median line which is slightly *lepida*, turned outwards, marginal area darker, median area darkest. Interior line double, somewhat darker than the ground, slightly undulate, obliquely outwards. Sometimes a black dot in the middle of the cell. Reniform macula light, slantingly rectangular, edged black below (Madagascar) or more narrowly above and below, laterally black. Exterior line whitish, pointedly projecting behind the cell, single or double. Submarginal line whitish, excurved in the middle of the wing. Hindwing light coppery brown. 18—24 mm. Madagascar, East Africa.

**O. corniculans** *Wllgr.* (= *nyanza* *Fldr.*, *figurata* *Wkr.*) (13 i) differs from *lepida* only in a light spot at the costal margin behind the exterior line and in a brightening before the submarginal line. It is probably the same species and its name is prior to *lepida*. — **O. corniculantis** *Strd.* lacks an insignificant dark spot in the median area above vein 1, which is present in *lepida* and *corniculans*. Besides there is a white streak in the distal area below vein 5. 20—26 mm. South Africa.

**O. megaplaga** *Hmps.* (13 i). Thorax and forewing pale red-brown, the median area from the upper inner edge of the reniform macula to the exterior line and to the inner margin dark red-brown. Interior line as in *corniculans*. Reniform macula greyish brown, prolonged below obliquely outwards, the dark spot below it somewhat more separated from the interior line. A black radial streak from the centre of the reniform macula to the exterior line or beyond it. Exterior line single, light, excurved at the upper edge of the cell, then almost straight obliquely inwards. Submarginal line pale, indistinct, similar to *corniculans*. Hindwing light copper-brown. 20—23 mm. East Africa.

**O. sinua** *Hmps.* (13 i). Body dark greyish-brown, forewing red-brown. Interior line double, strongly notched below the costal margin and at the median vein. Median line excurved in the centre, strongly notched, light before it or just as dark as the space as far as the exterior line. Reniform macula edged light, circular with a horizontal appendage below. Exterior line black, double, filled with light, encompassing the reniform macula, far inwards below it, then vertical to the inner margin. Submarginal line white, strongly notched, with long black arrows inside. Hindwing dark orange, browner at the margin. The ♀ is very indistinctly mark-



ed, dark red-brown, black at the cross-vein, behind it only at the costal margin the light filling of the exterior line and traces of the black sagittal streaks. 18—22 mm. East Africa.

*hemichrysea*. **O. hemichrysea** *Hmps.* (14 a). Thorax and forewing dark reddish-brown. Interior line indistinct, blackish, vertical from the median vein. Ring-macula indicated by a white dot, reniform macula edged white, extending to the costal margin. Exterior line double, filled with white, slightly excurved as far as vein 4, then bent inwards and obliquely to the anal angle. Submarginal line marked by white and black dots. Hindwing orange, dark in the submedian fold and at the inner margin. ♂ 20 mm. Congo District.

*cyanopasta*. **O. cyanopasta** *Hmps.* (14 a) resembles a very indistinct *hemichrysea*. Abdomen orange with dark segmental margins. Forewing dark red-brown with a silvery blue gloss, a pale reddish-yellow spot above the anal angle. A white dot at the base of vein 2. Reniform macula edged black. Exterior line with a white spot at the costal margin, then composed of black dots, parallel to the distal margin. Submarginal line also marked by a white dot at the costal margin. Hindwing orange with dark radial streaks. ♀ 20 mm. Transvaal.

*chryseiplaga*. **O. chryseiplaga** *Hmps.* (14 a). Forewing somewhat like that of *hemichrysea*. Basal area light red-brown, the rest darker. Interior line dark, similar to *hemichrysea*. Reniform macula finely edged light. Exterior line black, uniformly bent around the cell, with a white dot at the costal margin. Submarginal line with a white dot at the costal margin, then composed of black and grey dots. Hindwing orange in the basal area, the rest blackish. ♀ 20 mm. Congo District.

*metachrysea*. **O. metachrysea** *Hmps.* (14 a). Somewhat allied to *sinua* by the marking, but more reddish. Interior band whitish, interrupted below the costal margin, straight. Reniform macula edged white, a white dot before it at the median vein, and traces of a darker median band. Exterior line with a white streak at the costal margin, then indistinctly black, far excurved behind the cell, but not pointed. Submarginal line shaped as in *sinua*. Hindwing broadly blackish at the margin, the rest orange dusted with blackish. ♀ 20 mm. Mashona Land.

*contempta*. **O. contempta** *Wkr.* (14 a). Body and forewing in the basal area light greyish-brown, the rest darker, especially before the exterior line. Interior line absent, ring-macula small, oblique, black. Reniform macula large, oval, with a black streak at the cross-vein, surrounded by the dark marginal area. Exterior line indistinct, double, filled with light, bent inwards below the reniform macula. Submarginal line not discernible. Hindwing pale orange, with a broad brownish margin. ♀ 25 mm. Cape Colony.

*regia*. **O. regia** *Warr.* (14 a). Forewing brownish orange in the basal area, the distal area violettish grey. Interior line very indistinct, somewhat dentate, dark. Median line straight, broadly black inside, light outside, adjoining to the light edge of the dark round reniform macula. Submarginal line dark, uniformly notched. Hindwing greyish brown, somewhat orange at the base. ♀ 22 mm. Zululand.

*flavescens*. **O. flavescens** *Hmps.* (14 a). Body and forewing dark greyish-brown. Interior line light, double, slightly bent inwards towards the inner margin. Behind it a dark brown median shadow, often indented in the middle from the direction of the base. Reniform macula edged light, long, strangulated in the middle. Exterior line white, double, slightly excurved, vertical from the submedian fold. Submarginal line white, with broad notches, edged dark rusty brown on both sides. Hindwing dark orange inside, greyish brown outside. 20—22 mm. East and South-West Africa.

*flavidiscata*. **O. flavidiscata** *Hmps.* (14 a). Body and forewing dark brown, pale yellow behind the middle, brown at the margin. Interior line double, black, undulate, straight. Median line double, the interior branch undulate, the exterior one straight. A black spot at the cross-vein. Exterior line double, brown, slightly bent outwards behind the cell. Submarginal line dark brown. Hindwing greyish brown, pale yellow in the middle. ♂ 20 mm. Madagascar.

*ochrozona*. **O. ochrozona** *Hmps.* (14 a). Body and forewing dark brown. Interior line as in *flavidiscata*, a black streak at the cross-vein in greyish-yellow surroundings, connected with the greyish-yellow double exterior line, slightly bent S-like. The pale submarginal line is excurved in the middle. Hindwing dark brown, lighter at the base. ♂ 18 mm. Gold Coast.

*hemiochra*. **O. hemiochra** *Hmps.* (14 b). Thorax and forewing in the basal half blackish brown. No interior and exterior lines. Median line bordering on the dark basal area, white, almost straight. A fine black dot at the cross-vein. Marginal area light greenish brown. Submarginal line light, slightly excurved in the middle, darker before it especially at the costal margin. Margin blackish. Hindwing pale orange, margin greyish brown, leaving free a narrow orange line. ♂ 18 mm. Transvaal.

*semipurpurea*. **O. semipurpurea** *Hmps.* (14 b). Thorax and forewing chocolate brown. Interior line not discernible. The dark basal area is defined by a slightly bent black line. Two black dots at the cross-vein. Exterior line dark, slightly bent, edged light on both sides. Submarginal line white, parallel to the margin. Hindwing reddish brown. 20—22 mm. South Africa.

*consanguis*. **O. consanguis** *Hmps.* (14 b). Thorax and forewing in the basal area deep red-brown, light yellowish or greenish brown behind the middle, growing darker towards the margin. Interior line black, notched, vertical.



Median line black, finely white outside, straight, slightly removed inwards below the cell. A black luna at the cross-vein, the exterior line marked by a shadow. Submarginal line light, indistinct, excurved in the middle. The margin behind it dark. Hindwing greyish-brown. ♀ 20 mm. Betchuana Land, Natal, Somali Land.

**O. marwitzi** Gaede (14 b). Forewing blackish brown in the basal area. Interior line as in *consanguis*, *marwitzi*. the median line somewhat steeper. Only a dot at the cross-vein, not a luna, in a stripe which is but little lighter than the rest of the marginal area. Antemarginal line pale, rather indistinct. Hindwing brown. The ♂ exhibits a more distinct submarginal line with a somewhat dark interior edge, somewhat lighter behind it with dark spots in the indentations behind the cell and in the submedian fold. Hindwing white, somewhat red-brown at the apex. 21 mm. East Africa.

**O. hemimelaena** Hmps. (= *transversa* Pgst.) (14 b). The figure of the species in the Cat. Br. Mus. is *hemimelaena*. quite wrong and resembles more *marwitzi*; in fact, the species agrees more with the figure of *ochrozona* Hmps. Forewing blackish-brown. Interior line black, indistinct, vertical. At the cross-vein an oval greenish brown spot with whitish yellow edge from which a streak branches off to the costal margin, as well as the median line which is indented in the submedian fold. The rest of the wing is greenish brown. Submarginal line whitish yellow, straight, bent inwards below the middle, then to the anal angle. Hindwing orange in the basal half, with a broad blackish margin. — **limbogrisea** Strd. has a grey margin on the forewing. 18—22 mm. Madagascar, *limbogrisea*. South Africa.

**O. semitorrida** Poult. (14 c) is somewhat like *semipurpurea*. Body brownish ochreous. Forewing dark *semitorrida*. reddish brown as far as the exterior line, the rest reddish white. Interior line traceable, its inner side with a streak from the costal margin. A white dot in the centre of the cell. Reniform macula round, white, with a pale brown centre. Exterior line treble, brown, extending in the light marginal area, thickened at the costal margin, more excurved behind the cell. Submarginal line white, edged somewhat brown inside. Hindwing whitish, browner at the margin. The dark places are much redder in the ♀, often almost carmine. 18—20 mm. Somali Land.

**O. endoscota** Poult. (14 c). Body brownish ochreous. Forewing somewhat more red-brown at the base, *endoscota*. dark brown below the cell, the rest of the wing greyish-brown. Interior line marked by an oblique brown streak from the costal margin, by an undulate line from the cell to the inner margin, edged white inside, with short brown streaks inside in the submedian fold. A brown spot in the cell-end, and a white streak at the cross-vein, a black dot above it at the costal margin. Exterior line scarcely discernible, excurved as far as vein 4, white at the inner margin. Submarginal line white, a dark spot behind it in the discal fold. Hindwing brownish. 20 mm. Somali Land.

**O. hemipyra** Poult. (14 c) is very similar to *marwitzi* in its colour and marking. An interior black line *hemipyra*. is traceable, edged red inside at the costal and inner margins, extending close at the median line which is shaped as in *marwitzi*. A black dot behind it at the costal margin, but none at the cross-vein. Ground-colour behind the median line fiery red, greyer only at the margin. Exterior line marked by a shadow. Submarginal line whitish, edged dark inside. Hindwing brownish. ♀ 20 mm. Somali Land.

**O. hemisarca** Poult. (14 c) is somewhat like *bipartita*. Thorax and forewing ochreous in the interior *hemisarca*. half, the marginal half light olive brown. Interior line very indistinct, undulate, brownish, with a brown spot at the costal margin. Exterior line thick, blackish-brown, traversing the cross-vein, then vertical to the inner margin, edged white outside. Submarginal line whitish, edged dark inside, slightly undulate. Hindwing whitish ochreous, reddish behind the lower cell-angle, brownish at the margin. ♂ 18 mm. Somali Land.

**O. exolivacea** Poult. (14 c). Thorax brownish white. Forewing white at the base, olive green in the *exolivacea*. marginal area except at the apex. Interior line indistinctly brownish, double, undulate. A dark brown median shadow as far as the exterior line, and beyond the latter at the costal margin. It encloses the reniform macula with a red-brown centre and a white margin, strangulated in the middle, a white spot above it at the costal margin. Exterior line double, dark, incurved at the costal margin and below the cell. Submarginal line white, undulate, edged brown inside. Hindwing pale ochreous, brown at the margin. The ♀ has a more ochreous body and forewing, the marginal area is olive green, the median shadow narrower. 22 mm. Somali Land.

**O. mesozonata** Poult. (14 c). Body and forewing brownish white, somewhat more reddish brown in *mesozonata*. the marginal area. A broad chocolate brown median band edged black, and white outside, narrower at the costal margin, slightly strangulated in the cell. A brown spot before the fine brown submarginal line at the costal margin. Hindwing whitish ochreous, browner at the margin. 16—20 mm. Somali Land.

**O. endoplaga** Poult. resembles *mesozonata*. Body and forewing at the base creamy white, browner in *endoplaga*. the marginal area. A large, almost triangular spot chocolate brown, beginning below the costal margin. Above it in the ♂ a fine black streak at the costal margin. Somewhat brownish at the costal margin before the apex, followed by a narrow brown submarginal shadow. The margin behind it narrowly yellow. Hindwing whitish, more reddish brown in the ♀. 20 mm. Somali Land.

**O. bipartita** Hmps. (14 b). Body and interior half of forewing pale olive brown. Interior line blackish. *bipartita*. straight, indistinct, with a black spot at the costal margin. Median line black, distally angled at the lower cell-



angle, inwardly in the submedian fold, its interior edge bordered with brown. A black dot at the cross-vein. Exterior line very indistinct, dark, notched, sharply bent inwards below the cell and nearing the median line. Submarginal line brown, undulate. A brown spot at the costal margin extends to the exterior line. Hindwing of ♂ light grey, of ♀ brown. 20—22 mm. South and East Africa.

*bicoloria*. **O. bicoloria** Gaede (14 b). Body and forewing at the base ochreous. Median line dark red-brown, obliquely inwards at the costal margin, then vertical to the inner margin. A few dark spots before it at the costal margin. The marginal area behind it red-brown with a band that is slightly dusted grey, beginning at the costal margin close behind the median line and extending to the anal angle. Hindwing greyish brown, lighter at the base. ♂ 16 mm. South-West Africa.

*illimitata*. **O. illimitata** Warr. (14 b). Forewing dull orange in the basal half, the distal margin indistinct, excurved in the middle. Traces of an interior line extending obliquely inwards. Exterior half of the wing violettish-brown. A dark submarginal line is slightly excurved in the middle. Hindwing brownish. ♀ 13 mm. Zululand.

*socotrana*. **O. socotrana** Hmps. Body and forewing pale reddish yellow. Interior line dark brown, straight, undulate, double. Median line vertical, slightly excurved above the inner margin, a red-brown shadow behind it extends at the inner margin to the exterior line which is white, bent very much S-like, edged darker brown. Submarginal line pale, indistinct, a dark shadow before it at the costal margin. Hindwing light brown, lighter at the base. ♂ 14 mm. Sokotra.

*rosescens*. **O. rosescens** Hmps. (14 c). Thorax and forewing greyish-brown with a pink tinge on it. Interior line double, filled with white, edged white outside, somewhat obliquely inwards. Reniform macula large, edged light, strangulated in the middle, a light streak through its centre to the margin. Exterior line double, filled with white, slightly S-shaped. Submarginal line white, straight, divided by fine white streaks on the veins. Hindwing greyish-brown. ♂ 24 mm. Uganda, Ruwenzori.

*isocampta*. **O. isocampta** Hmps. (14 c). Thorax and basal area of forewing light red-brown. Interior line double, whitish, almost straight. Median line vertical, dark red-brown which colour is also behind it from the costal margin obliquely outwards as far as the exterior line. Reniform macula indistinct, edged white, narrow. Exterior line double, white, bent behind the cell, then vertical to the inner margin. Submarginal line fine white, shortly excurved in the middle, mostly indiscernible. Marginal line strong, white. Hindwing pale red-brown. 15—18 mm. South and East Africa.

*cupreofascia*. **O. cupreofascia** Le Cerf (= *apicalis* Le Cerf). Forewing reddish brown, with a yellowish-brown postmedian band and a similar spot before the apex. The light band is bordered inside by a distinct black line with 2 little outward angles, above and below the cell. The exterior border-line is finely black, extra-angular below the costal margin, then vertical to the inner margin, bordered basally with a somewhat darker brown than the median area which contains a black streak at the cross-vein. Distal margin narrowly dark brown. Hindwing greyish-brown. ♀ 20 mm. East Africa.

*phaeocroa*. **O. phaeocroa** Hmps. (14 d). Body and wings dark brown. Interior line of forewing double, black, filled with grey, somewhat oblique. Reniform macula edged grey, strangulated in the middle. Exterior line dark, double, filled with grey, far outwards below the costal margin, obliquely inwards below the cell. Submarginal line whitish, very near to the distal margin. Hindwing without markings. ♂ 25 mm. Congo District.

*nephroleuca*. **O. nephroleuca** Hmps. (14 d). Body and forewing dark red-brown. Interior line dark, double, excurved in the middle. A faded dark median line, extra-angular at the lower edge of the cell. A round white, black-edged spot at the cross-vein. Exterior line black, indistinct, far excurved behind the cell, then undulately inwards. No submarginal line. Hindwing somewhat lighter. ♂ 24 mm. Madagascar.

*nigroviridis*. **O. nigroviridis** Hmps. (14 d). Body greyish-brown. Forewing green as far as the exterior line and narrowly behind it at the costal margin, the rest of the marginal area dark brown. Interior line mostly only indicated by a black dot at the costal margin. Reniform macula small, edged dark brown, luniform, touching the exterior line below. The latter somewhat inwards below the macula, then vertical to the inner margin, with a few light scales. Traces of a dark submarginal line. Hindwing greyish-brown. 18—22 mm. South and East Africa.

*cinerea*. **O. cinerea** Auriv. (14 d). Thorax and forewing brownish grey. Interior line double, blackish, vertical. Median line extinct, somewhat extra-angular at the lower cell-angle. Reniform macula finely edged with brown, with 2 black dots outside. Exterior line double, black, dentate, its interior branch below the cell forming the median line. Submarginal line brown, notched, concave behind the cell and in the submarginal fold. Hindwing orange, greyer at the margin. 20 mm. Damaraland.

*cryptochrysea*. **O. cryptochrysea** Hmps. (14 d). Body and forewing reddish brown. Interior line almost vertical, black, a more faded black line before it. Darker behind it, narrower at the costal margin, broader at the inner margin, occupying almost half of the median area. Traces of a black streak at the cross-vein. Exterior line black, obliquely outwards as far as vein 4, where it is bent and vertical to the inner margin, slightly doubled inside. Two black spots behind the cell and one between them at the submarginal line. Distal margin uniformly narrow darker reddish-brown behind the submarginal line. Hindwing orange with black median line



and a blackish margin. 18—20 mm. South Africa, Madagascar. — *centralis* *Pgst.* is not identical with this species, as HAMPSON states in the Cat. Br. Mus.

**O. toxotis** *Hmps.* (14 d). Thorax and forewing red-brown or also almost as purely brown as the hind- *toxotis.* wing. A dark double interior and exterior line is traceable only at the costal margin, filled with yellowish. A white dot in the middle of the cell, a white streak at the cross-vein, edged with black. The indistinct exterior line slightly concave behind the cell and more so in the submedian fold. Submarginal line vertical from the costal margin to vein 5, then excurved and vertical to the anal angle, the space before it darker red-brown. Abdomen and hindwing copper-brown. 22 mm. East Africa.

**O. fulvescens** *Hmps.* (14 d). Body and forewing whitish ochreous, a dark olive brown band behind *fulvescens.* the middle and also at the distal margin but somewhat less dark. Traces of a blackish interior line. A black streak at the cross-vein. The interior border of the dark band straight, somewhat inwards, the exterior border dentate, concave behind the cell and in the submedian fold. Submarginal line whitish, parallel to the margin, slightly excurved in the middle, olive brown before and behind it. Hindwing orange, somewhat brownish at the margin. ♂ 20 mm. Transvaal.

**O. flavipennis** *Hmps.* (14 d). Body and interior half of forewing greyish-brown with a reddish shine. *flavipennis.* Traces of a blackish interior line. Median line black, straight, somewhat inwards. Two black dots at the cross-vein. Exterior line black, double, filled with light, bent inwards at the costal margin, the rest rather straightly undulate. Submarginal line whitish, vertical, convex at vein 5. Hindwing greyish-brown with a darker median line, an orange spot in the submedian fold in the centre, indistinctly defined. 24 mm. Cape Colony.

Here follow a large series of similar species the marking of which is difficult to describe and often indistinct. The original descriptions are mostly very long, but they do not state any differences from the other species and do not match exactly the figures which are sometimes indistinct.

**O. heliastis** *Hmps.* (14 e). Forewing greyish-brown in the basal half, the rest red-brown. Interior line *heliastis.* whitish, double, straight, somewhat inwards, and slightly extra-angular at the costal margin. Ring-macula indicated by 2 oblique white dots. Reniform macula narrow, obliquely outwards, edged white. Exterior line whitish, double, close at the reniform macula. Submarginal line whitish, excurved below vein 7 and in the middle. Fringe white at the apex as well as a little behind the cell. Hindwing dark orange, brown at the base and apex. The specimen figured is much darker than HAMPSON's original figure, but presumably the same species, because the other similar ones do not exhibit the interior line so distinctly straight. 17—20 mm. South and East Africa. A smaller specimen (15 mm) from South-West Africa.

**O. perssoni** *Wlgr.* (= *mustelina* *Wlgr.*) (14 e). Thorax and forewing very dark olive brown. Interior *perssoni.* line indistinct, double, black, somewhat dentate, outwards as far as the median vein, then vertical. Ring-macula indicated by 2 white oblique dots, in the cell and at the median vein. Reniform macula edged light, narrow, the lower end prolonged far outwards, a dark median shadow below it as far as the inner margin. Exterior line double, white, the exterior branch broad at the costal margin, obliquely outwards as far as vein 5, then sharply bent down, concave in the submedian fold, behind this place a lighter violettish-brown spot. Submarginal line whitish, uniformly bent, a black spot behind it at the costal margin. Fringe at the apex white for a short distance. Hindwing dark orange, black at the base at the costal margin. A submarginal band as far as the submedian fold, fused at the apex with the narrow marginal band, a spot near the anal angle. Inner margin narrowly black. 20—22 mm. Cape Colony.

**O. acclivis** *Fldr.* (14 c). Similar to *perssoni*. Ring-macula the same, reniform macula narrow, but *acclivis.* not outwardly prolonged. Interior line of forewing more bent inwards at the inner margin. A bluish-black spot below the reniform macula at the inner margin. Yellowish behind the exterior line and behind the submarginal line at the inner margin. Both wings beneath with numerous black dots, the forewing with an exterior line. 18—22 mm. South Africa.

**O. densa** *Wkr.* (14 e) shows the interior line extra-angular below the costal margin and introangular *densa.* at vein 1. Ring-macula and reniform macula as in *acclivis*. A very undulate black line from the lower cell-angle to the inner margin. The exterior line somewhat concave behind the cell, bent inwards below vein 4 and extra-angular at vein 1. Submarginal line white, with a black spot inside behind the cell. Hindwing similar to *heliastis*. 22—24 mm. Cape Colony.

**O. damagarina** *Rothsch.* Similar to *sancta* *Stgr.* dealt with in Vol. 3, p. 274, pl. 51 n, but somewhat *damagari-* darker. Forewing greyish-brown with white diffuse spots. Interior line double, black, irregular. A similar *na.* median band with a white, watchglass-like spot with 2 grey spots at the cell-end. Exterior line similar. Hindwing dark orange, brownish at the base, the submarginal band interrupted. The ♀ is darker on the forewing, reddish orange on the hindwing, the exterior third smoky brown. 15 mm. North Nigeria.

**O. varia** *Wkr.* (14 e). Thorax and forewing reddish brown. Interior line white, double, introangular *varia.* in the cell and in the submedian fold. The ring-macula is a yellow dot in the cell and a white one at the median vein. Reniform macula edged white, slightly projecting outwards below. A slightly darker shadow before it



is sometimes bordered by an undulate black line extending from the lower cell-angle to the inner margin. Exterior line white, double, slightly concave behind the cell and in the submedian fold, a narrow black stripe behind it between veins 7 and 4. Submarginal line intensely white, introangular behind the cell, terminating into a faded white spot at the inner margin. Hindwing orange, brown at the apex, with a brown band at the margin or before it. 20—22 mm. South and South-West Africa.

*subterminalis*. **O. subterminalis** Hmps. (14 e). Body and forewing dark reddish brown. Interior line double, white, almost straight, similar as in *heliastis*. Ring-macula and reniform macula normal, strangulated in the middle, oblique. Exterior line, according to the original figure, white, dentate, rather uniformly bent. The light submarginal line is slightly excurved in the centre of the wing. Hindwing orange, broadly brownish at the costal margin, narrower before the inner margin. The dark submarginal band is rather far from the margin, an apical spot behind it. This band is more or less interrupted in the ♂, with streaks behind it as far as the apex. 20—24 mm. South Africa.

*chionoperas*. **O. chionoperas** Hmps. Forewing dull red-brown. Interior line indistinct, dark, strongly excurved in the submedian fold, less so below the costal margin, edged somewhat yellow outside. Two yellow dots in the middle of the cell. Reniform macula edged yellowish, small. Exterior line blackish, edged ochreous outside, excurved below the costal margin, incurved at vein 5. Submarginal line blackish, undulate, indistinct, with white spots outside, the margin itself somewhat yellowish. Fringe white at the apex, hindwing orange. Brownish at the costal margin, in the submedian fold and at the inner margin at the base. A black spot at the cross-vein, a submarginal streak at the costal margin. ♂ 22 mm. Transvaal.

*apicalis*. **O. apicalis** Hmps. (14 e). Similar to *varia*. Interior line slightly excurved in the middle. Ring-macula composed of 2 white dots. Reniform macula edged white, straightly cut off below, narrow. Exterior line white, double, with a sharp inward point behind the cell, incurved in the submedian fold, with an outward point at vein 1. Submarginal line white, likewise with an inward point behind the cell, otherwise undulate, a lighter band before it with several long inward notches. Fringe somewhat white at the apex. Hindwing orange with short dark radial stripes at the base, the margin blackish-brown, broader at the apex, also with a black central spot or a narrow submarginal band. 18—20 mm. East Africa, Rhodesia.

*divisa*. **O. divisa** Gaede (14 e). Forewing light brown as far as the interior line which is double, white, extra-angular below the costal margin, then straight to the inner margin, a yellowish spot behind it in the cell. Exterior line double, white, edged black outside in the anterior part, extending along the white-edged reniform macula, with an obtuse inward angle behind the cell, bent inwards in the submedian fold. Submarginal line very indistinctly white, irregularly notched, blackish before it as far as the exterior line and vein 4, the margin behind it also blackish. Hindwing brownish, with an orange median band which is parted by a brown line. 18 mm. East Africa.

*binorbis*. **O. binorbis** Hmps. Forewing just as dark and as indistinctly marked as in *divisa*. The two maculae very indistinct, the dark interior and exterior lines similar to *divisa*. Only the exterior part of the median area as far as the exterior line is dark. According to the figure by HAMPSON, the exterior line is black outside on its whole length. Hindwing somewhat more different from *divisa*, orange, somewhat brownish. A dark exterior line and a broader submarginal band which is dentate outside. — In *dissoluta* Strd. the exterior line is absent and the submarginal band consists only of streaks. ♂ 30 mm. Transvaal.

*bisexualis*. **O. bisexualis** Hmps. (14 f). Forewing dark, somewhat orange at the base. Interior line double, filled with orange in front, undulate. Ring-macula of yellow dots, reniform macula edged yellow, outwardly prolonged below. A dark median shadow from the lower cell-angle to the inner margin. Exterior line also filled with yellow at the costal margin, shaped as in *divisa*, the yellowish submarginal line the same. Hindwing orange, inner margin fine dark, a dark line from vein 2 to the inner margin, narrowly dark also at the distal margin. Hindwing of ♀ blackish with indentations into the yellow submarginal band. 25 mm. South Africa.

*hypoxantha*. **O. hypoxantha** Hmps. (14 f). Forewing dark. Interior line filled with the ground-colour. Ring-macula and reniform macula grey instead of yellow. The median shadow begins already at the costal margin. Exterior line as in *bisexualis*, but not filled light. Dark behind it as far as vein 4. Submarginal line whitish, undulate, indistinct. Hindwing orange with a narrow dark median band and a broad exterior band with a dentate distal margin. — **hypoxanthana** Strd. shows the exterior band broken up into streaks. — **hypoxanthella** Strd. has such streaks only in the anterior part. Hindwing of ♀ blackish brown and a few yellow scales in the interior part of an exterior band, a yellow spot at the anal angle. — In **hypoxanthoides** Strd. the base of the hindwing is somewhat yellow; traces of an incomplete orange median band and marginal band. 20—24 mm. South and East Africa.

This concludes the difficult group of species with yellow hindwings.

*albimarginata*. **O. albimarginata** Hmps. (14 f). Body and forewing reddish greyish-brown. Interior line indistinctly double, black, with an inward point in the middle. Ring-macula round, edged white, a white dot behind it at the median vein. Reniform macula edged white, besides black laterally, a distinct black median line before it. Exterior line black, double, filled with white, broad at the costal margin. Concave behind the cell, edged



blackish outside at the costal margin and in the middle of the wing, white above the inner margin. Submarginal line thick, white. Hindwing with traces of a light exterior line. A white band at the margin is edged dark on both sides. The ♀ exhibits a more intense white margin on both wings. 16 mm. South Africa, also in India.

**O. venata** *Bllr.* Body and forewing light greyish-brown, marginal area browner with light veins. Interior line indistinct, double, dark. A black dot behind it in the cell. A triangular dark spot behind the dark median line extends to the reniform macula, slightly excurved in the middle, and an almost square one in the submedian fold. Reniform macula narrow, edged whitish. Exterior line double, white, horizontal below the costal margin, then close behind the reniform macula, slightly concave there and in the submedian fold. Submarginal line fine white, slightly excurved in the middle. Hindwing bronze brown. 20—22 mm. Niger District, Abyssinia, as far as India. *venata.*

**O. rubrivena** *Hmps.* (14 f). Body greyish brown, forewing more reddish, the veins finely red in the marginal area. Interior and median lines similar as in *venata*. A square black spot behind the latter to the reniform macula and one in the submedian fold. Reniform macula edged white, strangulated in the middle. Exterior line double, white, more oblique at the costal margin, otherwise as in *venata*. Submarginal line whitish, incurved in the submedian fold, blackish behind it. Hindwing bronze brown. ♂ 20 mm. Niger District. *rubrivena.*

**O. hemipolia** *Hmps.* (14 f). Forewing reddish brown, darker in the median area with a violet shine. Interior line indistinct, undulate. Median line strong, black, rather straight. Two black dots at the cross-vein. Exterior line black, double, concave behind the cell and in the submedian fold. Submarginal line normal. Hindwing copper-brown. ♂ 20 mm. Cape Colony. *hemipolia.*

**O. terminipuncta** *Hmps.* (14 f). Forewing pale red-brown in the basal half, marginal half dark violetish red. Interior line red-brown, with 2 black dots at the costal margin, somewhat oblique. Median line oblique, undulate, with a black dot at the costal margin. Reniform macula oblique, edged black. Exterior line double, filled with white, not concave behind the cell, a black spot in the submedian fold before it, black notches behind it except at the costal margin. Submarginal line whitish, edged brown inside, white before it at the inner margin. The margin behind it whitish and reddish, black behind the cell. Hindwing reddish brown. ♂ 25 mm. Sokotra. *terminipuncta.*

**O. rufula** *Hmps.* (14 f). Thorax and forewing reddish yellow, the median area and the costal margin as far as the apex reddish brown. Interior line double with 2 black dots at the costal margin. A black dot at the cross-vein. Exterior line black, edged white inside, projecting below the costal margin and at the lower cell-angle, red-brown behind the cell. Submarginal line whitish, undulate. Hindwing greyish-brown. — **basirufa** *Strd.* shows the basal area more red-brown. 18—22 mm. Niger District, Sudan, Abyssinia and in India. *rufula.*

**O. leptocyma** *Hmps.* Body dark brown. Forewing violetish-grey, dark brown in the marginal area. Interior line double, dark, undulate, pink inside at the costal margin. Median line dark, undulate, excurved in the middle, faded dark behind it. Cross-vein pinkish white. Exterior line double, dark, filled with grey, grey outside, somewhat concave behind the cell and in the submedian fold. Submarginal line grey, undulate. Hindwing dark brown. ♂ 18 mm. North Nigeria. *leptocyma.*

**O. inobtrusa** *Hmps.* (14 f). Forewing dark violetish brown. Interior line black, undulate, double. Median line parallel to it, a red-brown shadow behind it as far as the reniform macula. A dark luna at the cross-vein. Exterior line double, filled with light, extending close behind the cross-vein, where it is bent inwards, and also in the submedian fold. Submarginal line grey, vertical on the anal angle, undulate. Hindwing reddish brown. — Forewing greyer in — **inobtrusella** *Strd.*, more brownish ochreous in — **inobtrusoides** *Strd.* 22—25 mm. Cape Colony. *inobtrusa.*

**O. phaea** *Hmps.* (14 g). Body and forewing very dark red-brown. Interior line blackish, indistinct, extra-angular below the costal margin, then obliquely inwards. A similarly indistinct median shadow parallel to it. An indistinct black and white streak at the cross-vein. Exterior line whitish, outwards from the costal margin to behind the lower cell-angle, then continued parallel to the distal margin. The whitish fine submarginal line is undulate. Hindwing dark brown. ♀ 18 mm. South Africa. *inobtrusoides.*

**O. felicia** *Le Cerf.* Forewing bronze red with an indistinct marking. Interior line excurved in the middle, not reaching the costal and inner margins, reddish. A reddish dot at the cross-vein. Exterior line double, rather sharply extra-angular behind the cell, bent inwards in the submedian fold. The marginal area behind it darker. Submarginal line of the usual shape, somewhat lighter red. ♀ 17 mm. East Africa. *phaea.*

**O. atrifera** *Hmps.* (14 g). Body and forewing pale red-brown. Interior line indistinct, double, undulate, filled with white, a black dot behind it in the middle of the cell. Median line undulate, white, with a brown shadow behind it, most distinct at the costal margin. Reniform macula brown with a white ring. Exterior line double, filled with grey, horizontal from the costal margin to vein 6, slightly concave behind the cell, then continued parallel to the distal margin. A blackish spot behind it at the costal margin, bordered by a white line at vein 5. Submarginal line pale, inside with black dots adjoining to the costal-marginal spot. Hindwing *atrifera.*



- atriferoides*. greyish-brown. — **atriferoides** *Strd.* shows the median area of the forewing blackish, except at the costal and inner margins. — In **atriferella** *Strd.* the forewing is rather uniformly greyish-brown. 20—22 mm. South and East Africa, Sokotra.
- perplexa*. **O. perplexa** *Saalm.* (14 g). The whole marking is rather indistinct. Forewing greyish-brown, the distal area red-brown excepting the costal margin and the marginal area. Interior line very indistinct, double, with a black dot outside at the costal margin. The ring-macula is a white, black-edged dot. Median line oblique and with a black shadow behind it from the costal margin to the median vein, then undulate. Exterior line double, similar to *atrifera*, a few red-brown dots behind it at the costal margin. Submarginal line pale, two black streaks before it at the costal margin, black dots below it. Hindwing dark brown. 20—25 mm. South Africa, Madagascar, Sokotra.
- tricuspis*. **O. tricuspis** *Hmps.* (14 g). Thorax and forewing dark red-brown. Interior line black, double, its exterior branch very much indented in the cell. Median line black, double, slightly excurved in the middle, an intense dark shadow behind it from the costal margin to below the cell. The ring-macula is a black dot with a white ring. Reniform macula edged white, prolonged below obliquely outwards, with a short black outward streak above the lower cell-angle. Exterior line similar to *atrifera*, a black spot behind it between veins 6 and 4, grey above it. Submarginal line pale, with a black streak inside below the costal margin, and black dots below it. Hindwing greyish-brown. ♂ 30 mm. East Africa.
- melagona*. **O. melagona** *Hmps.* (14 g). Thorax and forewing light reddish yellow. Interior line of forewing indistinct, undulate, double. A black dot in the middle of the cell, and one at the lower cell-angle. Median line double, the exterior branch indistinct. Exterior line black, edged white inside, excurved as far as vein 4, then indistinct, double, obliquely inwards, introangular on vein 1. A dark spot behind it at the costal margin as far as vein 5. Submarginal line white, undulate, with black dots inside. Abdomen and hindwing greyish-brown. ♂ 22 mm. Madagascar.
- epimochla*. **O. epimochla** *B.-Bak.* Body and forewing greyish-brown with an undulate dark median stripe and a similar one behind it, traces also of a basal stripe. The exterior stripe is broad and indistinct. A pale lunar line at the margin. Hindwing dark grey. ♂ 22 mm. Lokoja.
- viridaria*. **O. viridaria** *Kenr.* (14 g). Forewing dark grey with green areas and white lines. Interior line whitish, excurved. Reniform macula pale, edged dark. Exterior line whitish, far excurved as far as behind the middle of the cell, edged dark on both sides. The margin behind it whitish ochreous, above the projection of the exterior line a semicircular dark spot at the costal margin. Besides a grey cloud and black dots at the margin. Hindwing greyish-brown. 26 mm. Madagascar.

### 38. Genus: **Pseudozarba** *Warr.*

Separated from *Ozarba* only by the presence of an areole, whilst veins 10 + 8 + 9 of the forewing are stalked in *Ozarba*. Type: *opella* *Swinh.* from India, described as *Acontia*.

- abbreviata*. **P. abbreviata** *Rothsch.* Body cinnamon brown with a grey tint. Forewing short and truncate, distal margin convex. Basal third cinnamon brown, costal marginal area densely strewn with black. The middle third is sooty blackish grey, bordered inside and outside by a light cinnamon red line. Distal third somewhat lighter than the base, 4 white spots at the costal margin. Hindwing silky yellowish grey, darker at the margin. 13 mm. North Nigeria.
- bella*. **P. bella** *Rothsch.* Thorax pale red-brown, abdomen greyish-brown. Forewing at the base red-brown on  $\frac{2}{5}$  of the length of the wing, edged and dusted with black outside. The remaining  $\frac{3}{5}$  creamy white, intensely dusted black in the middle. Blackish red-brown at the margin at veins 6 and 7. Hindwing wood-coloured grey. ♀ 15 mm. North Nigeria.
- opella*. **P. opella** *Swinh.* (= *orthopetes* *Meyr.*) (14 g). Body and forewing light greyish-brown with a dark olive brown median band, with a few silvery scales at the veins. Interior line almost straight, black. The exterior border of the median area also black, somewhat angular at the lower edge of the cell. Cross-vein with a fine brown streak. Exterior line the same, slightly excurved below the costal margin, then rather straight to the inner margin, slightly concave only in the submedian fold. A little behind it a light olive brown band on a yellow ground, broader at the costal margin. Another olive brown band nearer to the margin. Hindwing greyish-brown. — A series of forms: — **melanopennis** *Strd.* Forewing basally and hindwing blacker. — **deargentata** *Strd.* Forewing more red-brown behind the middle, without the silvery scales. — **rubicundula** *Strd.* with a redder basal area. — **cellularis** *Strd.* exhibits the dark band reduced to a dark spot at the cell-end. — **schlencki** *Strd.*, from West Africa, shows somewhat darker basal and marginal areas of the forewing. A dark submarginal line edged light inside or on both sides is more conspicuous and so is the light spot at the beginning of the line. Hindwing more red-brown. 16—20 mm. South and East Africa, Nigeria, also in India.

### 39. Genus: **Penisa** *Warr.*

Proboscis stunted, palpi thin, porrect. Forewing with a slightly projecting apex. Veins 8 + 9 + 10 stalked. Hindwing with a round margin, veins 3 + 4 stalked. Type: *oblataria* *Wkr.* from India, where a few more species occur.



**P. albigrisea** Warr. (14 h). Forewing greyish white, partly darker grey, basal area pale. Interior line *albigrisea*. black, undulate, somewhat inwards. Exterior line black, slightly excurved behind the cell, inwards as far as the submedian fold, then outwards, edged white outside. A faded dark spot at the cross-vein, lighter behind it as far as the exterior line, darker below the cross-vein. Submarginal line faded whitish, introangular behind the cell, forming a spot at the inner margin. The margin behind it spotted darker. Hindwing dark grey, with a white undulate median line and a faded submarginal line. ♀ 20 mm. Zulu Land.

#### 40. Genus: **Rhodotarache** Warr.

Proboscis normal, frons with a conical projection, palpi thin, erect. Forewing extended at the apex. Veins 3—5 at equal distances, areole present. Only 1 species known.

**Rh. roseofusca** Warr. (14 h). Thorax and forewing dark pinkish red. Two still darker red oblique bands *roseofusca*. proceed from the inner margin, one near the base, edged yellow outside; the other one near the anal angle, edged yellow on both sides, extending narrow to the apex. Abdomen and hindwing greyish brown. ♀ 25 mm. Cape Colony.

#### 41. Genus: **Amyna** Guen.

Proboscis normal, palpi thick, erect. Antennae of ♂ ciliated. Abdomen with a tuft at the base. Forewing with a somewhat pointed apex. Veins 3—5 near the lower angle, 6 from the upper angle, areole normal. Vein 5 of hindwing not so strong, arising below the centre of the cross-vein. Type: *punctum* Fabr. from Africa.

**A. magnifoveata** Hmps. Thorax and forewing red-brown, slightly mixed with white. The large scent-scale spot in the centre of the cell is pale. Reniform macula edged with white dots, a white spot above it at the costal margin. Exterior line indistinct, dark, edged with white scales outside at the costal margin excurved as far as vein 4. Submarginal line proceeding from a white oblique stripe at the apex, then continued fine, dark undulate. Hindwing red-brown, with a coppery gloss. ♂ 25 mm. East Africa. *magnifoveata*.

**A. ruptirena** Hmps. (14 h). Thorax and forewing dark red-brown. Interior line brown, edged somewhat whitish outside, excurved as far as the median vein. Reniform macula edged with white dots, two of which at the lower angle are oblong, a white streak above it at the costal margin. Exterior line blackish, sharply dentate, white dots at the tips, widely excurved behind the cell, then straight obliquely inwards. Submarginal line indistinct, dark, with a white spot at the costal margin. Abdomen and hindwing dark greyish brown. ♂ 25 mm. Rhodesia. *ruptirena*.

**A. rubrivena** Hmps. Thorax and forewing light red-brown. Interior line brown, edged white inside at the costal margin, slightly undulate, angled inwards at vein 1. Ring-macula fiery red, edged with white dots, touching the interior line. Reniform macula the same and with 2 larger white dots at the lower edge, besides 3 yellow dots in the middle. A white streak above it at the costal margin. Exterior line brown, edged somewhat white outside, bent as in *ruptirena*. Submarginal line also as in *ruptirena*, besides indented outside with 2 fine red streaks. Hindwing dark brown. ♂ with a round scent-spot in the cell. 24—28 mm. Cameroons. — In **poecila** E. Prout the reniform macula is indistinct, dark in the ♂, white, yellow or reddish in the ♀ without white dots edging it. St. Thomé. *rubrivena*.

**A. octo** Guen. This species with its forms and innumerable other names has been largely dealt with *octo*. in Vol. III, p. 276 (pl. 51 l). A cosmopolitan species in warmer districts.

**A. griseola** Snell. (14 h). Thorax and forewing greyish-yellow with dark brown lines. Interior line *griseola*. double, undulate, the two branches widely separated. Reniform macula slightly brownish, with white marginal dots, strangulated in the middle. Median line indistinct, angled at the lower cell-angle. Exterior line dentate, excurved in the middle of the wing. The brown submarginal line indistinct. Hindwing greyer. ♀ 24 mm. Lower Guinea.

#### 2. Forewing of the ♂ without a scent-scale spot.

**A. punctum** F. (14 h). The species being very common has received 8 further denominations: (annulata *punctum*. F., selenampha Guen., latipennis Wlgr., trivenefica Wlgr., natalensis Wlgr., urba Wlgr., subtracta Wkr., latipennis Wkr.). Body and forewing light or dark red-brown, also blackish. Interior line indistinct, dark. Ring-macula with a fine white ring. Reniform macula edged light brown, filled with white in the lower part, slightly strangulated in the middle; a faded median line below it. Exterior line black, strongly notched, somewhat concave behind the cell, angled at vein 4. Submarginal line undulate, brown. Hindwing coloured like forewing, or paler. The ♀ is greyer, the lines more distinct. — **spoliata** Wkr. lacks the white spot in the reniform macula. *spoliata*. — **paradoxa** ♂ Saalm., from Madagascar, shows a black spot on the forewing between the two *paradoxa*. maculae. — **natalica** ♀ Strd. has light red-brown forewings with indistinct markings. 30—40 mm. West, South, *natalica*. and East Africa, also in India.



42. Genus: **Oederastris** *Hmps.*

Proboscis normal, palpi far porrect, frons with a round projection. Antennae of the ♂ with short double pectinations. Thorax with parted tufts in front and in the middle. Abdomen with 3 hair-tufts, the last being large. Forewing with a dent of scales at the inner margin. Veins 3—5 from the lower cell-angle, 6 from the upper one, areole normal. Vein 5 of hindwing almost fully developed. Only 1 species each has been described of this and the two following genera.

*ectorrhoda.* **O. ectorrhoda** *Hmps.* Thorax and forewing blackish brown, somewhat reddish, with a silvery grey gloss. The marginal area is light red-brown, a greyish black spot at the apex. Interior line double, black, filled with red-brown, a black spot before it above the inner margin. Coniform macula small, edged with grey. Ring-macula and reniform macula edged with red-brown, the latter touched by the indistinct median line. Exterior line black, double, filled with red-brown and also edged red-brown, bent semicircularly around the cell. Submarginal line pale red-brown, with outward notches. Hindwing purely white. ♂ 28 mm. Mashona Land.

43. Genus: **Xanthomera** *Hmps.*

Proboscis normal, palpi highly erected, antennae of ♂ plain. Abdomen with 3 tufts as in *Oederastris*. Vein 6 of forewing below the upper cell-angle, 7 from the angle, 10 + 8 + 9 stalked. Hindwing as in *Oederastris*.

*leucoglène.* **H. leucoglène** *Mab.* (14 h). Body dark greyish-brown. Forewing violettish-grey, dusted black. Interior line straight, somewhat outwards, broadly greyish-yellow before it. Coniform macula and ring-macula absent. Reniform macula round, yellowish white, edged black. Exterior line double, filled with pink and edged pink outside, slightly strangulated behind the cell. Submarginal line finely pink, slightly dentate. Hindwing greyish-black. 16—18 mm. South and East Africa, Madagascar.

44. Genus: **Argyrolopha** *Hmps.*

Proboscis normal, palpi erect, with a hindward pencil at the end. Antennae of ♂ ciliated and tufted. Abdomen above with tufts at the base. Forewing with a normal areole. ♂ with a hair-tuft beneath at the costal margin, bent upwards. Neuration of forewing normal with the usual areole. Hindwing as in *Oederastris*.

*costibarbat.* **A. costibarbat** *Hmps.* Body of a bright red-brown, dusted black, the abdominal hair-tufts silvery. Forewing like the body. A blackish band before the slightly undulate black interior line. Median line double, undulate, filled blackish. A black luna at the cross-vein. Exterior line black, edged reddish ochreous outside, finely dentate, excurved as far as vein 4. A black triangular spot behind it in the costal area. Submarginal line ochreous, indistinct, excurved below the costal margin and in the middle. Hindwing bright red-brown, strewn with black. Median and exterior lines undulate, black. An ochreous spot in the submedian fold behind the exterior line. 22 mm. Mauritius.

45. Genus: **Panilla** *Mr.*

Forewing short, broad, triangular. Palpi short, porrect, with long hair below. Antennae of ♂ ciliated. Thorax with a small tuft behind, also the 3 first abdominal segments. Type: *dispila* *Wkr.* from India. Half of the species are distributed over India and Africa respectively.

*diagramma.* **P. diagramma** *Hmps.* Body blackish red. Forewing reddish ochreous and blackish. The costal margin with an interior, a median and an exterior black spot. Interior line blackish, edged whitish ochreous inside, angled inwardly in the cell and at vein 1. A black dot in the middle of the cell. Reniform macula edged black, shaped like a reverse comma. Median line double, very oblique from vein 5 to the inner margin. Exterior line black, edged white outside, very obliquely outwards as far as vein 6, dentate as far as vein 4, then again very obliquely inwards, a black triangular spot behind it at the costal margin. Submarginal line whitish, indistinctly undulate. Hindwing dark brown with a black central luna. Median line black, oblique, whitish outside, exterior line oblique, edged white on both sides. ♀ 20 mm. Gold Coast.

*hemicausta.* **P. hemicausta** *Hmps.* Thorax and forewing violettish brown in the basal and marginal areas. Median area more brownish ochreous. Interior line fine, dark, edged somewhat brownish ochreous inside, undulate. Median line indistinct, dark. Exterior line fine, red, brownish ochreous outside, obliquely outwards as far as vein 6, then inwardly angled to a black dot in the discal fold, notched from vein 4, obliquely inwards, with 2 black dots in the submedian fold. Submarginal line traceable, grey, undulate. Hindwing reddish ochreous, marginal area violettish brown. Median line black, edged dark red outside near the inner margin. Exterior line dark, with a black triangle in the discal fold, with black spots below vein 4. ♀ 26 mm. Gold Coast.

*subbasalis.* **P. subbasalis** *Hmps.* Body violettish red. Forewing violettish-brown and red. A rather broad black band at the base. A small black spot at the cross-vein, pointed above. Exterior line indistinct, dark, oblique as far as vein 5, then inwards, dentate, a square black spot behind it at the costal margin. Traces of a dark submarginal line. Hindwing light violettish red. A black line from the lower cell-angle to the



inner margin. Exterior line black, uniformly bent behind the cell. A blackish submarginal line. ♂ 25 mm. Gold Coast.

#### 46. Genus: **Lithacodia** Hbn.

Proboscis normal, palpi reaching the frons; antennae of ♂ ciliated. Thorax with a small double tuft in the middle, with a spread out tuft behind. Abdominal tufts large on the 3rd and 4th segments, two smaller ones before them. Neuration normal in both wings. Type: *bellicula* Hbn. from North America. Numerous other species in North America and in the Indo-Australian region.

1. Veins 3 + 4 of hindwing stalked.

**L. *picata*** Btlr. (14 h). Thorax white, abdomen slightly brownish. Forewing white. Interior line black, *picata*, slightly notched, oblique. Behind it a bronze brown band from which a spur behind the cell extends upwards to vein 6. This spur is bordered outside by the blackish exterior line. One intense black dot each in the main band in and below the cell, 2 finer ones at the cross-vein. Marginal area bronze brown. Submarginal line pale, undulate. A black spot below the apex, rusty red above it. Hindwing greyish brown. 15—18 mm. East Africa, Madagascar, Mauritius, as far as India.

**L. *blandula*** Guen. (= *i-graecum* Mab., *perta* Schaus.) (14 i). Body and wings coloured as in *picata*. In- *blandula*. terior line as in *picata*, but only small dark dots before it at the costal margin, no large spot. The brown band behind the interior line at the inner margin somewhat broader. Two black dots at the cell-angle. A black reniform spot behind the cell is bordered outside by a short white line. Large brown spots centred blackish at the margin below the apex and below the middle, bordered outside by the white submarginal line. Hindwing whitish, greyish-brown at the margin. 15—18 mm. West, South, and East Africa, Abyssinia, Madagascar, Réunion.

**L. *caffristis*** Hmps. (= *vialis* Hmps.). Body brownish ochreous. Forewing ochreous, darker at the *caffristis*. costal margin. Marginal area obliquely defined from the apex to before the middle of the inner margin, darker in the interior part before the exterior line which is white, obliquely inwards from the costal margin, then bent more inwards in the submedian fold, a dark spot below it at vein 4. An ochreous elliptical spot behind it at the margin and one above the anal angle. Hindwing whitish ochreous, browner at the apex. ♀ 22 mm. Cape Colony.

**L. *mesomela*** Hmps. (14 i). Body whitish grey. Forewing whitish red-brown at the base, at the costal *mesomela*. margin and in the cell. Interior line incurved in the cell, double, filled white below it. Interior half of the median area blackish-brown, a black dot in the cell. Reniform macula elliptical, white above, blackish-brown beneath. Exterior line double, filled with white, excurved below the costal margin, then forming the edge of the reniform macula, then bent inwards. Margin brownish white. Submarginal line white, edged black inside, dentate, concave behind the cell. A black oblique diffuse spot at the apex. Hindwing reddish brown. 18—20 mm. East Africa. The specimen figured from the Cameroons probably belongs to this species.

**L. *flavofimbria*** Saalm. (14 i). Thorax yellow, abdomen brownish. Forewing yellowish white at the *flavofim-* base, bordered by the purely white interior line. Exterior line proceeding from a broad white spot at the *bria*. costal margin, slightly excurved behind the cell, thickened again at the inner margin. The rest of the wing behind the interior line is dark red-brown. Reniform macula narrow, edged white, strongly bent outwards below, almost touching the exterior line. Hindwing dark brown with orange fringe. ♀ 20 mm. Madagascar.

**L. *pyrophora*** Hmps. Thorax red-brown, abdomen brown. Forewing pale red-brown in the basal area, *pyrophora*. bordered by an oblique dark interior line. The rest of the wing dark brown. The exterior line begins at a semi-elliptical white spot at the costal margin, beside which there is a fiery red spot outside, bordered by a white costal-marginal stripe. Exterior line fine, white, edged black, a black spot behind it below the fiery red spot. A dark spot at the apex and traces of a pale submarginal line. Hindwing pale brownish ochreous, fringe yellow. ♀ 18 mm. Central Africa.

**L. *varicolora*** Hmps. (14 i). Body pale greyish-brown. Forewing red-brown at the base and inner margin. *varicolora*. Median area pinkish brown, margin greenish. Interior line white, notched, crossed in the submedian fold by a fine black streak. Ring-macula and reniform macula finely edged with olive brown, the latter elliptical, with a black dot below. Traces of an incurved line from the lower cell-angle to the inner margin. Exterior line double, widely excurved below the costal margin, obliquely inwards from vein 4, filled with white. Submarginal line indistinct, formed of white scales, undulate, thickly edged dark inside. Hindwing whitish, brownish at the margin. — In *medioirrorata* Strd. the median area is dark brown, not pink, and the marginal area is not *medioirro-* green. South Africa. 20—22 mm. *rata*.

**L. *scapha*** Saalm. (14 i). Body red-brown. Forewing lighter red-brown, spotted violettish brown. An *scapha*. oblique silvery luna in the submedian fold. Behind it the straight pale interior line obliquely inwards. Narrowly dark olive brown before it and below the luna. Exterior line edged white inside, double, parallel to the interior line, dark red-brown. Marginal area lighter, deeply bent inwards behind the cell and in the submedian fold. Hindwing yellow, brown at the apex. 18 mm. Madagascar.



- armilla*. **L. armilla** Saalm. (14 i). Thorax olive brown, abdomen greyish-brown. Forewing olive brown in the anterior part, bordered by a line beginning at the costal margin near the apex to before the middle of the inner margin, white from the upper edge of the cell, faded above it. Another white line proceeds from this line, extending along vein 3, then pointedly bent over and vertically forward. Behind this upper part a pale spot at the margin. A black, yellow-edged spot below the apex in the submedian fold, bordered inside with a white line, a smaller spot below it. Hindwing yellowish white. 16—18 mm. Madagascar. — In **betsileonis** Strd. the hindwing is golden yellow, red at the margin.
- metachrysa*. **L. metachrysa** Hmps. Body pale red-brown. Forewing darker red-brown as far as the middle. Interior line marked by two black dots at the costal margin. Ring-macula and reniform macula edged pink, the latter slightly dusted pinkish-white outside below. Exterior line indistinct, double, filled with white, bent normally. White behind it at the costal and inner margins. Submarginal line indistinctly white, bordered inside as far as vein 6 by a dark brown spot, then by a brown line. Hindwing yellow and red-brown, fringe yellow. ♂ 22 mm. Madagascar.
2. Veins 3 and 4 of hindwing arise from the same place.
- titanica*. **L. titanica** Hmps. (14 i). Thorax and forewing dark red-brown, abdomen lighter. Interior line of forewing brown, double, interrupted at the veins, filled with pink; a white streak in the submedian fold outside at it. Ring-macula edged pink above, white below. Reniform macula somewhat pink in the middle; margin white, pink in front, with an inward angle below. Exterior line indistinct, double, filled with pink, extending far behind the cell; a punctiform white line behind it. Submarginal line whitish, notched. Hindwing pink, whitish at the base and costal margin, the distal margin brownish. ♀ 38 mm. Madagascar.
- normalis*. **L. normalis** Hmps. (15 a). Thorax and forewing dark reddish brown. Basal area greyish-white, somewhat greenish below the base of the cell. Marginal area likewise greyish-white except at the apex, interrupted by a black streak below vein 4. Traces of a black interior line. Ring-macula and reniform macula edged black, followed by an indistinct black median shadow. Exterior line double, its distal branch extinct in the white area, far excurved behind the cell and strangulated. Submarginal line whitish, terminating into the light spot at the anal angle. Abdomen and hindwing pale brown. ♀ 24 mm. Transvaal.
- griseofusa*. **L. griseofusa** Hmps. Body and forewing greyish brown, the median area brown. Interior line double, dark, filled with whitish, and edged whitish inside. The ring-macula is a small white ring with a dark centre. Reniform macula small, whitish, elliptical, two dark dots in the centre. Exterior line double, edged white outside, normally shaped. Submarginal line whitish, undulate. Hindwing greyish-brown. ♀ 18 mm. Niger District.
- binorbis*. **L. binorbis** Hmps. (15 a). Body pale red-brown, forewing the same. Somewhat violet at the base at the inner margin. Interior line black, excurved below the cell and double. Coniform macula small, edged black. Ring-macula and reniform macula whitish, edged black, both elliptical, the second with an oblique dark brown median shadow. Exterior line double except at the inner margin, projecting behind the cell, inwardly angled in the submedian fold. Submarginal line light, strongly angled. One light large spot each at the inner margin behind the interior and exterior lines. Hindwing pale reddish brown. ♀ 25 mm. Cape Colony.
- plumbifusa*. **L. plumbifusa** Hmps. Thorax and forewing blackish-brown, with a leaden gloss. Interior line grey, edged brown outside, undulate. Ring-macula and reniform macula absent. Exterior line grey, edged brown inside, somewhat obliquely to the costal margin, bent inwards in the submedian fold. Submarginal line indistinct, dark brown, undulate. Hindwing greyish brown. ♀ 15 mm. Niger District.

#### 47. Genus: **Cophanta** Wkr.

Proboscis normal, palpi highly erected. Antennae of ♂ somewhat laminated and ciliated. Thorax tuftless, abdomen with 4 tufts. Veins 3—5 of forewing near the lower cell-angle, 6 from the upper one, 10 + 7 + 8 + 9 stalked. Veins 3 + 4 and 6 + 7 of hindwing stalked, 5 feeble from the middle of the cross-vein. Type: *funestalis* Wkr. from India. Beside this one species only the one African species has been described.

- occidentalis*. **C. occidentalis** Hmps. Body and forewing dark violettish grey with silvery scales. Interior line indistinct, double, vertical, filled with yellow. Exterior line also double, the exterior branch indistinct, excurved at vein 5, filled with yellow. Submarginal line composed of white dots. Hindwing greyish-brown, fringe with a light line at the base. ♂ 16 mm. Sierra Leone.

#### 48. Genus: **Xanthograptia** Hmps.

Exterior similar to that of *Cophanta*. Palpi somewhat shorter. Mesothorax with an appressed tuft. Vein 6 of forewing below the upper angle, only 7 + 8 + 9 stalked. Hindwing as in *Cophanta*. Type: *trilatalis* Wkr. from India. Remark as in *Cophanta*.

- brunneaplagia*. **X. brunneaplagia** B.-Bak. Body and forewing greyish ochreous, traces of a broad darker median band upwards to the cell. Dark brown above it between the two maculae as far as the costal margin. A similar spot at the costal margin near the apex. Traces of a pale submarginal line. Hindwing very pale grey. ♂ 22 mm. Portuguese West Africa.



49. Genus: **Callostrotia** Hmps.

Proboscis normal, palpi highly erected. Frons with a round projection. Antennae of ♂ ciliated. Metathorax with an appressed tuft, the abdomen only with a basal tuft. Forewings stretched. Vein 6 from the upper cell-angle, 7—10 from the areole. Hindwing: no vein stalked, vein 5 well developed. Type: *flavizonata* Hmps. This and the following genus contain but one species each.

**C. flavizonata** Hmps. Body black with yellow scales. Forewing black at the base with a few yellow and silvery scales. Interior band yellow, undulate. Median area like the basal area. A small yellow spot in the cell, a yellow streak at the cross-vein. Exterior line yellow, forming a spot at the costal margin, excurved in the middle. Submarginal line yellow, almost straight, edged black outside. Hindwing yellow, suffused with blackish-brown except at the margin, with black marginal dots. ♂ 18 mm. Niger District.

50. Genus: **Acaenica** Hmps.

Proboscis and palpi as in the preceding genera. Frons with a long hair-pencil above. Antennae of ♂ tufted. Abdomen with a basal hair-tuft. Forewing slightly cut out below the apex, excurved in the middle. Forewing with an areole and also in other respects as in *Callostrotia*. Hindwing somewhat lobate at the anal angle, vein 5 less developed, from the centre of the cross-vein. Type: *diaperas* Hmps.

**A. diaperas** Hmps. Body creamy white, somewhat brownish. Forewing blackish-brown in the basal half, the distal margin concave below the cell. Interior line indistinct, dark, edged creamy white inside, bent inwards in the cell. The space behind it is creamy pink to which an oblique creamy white band extends from the apex, the lower side of this band despatching an oblique streak to vein 4, leaving free a conical blackish-brown spot before the apex, with 3 white dots in it. Marginal area blackish-brown, very narrow at the apex, its inner margin oblique and undulate, edged by a black line. A black spot at the cross-vein. The white branch is edged black above. Fringe with a white basal line. Hindwing brownish white, pink at the anal angle, traces of a dark exterior line.

51. Genus: **Eustrotia** Hbn.

Proboscis present, palpi erect, antennae of ♂ finely ciliated. Thorax with small tufts in the middle and behind, abdomen with a basal tuft. Forewing with an areole. Hindwing: veins 3 + 4 shortly stalked or from the same base. Vein 5 almost normally strong from below the centre of the cross-vein. Type: *uncula* Hbn. from Europe. The species numbering about 100, one third of which occur in Africa, are very differently marked and distributed over all the faunae.

**E. albifissa** Hmps. (15 a). Body and forewing ochreous, somewhat pinkish flesh-coloured. Olive brown at the costal margin as far as behind the middle. Median vein and veins 4 and 5 white. A wedge-shaped dark brown stripe below the cell to the distal margin. The coniform macula is fused with this wedge. The reniform macula is indicated by two black dots at the cross-vein. Exterior line white, proceeding from the apex, straight; a fine streak starting from this line ends in a bow before the apex. The margin behind it pink. Hindwing brownish white. 22 mm. Natal, Transvaal.

**E. divisa** Saalm. (15 a). Body and anterior part of forewing light olive ochreous as far as a line from before the middle of the inner margin to the apex, somewhat convex in the middle, edged with white. The distal part is dark olive brown. Exterior line whitish, very feeble, notched, rather straightly outwards as far as vein 4, then bent inwards. Traces of a light submarginal line. Hindwing pale reddish brown. 18 mm. Madagascar.

**E. diascia** Hmps. (15 a). Body and forewing dark brown, more yellow at the base above the inner margin and in the cell as far as the apex. Interior line indistinct, dark, bent inwards below the cell. Coniform macula edged dark, broad, contiguous with the ring-macula, both edged and centred dark. Reniform macula indistinctly edged dark, with 2 black dots inside. Exterior line double, filled with white, beginning behind the cell, straightly inwards. A darker shadow from the apex to it at vein 6. Hindwing dark brown. 20 mm. East Africa.

**E. albibasis** Hmps. (15 a). Body and forewing yellowish white. A light olive brown oblique median band. Edged white inside, angular outside at the lower cell-angle and edged white, bent parallel with the distal margin. A blackish spot behind it in the submedian fold, an olive brown oblique stripe extends from the apex. Hindwing paler brown. ♀ 15 mm. Natal.

**E. olivula** Guen. (15 a). Body pale brown. Forewing white with an olive brown marking. A narrow spot at the costal margin near the base. A median band expanded to the inner margin. A black dot at the lower cell-angle, the triangular spot behind it paler than the others. A larger spot above it at the costal margin, and a broad one at the distal margin below the middle, narrowly prolonged towards the apex. Hindwing yellowish white. 24—26 mm. Cape Colony.



- quadripartita*. **E. quadripartita** Wkr. (15 b). Thorax and forewing white with blackish markings. Median band somewhat oblique, slightly undulated at the edges. A triangular spot at the margin, with an inward point opposite the centre of the cell and below it. Fringe white at the apex. Abdomen and hindwing brownish white. 14 mm. The species is widely distributed in India. A specimen is before me from Togo. Its only difference may consist in the partly dark fringe not mentioned by HAMPSON.
- expatriata*. **E. expatriata** Hmps. Body greyish brown. Forewing greyish-brown in the basal half, violettish red-brown in the marginal half, greyer at the margin. Small black dots at the costal margin at the base. Median band dark chocolate, edged black, with silvery lines on both sides, slightly excurved at the costal margin, bent inwards below the cell. A fine dark line behind it is bent inwards between veins 5 and 1. Cross-vein black, submarginal line grey. Hindwing grey, red-brown at the margin. ♀ 16 mm. Niger District.
- trigonodes*. **E. trigonodes** Hmps. Thorax and forewing violettish greyish brown, reddish brown in the marginal area. Interior line absent, a black dot in the cell. The reniform macula is a brown shadow. Median line white, obliquely outwards from the costal margin to vein 2, then bent inwards, a dark olive brown triangular spot before it. Exterior line somewhat dark, beginning with a spot at the costal margin, extending almost parallel with the distal margin. Behind it red-brown as far as the submarginal line which is light, flatly convex in the middle, with 2 darker spots behind it. Abdomen and hindwing reddish brown. 22—25 mm. East Africa.
- genuflexa*. **E. genuflexa** Hmps. (15 b). Thorax and basal half of forewing red-brown, lighter olive brown behind it. Interior line with a black dot at the costal margin, dark, indistinct. Median line white, extending as in *trigonodes*, but somewhat more acutely angled, a dark brown band before it. Marginal area marked as in *trigonodes*, more uniformly dark brown at the margin. Hindwing orange. The space before the submarginal line on the forewing of the ♀ is somewhat fiery red. 22—24 mm. South-West and South Africa.
- catoxantha*. **E. catoxantha** Hmps. Thorax and forewing red-brown; the median area darkest, somewhat lighter at the margin. Interior line indistinct, double, somewhat oblique. Median line double, the interior branch extra-angular below the costal margin and at the median vein, then excurved, the exterior branch obliquely from the costal margin to the lower cell-angle, then bent inwards. Reniform macula represented by a white streak at the exterior median line, a brown triangular spot behind it. Exterior line edged dark inside, excurved as far as vein 4. Then a greyish-white band, a red-brown shadow and the submarginal line which is excurved in the middle and at the anal angle. Hindwing yellow. ♂ 20 mm. Transvaal.
- angulissima*. **E. angulissima** n. sp. Thorax and forewing red-brown. Interior line double, dark, strongly dentate. A light brown stripe from the lower cell-angle towards the costal margin inwards. Outside of it, at the subcostal vein, begins a horizontal light line which is then bent down extending almost straightly to the submedian fold, then obliquely outwards to the inner margin. This line and the light oblique stripe inside broadly edged with blackish brown, the bent light line narrowly edged dark also outside, more broadly so only at the costal margin. Then follows a light yellowish brown stripe and an olive brown one with a light border-line outside. Submarginal line white, from the costal margin to vein 5 inwards, then widely extra-angular at vein 3, outwards again below vein 2, blackish brown before it. Pointed dark triangles at the margin. Hindwing orange. Fringe grey. ♂ 24 mm. Cape Colony. Type in the Berlin Museum.
- albifascia*. **E. albifascia** Hmps. (15 b). Thorax and forewing red-brown. Interior line indistinct, double, oblique. The ring-macula is a pale dot edged dark. Median line black, slightly extra-angular below the costal margin, somewhat oblique as far as vein 2, then vertical. Behind it a greyish-white band enclosing the reniform macula represented by a dark spot. Exterior line brown, fine, on the white band, slightly excurved behind the reniform macula, then straight to the inner margin. Submarginal line fine white, double, short black streaks behind it. Hindwing orange, with a broad brown margin. ♀ 22 mm. Cape Colony.
- citripennis*. **E. citripennis** Hmps. (15 b). Thorax and interior half of forewing blackish-brown, lighter as far as the interior line. The latter indistinct, double, vertical. Median line black, obliquely bent inwards below the cell. The reniform macula is a brown streak with 2 black dots behind it. The latter and the exterior line on a white band. The fine brown exterior line is angled behind the upper and lower cell-angles, then bent inwards. Marginal area dark again. Submarginal line white, proceeding from a spot at the costal margin, irregularly angled. Hindwing pale yellow, brownish at the margin. ♂ 24 mm. East Africa.
- decissima*. **E. decissima** Wkr. (= *africana* Fldr.) (15 b). Thorax and forewing blackish brown. Interior line black, double, the branches distantly separated. Median line double, the interior branch uniformly dentate, the exterior one obliquely outwards to the centre of the wing, intro-angular in the submedian fold; a white band behind it. A dark streak at the cross-vein with a black spot behind it. The feeble exterior line on the light area just as angular as in *citripennis*. Grey spots at the edge of the white band, then 2 white dentate submarginal lines. Hindwing brownish, lighter at the base, fringe light. 16—20 mm. South and East Africa.
- mianoides*. **E. mianoides** Hmps. Body and forewing reddish brown, lighter than in *decissima*. The light band is mostly not of a pure white, more grey. Interior line indistinct, black, double. Median line black, narrowly edged with dark inside, slightly angled almost opposite the black dot at the cross-vein, then slightly bent in-



wards in the submedian fold. It differs from *citripennis* in the regular shape of this line and in the lighter colour. Marginal area and the lines in it as in *citripennis*. A light spot at the apex with a black dot. Hindwing brown. 15—18 mm. East Africa.

**E. phacomera** *Hmps.* (15 b). Body and forewing in the basal half blackish red-brown. Interior line *phacomera*, dark, undulate, oblique. The ring-macula is a reddish spot edged with black. Median line black, slightly inwards from the lower cell-angle to the costal margin; vertical towards the inner margin. Reniform macula very indistinctly edged light, strangulated in the middle. Exterior line double, convex behind the cell, concave in the submedian fold, somewhat dentate. Submarginal line pale, edged dark inside, except at the costal margin. Hindwing blackish. ♀ 24 mm. West Africa.

**E. rubrisignata** *Hmps.* Body and forewing olive brown, the median area somewhat darker except at *rubrisignata*, the costal margin. Interior line white, oblique, bordered with black outside above the inner margin. Coniform macula white with a few red scales inside. Ring-macula and reniform macula white, the former inside with fiery red scales, somewhat oblique. The others with a fiery red ring, below with black scales. A black spot between the two maculae. Exterior line white, with a slight black edge inside, widely bent outward below the costal margin, touching behind the cell an olive brown oblique band from the apex. Submarginal line whitish, edged with olive brown inside below the oblique band. Hindwing greyish-brown, fringe with white tips. ♀ 18 mm. Central Africa.

**E. obliquisignata** *Hmps.* Body greyish brown. Forewing red-brown with a violet reflection. Interior *obliquisignata*, line dark brown, oblique as far as the median vein, bent outwards below the submedian fold. A black luna at the cross-vein, connected with a black oblique streak from the costal margin. Exterior line indistinct, double, brown, with a black spot at the costal margin, excurved below the costal margin, concave behind the cell. Submarginal line beginning with small black spots at the costal margin, then pale, fine, undulate, with black dots inside. Hindwing dark brown, fringe with a pale basal line. ♀ 26 mm. Central Africa.

**E. magniplagia** *Hmps.* Body and forewing red-brown with a large coniform spot from the costal margin *magniplagia*, near the apex to vein 5, chocolate brown. The exterior edge of the spot is very convex below vein 7, with white dots in front. Interior line red-brown, indistinct, undulate. A fine black luna at the cross-vein. A faded dark median line as far as the lower cell-angle. Exterior line fine, oblique to the lower angle of the large spot, then with fine black dots at the veins. A few submarginal black dots. Hindwing greyish brown. Fringe with a white basal line and white tips. ♀ 22 mm. Niger District.

**E. albisigna** *Hmps.* (15 b). Body and wings dark reddish brown. Interior line double, black, forming *albisigna*, two bows. Reniform macula brown, edged white, oblique, elliptical, a dark shadow before it. Exterior line dark, very convex at the costal margin, slightly concave behind the cell, more concave in the submedian fold. Submarginal line double, dark, filled lighter. — In *reniformis* *Strd.* the reniform macula is somewhat triangular and *reniformis*, filled white. ♀ 22 mm. Rhodesia.

**E. amydrozona** *Hmps.* (15 b). Body and forewing golden brown, whitish in the submedian fold at the *amydrozona*, cross-vein. Interior line composed of dark dots, edged white inside. A white elliptical spot at the cross-vein, whitish above it at the costal margin. Exterior line indistinctly dark, whitish behind it at the inner margin. Submarginal line pale, indistinct, with black sagittal spots inside. Hindwing golden brown, fringe somewhat white. ♂ 18 mm. East Africa.

**E. amydra** *Swinh.* (15 b). Thorax and forewing dark grey, olive yellow behind the middle and in the *amydra*, submedian fold near the base. Interior line indistinct, undulate, somewhat convex. Coniform macula black, indistinct. Ring-macula white, edged black. Reniform macula the same, somewhat olive yellow in the middle. A dark median line from the lower cell-angle obliquely inwards. Exterior line blackish, broadly edged white outside, somewhat concave behind the cell, then dentate. Submarginal line composed of light spots. Abdomen and hindwing pale brown. ♀ 22 mm. Angola.

**E. atrivitta** *Hmps.* Body and forewing brownish ochreous. Darker at the costal margin at the base *atrivitta*, and in the middle as well as in the cell, separated by an oblique white band from the costal margin to the indistinct white ring-macula. Reniform macula white, edged somewhat black, an oblique white shadow from the costal margin to this macula; an oblique dark shadow behind it extending from the apex. A black band between the ring-macula and reniform macula. Exterior line fine, double, dark, filled with light. Submarginal line black, widened into a spot in the middle and in the submedian fold, somewhat white before it in front. Hindwing brownish ochreous. ♂ 18 mm. East Africa.

**E. perirrorata** *Hmps.* Forewing chocolate brown, dusted bluish white, the marginal area less densely *perirrorata*, irrorated except at the apex. Interior line dark, undulate, indistinct. Reniform macula chocolate brown, oblique, strigiform. Exterior line dark brown, very oblique at the costal margin, submarginal line of fine brown dots. Hindwing greyish-brown, fringe white at the base. ♀ 25 mm. Rhodesia.

**E. bryophilina** *Hmps.* (15 e). Thorax and forewing greyish red. Interior line double, blackish, faded, *bryophilina*, the two branches distantly separated. The ring-macula is a small black spot with a white ring. Reniform macula with a dark centre edged with white, then follows an oblique dark median shadow. Exterior line in-



distinct, double, very convex below the costal margin, very concave in the submedian fold. Submarginal line red-brown, edged black inside. Hindwing pale red-brown. ♂ 22 mm. Transvaal.

*nephrostricta*. **E. nephrostricta** *Hmps.* Body and forewing greyish-brown. Interior line fine, dark, bent, a small black spot behind it replaces the coniform macula. Ring-macula and reniform macula large, whitish, edged black. Above the former a white spot at the costal margin, the reniform macula extending to below the cell, a brown and white spot above it at the costal margin. Exterior line indistinct, strongly outward below the costal margin, then composed of small white lunae edged with dark. Submarginal line whitish, edged brown inside. Hindwing light brown. ♂ 25 mm. East Africa.

*micropis*. **E. micropis** *Hmps.* (15 c). Body and forewing dark red-brown, dark yellow above the inner margin as far as the cell-end. Ring-macula and reniform macula fine white, edged with black. An indistinct undulate brown line from the lower cell-angle to the inner margin. Marginal area of a greyish tint, with black radial streaks. Hindwing greyish brown. ♂ 20 mm. Congo District.

*melanopis*. **E. melanopis** *Hmps.* (15 c). Thorax and forewing light red-brown, median area with a violet reflection. Interior line white, bent far outward in the middle. The ring-macula is a small black spot, the reniform macula a white streak before the cross-vein. Exterior line white, edged black inside, very convex below the costal margin, then parallel with the distal margin. Submarginal line thin, a black spot behind it at the costal margin. Abdomen and hindwing paler red-brown. 20 mm. East Africa.

*sectirena*. **E. sectirena** *Hmps.* Body brownish white, forewing more reddish. Interior and median lines marked by black streaks at the costal margin. Reniform macula horizontally divided, the parts white and edged with black. Exterior line dark, edged white outside, a white spot behind it at the costal margin. The marginal area below this spot is irrorated with dark. Hindwing pale red-brown. ♂ 16 mm. Gold Coast.

Finally 3 more species the position of which is not to be ascertained.

*loxosema*. **E. loxosema** *B.-Bak.* Thorax and forewing in the basal and median areas brownish ochreous. Costal margin grey, a broad triangular greyish lilac stripe below it. Then follows a dark stripe, only the anal angle remains lighter. Hindwing dingy grey. ♂ 18 mm. Angola.

*cumalineae*. **E. cumalineae** *B.-Bak.* Body greyish ochreous. Forewing pinkish grey mixed with olive brown, especially below the cell. The space behind the cell is radially striped. Submarginal line pale, bent far inwards below the costal margin as far as beyond the cell-end. Behind it 2 fine lines on a pale ground which is edged by a grey stripe which itself is edged with creamy white and olive. A dark streak at the cross-vein. Hindwing grey, darker at the margin. ♂ 24 mm. East Africa.

*bella*. **E. bella** *B.-Bak.* Thorax grey, abdomen reddish brown. Basal and median areas of forewing reddish brown, behind it an almost triangular grey spot which is edged white except inside. The whole distal area behind it is violettish grey with 2 more or less distinct eye-spots at the anal angle and above it. The first is indistinct, grey, the upper one pinkish brown. The apical spot dark chocolate brown, edged white below. Hindwing greyish-brown. ♂ 16 mm. Angola.

## 52. Genus: **Pseudomicrodes** *Hmps.*

Proboscis normal, palpi moderately long, antennae of ♂ ciliated. Body tuftless. Forewing rather narrow. Vein 3 before the lower cell-angle, 6 and 7 from the upper cell-angle, 8+9 and 10 from the areole. Hindwing: veins 3+4 stalked, the rest normal. Type: *decolora* *Rbl.* from Sokotra. All the species from Africa.

*fuscipars*. **P. fuscipars** *Hmps.* (15 c). Thorax brown, forewing greyish-brown, the costal-marginal area as far as the exterior line and the marginal area dark brown. Interior line black, edged white inside, indistinct, with a black spot at the inner margin. The ring-macula is a white dot. Reniform macula white, with a brown streak in the middle. Exterior line double, filled with white, very convex below the costal margin, then parallel with the distal margin, interrupted in the submedian fold, with a black spot at the inner margin. Submarginal line white, edged somewhat brown inside, a dark oblique shadow behind it at the apex. Hindwing yellowish brown. 16 mm. Transvaal.

*mediorufa*. **P. mediorufa** *Hmps.* Thorax and forewing brownish white, the median area from the cell to the inner margin reddish brown. A small white spot at the costal margin near the base, black scales behind it. Interior line black, a larger white spot behind it at the costal margin as far as the median vein, where it is bent outward. The interior line below it double, filled with white, introangular at vein 1. Ring-macula white, finely edged with black. Reniform macula white, edged black inside and below. Median line oblique from the costal margin to the reniform macula, then undulate. Exterior line black, double, filled with white, the exterior branch less distinct, very convex below the costal margin, then near to the median line at the inner margin. A white oblique shadow behind it near the apex. Submarginal line white, indistinctly edged with brown on both sides, a black streak behind it from the apex. Hindwing brownish white with a dark luna and a curved exterior line. 16 mm. Cape Colony.



**P. rufigrisea** *Hmps.* (15 c). Body and wings light greyish ochreous. Interior line white, edged brown *rufigrisea*, on both sides, dentate. Ring-macula in a fine white ring, with a black streak below. Reniform macula white, edged with brown, with a black streak below. Traces of a median line from the costal margin to the inner margin. Exterior line very indistinctly double, filled with yellowish-white, obliquely outwards as far as vein 6, then parallel with the distal margin. Submarginal line yellowish white, edged red-brown on both sides. 16 mm. East Africa.

**P. decolora** *Rbl.* Body and forewing greyish brown. Interior line black, fine, edged white inside, somewhat convex in the middle. Cross-vein fine dark. Exterior line black, oblique, fine. The median area before it darker brown. Hindwing pale reddish brown, fringe light. ♂ 12 mm. Sokotra. *decolora*.

**P. polysticta** *Hmps.* (15 c). Body and forewing light ochreous brown. Interior line scarcely traceable, from the costal margin obliquely to the submedian fold, where a black dot is situate, then inwards to the inner margin, likewise with a black dot. A very oblique brown streak at the centre of the costal margin, a dot at the cross-vein. Exterior line of brown dots, very convex at the costal margin. A black dot more inwards in the submedian fold. Hindwing brownish white. ♂ 16 mm. Gold Coast. *polysticta*.

**P. ochrocraspis** *Hmps.* (15 c). Body and forewing violettish brown, except at the yellowish brown inner margin. Hindwing pale ochreous, darker brown at the margin. Fringes of both wings yellowish. ♀ 14 mm. Transvaal. *ochrocraspis*.

**P. ecrufa** *Hmps.* Body and forewing pale brown. Median line indistinct, dark, obliquely inwards from the cell to vein 1, edged white inside. Then a dark band or 2 spots before the exterior line which is indistinct, fine dark, convex from the costal margin to the lower cell-angle, then concave, edged white outside, broadly edged with brown on both sides. Hindwing brownish white, reddish brown at the margin. ♀ 16 mm. Cape Colony. *ecrufa*.

### 53. Genus: **Eulocastra** *Btlr.*

Proboscis normal, palpi highly erected, antennae of ♂ somewhat laminated. Body tuftless. Veins 3—5 of forewing from the lower cell-angle, 6 from the upper one, areole normal. Hindwing: veins 3+4 stalked or from the same base. Type: *fasciata* *Btlr.* from Australia. Half of the 30 species known occur in Africa.

#### 1. Veins 3+4 of hindwing stalked.

**E. pallida** *Hmps.* Body and forewing pale red-brown, the costal margin darker red-brown. The median area with black dots at the costal margin and in the submedian fold. Exterior line fine, pale red-brown, with black dots below the costal margin, extra-angular below the costal margin and in the middle. Hindwing whitish brown. ♂ 18 mm. East Africa. *pallida*.

**E. ochrizona** *Hmps.* (15 c). Body and wings dark brown. A yellowish white broad interior band with a dark dot in it at the costal margin. Traces of an oblique red-brown line from the costal margin behind the middle to the anal angle. A yellowish white spot behind it at the costal margin. A submarginal line of yellowish white scales. Hindwing grey. ♀ 18 mm. Arabia. *ochrizona*.

**E. sudanensis** *Rbl.* Body yellowish brown, abdomen somewhat darker. Forewing yellowish brown with a blackish brown marking. Basal area spotted black at the costal margin. Median band blackish, broader at the inner margin, somewhat dentate on its inner side, its exterior edge extra-angular in the centre of the cell. Marginal area broadly blackish with a very indistinct yellow spot near the apex. Hindwing dark brownish grey. ♀ 14 mm. Sudan. *sudanensis*.

**E. sahariensis** *Rothsch.* Body dark brown. The interior quarter of the forewing cinnamon brown, with 2 pale spots at the costal margin. The rest of the wing deep black, a creamy white spot in the cell, and two similar ones at the cross-vein. Exterior band cinnamon brown, irregular, submarginal creamy white spots behind it. Hindwing dark grey. The pale places are less distinct in the ♀. 17—20 mm. North Nigeria. *sahariensis*.

**E. pseudozarboides** *Rothsch.* resembles a pale *Pseud. opella*. Thorax and forewing reddish grey, clouded yellowish, with a broad black median band, with a distal branch at the median vein. Exterior line black, interrupted, with a spot at the costal margin. Marginal area broadly grey, except between veins 2 and 4, behind it 4 black submarginal spots in the anterior part. Hindwing creamy grey. ♀ 20 mm. North Nigeria. *pseudozarboides*.

**E. melaena** *Hmps.* Thorax and forewing blackish brown. A white interior band, almost vertical, somewhat widened at the costal margin. Exterior line black, beginning with a triangle at the costal margin, normally bent. A small white spot in the submedian fold and white dots close before the margin. Hindwing also dark. — In **demaculata** *Strd.* the white interior band is narrower, the marginal dots are absent. — In **duplilinea** *Strd.* the white band is replaced by a double black line. 18 mm. Sokotra. *melaena*, *demaculata*, *duplilinea*.

#### 2. Veins 3 and 4 of hindwing from the same base.

**E. tarachodes** *Hmps.* Thorax and forewing whitish ochreous. Interior line brown, slightly bent, extending from a spot at the costal margin. Two black dots at the cross-vein with a brown and grey spot above them at the costal margin. Olive brown behind the cell, irrorated with bluish grey. Exterior line creamy white, very convex below the costal margin as far as vein 6, angular at vein 4, then finer, a white blotch at the *tarachodes*.



inner margin before it. Submarginal line white, dentate, blackish streaks behind it. Abdomen and hindwing brown. ♀ 24 mm. Gold Coast.

*bipartita*. **E. bipartita** *H.-Schäff.* occurring in Aden as well as in Sicily and Palestine has been dealt with already in Vol. 3, p. 282 and pl. 52 g.

*insignis*. **E. insignis** *Btlr.* (15 d). Thorax and forewing blackish. Interior band yellowish white, somewhat convex in the middle, bent inwards below the cell. Exterior line white, bent in the same way. Behind it at the costal margin a black spot. Marginal area rusty brown. Abdomen and hindwing yellowish brown, browner at the margin. 20—22 mm. Aden.

*argyrostroma*. **E. argyrostrota** *Poult.* (15 d). Thorax brownish ochreous, abdomen brown. Basal half of forewing brownish ochreous, the rest red-brown with a blackish-brown hue, with silvery scales. Traces of an interior line of black and silvery scales. A black undulate median line borders on the dark area inside. An ochreous streak at the cross-vein. Exterior line black, bordered with ochre outside, dentate. An oblique brown line behind it in the anterior part. Submarginal line of spots of silvery scales, edged blackish inside. Hindwing brownish. 16 mm. Somaliland.

*poliogramma*. **E. poliogramma** *Hmps.* Body greyish-brown. Forewing silvery white. Interior line marked by black spots at the costal margin, in the cell and above the inner margin. Three grey undulate lines in the median area, the third intro-angular at the median vein before a small black discal spot. The space below the cell from the second line to the exterior line grey. Exterior line grey, double, convex below the costal margin, then vertical. Submarginal line white, somewhat undulate, edged blackish brown outside, with blackish brown spots inside. Hindwing brownish white. 15 mm. Central and East Africa.

*monozona*. **E. monozona** *Hmps.* (15 d). Thorax and forewing dark violettish brown. Interior band white, somewhat inwards, with dark scales in the middle. The ring-macula is a fine white dot, the reniform macula a white streak, a black spot before and behind it. Exterior line beginning with a white spot at the costal margin, then indistinct and finely white above the inner margin. Submarginal line fine, white, with black spots inside. Fringe white. Hindwing greyish brown, fringe light. 17 mm. West Africa.

*aethiops*. **E. aethiops** *Dist.* (15 d). Body and wings reddish black. Forewing sometimes finely irrorated with white. Interior band white, narrower at the costal margin, enclosing traces of a dark interior line. Reniform macula black, with a fine white streak outside. Exterior line black, dentate, finely edged with white outside, with a triangular (in *monozona* square) white spot at the costal margin, with black spots before and behind the line. Exterior line blackish, dentate. Black marginal spots with a white lunular line inside, as in *monozona*. Fringe mostly white at the apex, in the middle and at the anal angle. Hindwing dark copper-brown. — In *maculicilia*. **E. maculicilia** ♂ *Strd.* the fringe on the forewing may be white with dark patches, and the hindwing white with a dark discal line and exterior line. 18—22 mm. South and East Africa.

*argyrogramma*. **E. argyrogramma** *Hmps.* Body and wings blackish brown. Forewing with silvery grey scales. Interior line indistinct, black, edged yellow inside as far as the submedian fold, where it terminates into a short streak at the base, somewhat extra-angular below the costal margin. A silvery dot in the centre of the cell above and at the cross-vein. Exterior line with a yellow spot at the costal margin, then silvery and finely dentate, bent inwards. Submarginal line silvery, finely dentate. Fringe of hindwing yellow with blackish brown spots. ♀ 18 mm. Niger District.

*hypotaenia*. **E. hypotaenia** *Wllgr.* (15 d). Body and basal area of forewing dark greyish brown, the rest more reddish. Interior line white, double, straight, blackish behind it. Reniform macula black, finely edged white. Exterior line white, double, little bent, with 2 small black spots inside behind the cell, and with a large fine whitish submarginal line in the submedian fold. Sometimes another light line before it in the lower part. Basal and marginal areas may also be rusty brown. Hindwing blackish brown, the posterior part with a slightly angled white median band. Submarginal line of white spots. 16—20 mm. South and East Africa.

*seminigra*. **E. seminigra** *Hmps.* Thorax brownish ochreous, abdomen blackish. Basal half of forewing bordered by an oblique, slightly undulate black median line. Marginal half blackish. Margin and fringe brownish ochreous. Exterior and submarginal lines blackish, undulate, indistinct. ♀ 15 mm. Niger District.

*carnibasalis*. **E. carnibasalis** *Hmps.* Body dark reddish brown. Basal area of forewing flesh-coloured, the border extends from the costal margin behind the middle to the inner margin before the middle. The rest of the wing is dark red-brown with a faded lead-coloured postmedian band, somewhat lead-coloured also at the margin. Exterior line fine, dark, convex below the costal margin and in the middle, concave behind the cell. Submarginal line indistinct dark. Hindwing brown with a lead-coloured shine. ♀ 16 mm. Central Africa.



54. Genus: **Mimasura** *Hmps.*

Proboscis normal, palpi highly erected, thin, antennae of ♂ ciliated. Body tuftless. Forewing somewhat narrow, neuration normal, with an areole. Vein 5 of hindwing almost normal, from below the middle of the cross-vein or from the lower cell-angle. Type: *tripuncta* *Hmps.* The generic name indicates the resemblance to the Lithosiine genus *Asura*. Nearly all the species known occur in Africa.

1. Antennae of ♂ somewhat laminated, shortly ciliated. The third palpal joint long.

**M. simplex** *Rbl.* (15 d). Body whitish. Forewing somewhat reddish brown. Interior line indistinct. *simplex*. Fine black dots in the middle of the cell and on the cross-vein. Exterior line indistinct, dark, bent almost parallel with the distal margin. Hindwing pale yellow. ♂ 14 mm. Sokotra.

**M. unipuncta** *Hmps.* Body and forewing greyish-brown with a silky gloss, somewhat yellowish at the *unipuncta*. costal margin. In the submedian fold there may be a black spot below the base of vein 2. A distinct black dot at the cross-vein. Besides there may be yet black dots at veins 4 and 6 before the margin, and a black streak between them. Hindwing greyer. 17 mm. South Africa.

**M. asticta** *Hmps.* Body and forewing greyish ochreous without any marking, black at the costal margin *asticta*. at the base. Hindwing somewhat lighter. ♂ 16 mm. Sierra Leone.

2. Antennae of ♂ long ciliated. The third palpal joint short.

**M. quadripuncta** *Hmps.* Veins 3+4 of the hindwing are stalked here, vein 5 from the lower cell-angle. *quadri-* Thorax and forewing whitish ochreous, the costal margin narrowly orange. The interior and exterior lines are *puncta*. replaced by 2 obliquely placed black dots each above and below vein 1. Fringe yellow. Abdomen and hindwing pale yellow. 24—28 mm. Rhodesia.

**M. clara** *Holl.* (15 d). Thorax and forewing pale ochreous, somewhat flesh-coloured. Interior line marked by a few black spots. Median line somewhat faded, dark brown, very dentate. Two black dots at the cross-vein. Exterior line somewhat double, except at the costal margin, otherwise like the interior line, somewhat obliquely outwards. A few black dots behind it. Hindwing ochreous, brownish at the margin. 22 mm. West Africa.

**M. miltochristodes** *Hmps.* Body orange. Forewing orange and with a reddish reflection except in the *miltochri-* marginal area. Marking black with a violet reflection. A few dots at the base. Interior line somewhat faded, *stodes*. before it a band from the cell to the inner margin. The notches of the interior line are contiguous with a similarly notched median line. A dot at the upper cell-angle. Exterior line notched, extra-angular behind the two cell-angles. Submarginal line also notched, a few black marginal dots behind it. Hindwing pale orange. ♀ 22 mm. Gold Coast.

**M. disticta** *Hmps.* (15 d). Body and forewing whitish ochreous. Interior line marked by a few black *disticta*. dots. Two black dots at the cross-vein. More or less distinct black dots in the submedian fold replace the median and exterior lines. Submarginal dots traceable. Marginal dots more distinct. Hindwing pale yellow. ♂ 20 mm. Sierra Leone.

**M. tripuncta** *Hmps.* Body yellow. Forewing yellowish white, yellow at the costal margin. Black dots *tripuncta*. in the middle of the cell and at the lower cell-angle. Fringe yellow. Hindwing pale ochreous, browner in the ♀. Fringe yellowish white. 20 mm. South Africa.

**M. innotata** *Hmps.* (15 d). Thorax and forewing silky whitish ochreous, yellow at the costal margin. *innotata*. Hindwing and abdomen pale brown. 14—18 mm. South Africa, Togo.

55. Genus: **Meneptera** *Hmps.*

Proboscis stunted, palpi porrect, frons with a long projection. Antennae of ♀ ciliated. Body tuftless. Forewing concave at the costal margin behind the middle, the apex turned upwards. Neuration of forewing normal with an areole. Veins 6+7 of hindwing stalked, longer fused with the cell than normal.

**M. diopis** *Hmps.* Thorax blackish brown, abdomen dark red-brown. Forewing red-brown. Ring-macula *diopis*. and reniform macula white, the latter moon-shaped, a black spot between them. Exterior line reddish yellow, parallel with the distal margin. A whitish spot behind it at the costal margin. Hindwing dark copper-brown. ♀ 24 mm. Transvaal.

56. Genus: **Acanthofrontia** *Hmps.*

Proboscis stunted, palpi short, porrect, frons with a long projection. Antennae of ♂ almost plain. Anterior tibia with a bent claw outside. Forewing long and narrow. Veins 4+5 may be stalked, 6 from the upper cell-angle or stalked with 9+7+8. Veins 3+4 and 6+7 of hindwing on a long stalk, 5 very feeble, from the centre of the cross-vein. Type: *lithosiana* *Hmps.* All the species are Africans and look like *Lithosia*.

- lithosiana*. **A. lithosiana** Hmps. Thorax grey, abdomen with orange and blackish brown rings. Forewing narrowly black at the costal margin in the distal part, white below it as far as the lower cell-margin and vein 6, the rest of the wing grey. A black dot in the centre of the cell and 2 at the cross-vein, the latter almost forming a ring. Inner margin and fringe yellow. Hindwing white, costal margin and fringe yellow. ♂ 25 mm. East Africa.
- anacantha*. **A. anacantha** Hmps. Thorax white, abdomen with yellow and black bands. Forewing silvery white. Ring-macula and reniform macula marked by lateral bent black streaks. A few black streaks at the costal margin at the end. Hindwing silvery white, rather scantily scaled. ♀ 30 mm. Niger District.
- dicycla*. **A. dicycla** Hmps. Thorax white, abdomen with orange and black rings. Forewing silvery white, somewhat brownish. Costal margin black at the base. Interior line black, undulate, obliquely outwards. Ring-macula and reniform macula represented by large black rings, median line undulate, black. The exterior part at the costal margin black with white dots in it. Exterior line black, convex below the costal margin and in the middle, a little also above the inner margin. Submarginal line black, very undulate, interrupted between vein and the submedian fold. Hindwing white, brown at the costal margin. Central and East Africa. 20—25 mm.
- atricosta*. **A. atricosta** Hmps. Body and wings silvery white, somewhat yellowish. Forewing dark brown at the costal margin from behind the middle almost to the apex. Hindwing also brownish in the costal-marginal area. ♀ 22 mm. Gambia.

### 57. Genus: **Lophorache** Hmps.

Proboscis normal, palpi rising obliquely, long. Antennae of ♂ finely ciliated. Frons with a round projection. Metathorax with a small tuft, abdomen with a basal tuft. Neuration normal in both wings. Type: *fulvirufa* Hmps.

- fulvirufa*. **L. fulvirufa** Hmps. ♀ body greyish-brown. Forewing olive yellow in the basal half, the border at the costal margin reaching almost to the middle, from there obliquely outwards to the middle of the cell, then rectangularly broken to  $\frac{1}{3}$  of the inner margin. Marginal spot red-brown with a violet gloss. Exterior line indistinct, dark, parallel with the distal margin. Submarginal line of black dots, bent inward below vein 3, a yellow spot behind it in the submedian fold. Hindwing dark greyish brown. In the ♂ the body and the basal area of the forewing are reddish ochreous. The interior line is represented by an oblique brown streak at the costal margin and a brown spot behind it at the costal margin. The spot behind the submarginal line is olive brown, whitish ochreous outside. A black streak behind the exterior line below the costal margin, and a similar one extends from the apex. Hindwing brownish ochreous, margin darker. 24 mm. East Africa, Somaliland.

### 58. Genus: **Thyatirina** Hmps.

Proboscis normal, palpi obliquely projecting, frons with a pointed projection. Antennae somewhat laminated. Metathorax with an appressed tuft. Neuration normal in both wings. Type: *achatina* Weym.

- achatina*. **T. achatina** Weym. (15 e). Thorax dark reddish brown, abdomen lighter. Forewing brownish ochreous at the base, whitish at the inner margin, bordered by the distinct yellow interior line. The latter forms a large bow as far as vein 1 and then a smaller one above the inner margin. Behind it the dark chocolate median area, also edged yellow outside, almost straight, only with a short, sharp point in the submedian fold. Behind it the large olive brown spot similar to that of the species of *Thyatira*, turning lighter in front, edged light yellow outside. Apex olive brown, anal angle light like the marginal lines. Hindwing of ♂ white, brownish at the apex, brown in the ♀. 26—30 mm. South and East Africa. Originally described as a species of *Thyatira*.

### 59. Genus: **Cardiosace** Hmps.

Proboscis normal, palpi short, with thick hair. Frons with a small projection. Antennae of ♂ almost plain. Metathorax with an appressed tuft. Neuration normal. Type: *sphendonistis* Hmps. Only African species.

- bidentata*. **C. bidentata** Hmps. (15 e). Body and forewing chocolate brown. Costal-marginal area yellowish white, irrorated dark in front. Interior line black, slightly recognizable only at the inner margin. The ring-macula and reniform macula are represented by indentations into the dark area. The former round, the latter moon-shaped. Exterior line black, cutting off the light margin, very feeble, bent far inwards in the submedian fold. Hindwing orange, narrowly black at the margin in the ♂, broader in the ♀. 25 mm. Mashonaland, Transvaal.
- parilis*. **C. parilis** Wllgrn. (= *guttistrigata* Wkr., *rectangularis* Aur.) (15 e). Thorax white, abdomen pale yellow. Forewing white at the costal margin from the inner margin near the base almost to the apex, the rest of the wing olive greyish brown with an irregular white spot at the middle of the inner margin. A small white spot at the lower cell-angle, the beginning of veins 3 and 4 also white. Interior line pale orange on the white area, often also absent. Ring-macula and reniform macula grey, edged with white, dark between them. Exterior line orange at the costal margin, very far outside, then black double across the inner margin. Marginal area olive brown, edged darker inside. Submarginal line fine white, close behind the dark margin. Fringe white.



Hindwing pale yellow, somewhat brown in the ♀ at the margin. — *parilella* Strd. lacks the white spot in the *parilella*, middle of the inner margin. 22—26 mm. South Africa.

**C. olivescens** Hmps. Thorax yellowish white, abdomen with orange and black rings. Forewing yellowish white with a broad olive brown interior band obliquely inwards. The ring-macula is a small round olive brown spot, the reniform macula an olive brown ring. Marginal area dark red-brown, the border from the apex to the lower cell-angle, then horizontal, and vertically on to the middle of the inner margin. Exterior line beginning with a dark streak at the costal margin, then indistinct, red-brown from vein 6, bent inward below vein 4. Submarginal line finely yellowish white, from vein 3 to the anal angle. Hindwing yellow, darker, redder at the margin. ♂ 20 mm. Transvaal.

**C. triphaenoides** Wllgrn. (= *liturifera* Wkr., *trimenii* Wllgrn.) (15 e). Thorax white, abdomen orange, basal half of forewing white. Interior line of black double spots. A short black streak in the cell. Marginal area dark red-brown, with a grey reflection at the margin. Its interior border from the costal margin obliquely outwards to the inner cell-angle, then bent to the middle of the inner margin. Reniform macula indiscernible. An almost square white spot behind it at the costal margin. A black median line proceeds from the reniform macula and an exterior line from the white spot, the latter line approaching the other one at the inner margin, where it is indistinct. Submarginal line finely white, very dentate. Hindwing pale orange, narrowly brown at the margin in the anterior part. The ♀ is darker. The border of the marginal area is situate farther inwards in the costal-marginal area. Hindwing darker orange, the dark margin broader and extending farther to the anal angle. 26—30 mm. South West and South Africa.

**C. natalis** Guen. (= *adulterina* Wllgrn., *formosa* Btlr.) (15 e). Thorax dark olive brown, abdomen lighter. Forewing white. Interior band broad, rusty yellow in front, olive brown behind. Ring-macula and reniform macula grey, reddish-yellow between them. An olive brown connection may extend from there to the interior line. The marginal area is indented by a similar white spot as in *parilis*. Exterior line double, black with silvery scales, strongly bent inwards below the cell. Close behind it the pale indistinct submarginal line. Hindwing white, somewhat brown at the apex. ♀ much darker. A narrow white stripe below the costal margin reaches the costal margin above the reniform macula. A white spot also at the inner margin behind the interior line. Hindwing copper-brown. 20—22 mm. South and East Africa.

**C. sphendonistis** Hmps. Body white, abdomen with narrow blackish segmental margins. Basal area of forewing white. Interior line grey, double, a few more spots before it. Ring-macula and reniform macula with fine black rings which are open above. An oblique olive grey spot from the middle of the costal margin. Marginal area violettish-grey, olive brown at the inner margin and apex. Exterior line marked by an oblique olive grey spot at the costal margin in the white area, then by an interrupted undulate black line, strongly bent inwards below the cell. Submarginal line beginning from a white luna below vein 7, small white lunae edged red inside beginning from vein 5, dusted white behind it. Hindwing white with a broad blackish-brown marginal band. The ♀ exhibits a greyer basal area on the forewing, the hindwing is nearly quite dark brown. 30—35 mm. South Africa.

**C. citrelinea** B.-Bak. Thorax and forewing white, the latter with a curved lemon-coloured median line, with a grey spot inside at the inner margin, another spot in the cell, nearer to the base, 2 more spots in the cell behind the median line. Exterior line lemon-coloured, convex behind the cell. Marginal area lead-coloured with a red apical spot, lemon-coloured at the anal angle. Fringe white. Hindwing white, grey at the apex. ♂ 20 mm. Angola.

**C. callima** B.-Bak. Body and forewing white. Median line lemon-coloured, extra-angular in the middle. Two grey spots behind it, one in the cell, one behind it. Broadly lead-coloured with a slight olive tint above the inner margin from the median line to the anal angle. A broad rectangular olive brown spot from the spot behind the cell to the marginal area. Margin white, with dark spots between the veins. Hindwing purely white. ♂ 22 mm. Angola.

## 60. Genus: **Procriosis** Hmps.

Proboscis normal, palpi short, porrect, frons with a long projection. Antennae of ♀ plain. Metathorax with an appressed tuft. Vein 6 of forewing below the upper cell-angle, 7 + 8 + 9 stalked. Veins of hindwing normal. Type: *dileuca* Hmps. Only 2 species known, both from Africa.

**P. dileuca** Hmps. Body greyish-brown. Basal half of forewing yellowish white, greyer before the dentate interior line. Exterior half olive brown. The border extends from before the centre of the costal margin straight to behind the centre of the inner margin. A white dot at the upper cell-angle. A triangular yellowish white spot at  $\frac{2}{3}$  of the costal margin, from which the indistinct dark exterior line proceeds, bent almost parallel with the distal margin. Submarginal line pale, fine, some dark dots before it. Hindwing pale red-brown, fringe yellow. 22 mm. East Africa.

**P. albizona** Hmps. Body pale red-brown, like the basal area of the forewing, which contains an anterior white band with a fine red-brown undulate line in the middle. Median area also pale red-brown as far as the exterior line. Marginal area white, also somewhat red-brown at the costal margin. Hindwing pale red-brown. ♂ 15 mm. East Africa.



61. Genus: **Hoplotarache** *Hmps.*

Proboscis normal, palpi moderately long, obliquely rising, frons with a conical projection. Antennae of ♂ somewhat laminated. Body tuftless. Neuration of forewing normal with an areole. Veins 3 + 4 of hindwing stalked or from the same base. Type: *mionides* *Hmps.* The few mostly variegated species are distributed over all the faunae.

## 1. Veins 3 + 4 of hindwing stalked.

*sublota*. **H. sublota** *Mab.* (15 f). Thorax reddish-brown, abdomen brownish ochreous. Forewing yellowish white, broadly reddish brown at the costal margin, a paler band from the cell to  $\frac{1}{3}$  of the inner margin. A broad dark brown band from the apex to  $\frac{3}{4}$  of the inner margin. Hindwing pale ochreous. ♂ 20 mm. Madagascar.

*nephele*. **H. nephele** *Hmps.* Thorax white, abdomen greyish brown. Forewing greyish white, dusted olive brown except at the costal margin and in the basal half at the inner margin. The lines at the costal margin are replaced by an oblique interior and median olive grey streak, and a spot replaces the exterior line. A white interior streak at the inner margin, edged grey on both sides. Ring-macula and reniform macula grey, edged white, round. A triangular white median spot from the submedian fold to the inner margin. Exterior line olive brown, edged white outside, from below the costal margin to the inner margin. The white marginal area with an undulate interior border, bent inwards in the middle and outwards to the anal angle. Two black streaks at the margin. Hindwing brownish white. ♀ 26 mm. East Africa.

*albida*. **H. albida** *Hmps.* Body and forewing white with a faded interior band of yellow scales. Ring-macula and reniform macula pale brown, small, round. Marginal area copper-brown with a violettish-grey tint except at the apex, somewhat olive yellow at its interior margin, also at the exterior margin except at the apex. Traces of a white submarginal line. Hindwing white, somewhat brownish at the apex. ♂ 18 mm. Niger District.

*semialba*. **H. semialba** *Hmps.* (15 f). Body brown, only the tegulae white. Forewing olive brown, only the costal margin white almost to the apex, its lower edge angled at the centre of the cell and slightly indented at the cross-vein. Interior and exterior lines indiscernible. Hindwing somewhat brownish. ♂ 20 mm. East Africa.

*costalis*. — The Indian species **costalis** *Wkr.* entirely resembles *semialba*, but the white costal-marginal area is irrorated with brown at the outermost costal margin. A ♀ of this form is at hand from *Abyssinia*.

*hemiselenias*. **H. hemiselenias** *Hmps.* Prothorax white, the rest of the body red-brown. Forewing copper-brown, the base and a spot next to it at the inner margin white. A silvery white semicircular spot at the costal margin before the middle as far as the apex, extending down to behind the centre of the cell, outside of it a faded reddish yellow line. Interior line brown, indistinct. Reniform macula lead-coloured, edged yellowish white, slightly entering into the white costal-marginal spot. Submarginal line of white spots. Margin white, edged reddish yellow inside, hindwing pale red-brown. ♀ 20 mm. Cameroons.

*nubila*. **H. nubila** *Hmps.* Thorax white, abdomen brownish. Forewing dark violettish grey. Costal margin white as far as the exterior line with 5 olive brown streaks from the costal margin. Basal area whitish as far as the interior line which is double, blackish, filled with white, dentate. Ring-macula and reniform macula small, round, white, edged with black. Median line black, undulate, from the cell to the inner margin. Exterior line formed of black lunae, strongly bent inwards below the cell, then parallel with the median line. Submarginal line fine white, extra-angular towards the anal angle. A white spot behind it in the centre. Hindwing white, brownish at the margin. Forewing of ♀ more extensively olive brown, hindwing dark brown with light fringes. — In **basialba** ♀ *Strd.* (= *ectorrida* *Poult.*) the basal area of the forewing is of a purer white, with black spots behind the submarginal line below the apex and below vein 3. 18—20 mm. South and East Africa, Somaliland.

*caeruleopicta*. **H. caeruleopicta** *Poult.* (15 f). Body brownish ochreous. Basal half of forewing creamy white, marginal half olive brown. Interior line double, olive brown, dentate. A black dot in the middle of the cell. The reniform macula is an incomplete black ring edged with white. Median line dark, dividing the two areas, projecting at the lower cell-angle. An oblique triangular creamy white spot behind it at the costal margin. It is followed by the faded dark exterior line, sharply bent inwards below the cell, silvery white scales behind it. Submarginal line interrupted by copper-red, edged creamy white on both sides. Hindwing creamy white, browner at the margin. Basal half of the ♀ forewing tinged with red-brown, the tips of the fringe white. 22 mm. Somaliland.

## 2. Veins 3 and 4 of hindwing from the cell.

*dispar*. **H. dispar** *Wkr.* (15 f). Thorax creamy white, abdomen orange. Forewing creamy white. Interior line olive grey, double, dentate. Median band olive grey, as far as the lower cell-angle, a black streak at the cross-vein. A small grey spot behind it at the costal margin, the marginal spot violettish blackish, from  $\frac{3}{4}$  costal margin parallel with the distal margin to vein 3, where it bends strongly inwards and to the middle of the inner margin. Exterior line white, cutting off the inward part of the marginal area. Submarginal line white, with a few intense black spots inside, white outside below the middle of the distal margin. Hindwing orange with a broad black margin. ♀ with a much darker basal area of the forewing, thorax also mostly dark. 26 to 30 mm. South Africa.



**H. mionides** *Hmps.* Thorax white, abdomen brownish. Forewing violettish grey, white in the basal area, projecting far to the lower cell-angle. Costal margin grey with some white streaks near the base. Traces of a double brown interior line. Traces of an elliptical spot at the cross-vein, and an undulate white line from there to the inner margin. A large quadrangular white spot behind it at the costal margin, extending to vein 5, in olive green surroundings. Submarginal line fine white, a narrow white band behind it. Hindwing white, somewhat diaphanous, brownish at the margin in the anterior part. ♂ 25 mm. Cape Colony.

**H. holoxantha** *Hmps.* is quite insignificant, without any marking. Body and wings orange, hindwing somewhat lighter. ♂ 18 mm. Uganda.

## 62. Genus: **Metapioplasta** *Wllgrn.*

Proboscis normal, palpi short, frons with a projection. Antennae of ♂ laminated. Metathorax with an appressed tuft. Neuration of forewing normal. Veins 3 + 4 of hindwing stalked. Type: *insocia* *Wkr.*

**M. olivescens** *Hmps.* (15 f) is somewhat like *H. nubila*. Thorax white, olive brown in the middle behind, abdomen pale orange. Forewing olive brown with a grey reflection, costal margin broadly white as far as the submarginal line. Interior line yellow on the white area, then dark, indistinct, bent inwards. Ring-macula and reniform macula dark grey, edged white. A small white spot below the reniform macula with 2 fine notches. Traces of an undulate dark median line to the inner margin. Exterior line likewise yellow on the white area, then dark, sharply bent inwards below the cell. Submarginal line of white scales, indistinct in the middle, double at the inner margin. Hindwing pale yellow. ♂ 25 mm. East Africa.

**M. insocia** *Wkr.* (= *concinnum* *Wkr.*, *simo* *Wllgrn.*, *cornifrons* *Aur.*) (15 f). Thorax and forewing creamy white. Interior line brown, double, interrupted, enclosing a dot in the cell. Ring-macula and reniform macula marked by 2 horizontal double dots, a brown blotch from the costal margin between them. Exterior line formed by a black streak at the costal margin. Marginal area violettish-brown, the border from  $\frac{4}{5}$  costal margin parallel with the margin as far as vein 3, along the latter, then vertical to behind the middle of the inner margin. Traces of a white submarginal line above the inner margin. Abdomen and hindwing yellowish white. Forewing of ♀ (= *porphyrea* *Btl.*) grey in the basal area. Only a quadrangular white spot between the two maculae towards the costal margin, and a triangular one farther outside at the costal margin. 16—20 mm. West and South Africa, also in Ceylon.

## 63. Genus: **Aulotarache** *Hmps.*

Proboscis normal, palpi short, frons with a projection. Antennae of ♂ ciliated. Metathorax with an appressed tuft. Forewing with a very short areole, otherwise normal. Veins 3 + 4 of hindwing stalked, 5 below the centre of the cross-vein, 8 as far as the centre of the cell and fused with it. Type: *decoripennis* *Mab.* Only African species.

**A. decoripennis** *Mab.* Thorax and forewing creamy white, 3 pale olive brown lines at the base, with 2 black dots forming the ring-macula and reniform macula. Marginal area as in *insocia*, but extending in the anterior part almost as far inwards as in the posterior part. The submarginal line is most distinct in the centre of the wing, where it shows a point distally. Abdomen and hindwing reddish brown, darker at the margin. The ♀ shows the brown marginal area at the inner margin extending almost to the distal one of the 3 lines, and in the anterior part a band extends to the costal margin. 20—22 mm. Madagascar, also in India.

**A. plumbeogrisea** *Poult.* (15 f). Body reddish ochreous. Forewing brownish lead-coloured, somewhat reddish brown at the inner margin near the base. Traces of an undulate dark interior line from the cell to the inner margin, edged with brownish ochreous inside. Coniform macula fine, brownish ochreous. Ring-macula outside and reniform macula inside finely edged with black. Exterior line indistinct, brown, dentate, from below the costal margin to vein 6, then black, outside with yellow and red spots between the veins, oblique below vein 4. Hindwing white, somewhat brown at the margin. 22—26 mm. Somaliland.

**A. atrisignata** *Hmps.* Body and forewing white, feebly irrorated olive brown. A square black spot in the cell-end, a faded black spot above it at the costal margin, and below this a small one below vein 2. Traces of a blackish exterior line. A small black spot at the apex and a series of marginal spots. Hindwing pale olive brown, darker at the margin, fringes of both wings black. ♂ 18 mm. Central Africa.

## 64. Genus: **Tarache** *Hbn.*

This genus differs from *Aulotarache* in the normally large areole. Veins 3 + 4 of the hindwing may be stalked or arise from the cell-angle. Vein 5 from the cell-angle or little above it. Of some more than 100 species of this genus a considerable number occur in Africa. Type: *cafraria* *Hbn.*



## 1. Veins 3 + 4 of hindwing stalked.

*apatelia*. **T. apatelia** *Swinh.* (15 g). Thorax white, abdomen with white and brown bands. Forewing creamy white, the marginal area violettish brown. The white part extends at the costal margin as far as the submarginal line and then obliquely to the lower cell-angle and vertically to behind the middle of the inner margin. 4 feeble greyish-brown lines at the base. The ring-macula and reniform macula are small greyish-brown rings, similar spots above them at the costal margin. Somewhat white at the distal margin above the anal angle. Hindwing white, narrowly brown at the margin. The ♀ shows behind the basal lines a greyish-brown band in the costal-marginal area, so that a white spot around the reniform macula is isolated. Hindwing more brownish. 24 mm. Angola, East Africa.

*hyperlophia*. **T. hyperlophia** *Hmps.* (15 g). Thorax and forewing white, with indistinct grey dentate lines at the base. Ring-macula and reniform macula finely edged with grey, black spots above them at the costal margin. Marginal area violettish-grey. At vein 6, the basal area enters pointedly into the marginal area, extends close round the reniform macula, recedes pointedly between it and the ring-macula, then vertically to the middle of the inner margin. A dark median line from the reniform macula to the inner margin. Exterior line of black spots in the dark marginal area. Submarginal line of interrupted white streaks. Hindwing pale orange. ♀ corresponding to *apatelia*-♀ with a dark band on the forewing. 22—26 mm. South Africa.

*basifera*. **T. basifera** *Wkr.* (15 g). Thorax white, abdomen brownish. Forewing white at the costal margin, the rest of the wing olive brown, encircling the reniform macula, with an angle in front before and behind the ring-macula, then down to the base. A triangular spot before the ring-macula at the costal margin, and a small one outside of it. The macula small, encircled by black. The exterior line is a thick dark streak at the costal margin. Submarginal line white, dentate, distinct only above the anal angle. Hindwing brownish white. ♀: forewing dark olive brown, the two spots at the costal margin are fused. Hindwing somewhat darker. 16—19 mm. Senegal, otherwise only known from India.

*zelleri*. **T. zelleri** *Willgrn.* (= *imitatrix*, *transfigurata* & *tinctilis* *Willgrn.*) (15 g). Thorax and forewing white with a greenish lustre. Dark olive green spots before the ring-macula, sometimes connected below it with the marginal area. Ring-macula and reniform macula formed by distinct black rings, a blackish median line between them as far as the inner margin. Wedge-shaped spots at the costal margin on both sides of the reniform macula. Marginal area dark olive green, containing a line of white scales, strongly bent inwards below vein 2. Greenish white at the margin. Hindwing white, diaphanous, narrowly brown at the margin, quite brown in the ♀. 17—20 mm. Throughout Africa.

*marmoralis*. **T. marmoralis** *Fabr.* (= *tropica* *Guen.*, *maculosa* & *bipunctata* *Wkr.*). This species distributed in the Sunda Islands, in China and India is also known from Upper Egypt, but it may be still farther distributed in Africa. Ground-colour yellowish white with an olive brown distal area. The latter projects between the maculae as in *hyperlophia*. Submarginal line as far from the margin and shaped as the line of white scales in *zelleri*, light behind it. 20—24 mm.

*rachiastis*. **T. rachiastis** *Hmps.* Body and forewing yellowish white. An interior and a median fine brown band, each from a dark spot at the costal margin, the latter blackish below the cell. Exterior line parallel with the median line, a black spot behind the cell, far inwards at vein 3, then formed of black lunae to the centre of the inner margin. Violet-brown behind it, a few yellowish white spots at the margin. Hindwing yellowish white, narrowly dark at the margin. The ♀ is more yellow, the ring-macula and the reniform macula recognizable. 18—20 mm. Aldabra.

*gratiosa*. **T. gratiosa** *Willgrn.* (= *luteola* *Saalm.*). Body and forewing orange with a greenish reflection. Yellow at the costal margin as far as behind the reniform macula, at the inner margin as far as the middle. The rest of the wing dark reddish brown, yellow at the apex and the middle of the distal margin. 3 blackish spots at the costal margin at the base, from the middle one the interior line proceeds, extending in the cell across a black dot. The ring-macula is a black dot, the reniform macula a black ring. Close behind it the olive brown beginning of the exterior line. Submarginal line fine yellow. Hindwing orange, narrowly margined with black. The ♀ is dark violettish brown on the forewing. A large yellow spot in the middle of the costal margin, on either side of it a smaller one. Submarginal line and marginal spots as in the ♂. Hindwing dark orange, the black margin broader. 18 to 20 mm. West, South and East Africa, Madagascar.

*microptera*. **T. microptera** *Mab.* (= *naevulosa* *Saalm.*) (15 g). Body dark brown. Forewing greyish white. Narrowly brown at the costal margin, an oblique brown blotch from before the middle of the costal margin. The ring-macula and the reniform macula are small black spots. Marginal area dark brown, its border behind the middle of the inner margin vertically almost to the cell, where it turns somewhat distally. Exterior line black, dentate, beginning at the costal margin at a white triangular spot. Submarginal line white, indistinct. Hindwing reddish brown. ♀ 22 mm. Madagascar.

*dichroa*. **T. dichroa** *Hmps.* Thorax and forewing bright yellow, at the costal margin as far as behind the middle, at the inner margin as far as the middle. Marginal area blackish brown with a bluish grey reflection. The yellow area is bordered by a black line extending obliquely to vein 6, then bent inwards. Abdomen and hindwing reddish-brown. ♂ 15 mm. Sudan.

*guttifera*. **T. guttifera** *Fldr.* (15 g). Thorax and forewing golden yellow at the base as far as before the middle of the inner margin and at the costal margin almost to the apex, where it is obtusely cut off. Distal area dark chocolate. Abdomen and hindwing orange. ♀: prothorax bluish-black, the rest of the body orange. Forewing



bluish black, with three round yellow spots at the costal margin, besides one at the middle of the inner margin, and a stretched one at the anal angle. Hindwing orange with a dark central luna and marginal band which is very broad at the apex. 20—22 mm. Angola, South Africa.

**T. hemixanthia** *Hmps.* (15 g). Thorax and forewing sulphur-coloured in the basal area. The border from the costal margin slightly outwards, almost straight, black. Marginal area reddish brown. A large black spot at the cross-vein, with a lighter edge, a triangular yellow spot behind it at the costal margin. From it proceeds the darker brown exterior line, sharply bent inwards below the cross-vein and then close to the margin of the distal area to the inner margin. A dark submarginal line is just as sharply curved. Abdomen and hindwing of the ♂ brownish, darker at the margin with a central luna. ♀: forewing much darker, hindwing dark copper-brown. A ♂ from Togo shows the yellow area of the forewing projecting somewhat distally at the lower cell-angle. 16—18 mm. Togo, East Africa. *hemixanthia*.

**T. nubilata** *Hmps.* (15 g). Thorax white, abdomen brownish ochreous, forewing white at the costal margin with a violet reflection. Ring-macula and reniform macula greyish brown, round, edged with white. A thick olive brown blotch below the ring-macula as far as the base, paler blotches obliquely inwards above the two maculae at the costal margin. A whitish triangle between the maculae as far as the inner margin obliquely inwards. A dark red-brown stripe from the apex, inwards below the reniform macula, then more steeply to the inner margin, its outer edge concave in the middle. Exterior line strongly bent in front as usual, then vertical to the inner margin. Marginal line distinctly white. A large black marginal spot behind the cell, a smaller one above the inner margin. Hindwing of ♂ whitish, more yellow in the ♀. 20—25 mm. South and East Africa. *nubilata*.

2. Veins 3 and 4 of hindwing from the cell.

**T. nitidula** *Fabr.* (= *catena* *Sow.*, *elegans* *Steph.*). Body and wings silvery white. Forewing with a short triangular olive brown spot at the base. A flatly triangular spot at the middle of the costal margin. Marginal area broadly olive brown, the border sometimes dispatching an inwardly bent spur to the costal margin, parallel with the beginning of the exterior line. The latter marked on the dark area by a single or double row of spots. Margin narrowly white with bluish grey spots. Hindwing somewhat brownish at the apex, more extensively so in the ♀. 25—32 mm. Throughout Africa and India. *nitidula*.

**T. v-album** *Hmps.* Body white. Forewing with an oblique olive green spot near the base at the costal margin. The spot is connected with the dark distal area by olive green irroration. Base silvery white at the inner margin. A large V-shaped silvery spot from the middle of the costal margin to the median vein, the exterior arm oblique, enclosing an olive green spot. Marginal area olive green, more reddish at the apex, its inner edge obliquely bent to the middle of the inner margin. Exterior line indistinct, double, violettish brown, bluish grey at the inner margin before it. Violet lunae at the margin, bordered with white inside. Hindwing white at the base, the rest brownish. 30 mm. Niger District, also in India. *v-album*.

**T. wallengreni** *Auriv.* (15 h). Thorax greyish brown, abdomen yellowish brown. Forewing dark greyish brown with a violet reflection. Interior line dark, double, dentate, vertical. Behind it an oblique white band as far as the lower cell-angle, narrow or very broad. The brown reniform macula is fused with the band by a white edge. Exterior line beginning from a long white spot at the costal margin, then continued as a black line. Submarginal line white, with black spots behind it at the apex and anal angle. Hindwing orange with a brown margin. ♀ 24—26 mm. Damaraland. *wallengreni*.

**T. umbrigera** *Fldr.* (= *trimaculata* *Auriv.*) (15 h) resembles a *nitidula* in which the two costal-marginal spots are prolonged to the marginal band, so that 3 white spots are produced, a narrow one from the base at the costal margin to the centre of the inner margin, a rectangular one from the middle of the costal margin, and a triangular one at  $\frac{3}{4}$  costal margin. Hindwing as in *nitidula*. In the ♀ especially the first two spots are narrower. Hindwing pale brown, broadly darker at the margin. 30—32 mm. Angola, South Africa, Somaliland. *umbrigera*.

**T. antica** *Wkr.* (= *acontina* *Mab.*, *semiplumbae* *Hmps.*) (15 h). Thorax dark violettish-brown, abdomen reddish brown. Forewing dark violettish brown with silvery scales. Costal margin white on  $\frac{2}{3}$  of its length, divided by the traces of an interior line. A black median line and exterior line are traceable. Submarginal line white, dentate, more so above the anal angle, sometimes the margin behind it is white. Fringe behind the cell with a white spot. Hindwing of ♂ yellowish, of ♀ dark brown. 18—22 mm. South and East Africa. *antica*.

**T. opalinoides** *Guen.* (= *postica* *Wkr.*) (15 h). Thorax and forewing white. Interior line greyish brown, double, undulate. Ring-macula composed of 2 black dots, reniform macula of 2 lateral streaks. A small triangular spot inwards of the latter macula at the costal margin. Large red-brown spots with silvery scales at the apex and anal angle. Exterior line dark, double, with erect black scales in the submedian fold. Submarginal line interrupted, white, inside with black spots. Hindwing white, diaphanous, narrowly brown at the margin. East Africa, Somaliland and India. *opalinoides*.

**T. wahlbergi** *Willgrn.* (= *urbani* *Fldr.*) (15 h). Body and wings white. Forewing with 4 greenish brown undulate lines in the basal area, 2 triangular spots behind them at the costal margin. Marginal area broadly edged with dark greenish brown, strongly bent inwards below the cell, behind it red-brown with a violet reflection. Submarginal line of white streaks, inside with rusty brown triangles. Hindwing slightly brownish at the apex. 22—25 mm. West, South and East Africa. *wahlbergi*.



- cyanocraspis*. **T. cyanocraspis** *Hmps.* (15 h) is very similar to *wahlbergi*. Body slightly brownish. The lines in the basal area of the forewing darker, a large red-brown spot at the middle of the costal margin and a triangular one above the cross-vein. Marginal area as in *wahlbergi*. Hindwing darker at the apex. ♂ 28 mm. Uganda.
- secta*. **T. secta** *Guen.* (15 h). Body and forewing white. Interior line brown, double, undulate, vertical. Ring-macula and reniform macula punctiform, a red-brown spot between them at the costal margin. Marginal spot copper brown, shaped as in *wahlbergi*. Exterior line black, double, undulate. Submarginal line white, with black spots inside. Fringe white, with brown spots at the apex and anal angle. Hindwing white; narrowly brown at the margin. ♂ 25 mm. Abyssinia.
- porphyrea*. **T. porphyrea** *Btlr.* (15 h) is very similar to *secta*, but the forewing lacks the ring-macula, the centre of the distal margin and the fringe are white there. The apical darkening on the hindwing is shorter. ♀: thorax and the anterior half of the forewing as far as the cell-end slightly tinged with olive brown. The ring-macula is a white dot. Hindwing dark brown. 22—24 mm. West and East Africa.
- citripennis*. **T. citripennis** *Hmps.* (15 i). Thorax and forewing creamy white. Interior line double, grey, black at the costal margin. The ring-macula is a small grey spot, the reniform macula a black streak and dot. A short grey stripe from the middle of the costal margin, a grey spot behind it. Marginal area olive brown, margin more reddish, with an outward point inside at vein 6, otherwise similarly bordered as in the other species. Exterior line black, indistinct, double, filled somewhat white, a black and silvery blue spot in the submedian fold before it. White at the margin below the middle. Hindwing pale golden yellow. 34 mm. Natal.
- spangbergi*. **T. spangbergi** *Auriv.* (15 i). Thorax creamy white, abdomen orange. Forewing brownish white. Interior line double, greyish brown, oblique, at the inner margin near the dark marginal area. Reniform macula large, round, edged with black, a pale brown blotch before it from the costal margin, and a smaller one behind it. Marginal area dark red-brown, the border below the cell more oblique than usual. Submarginal line white, distinct only above the inner margin. Fringe above the anal angle yellowish white. Hindwing orange, narrowly blackish at the margin. 27 mm. South West Africa.
- carnescens*. **T. carnescens** *Hmps.* (15 i). Thorax pinkish white, abdomen whitish ochreous. Forewing pinkish white, with 4 brown lines at the base. Reniform macula finely edged with black, open below, with 2 faint spots at the costal margin. Marginal area reddish violet, far excurved behind the cell inwards at vein 4, then vertical. Exterior line black, parallel with the margin in the lower part. Submarginal line whitish, copper-brown before it at the costal and inner margins. Hindwing of ♂ white, somewhat ochreous at the margin. ♀: forewing somewhat darker, hindwing almost uniformly brown. 24—26 mm. East Africa.
- yemenensis*. **T. yemenensis** *Hmps.* Thorax creamy white, abdomen pale red-brown. Forewing white, reddish brown in and behind the cell in the median area. 3 olive brown spots at the costal margin at the base, and traces of an interior line. Two olive brown spots behind the middle at the costal margin, white between them. Marginal area olive brown, enclosing the indistinct black double exterior line, filled with whitish near the inner margin, and edged with whitish outside. Apical area dark brown, turning pale copper-red at the apex itself, with 2 oblique white streaks from the costal margin. Submarginal line light copper-red, white behind it except in front. Hindwing white, veins and inner margin reddish brown, margin copper brown. ♂ 32 mm. Yemen.
- psaliphora*. **T. psaliphora** *Hmps.* (15 i). Thorax creamy white, abdomen somewhat brownish. Forewing creamy white. Interior line pale olive brown, double. Reniform macula edged with black, open below. A very oblique bluish grey blotch from the costal margin to the reniform macula, a parallel one behind it, bent down into a vertical line behind the middle of the cross-vein. Marginal area dark red-brown, narrow at the apex, far inwards at vein 4. Submarginal line white, only for a short distance vertical at the anal angle. Hindwing semi-diaphanous, yellowish white. ♂ 28 mm. South West Africa, Gazaland.
- chrysoproctis*. **T. chrysoproctis** *Hmps.* (15 i). Similar to a large *carnescens*. Thorax greyish white, abdomen somewhat brownish. Forewing yellowish white with 4 lines at the base, somewhat outwards. A pale brown spot at the middle of the costal margin and sometimes a streak at the lower cell-angle. The marking in the interior and central area is somewhat olive yellow. Marginal area red-brown with a violet reflection, extending to below the middle of the cell, then straight to the inner margin. Exterior line marked by an olive brown spot at the costal margin and a dark streak behind the cell, indicated in the submedian fold by black scales. Hindwing of ♂ white, broader dark at the margin than in *carnescens*. ♂ 32 mm. Mashonaland.
- gradata*. **T. gradata** *Wkr.* (15 i). Body as in *chrysoproctis*. Forewing creamy white, interior line vertical, double. Reniform macula interruptedly edged with black, before it an intense triangular olive brown blotch. Marginal area vertical from the costal margin to vein 6, from there radial almost to the reniform macula which it encircles closely, then continued as in the other species. Easily recognizable by the radially running borderline. Fringe above the anal angle somewhat white. Hindwing orange, margin narrowly brown. 28—30 mm. Cape Colony.
- hortensis*. **T. hortensis** *Swinh.* Thorax white, abdomen somewhat brown. Forewing white, somewhat grey at the base. Interior line blackish, double, slightly interrupted. Marginal area normally coloured, its inner margin oblique from the costal margin to the lower cell-angle, then bent inwards. Reniform macula interruptedly edged



with black. A quadrangular white spot behind it at the costal margin, from which the black exterior line proceeds, edged white outside, concave behind the cell. Submarginal line white, edged with brown inside. Hindwing white, narrowly brown at the margin. Base of forewing in the ♀ somewhat grey, hindwing brownish. 20—22 mm. Sudan, Sokotra, Somaliland, also in India.

**T. niphogona** *Hmps.* Thorax creamy white, abdomen brownish. Forewing of ♀ white in the basal half with 4 undulate pale brown lines. Margin dark red-brown, its border slightly angled in the cell, then bent slightly inwards. Reniform macula in the dark area edged black, open below. Behind it a somewhat triangular white spot at the costal margin with the usual black exterior line. Submarginal line indistinct, white, inside with small red-brown triangles. Hindwing whitish ochreous with a brown exterior band and margin. In the ♂ the white costal-marginal spot is connected with the basal area. The inner edge of the marginal area strongly and uniformly bent inwards below vein 5. Two olive brown spots at the costal margin behind the middle. Hindwing white, dark at the apex. 28 mm. Uganda, Congo, South Africa.

**T. caffraria** *Cram.* (= *caloris* *Hbn.*, *komaga* *Fldr.*) (15 k). Similar to *niphogona* ♀. The border-line of the dark area is more sharply angled at the median vein, then straight obliquely inwards. The black reniform macula is narrowly edged with white outside, this line united with the white quadrangular spot at the costal margin. Another small spot above the reniform macula at the costal margin. Exterior line composed of large black spots. Submarginal line white, very dentate, not always distinct, with intense red-brown triangles inside. Hindwing of ♂ white with a brown margin, of ♀ as in *niphogona* ♀. — In *kikuyensis* ♀ *Strd.* the dark marginal area of the forewing extends somewhat farther inwards, the hindwing is somewhat darker. 28—34 mm. South and East Africa.

**T. malgassica** *Mab.* (15 k). Body brownish white. Forewing yellowish white. Interior line black, double, interrupted, in mottled surroundings. A brown spot behind it at the costal margin. Reniform macula indicated by a brown spot, a triangular spot above it at the costal margin. A black line from vein 6 forms the border of the brown marginal area, enclosing the black dentate exterior line. Submarginal line white, notched, black white-edged spots behind it at the apex and anal angle. Hindwing whitish with a broad brown margin. ♀ 40 mm. Madagascar.

**T. discoidea** *Hopff.* (= *upsilon* *Wkr.*) (15 k). Thorax and forewing creamy white, the lines at the base somewhat greenish, sharply projecting close under the cell. Ring-macula and reniform macula finely edged with black. An olive brown spot at the costal margin before and behind the reniform macula. Marginal area reddish black. Exterior line black, beginning from vein 6. Submarginal line black, somewhat distinct only above the inner margin. Hindwing white, narrowly brown at the margin. ♀: basal area of forewing darker, hindwing brown. 24—26 mm. Throughout Africa, also in India.

**T. mesoleuca** *Poult.* (15 k). Body white. Forewing pale lead-coloured, whiter in the basal area. Interior line white, undulate, then a white median band. A black ring near the cell-end, reniform macula elliptical, edged with black. Exterior line red-brown, faded, beginning with a triangular white spot at the costal margin, strongly bent inwards below vein 4. Submarginal line brownish, indistinct. Hindwing white, somewhat brown at the margin, especially at the apex. ♂ 18 mm. Somaliland.

**T. costosa** *Mab.* (15 k). Body brownish white. Forewing greyish brown, white at the base enclosing the brown interior line. A white spot at the middle of the costal margin, extending to the median vein, in it a brown spot at the costal margin and inside a black one indicating the ring-macula. A blackish median line from the cell to the inner margin. Exterior line dark, indistinct. Submarginal line white, dentate, with brown triangles inside. Hindwing slightly brownish. ♀ 22 mm. Madagascar.

**T. margaritata** *Drury* (= *bohemani* *Wlgrn.*, *monilifera* *Wkr.*, *unio* *Fldr.*) (15 k). Thorax and forewing at the base white with somewhat interrupted dentate grey lines. The white basal area projects pointedly outwards at the median vein. The ring-macula behind it is a grey spot. An oblique olive brown band behind it extends to the lower cell-angle, where it unites with the reddish violet marginal area. The latter contains 2 black spots above the inner margin. A large white spot at the costal margin near the apex. Submarginal line of rusty red spots, a black luna behind it at the costal margin. Hindwing white, narrowly brown at the apex. ♀: base of forewing greyer, margin of hindwing broader dark. 30—34 mm. South Africa.

**T. tetragonisa** *Hmps.* (15 k). Forewing reddish brown with a violet reflection. Interior line double obliquely outwards, notched. As far as this line light greyish white and also a little behind it at the inner margin. Ring-macula round, dark, only traceable. A dark median line likewise only traceable. A large white spot at the costal margin. Exterior line black indistinct, a large black spot before it in the submedian fold, and sometimes a small one below it. Submarginal line white, copper red inside. Black spots below the apex and in the submedian fold behind it. Hindwing white, narrowly brownish at the margin. ♀: base of forewing much less light, hindwing dark brown. 26—30 mm. South Africa.

**T. leucotrigona** *Hmps.* (16 a). Thorax and forewing white with a pink reflection. Greenish brown dentate lines in the basal area. Ring-macula absent. Reniform macula finely edged with black, open below. Marginal area blackish violet. Its border from the costal margin near the apex in a bow to the cell-margin, then vertical to the inner margin. A triangular olive brown blotch at the costal margin before the reniform



macula, an oblique stripe behind it as far as the marginal area. A white marginal spot behind it. Exterior line indicated by a few black spots. Submarginal line marked by dark red spots before a white line. Hindwing white, with a narrow brown margin. ♀: both wings darker. — In *leucotrigonides* Strd. two black lines proceed from the reniform macula, dividing the white triangle. 28—32 mm. South and East Africa.

*miogona*. **T. miogona** Poult. Body and base of forewing brownish white. The border-line oblique, somewhat faded, a black dot in the base of the cell. The rest of the wing dark chocolate brown. The blackish exterior line before a brownish white conical spot at the costal margin; bent inwards below vein 4 as far as below the cell-end, somewhat extra-angular at vein 1. Submarginal line of brownish white scales, ending at the anal angle. Somewhat lighter behind it. Hindwing pale reddish brown, darker at the margin. ♀ 24 mm. Somaliland.

*sphaerophora*. **T. sphaerophora** Hmps. Body brownish. Forewing pale ochreous and reddish brown, margin brownish white, white at the anal angle. Interior line double, black, oblique, the interior branch stronger, the exterior one more irregular. A large white spot at the cell-end and behind it encloses a brown dot and is slightly black-edged. Exterior line fine, double, very convex, black as far as vein 1, then brown. Besides a single and a double line behind it, all 5 black, very much bent. Marginal line undulate, black. Hindwing copper brown. ♂ 18 mm. Niger District.

The position of the following species is uncertain, as it is not stated by the authors.

*buchanani*. **T. buchanani** Rothsch. Thorax and abdomen in front white, the rest creamy white.  $\frac{2}{3}$  of forewing white, strongly introangular below the median vein. 5 olive green spots at the costal margin. The exterior third blackish-brown with white scales, strongly extra-angular above the median vein. A white spot at the margin between veins 2—4. Hindwing white, broadly dark grey at the margin. ♂ 28 mm. North Nigeria.

*asbenensis*. **T. asbenensis** Rothsch. Thorax creamy white, abdomen reddish grey.  $\frac{1}{2}$  of forewing creamy white with olive grey spots at the costal margin. The rest blackish brown with a black quadrangular spot above the inner margin, a large triangular white spot at the costal margin. Hindwing greyish yellow, darker at the margin. ♂ 22 mm. North Nigeria.

*anomoiota*. **T. anomoiota** B.-Bak. Thorax and forewing whitish in the basal area, with a small black spot near the base. Median area blackish, its inner margin excurved, bordered outside by an oblique irregular white line. A triangular white spot at the costal margin almost to the apex. The rest of the wing dark brownish grey, a small white spot only at the anal angle. Hindwing pale grey, darker at the apex. ♂ 24 mm. Portuguese West Africa.

*variegata*. **T. variegata** B.-Bak. Body brownish grey. Forewing grey at the base, bordered by an irregular white line. Median area dark grey, the reniform macula recognizable in it, edged white outside, an oblique white blotch extends from it to the apex. Exterior line very irregular, white, grey behind it. Submarginal line white at the apex and anal angle, dark between them. Hindwing dark grey. ♀ 24 mm. Portuguese West Africa.

*nephata*. **T. nephata** B.-Bak. Body olive grey. Forewing the same at the costal margin on  $\frac{2}{5}$  of its length and at the inner margin on  $\frac{1}{5}$  of its length in the basal area. The paler interior line in it. The basal area is bordered by an oblique broad irregular white band which is irregularly edged with dark olive grey, though not as far as the costal margin. The rest of the wing is violettish grey with traces of a very convex exterior line. Submarginal line of reddish spots outside with a white line. Hindwing dark brownish grey. ♀ 28 mm. Lokoja District.

*brabanti*. **T. brabanti** Le Cerf (16 a). Forewing lustrous violettish black mixed with bronze green. Two large unequal spots at the costal margin and a little part of the distal margin white. The smaller spot is almost rectangular, at the base of the wing, and contains a bronze green dot. A green line extends from there to the other spot which is larger, arcuate below, with a green line at the costal margin. Behind it a fine undulate line of steel-blue scales. Exterior line composed of black sagittal streaks. White behind the submarginal line, narrow at the costal margin, broader at the inner margin. Hindwing white, brownish at the apex. ♂ 24 mm. East Africa.

## 65. Genus: **Erastria** Ochs.

This genus containing about 5 species has given the name to the subfamily concluded herewith. None of them occurs in Africa, if one does not count that a ♂ of *E. trabealis* Scop. being so common in Europe has been in Mauritius.



Subfamily: **Eutelinae**.

The family of *Eutelinae* comprises about 300 species known to this day, which are distributed over a large part of the earth, though chiefly its tropical parts; only three species reach Europe, and only about half a dozen are palaearctic. About 60 species are known to-day from the Ethiopian Region, distributed over the whole of Tropical Africa, and a great number of individuals may occur yet in Arabia. Two thirds of the Ethiopian species belong to the typical genus *Eutelia*, the only one of the subfamily, which penetrates to Europe and which is also very extensively distributed in Africa (cf. Vol. III, p. 287).

The *Eutelinae* form a well defined group; the first species exhibits the tegulae transformed into a gigantic tuft, though smaller tufts are present in many other species. The eyes are large and hairless. The tibiae without spines, their hair very strong in the first few species, less strong in the others. Abdomen very often with an anal tuft. Forewing with an areole, vein 5 of hindwing fully developed, arising near the lower cell-angle. Forewing more or less stretched. The imagines are mostly somewhat variegated, especially in the typical genus *Eutelia*. HAMPSON, in 1919, denominated this group *Phlogophorinae*. — The ♀ exhibits a plainer frenulum consisting of a strong bristle and a finer one. A very strange attitude is shown by the resting imago of the genus *Eutelia*: it mostly rests with its head down on poles, trunks, or also on hoardings. The forewings do not cover the abdomen which is bent upwards, so that it resembles a splinter; this resemblance is increased by the anal appendages of many ♂♂ sticking out like tongs.

Very little is known of the early stages. The only larvae known of *Eut. adulatrix* have 8 pairs of feet, they are smooth or only provided with single tiny hairs, and live on bushes and low plants. Pupation between leaves or on the soil (SEITZ).

1. Genus: **Pacidara** Wkr.

The only species of this genus is the largest *Euteliana* known. Like many African *Noctuae* from different families, the only species of this genus also exhibits a distinct Sphingid shape: pointed forewings, relatively small hindwings with a centrally slightly concave margin, and a long abdomen projecting far beyond the anal angle. — Proboscis normal, palpi highly erect. Antennae of ♂ shortly pectinated in the basal halves, serrate in the ♀. Tegulae of ♂ with a very large tuft which may be highly raised as in *Cucullia*, or lying more hindward; the tuft of the ♀ is lower. Tibiae of ♂ very densely long-haired. Hindwing of ♂ with scent-scales below at the apex, normal in the ♀.

**P. venustissima** Wkr. (16 a). Body of ♂ light chocolate brown. Forewing light pinkish-brown, darker at the base as far as behind the interior line which is double, bluish white, extra-angular at the lower cell-margin. A triangular white spot behind it at the costal margin. Two black dots at the cross-vein. Below them yellowish hyaline spots obliquely inwards. Exterior line from a white spot far outside at the costal margin, the line bluish white, extra-angular below the costal margin, very obliquely inwards. A large hyaline spot behind it between veins 4 and 6. Smaller hyaline spots above and below it nearer to the margin. Hindwing hyaline white, broadly blackish-brown at the margin, yellowish brown at the anal angle. The smaller ♀ shows a much darker marking. 45—55 mm. West, South and East Africa. venustissima.

2. Genus: **Eutelia** Hbn. (*Phlogophora* Tr.)

In spite of the homogeneousness of the genus, its species had been distributed among a dozen of genera. Most of them exhibit almost the same shape as that of the preceding genus, but all of them are smaller. Certain African *Eutelia* show a most peculiar though only superficial resemblance to the structurally quite different species of the Thyridid genus *Dysodia* (Vol. XIV, pl. 76 e), owing to which mistakes in assigning the species have been frequently made. Thus *Eu. snelleni* (16 b) from West Africa resembles the Thyridid *Dysodia zelleri*; *Eu. histrio* (16 c) from Natal likens *Dysodia intermedia* from the same district; the Malagassic *Eu. oculatrix* Saalm. resembles *Dysodia flammata* or *subsignata* from East Africa, etc. — Proboscis normal, palpi highly erect. Antennae of ♂ differently shaped in the various species. Thorax with tufts in front and behind. Forewing rounded at the apex, margin slightly undulated, veins 3—5 close together, 6 from the upper cell-angle, then the usual areole. Veins 3 + 4 of the hindwing may be stalked. Type: *adulatrix* Hbn. from Europe, which, however, is also widely distributed in Africa. The numerous species are distributed over all the faunae.



1. Antennae of ♂ strongly bipectinated on  $\frac{2}{3}$  of their length. Distal margin of forewing undulate.

*distorta*.

**Eu. distorta** Hmps. Described according to a single ♂. Thorax dark reddish brown, abdomen greyish brown. Forewing grey with reddish and dark brown patches, paler at the inner margin. Interior line dark, traceable as a shadow. An oblique black streak through the cell-end. An indistinct dark line from the centre of the costal margin to the upper cell-angle, then thinner and curved to the centre of the inner margin. Exterior line double, feeble, obliquely outwards as far as vein 6, then interrupted and from vein 2 to the inner margin. Submarginal line fine whitish, as far as vein 6. The ♂ shows a somewhat deformed forewing. A narrow androconial stripe below the cell, the veins behind it strongly bent downward. Hindwing blackish brown. ♂ 30 mm. Gold Coast.

*endoleuca*.

**Eu. endoleuca** Hmps. Body red-brown with some whitish scales. Forewing red-brown, slightly dusted dark brown, the submedian fold pale. Interior line fine, dark, bent inwards below the submedian fold. Ring-macula indistinctly edged with black. Dark scales at the cell-end. Exterior line indistinct, double, dark, oblique as far as vein 6, dentate, slightly interrupted below vein 2, then very oblique to the centre of the inner margin. Submarginal line pale, fine, undulate, edged dark on both sides at the costal margin. Hindwing reddish brown, whitish in the submedian fold. Exterior line indistinct, double, dark, filled with white. Dark submarginal spots between veins 5 and 2. ♂ 30 mm. Cameroons.

*ferridorsata*.

**Eu. ferridorsata** Hmps. (16 a) was described according to a single ♀ from Old Calabar. Body rusty red. Forewing dark greenish grey. Interior line double, black, undulate. Reniform macula edged black, centred red-brown, narrow. Exterior line indistinct, edged with red-brown outside, bent far outward behind the reniform macula. Submarginal line fine undulate, black. Hindwing dark red-brown, lighter at the base, spotted white near the anal angle. ♀ 25 mm. Niger District.

*leucographa*.

**Eu. leucographa** Hmps. (16 b). Very similar to *amatrix* (16 b) at first sight. Thorax black with white edges, abdomen blackish brown. Forewing reddish brown, with feeble white radial lines at the lower cell-margin, below it and then above the centre of the inner margin. A large light spot above the anal angle. Interior line broad, black, very near to the base. Ring-macula small, indistinct, white. The reniform macula is a larger white elliptical spot. Median line dark, indistinct, convex in the middle. Exterior line strong, black, interrupted between veins 3 and 1, where we notice a light spot with an inwardly bent edge. Submarginal line white, notched, extending to vein 3, a broad dark band before it, narrowly continued without the white spot as far as the anal angle. Hindwing white, smoky brown in the distal half, with the beginnings of 2 white lines above the inner margin in the marginal area. Forewing of ♀ with fewer white areas. 35—40 mm. South and East Africa.

*speciosa*.

**Eu. speciosa** Andreini. On the whole very similar to *leucographa* (16 b). The interior line is narrower and partly edged with white. The median line consists of 2 white spots which are continued towards the inner margin as a short strong black line. The reniform macula extends farther to the costal margin and is broader. Exterior line black, edged white inside, not so pointedly extra-angular as in *leucographa*, interruptedly continued to the centre of the inner margin. Submarginal line white, continued to the anal angle, where the brightening is absent. Hindwing somewhat less broadly edged dark. ♂ 32 mm. Erythraea.

2. Antennae of ♂ with rather long pectinations which are flattened above, tufted below. Tips of antennae ciliated. Forewing somewhat angular at the distal margin at veins 7 and 3.

*snelleni*.

**Eu. snelleni** Saalm. (16 b). Thorax dark red-brown, abdomen lighter, greyer. Forewing reddish orange, the basal area and the costal-marginal area almost to the apex chocolate brown. A white oblique streak from the centre of the costal margin. Two black dots below at the cross-vein. From there a red-brown line extends obliquely inwards to the inner margin, defining the dark basal area. Exterior line beginning with 2 oblique white streaks at the costal margin, then red-brown, single, strongly introangular at vein 3, then vertical, double, to the inner margin. Chocolate brown inside before it at the costal margin, triangularly grey outside from the costal margin to the angle at vein 3. A double red-brown line near the apex is filled with white, tending outwards towards vein 6, then single as far as vein 4. Submarginal line light, undulate, beginning with a white dot. Hindwing lighter chocolate brown, yellowish at the base. ♂ 28 mm. West-Africa, Madagascar. — We figure a specimen from the series of types.

3. Antennae of ♂ bipectinate, but with shorter dents.

*fulvigrisea*.

**Eu. fulvigrisea** Warr. (16 g). Body and forewing light greyish yellow, somewhat reddish above the inner margin behind the interior line. A darker reddish spot at the costal margin before the submarginal line. White streaks at vein 3 and above vein 5. Transverse lines brownish, more distinct below the centre. Interior and median lines angled at the lower cell-edge. Exterior line bent outward behind the cell, concave at vein 3. The submarginal line is a short white streak behind the reddish yellow spot. Hindwing whitish, greyish brown at the margin, with a dark median and exterior line. As the following species is somewhat similar, placed here, though nothing is mentioned about the antennae. ♂ 32 mm. Zulu Land.

*gabriela*.

**Eu. gabriela** Holl. (16 b). Body reddish-brown, forewing somewhat lighter. Interior line dark, strongly angled at the lower cell-angle, a dark spot inside it, the small ring-macula outside. Reniform macula luniform, large, finely edged with white, a rather indistinct median line extends above it. Exterior line from vein 3 to



the inner margin. A triangular red-brown spot above it proceeds from the costal margin, its tip at vein 4 reaching the distal margin, finely edged white on both sides. Hindwing brownish red, yellowish at the base and more narrowly at the margin. ♂ 28 mm. Congo District.

**Eu. rivata** *Hmps.* (16 b). Body dark greyish brown, forewing somewhat lighter. The median vein *rivata*, and the veins arising from it fine white. A narrowly triangular white spot in the cell from before the interior line almost to the reniform macula; it is absent in the specimen figured. Interior line double, dark, filled with white, very convex. Reniform macula brown, edged with white, narrow, the upper apex projecting outward. Median line indistinct, dark, from the lower cell-angle to the inner margin. Exterior line double, filled with white, the outer branch indistinct. Below the costal margin sharply outward, behind the centre of the cell with a short inward point. Submarginal line fine white, also with an inward point. Hindwing creamy white, broadly smoky brown at the margin, with a light exterior line. ♀ 32 mm. Natal.

4. Antennae of ♂ with long tufts.

**Eu. poliochroa** *Hmps.* (16 b). Body brown, forewing somewhat lighter. Interior line dark, projecting *poliochroa*, in the cell, edged light inside. Ring-macula small, white. Reniform macula D-shaped, brown, white outside. Median line blackish, very oblique to the reniform macula, then undulate inwards to the inner margin. Exterior line double, brown, filled with white, extra-angular at vein 6, then dentate, inwards. Submarginal line white, edged brown on both sides. Hindwing coloured like the forewing, lighter at the base, with a light submarginal line. ♀ 26 mm. Gold Coast; described according to a ♀ from Bibianaha.

**Eu. geraea** *Hmps.* (16 c). Body reddish grey, forewing the same, but greyer as far as the median line. *geraea*. Interior line represented by a dark spot at the costal margin. Ring-macula and reniform macula blackish, with a white margin. Median line dark, oblique to the lower cell-angle, then bent inward. Exterior line indistinct, double, bending around the reniform macula, concave below it. A triangular chocolate brown spot at the costal margin near the apex; the submarginal line composed of tiny red-brown spots proceeds from this spot. Hindwing coloured almost like the forewing, the basal area lighter, more yellowish. Thorax and forewing of ♀ greyish white, the marking more distinct, somewhat red-brown before the exterior line. 25 mm. Mauritius.

**Eu. histrio** *Saalm.* (16 c). This species introduces a series of rather unicoloured dark grey species with *histrio*, blackish markings. — Body and forewing greyish-brown. Interior line with a black spot at the costal margin, then indistinct, undulate, inwards. Ring-macula and reniform macula blackish, finely edged white. Reniform macula oblique, elliptical, with a black streak from the costal margin to it. Exterior line double, blackish, filled with white, introangular below the reniform macula. A dark brown spot near the apex as in *geraea*. Proceeding from it a fine pale submarginal line before which there are a larger black dot and a few small ones. Hindwing light at the base, with a double dark median line, marginal area greyish brown. The ring-macula and reniform macula of the ♀ filled with red-brown. 26 mm. Madagascar, Natal. We figure the type, a ♂ from the satellite island of Nossi-Bé, and a ♀ (co-type) from Madagascar.

**Eu. mima** *E. Prout* (16 c) was formerly confounded with *histrio* for its resemblance. The original de- *mima*, scription does not mention the differences from *histrio*, but they seem to be as follows. Interior line indistinct, double. Ring-macula yellow, edged with dark. Median line continued to the inner margin below the reniform macula. Exterior line very fine, dark, double. A fine yellowish white line extends from the ring-macula through the cell almost to the margin. A dark spot near the apex with white marginal lines, the feeble submarginal line proceeding from that spot. Hindwing yellowish at the base, rusty yellow in the distal area. We figure a specimen from East Africa, which probably belongs to this species. ♀ 28 mm. Natal.

**Eu. melanopis** *Hmps.* (16 c). On the whole similar to *geraea* (16 c). Body and forewing greyish-brown. *melanopis*. Interior line indistinct, dark, a black dot behind it at the costal margin. Ring-macula fine, black, small. Reniform macula narrow, black, edged with white. Median line less distinct than in *mima*. Exterior line double, introangular behind the cell. A chocolate brown spot before the apex, the pale undulate submarginal line proceeding from it. Hindwing greyish brown. ♂ 22—24 mm. Sierra Leone, Cameroons. — The species was founded upon a single ♂.

**Eu. adoxodes** *B.-Bak.* is somewhat larger, with broader wings. Body and forewing greyish brown. *adoxodes*. Interior line faded, dark. The reniform macula is a faded yellowish brown spot from which a faded median line extends to the inner margin. Exterior line also indistinct, dentate, uniformly bent. A broad conical black spot near the apex, from which the grey submarginal line proceeds. Hindwing greyish brown, lighter at the base, 2 fine white dots at the anal angle. ♀ 32 mm. Angola.

**Eu. albiluna** *Hmps.* (16 c). Body brownish white. Forewing yellowish white, somewhat brownish in *albiluna*, the median area. Interior line indistinct, oblique, as far as the submedian fold; very strong on the original figure. A small ring in the centre of the cell. Reniform macula narrowly black, with a white line edging it and a black streak extending to it from the costal margin. An oblique median line from the cell to the inner margin. Exterior line indistinct, double, filled with light, far extra-angular behind the cell. A small chocolate brown triangle at the costal margin near the apex, adjoining to it the pale submarginal line edged with dark



on both sides. Hindwing greyish brown with a white submarginal line near the anal angle. ♂ 24 mm. Sierra Leone.

*menalcas*. **Eu. menalcas** Holl. (16 d). Body and forewing yellowish brown. Black streaks at the costal margin for the beginnings of an interior and a median line. The latter line blackish brown, very obliquely inward. A black dot near the cell-end. Reniform macula greyish yellow, finely edged with white, compressed in the middle. Exterior line double, introangular behind the cell, very dentate. Apical spot and submarginal line as in the foregoing species. Hindwing smoky brown, somewhat lighter at the base. ♀ 26 mm. West Africa.

*glaucocycla*. **Eu. glaucocycla** Hmps. (16 d). Thorax grey, abdomen brownish. The base and costal-marginal area of the forewing greyish-white with a greenish shine, the rest of the wing violettish brownish. Interior line as a dot at the costal margin and a double black line from the cell to the inner margin inwards. Ring-macula and reniform macula of the ground-colour, with a fine black edge. Exterior line black, double, very obliquely outward, slightly intro-angular behind the cell. Submarginal line proceeding from a faded white spot at the costal margin. Hindwing whitish in the basal half, smoky brown in the marginal area, with a short white line near the anal angle. ♀ 22 mm. Rhodesia.

*chlorobasis*. **Eu. chlorobasis** Hmps. (16 d). Body greyish brown, forewing pale reddish brown, somewhat greenish at the base. Interior line white, very oblique, broadly edged dark outside. Traces of a dark median line. Ring-macula and reniform macula greenish white, edged with black; on the original figure the colours are just reverse. The figured ♂ from East-Africa shows the ring-macula as a black dot, the reniform macula narrow, finely edged with white. Exterior line double, filled with white, very obliquely outward at the costal margin, then indistinct. The indistinct submarginal line begins with a short white streak before which there is a chocolate brown spot. Hindwing of ♀ dark brown, of ♂ lighter at the base and with a white line at the anal angle. 22 mm. Niger District, Tendaguru.

*nigridentula*. **Eu. nigridentula** Hmps. (16 c) is somewhat similar to *chlorobasis* and *mima*. On the whole of a lighter brown colour, the whole forewing except the base with a greenish reflection in a certain light. Interior line fine white, double, oblique. The somewhat brownish ring-macula and the reniform macula similar to *mima*. Exterior line even more pointedly projecting behind the cell than in *chlorobasis*. Apical spot smaller than in *mima*, the spot below it (being absent in *chlorobasis*) as in *mima*. Hindwing smoky brown. 22—24 mm. West-Africa.

*leucodelta*. **Eu. leucodelta** Hmps. (16 d). Body and forewing yellowish white, pale olive brown at the base and costal margin. Interior line white, oblique, broadly olive brown behind it. Reniform macula shaped as in *mima*, olive brown, edged with white. Somewhat red-brown behind the cell. Exterior line double, indistinct, outwards as far as vein 6, then dentately inwards. An olive brown costal-marginal spot between the exterior line and the fine white submarginal line. Grey behind the latter line. Hindwing brick-red, whitish at the base. ♀ 30 mm. Niger District. Founded upon 1 ♀ from Sapele in South Nigeria.

*metasarca*. **Eu. metasarca** Hmps. (16 e) is one of the smallest species. Body and forewing pale brownish red. Interior line indistinct, double, almost vertical. A small ring in the centre of the cell, the reniform macula as in *leucodelta*, brown edged with white. Traces of a vertical median line. Exterior line double, pointed at vein 6, far outwards, then dentate. A white submarginal line is only traceable at the costal margin. Distal margin slightly angled at vein 4. Hindwing flesh-coloured, paler at the base. 20 mm. Niger District.

*leighi*. **Eu. leighi** Hmps. (16 e). Thorax quite pale brown behind, the rest and the abdomen dark red-brown. Forewing olive grey in the costal-marginal area, white at the base at the inner margin and at the apex, the rest pale reddish brown. Interior line as a dot at the costal margin, broad from the cell, dark brown, bent inwards. Ring-macula and reniform macula inconspicuous, small, edged with white. Median line as a dark spot at the costal margin and a duller line below the cell inwards. A thick black streak from the reniform macula to the exterior line, red-brown above it. Exterior line double as far as vein 4, then single, obliquely outwards as far as vein 6, introangular behind the cell, then dentate. A strong black band behind it from vein 6 to the margin at vein 3. Submarginal line fine white as far as this band, and white again at the anal angle. Hindwing whitish, pale brown at the margin. ♂ 26 mm. Natal. Described according to a single ♂ from Durban.

*malanga*. **Eu. malanga** B.-Bak. (16 d) is quite differently marked. Body and forewing brown, white in the median area from vein 3 to the inner margin and narrower white at the distal margin. Reniform macula small, indistinctly edged with white. A blackish band extends from it to the inner margin near the base, besides a curved band to the margin at vein 3. The white median area is slightly excurved between veins 3 and 4. The white submarginal line is composed of fragments. Hindwing ochreous, smoky brown in the apical area. ♂ 24 mm. Portuguese West Africa.

5. Antennae of ♂ serrate and with short tufts. Distal margin of forewing not angular.

**Eu. adulatrix** Hbn. This species which is widely distributed in the warmer palaearctic regions has been dealt with in Vol. III, p. 287 and pl. 53 a. It occurs also in South Africa.



**Eu. amatrix** *Wkr.* (= *bowkeri* *Fldr.*, *exquisita* *Saalm.*) (16 b). Thorax blackish brown, abdomen greyish brown. Forewing lighter or darker olive brown. Interior line excurved as far as the submedian fold, fine white, interrupted, broadly edged with black outside in its posterior part. Narrowly white behind it above the inner margin or also as far as the exterior line. Reniform macula large, white. Exterior line black, dentate, double, the two branches distantly separated, the exterior one edged with white outside. Submarginal line thick, white; a black triangle at the costal margin before it, black behind it at the inner margin. Marginal area greyish green, parted by black in the middle. Hindwing whitish at the base, pale brown at the margin, darker brown in the ♀. 26—30 mm. Sokotra, East and South Africa, Madagascar. *amatrix.*

**Eu. mesogona** *Hmps.* (16 d). Body light greyish brown. Forewing yellowish brown in the central area, the rest darker reddish brown with a green shine. Interior line double, angled at the median vein, then inwards, the interior branch strong, black. The median area is bordered by the double exterior line which is sharply angled outwards at vein 6. The ring-macula is a small brownish ochreous spot in a dark area. Reniform macula light, somewhat triangular, edged with dark brown. In the distal area, between veins 4 and 2, a somewhat three-pronged white spot before the whitish submarginal line which extends from the costal margin to vein 6 very obliquely outwards, then ochreous to vein 3 farther outwards. A white spot at the apex. Hindwing brown, striped, lighter at the base. ♀ 32 mm. Madagascar. *mesogona.*

**Eu. symphonica** *Hmps.* (16 d). Body and forewing red-brown, with 2 double interior lines. The reniform macula is a grey or white spot, with a brown luna inside. Median line fine, beginning at vein 6 behind the cell, oblique, undulate. The two exterior lines also double, concave behind the cell. A square white black-edged spot behind it in the discal fold. Submarginal line whitish, finely edged with black on both sides, rather straight, near the apex with a black spot outside. Hindwing smoky brown, lighter at the base. 24—30 mm. West, South and East Africa. *symphonica.*

**Eu. quadriliturata** *Wkr.* (16 e). Thorax and forewing red-brown, abdomen greyish-brown. Interior and median white streaks from the costal margin. A fine white luna at the cross-vein. Median line indistinct, black, beginning at vein 6 behind the cell, obliquely inwards below vein 4; a short white band behind it from vein 1. Exterior line indistinct, double, black, extra-angular at vein 6. Submarginal line white, pale brown before it. Hindwing dark brown, somewhat white near the anal angle. 24—28 mm. West Africa. *quadriliturata.*

**Eu. discistriga** *Wkr.* (= *petrificata* *Wkr.*) (16 e). Body lighter or darker greyish brown. Forewing greyish brown, with variably distinct markings, with two dark double interior lines. In the cell traces of a light streak to the whitish reniform macula. Exterior line double, its two branches more distantly separated towards the inner margin, somewhat white between them. A less distinct double line behind the exterior line. Submarginal line white, introangular below the costal margin and in the cell. Grey at the apex, hindwing smoky brown, hyaline white at the base. 28—32 mm. West, South and East Africa, distributed also in India. In some years they fly in very great numbers near Aden, where they are common in very light specimens with very dull markings. *discistriga.*

**Eu. grisescens** *Poult.* Body grey, forewing olive brown at the base, as far as the straight interior olive brown line extending from  $\frac{2}{5}$  costal margin to  $\frac{1}{3}$  inner margin. The rest of the wing grey with traces of a fine reddish brown median line, excurved as far as the cross-vein, then inwards. Exterior line black, oblique, undulate, outwards as far as vein 6, then interrupted, indistinct, with a rusty red spot behind the cell and in the submedian fold, blackish outside below the costal margin. Submarginal line whitish, quite indistinct, with some reddish yellow spots on both sides. Hindwing greyish white, brownish at the margin. 22—26 mm. Somaliland. *grisescens.*

**Eu. solitaria** *Holl.* (16 e). Body and forewing yellowish red-brown. Traces of a double undulate interior line. The ring-macula is a small triangular black spot from which a brown line extends inwards to the inner margin. Reniform macula white, edged with black, narrow, another line from it to the inner margin. Exterior line indistinct, double, brown, outwards as far as vein 6, then dentate to the inner margin. Submarginal line whitish, introangular behind the cell, its anterior part edged with brown inside. Hindwing brown, lighter at the base. ♀ 26 mm. Founded upon 1 ♀ from the Ogowe R. *solitaria.*

**Eu. morosa** *Holl.* (16 e). Thorax and forewing red-brown. Interior line black, double, its exterior branch strong, excurved as far as the submedian fold. Reniform macula edged with black, red-brown inside. Median line incurved towards the costal and inner margins, running over the macula. Exterior line double, black, extra-angular at veins 6 and 4, concave between. Submarginal line pale, broadly edged inside with a faded dark colour from the costal margin to vein 4. Hindwing blackish-brown. ♂ 30 mm. Gabun. *morosa.*

**Eu. ochricostata** *Hmps.* (16 f). Thorax reddish yellow, abdomen red-brown. Forewing light red-brown, the costal-marginal area reddish yellow almost to the apex. Two dark interior lines from the centre of the cell obliquely to the inner margin, a less distinct median line behind them. The reniform macula is a whitish ochreous V-shaped spot filled with reddish yellow. Exterior line double, obliquely inwards from below the cell. Somewhat darker at the apex. Hindwing pale red-brown, lighter at the inner margin. ♀ 22 mm. Niger District. *ochricostata.*



6. Antennae of ♂ serrate and tufted. Distal margin of forewing angled at vein 3, cut out below it.

*caulabasis.* **Eu. caulabasis** *Hmps.* (16 f). Thorax rusty red, abdomen paler. Forewing with a large dark rusty red spot at the base, somewhat lighter at the costal margin. This spot is broadly edged with dark red-brown. The rest of the wing greenish grey. The ring-macula is a white dot. Median line brown, straight, incurved to the costal and inner margins. Exterior line composed of black dots. Submarginal line proceeding from a flat red-brown spot at the costal margin, very indistinct, edged somewhat lighter. Blackish at the anal angle. Hindwing dark red-brown, from the anal angle the beginnings of 2 white lines. ♂ 30 mm. Cameroons.

*subrubens.* **Eu. subrubens** *Mab.* (= *rufula* *Holl.*) (16 f). Body from pale reddish brown to fiery red. Forewing just as variable. Interior line very indistinct, somewhat outwards below the costal margin. Median line more distinct, straight, double. Two black dots at the cross-vein. Exterior line double, straight behind the cell, inwards above vein 6 and between 4 and 2, towards the inner margin indistinct, straight. The centre of the marginal area brick-red. Grey at the apex. Hindwing darker red-brown, lighter at the base. 26—30 mm.

*oculatrix.* West and South Africa, Madagascar. — **oculatrix** *Saalm.* (16 h, i) is a much smaller form (distinct species?) flying also in Madagascar beside typical *subrubens*, with a rounder tornus of the forewing, a scarcely lighter proximal part of the hindwing, and differently marked forewings.

7. Antennae of ♂ ciliated. Distal margin of forewing undulate.

*polychorda.* **Eu. polychorda** *Hmps.* (16 f). Similar to *subrubens* on the whole. Interior lines of forewing just as indistinct. Median line slightly curved. Also 2 black dots at the cross-vein, and a similar exterior line behind them. Submarginal line blackish, edged with red-brown inside. Hindwing pale red-brown, lighter at the base. There are no fewer than 9 subordinate forms: 1. Interior and exterior areas of forewing dark violettish brown. — 2. Median area violettish brown, the rest greyish brown. — 3. The whole wing greyish brown with blackish veins. — 4. Forewing brownish ochreous. — 5. Forewing pale reddish. — 6. The same, the transverse lines dark brown. — 7. Forewing violettish red. — 8. The same, but the lines dark brown. — 9. The same, but the marginal area darker. 24—32 mm. South and East Africa.

*nigricans.* **Eu. nigricans** *Holl.* Nothing is stated by the author about the position of this species. Thorax and forewing reddish black on  $\frac{2}{3}$  of their length, where it is obliquely cut off parallel to the margin. A V-shaped flesh-coloured spot at the cell-end. A similar spot at the centre of the inner margin. Distal margin somewhat lighter, somewhat darker only at vein 4. Hindwing as dark as forewing. ♂ 28 mm. Congo.

*Eu. aureopicta* *Kenrick* was placed to the Noctuines by HAMPSON, *Eu. ochreoplagata* *Kenrick* neither makes the impression of an *Eutelia*-species.

### 3. Genus: **Bombotelia** *Hmps.*

This genus containing about a dozen of species very similar to *Eutelia*, with a mostly whitish or at least very light basal part of the hindwing, is partly Indian except one South African species, and partly Papuan (from Neu Guinea). Proboscis normal, palpi long porrect. Antennae of ♂ typically pectinated in the basal halves. Tegulae highly erected, the middle segments of the abdomen with small tufts. Neuration as in *Eutelia*. Type: *jocosatrix* *Gn.* from India.

*ethiopica.* **B. ethiopica** *Hmps.* Antennae of ♂ ciliated in the apical thirds. Body red-brown, abdomen fiery red at the base. Forewing of a bright red-brown with a violettish grey hue on it. Interior line from a black spot at the costal margin, double, obliquely inwards, chocolate brown; on the exterior branch a black spot in the cell. Reniform macula sap-green, edged with black, narrow. Median line oblique, light red-brown, proceeding from the cell. Exterior line double, blackish, edged with red-brown as far as vein 6, then indistinct, concave behind the cell, somewhat extra-angular at vein 1. A red-brown spot at the costal margin before the submarginal line which is white, edged with black outside near the costal margin, below it continued by sap-green. Hindwing greyish white, violettish brown at the margin. 24 mm. Natal.

### 4. Genus: **Chlumetia** *Wkr.*

More than half a dozen of rather equally sized species form this genus one half of which are Indo-Papuan, the other half Ethiopian. They are rather similar to the *Marathyssa*, but some have yet the whitish proximal part of the hindwing which is conspicuous in so many *Eutelia*. — Proboscis feeble, palpi long porrect. Antennae of ♂ typically with short pectinations on one side, ciliated at the tips. Thorax tuftless, abdomen with short central tufts, anal end broad. Forewing with a normal neuration, vein 5 of hindwing near 4 and 3. Type: *transversa* *Wkr.* from India. The antennae of the African species are ciliated, almost plain.

*lichenosa.* **Ch. lichenosa** *Hmps.* (16 f). Thorax light olive brown, abdomen greyish brown. Forewing darker olive brown, lighter only in the median area. Interior line threefold, extra-angular in the middle, black. Ring-macula and reniform macula as a light spot. Exterior line indistinct, fourfold. From the innermost branch



a black patch extends to the submarginal line at vein 4. Submarginal line white in the beginning, then grey. Hindwing white, broadly blackish brown in the marginal area. — The forewing may also show a white median area excepting the costal margin. This is **medioalba** *Strd.* ♀ 26 mm. South Africa.

*medioalba.*

**Ch. cana** *Hmps.* (16 f). Thorax greyish brown, abdomen greyish white. Forewing pale grey, somewhat rusty yellow in the basal area. A fine dark median line is excurved in the cell. The ring-macula and reniform macula are fine black dots. Exterior line black, a little more excurved than the median line. Submarginal line as a rusty yellow shadow. Hindwing brownish white, browner at the margin. ♀ 26 mm. East Africa.

*cana.*

**Ch. polymorpha** *Hmps.* ♂ thorax blackish brown, abdomen violettish red, sap-green at the base. Forewing black, with a lead-coloured gloss, the median area below and behind the cell violettish grey, olive brown towards the margin below vein 4. Interior line black, edged with white inside as far as the median vein, then double, filled with red-brown. Reniform macula white with a little sap-green, close behind it the blackish undulate median line. Exterior line double, black, filled with white, excurved above vein 1. Behind it a pale line from the costal margin to behind the cell. From there a black band to the margin at vein 4. Submarginal line indistinct, dark, somewhat white behind it at the apex. Hindwing violettish blackish. The abdomen may be pinkish brown, the anal tuft sap-green. Forewing pink outside in the median area. ♀: forewing more variegated, whitish red-brown; sap-green at the costal margin and near the anal angle. Here the forewing may exhibit a semicircular black spot at the inner margin, almost over its entire length. Or the median area below and behind the cell is pink. The interior part of the marginal area is pale red-brown. 20—22 mm. South Africa.

*polymorpha.*

**Ch. insularis** *E. Prout.* Thorax reddish yellow, abdomen greyish brown. Basal half of forewing chocolate brown; marginal half reddish yellow with chocolate brown lines and a small pale violet spot. Median line pale, excurved in the middle, edged with dark on both sides. It forms the interior edge of the dark median area. The exterior edge is formed by the pale exterior line. Then follows a dark band and another exterior line. The first exterior line is slightly excurved, the second is far excurved from the origin of the first at the costal margin, nearing it again at vein 6, then again excurved. A pale shadow before the submarginal line at the costal margin, and then a triangular chocolate brown spot near the apex before which there is a dark streak. Reniform macula narrowly white, slightly prolonged in front outside. Submarginal line fine, pale, dentate, interrupted between veins 7 and 5 by a dark shadow. Hindwing pale brown, with a darker spot near the anal angle. ♀ 25 mm. St. Thomé.

*insularis.*

### 5. Genus: **Phlegetonia** *Gn.*

Proboscis normal, palpi more densely haired than in *Eutelia*. Antennae of ♂ typically serrate and tufted. Thorax and abdomen tuftless. Neuration as in *Eutelia*. Type: *catephioides* *Gn.* Altogether the genus contains 20 species about half of which are Indian and African. In their exterior they are quite similar to the *Eutelia*, so that they might be regarded as parallel forms of them. Thus *Phleg. operatrix* from Southern Africa seems to imitate *Eutelia fulvigrisea* from the Zululand; *Phleg. holocausta* from Nigeria resembles *Eu. snelleni*, *Phleg. callichroma* reminds us of *Eu. leighi*, etc. These purely external and inaccurate resemblances have of course nothing to do with mimicry; they are convergencies presumably caused by the adaptation to the same resting places.

1. Antennae of ♂ finely serrate and tufted.

**Ph. operatrix** *Wallgr.* (= *rosea* *Mab.*) (20 d). Body and forewing yellowish red-brown. Costal margin pink at the base. Interior line threefold, pink, strongly extra-angular at the median vein. Median line red-brown, extending behind the cell, far incurved towards the costal and inner margins. Exterior line threefold, more distinct, red-brown, the two outer ones pink at the costal margin, just as sharply excurved as the median line. Submarginal line red-brown, incurved below the costal margin, otherwise parallel to the exterior line. Before it at the apex dark red, triangular, pale yellow behind it. Hindwing yellowish white, the margin in front reddish brown. 34 mm. South Africa.

*operatrix.*

**Ph. callichroma** *Dist.* (16 g). Body and median band of forewing pale yellow, the base reddish olive. Interior band darker than the base, sometimes blackish, indistinct in front, then sharply inwards, enclosing a light line. The dark median line close behind the light faded reniform macula. Exterior line parallel to it. A blackish band behind the exterior line from the costal margin to vein 4, behind it at the costal margin a red-brown triangle near the apex, edged with white. A light line through the cell almost to the margin. Hindwing white, brownish at the margin, a white line in it. 22—25 mm. Very widely distributed in Africa to the south of the Sahara.

*callichroma.*

**Ph. violescens** *Hmps.* (16 g). Body pale red-brown. Forewing red-brown in the basal half and at the costal margin, the rest copper red. Median line fine, black, obliquely inwards from below the costal margin. A narrow grey luna at the cross-vein, edged with white outside. Exterior line fine black, edged with white inside, far excurved behind the cell, strongly incurved below vein 3. Violettish grey behind it in the lower part, the median area before it blackish as far as the interior line. Intense black marginal dots. Hindwing whitish at the base, brown at the margin. 30 mm. Gambia, Niger District.

*violescens.*



- holocausta*. **Ph. holocausta** *Hmps.* Distal margin of forewing slightly angled at veins 6 and 4. Thorax fiery red-brown, abdomen greyer. Forewing fiery red-brown. A red interior line below the cell, oblique, traceable. A fiery red spot in the centre of the cell. A pale spot at the cross-vein. Traces of a double exterior line as in *callichroma*. Behind it a red-brown spot near the apex, edged white outside. Hindwing fiery red, with red-brown spots near the anal angle. ♀ 30 mm. — Described according to 1 ♀ from Sapele in South-West Nigeria.
- catephioides*. **Ph. catephioides** *Gn.* (16 g). Body blackish brown. Forewing blackish brown at the costal margin, lighter towards the inner margin, reddish brown, lightest in the median area. Interior line threefold, strongly excurved as far as the submedian fold. A white streak through the cell-end as far as the white reniform macula. Exterior line also threefold, somewhat concave behind the cell. A grey spot at the apex. Hindwing white, broadly smoky brown at the margin. 32—36 mm. Transvaal, Natal.
- porphyriota*. **Ph. porphyriota** *Hmps.* (16 g). Body and forewing violettish reddish-brown. Two small round rusty yellow spots in the cell, two black dots at the cell-angles. Exterior line double, brown, sharply excurved below the costal margin, then rectilinear obliquely inwards. Behind it a black spot in the submedian area. A triangular dark spot at the apex, from which the submarginal line proceeds. The latter is in the beginning near the exterior line, at vein 3 far away from it. Hindwing dark brown. ♂ 32 mm. Niger District. Described according to 1 ♂ from Lagos.
2. Antennae of ♂ almost plain.
- albiapicata*. **Ph. albiapicata** *Hmps.* (16 h). Body and forewing at the base dark brown, ochreous between the interior and exterior lines at the costal margin, whitish at the apex. Interior line double, extra-angular as far as the submedian fold. Reniform macula pale olive green, slightly compressed in the middle. 2 double exterior lines, oblique as far as behind the centre of the cell, then inwards. An oblique black band from the interior line at vein 7 to the margin at vein 4. A fine white submarginal line. Hindwing dark brown. ♀ 26 mm. Natal.
- strigula*. **Ph. strigula** *Holl.* (16 h) is somewhat differently marked. Body and forewing greyish brown. Interior line black, double, somewhat extra-angular at vein 1. Median line indistinct, blackish, encircling the reniform macula which is yellow, edged with black, narrow. Exterior line double, blackish, excurved as far as the centre of the cell. Submarginal line white, edged with black inside, excurved in the middle. Hindwing dark brown, with traces of a median and exterior band. ♀ 30 mm. Gabun. — HOLLAND described the species according to 1 ♀ from the Ogowe R.
- pratti*. **Ph. pratti** *Kenr.* (16 h) is most similar to the Indo-Australian *atripars* *Hmps.*, but separated by the much broader hindwings from all the other species of the genus. Body and wings greyish ochreous with a violet shine. The dark interior band is broad, vertical. Behind it a dark spot in the cell and an indistinct median line. Exterior line fine, introangular below the cell and at vein 2. On its inner side at the costal margin a large triangular dark spot with a light centre. A small round spot near the anal angle. The ♀ shows the whole wing darker, the marking covered by a dark grey median band. Hindwing with traces of a double dark line from the anal angle. 34 mm. Madagascar.

## 6. Genus: **Marathyssa** *Wkr.*

Three of the 6 species known live in the Ethiopian Region, 2 in America, and 1 in India. — Proboscis normal, palpi long porrect. Frons with a horizontal hair-pencil. Antennae of the ♂ typically rather strongly pectinated, in the 3 African species only ciliated. Thorax with short tufts in front and behind. The tufts at the end of the abdomen are only small in these species. Neuration normal, vein 5 of hindwing somewhat separated from 4. In their shape they approach already the *Stictoptera* of the following subfamily. Type: *basalis* *Wkr.* from Canada.

- cuneata*. **M. cuneata** *Saalm.* (= *cyanolopha* *Hmps.*) (16 h). Body and wings greyish red-brown. The cell and the space below it look as if they were wiped off. The interior and exterior lines mostly disappear altogether. The reniform macula is a dark streak at the cross-vein. Only the costal and inner margins are more broadly scaled dark, and the median vein as far as the margin more narrowly scaled. Hindwing hyaline, the veins black, the margin brownish. 22—28 mm. Described from Madagascar, but common also in West, South, and East Africa.
- albidisca*. **M. albidisca** *Hmps.* (16 i). Body and forewing greyish black. The cell and a little beyond it purely white. Interior line black, uniformly bent. Median line parallel, interrupted in the cell. A small luna at the cross-vein. The exterior line is a black streak as far as vein 5 and an indistinct undulate double line from the cell to the inner margin. Submarginal line fine white, distinct only in its anterior part. Hindwing white, smoky brown at the margin. ♂ 25 mm. Cape Colony.
- cistellatrix*. **M. cistellatrix** *Willgr.* (= *ocularis* *Btlr.*) (16 i). Body and forewing greyish brown. Interior line fine black, strongly incurved. From it in the submedian fold a fine yellowish white streak as far as the margin. A similarly coloured broad stripe in the cell as far as the exterior line. Reniform macula large, blackish. Ex-



terior line black, dentate, bent, very oblique at the inner margin. Submarginal line whitish ochreous, indistinct, notched. Hindwing greyish-brown, lighter at the base, with an exterior line of black dots and a light submarginal line. ♀ 30 mm. Natal, Cape Colony.

### 7. Genus: **Anigraea** Wkr.

Proboscis normal, palpi thin, very erect. Antennae of ♂ almost plain. Body tuftless, only the abdomen with laterally projecting scales and anal tufts. Neuration normal. Type: *rubida* Wkr. from India. The genus containing a dozen of species is chiefly Indian; only 2 species are known from Africa.

**A. siccata** Hmps. (16 i). Thorax reddish brown, abdomen greyish brown. Forewing reddish brown, *siccata*, darker at the costal margin and the veins, so that the wing looks striped. The other marking is very indistinct. A streak at the cross-vein and the exterior line in the middle of the inner margin, black submarginal dots. Hindwing smoky brown, paler at the base. ♀ 28 mm. Sierra Leone, Niger District.

**A. purpurascens** Hmps. (16 i). Thorax and forewing violettish black. Interior line whitish ochreous, *purpurascens*, edged with black outside, very convex in the middle. The interior half of the median area greyish ochreous. Reniform macula edged with rusty red. A dark streak from the latter to the submarginal line, where it is forked. Exterior line white, very much outwards, then brownish ochreous, obliquely inwards, a red spot behind it below vein 2. Submarginal line indistinct, ochreous, with a black spot at vein 7. Hindwing smoky brown, a fine red streak at the end of the submedian fold. ♀ 25 mm. Gold Coast.

### Subfamily: **Stictopterinae**.

Nearly all the species — more than 100 — of this subfamily are Indo-Australian; from the Ethiopian Region we know 20 species so far, which belong to 6 of the 10 genera of the subordinate family. In spite of this apparently insignificant representation, the *Stictopterinae* play an important part in the African Noctuid fauna, since some species now and again appear in enormous numbers of individuals, as it was similarly observed in the Indian fauna, where sometimes imposing species (such as *Stictoptera describens* Wkr.) come flying to the lamps by dozens. The palaearctic region harbours but one species of the whole subfamily: the strongly deviating *Nycteola falsalis* H.-Schäff. (Vol. III, pl. 53 c); another Indian species only just reaches the palaearctic frontier in Eastern Asia.

The *Stictopterinae* are mostly medium-sized *Noctuae*, very near to the *Eutelianae* with which they even might be united. Like many of them they mostly exhibit the proximal halves of the hindwings whitish or also lucid; the forewings, at least those of the African forms, do not show such a distinct angularity in the distal margin as it is noticed in the *Eutelianae*. — The most remarkable fact, however, is the almost unlimited variability owing to which different forms of the same species were given a whole dozen of names of species, as for instance *Stict. poecilosoma* Saalm. distributed from West Africa to the Moluccas; this species, however, is even far excelled by the Indian *Stict. describens* Wkr. which occurs at the very same place and hour in numerous specimens which are entirely different in colouring and marking and in which quite a number of deviating designs are repeated, without showing any transitions. According to this fact, they have been given corresponding names (such as [*Steiria*] *variabilis* Drc. and [*Steiria*] *variabilis* Mr.). Beside the hyaline hindwings and the varied designs of the forewings, a most uncommon formation of the antennae is to be mentioned in the purely Ethiopian genus *Gigantoceras*, their length excelling that of the costa of the forewing by  $\frac{1}{2}$  to  $\frac{3}{4}$ . — Further peculiarities in the subfamily, such as strap-like extended forewings (for instance in *Sadarsa longipennis* Mr.), which, however, have not yet been discovered in Africa, will be dealt with in Vol. XI. (SEITZ.)

Proboscis normally developed. Palpi erect or obliquely porrect. Eyes large, without hair, without cilia. Antennae ciliated, longer than the forewing in *Gigantoceras*. Body only with small tufts or also without any at all. Forewing triangular, sometimes narrow. Forewing: veins 3—5 arise near the lower cell-angle, 6 from the upper one; 7, 8 + 9 and 10 from the areole. Hindwing: vein 5 arises at the lower cell-angle or slightly above it. Frenulum of ♀ quite plain. In the hairless larva all the feet are present.

### 1. Genus: **Odontodes** Gn.

Abdomen with a small tuft on the 1st and 3rd segments. Type: *aleuca* Gn. from India, where a few species occur.

*O. aleuca* Gn. This chiefly Indian species is extremely variable. HAMPSON enumerates 12 forms of it, among which — **ferruginea** Wkr. (16 i) is described from the Congo. Body and forewing dark red-brown. Mark- *ferruginea*, ing indistinct. Interior and exterior lines double. Ring-macula small, reniform macula large. Hindwing almost black in the marginal area, somewhat lighter at the base. The form *ferruginea* shows a lighter inner mar-



gin on the forewing. 32—38 mm. We figure a specimen from Darjeeling, which is presumably somewhat like *ferruginea*.

## 2. Genus: **Stictoptera** Gn.

Proboscis normal, palpi very erect. Antennae of ♂ very long, a small pencil at the base. Small tufts on the thorax and abdomen. Forewing long and narrow. Type: *cucullides* Gn. from India, where most of the species occur.

*poecilosoma*. **S. poecilosoma** Saalm. (17 a). Thorax red-brown, abdomen greyish-brown. Forewing from red-brown to greyish-brown with a black marking. Interior line very indistinct. Coniform macula marked by some scales, ring-macula also only traceable. Reniform macula finely edged with black, with a black centre. Median line distinct, rectilinear, somewhat oblique. Exterior line notched, excurved behind the cell, then straight, obliquely inwards, behind it a series of black spots. Submarginal line grey, indistinct. Hindwing hyaline white, smoky brown at the margin. Some ♀♀ are also red-brown as far as the median line, the rest of the wing greyer. — **S. flavobasalis** Saalm. The base of the forewing of a bright yellow, also a stripe behind the exterior line. — **S. nigrilinea** Wkr. exhibits a black streak at the median vein. — In **S. humeralis** Wkr. only the base at the costal margin is yellow. — *nigrilinea* and *flavobasalis* may also occur united. — **S. semipartita** Saalm. (17 a) shows a red base of the forewing, as well as a stripe behind the exterior line. — **S. laetifica** Saalm. (17 a) is rusty red, instead of red as *semipartita*, the rest of the wing grey. — **S. nigrifascia** nom. nov. (= *subobliqua* Saalm.) (17 a) resembles the nomenclatural form. Ground colour greyish-brown, a black band between the interior and median lines. The spots behind the exterior line are intense. 28—36 mm. Madagascar. — *signifera* described from Borneo is certainly different from the Madagascar-forms; *conturbata* is also a separate species.

*antemarginata*. **S. antemarginata** Saalm. (17 a). Body greyish brown. Forewing pale grey, with a broad dark red-brown costal margin, narrower red-brown at the inner margin, and similarly coloured spots at the distal margin. Reniform macula large, finely edged with black. Traces of an undulate median line. Exterior line indistinct, composed of black lunae. Hindwing as in the preceding species. ♂ 40 mm. East and South Africa, Madagascar.

*conturbata*. **S. conturbata** Wkr. (17 b) is treated by HAMPSON as a synonym to *signifera* and *poecilosoma*, but it differs considerably from them and also from the form *laetifica*, *semipartita*, *flavobasalis*. The interior line is quite absent in *conturbata*. The median line is distinctly edged with black outside, narrowly dark inside. The line itself is more curved than in the form quoted, the dark edge goes far inwards at the inner margin. Reniform macula not different. The exterior line with its dark spots is hardly noticeable in the dark grey marginal area. The hindwing seems to be less hyaline in the basal area than in *poecilosoma*. 28—32 mm. West, South and East Africa. — **S. sanctae** E. Prout chiefly differs only in the narrower dark margin on the hindwing. Specimens from Cameroon also show the black dot in the submedian fold of the forewing. From Sao Thomé.

*confluens*. **S. confluens** Wkr. (17 b). Thorax reddish brown, abdomen greyish brown. Forewing blackish in the basal half, reddish brown in the distal area. An interior line, as well as the coniform and ring-macula are hardly recognizable on the dark ground. The reniform macula is finely edged with black, with a black streak inside. Median line black, somewhat oblique, vertical from the submedian fold. Exterior line and the spots behind it as in *poecilosoma*. Submarginal line white, notched. Hindwing hyaline at the base except at the inner margin. — In *lagosensis* Strd. the forewing is greenish grey. Violetish brown at the costal margin at the base and before the median line. ♀ 38 mm. Niger District.

*rhabdota*. **S. rhabdota** E. Prout (17 b) differs from all the others in its radial stripes. Thorax dark red-brown. Forewing lighter red-brown with grey patches. A broad dark chocolate brown costal-marginal stripe extends to the apex. Another stripe below the cell is almost black, an insignificant one above the middle of the inner margin. Ring-macula small, reniform macula very large, interruptedly edged with black, rather indistinct on the dark ground. Exterior line marked by a row of black dots as in *conturbata*, in bluish surroundings below the cell. Submarginal line notched, white, edged with red-brown inside. Hindwing in the typical form from São Thomé only narrowly black, the rest hyaline, while 1 specimen each from Cameroon and Gabun (we figure the former) are much broader black. 34—38 mm.

*pectinata*. **S. pectinata** Kenrick (17 b) has strongly pectinated antennae in the ♂. Thorax dark red-brown, abdomen lighter. Forewing dark reddish brown with an indistinct marking. Interior line indistinctly double, greenish. Median line distinct and dark, not extending to the inner margin. Exterior line dark, angled, interrupted. Two brown spots behind it, and a brown submarginal line. Hindwing smoky brown, hyaline at the base. The ♀ possibly belonging to it has a grey basal half and exterior band on the forewing. At any rate it seems not to be a form of *poecilosoma*. 30—32 mm. Madagascar.

## 3. Genus: **Gigantoceras** Holl.

Proboscis normal, palpi obliquely erected. Frons with a large tuft of scales. Antennae in both sexes of  $1\frac{1}{2}$  the length of the forewing. Metathorax with a flat tuft, the abdomen with a tuft at the base. Legs



long and thin. Neuration of forewing normal. Veins 3 and 4 of hindwing somewhat more separated than usual. Type: *solstitialis* Holl. Only African species.

1. Frons narrow, the eyes in front nearing each other.

**G. geometroptera** Holl. (17 c). Thorax and forewing greyish-brown with a greenish lustre. Interior *geometroptera*, line double, blackish, vertical, its interior branch inwardly faded. Median line extinct, undulate, with a black spot at vein 1. Two fine black dots at the cross-vein. Exterior line double, outside with black dots at the veins, bent S-like. Submarginal line grey, slightly incurved towards the costal margin. Hindwing brownish white, with a dark central spot, the margin broadly smoke-brown. ♂ 32 mm. Gabun, Togo.

2. Frons normal, the eyes not nearing each other.

**G. solstitialis** Holl. (= *crinopis* Hmps.). Body greyish brown, forewing greenish brown. The basal *solstitialis*, area darker, darker also at the inner margin and behind the middle, the discal area paler. Interior line double, bent, undulate. Ring-macula U-shaped. Reniform macula sinuous on the basal side, with a black streak inside. A black streak at vein 2 from the cell to the exterior line which is double, excurved as far as vein 4, then incurved. A black spot behind it below the costal margin. Submarginal line indicated by the light margin behind it except at the apex. Hindwing paler at the base, smoke-brown at the margin. — **albifascia** *albifascia*, Strd. shows the inner margin white at the base. 30—34 mm. West Africa.

**G. adoxodes** B.-Bak. (17 b). Body and forewing brownish ochreous. Interior line indistinct, double, *adoxodes*, blackish. The figure shows only a very obliquely cut off dark basal area. Two black dots at the cross-vein and a dark spot above them at the costal margin. Exterior line very indistinct, double, with white dots at veins 4 and 3, then inwards. A dark spot at the apex as far as vein 6. Submarginal line indistinct, dark at the costal margin, then extinct as far as vein 4; then white, edged with brown inside. Hindwing brownish white, darker at the margin. ♀ 32 mm. Angola.

**G. rectilinea** Hmps. (17 c). Body greyish brown, forewing greyish yellow with a greenish shine. Interior *rectilinea*, line double, almost straight. Reniform macula scarcely traceable, with a black streak inside. A black streak from the middle of the costal margin, and a spot at vein 1. Exterior line with a very oblique black streak at the costal margin, then indistinct, with black dots at the veins. Apical area reddish brown, with a black streak from the costal margin to vein 6. Submarginal line whitish; a dark spot before it below vein 3 and a more distinct one below vein 2. Hindwing white, diaphanous, smoke-brown at the margin. 28 mm. West Africa. A slightly damaged specimen from Madagascar in the Berlin Museum probably belongs to this species.

**G. curvilinea** n. sp. (17 c). Body and forewing greenish brown. Interior line double, black, bent, its *curvilinea*, exterior part with a side-branch, indistinct, rectilinear to the middle of the inner margin. Reniform macula elliptical with 2 black central dots surrounded by 2 median lines from the costal margin, which are united near vein 2. Exterior line double, filled with light, rather straight from the costal margin to vein 4, bent inwards at vein 2. A black streak behind it from vein 3 to the inner margin, and an oblique streak in the apical area from vein 8 to vein 6. An angular streak above it, nearer to the apex. Submarginal line black, with white scales outside, only recognizable above the inner margin. Hindwing white, broadly edged with brown. On the whole it resembles *geometroptera* (17 c), but the interior line is quite different. ♂ 30 mm. Adamaua. Type in the Berlin Museum.

#### 4. Genus: **Lophoptera** Gn.

This species has been briefly commented upon in the palaearctic Vol. III (p. 288), because it occurs in West China in a species not dissimilar to the typical species *squammigera*. Proboscis normal, palpi obliquely porrect, thick. Antennae of ♂ almost plain. Thorax and abdomen without tufts. Forewing with a somewhat undulate distal margin, neuration normal. Veins 3—5 of the hindwing from the lower cell-angle. Only 4 of the 36 species are known from Africa. Type: *squammigera* Gn. from India and Australia, where most of the species occur.

**L. methyalea** Hmps. (17 c). Thorax blackish brown, abdomen greyer. Forewing blackish. Interior *methyalea*, line double, black, strongly notched, adjoining to it the reniform macula as a tuft of black scales. Median line straight, obliquely outwards as far as into then submedian fold, then inwards, reniform macula very indistinctly edged with black, large. Exterior line double, far outwards below the costal margin, somewhat concave behind the cell, far inwards at vein 4. Darker behind it on the whole length or only above the inner margin. Then follows a shadowy rusty red band, black streaks behind it between the veins. Hindwing hyaline white, black at the margin. 26 mm. West, South and East Africa.

**L. semirufa** Drc. (17 c). Thorax and basal area of forewing dark red-brown, abdomen dark brown. *semirufa*, Basal area of forewing bordered by a dark line with a white edge from  $\frac{1}{3}$  costal margin to the exterior line at the inner margin. The marginal area dark brown. Interior and middle lines not discernible. Reniform macula finely edged with black. Exterior line double, blackish, similar to *methyalea*. Submarginal line whitish, dentate. Hindwing hyaline at the base, with a blackish margin. 25 mm. Cameroon.



*litigiosa*. **L. litigiosa** Bsd. (= *cristigera* Gn., *alutacea* Fldr., *squammulosa* Saalm.) (17 d) is a very small species which we figure according to a Madagassian specimen (the type of *squammulosa*). Body and forewing greyish brown. Interior line irregular, double, dentate. Coniform macula and ring-macula marked by erect tufts of scales at their ends. Reniform macula incompletely edged with black. Median line black, somewhat undulate, oblique as far as the submedian fold, then inwards. Exterior line double, very much outwards in front, filled with fine white lunae. Two black spots behind it below the costal margin. Submarginal line grey. Hindwing hyaline, blackish at the margin. — Deviating specimens may be darker on the forewing or paler in the discal area. The ring-macula and reniform macula may be white. Blackish dusting behind the interior line, or the forewing red-brown as far as the centre. 22—26 mm. West, South and East Africa, Madagascar.

*togata*. **L. togata** E. Prout. Thorax light chocolate brown, abdomen dark brown. Forewing violettish black, a reddish yellow spot at the base at the inner margin, somewhat brownish inside. Somewhat red-brown before and behind the cell-end. A white dot at the lower cell-angle. Interior line marked by a reddish-black streak at  $\frac{2}{5}$  inner margin. Median, exterior and submarginal lines of reddish black dots, bent almost like the margin. Hindwing as in the other species. 28 mm. São Thomé. — In a damaged specimen from Togo in the Berlin Museum, which may belong to this species, the basal spot is extended almost to the costal margin.

### 5. Genus: **Nigramma** Wkr.

The genus contains only two Ethiopian species hitherto known, and 10 others from Ceylon, South India etc. Chiefly recognizable by the very long and narrow wings with a very short rounded margin of the forewing. Proboscis normal, palpi thin, obliquely porrect. Antennae of ♂ finely ciliated. Prothorax with a narrow tuft, abdomen tuftless. Neuration normal. Type: *quadratifera* Wkr. from Ceylon.

*malgassica*. **N. malgassica** Kenrick (17 d). Body pale reddish ochrous. Forewing somewhat more red. A long pear-shaped black spot at the base. Interior and exterior lines fine, dark, indistinct. Three dark spots at the cell-end. A pale spot at the inner margin near the anal angle and another one at the anal angle, to which a pale submarginal line extends. Hindwing greyish brown. 32 mm. Madagascar.

*polymorpha*. **N. polymorpha** Hmps. (17 d). Thorax red-brown, abdomen greyish brown. Forewing violettish blackish, with traces of the interior and median lines. Reniform macula rusty red, edged with black. Exterior line double, finely dentate, parallel to the distal margin. Submarginal line also double. Hindwing dark brown. Numerous deviations occur. — 1. **virilis** Strd. Wings more red-brown. Base and median area outside at the margin as well as the space between the two submarginal lines greyer. A black spot before the interior line below the cell and one more distally. The ♀ exhibits a more red-brown thorax and forewing. — 2. **mulieris nula** Strd. Interior half of forewing whitish as far as the exterior line, the rest pale red-brown. — 3. **nula** Strd. Forewings brownish ochreous. — 4. **saga** Strd. Forewings greyish-brown with the spots of *virilis*. — 5. **curepipensis** Strd. Forewing dull reddish brown in the median and marginal areas, the basal area brownish ochreous, the same colour between the two exterior lines. 30—34 mm. Mauritius.

### 6. Genus: **Stenosticta** Hmps.

This genus has been based upon 2 ♂♂ of a species collected by CRAWSHAY between the Kenya and the Kilimandjaro, on the Athi R. — Proboscis and palpi as hitherto. Antennae of ♂ finely ciliated. Thorax with small tufts in front and behind, also at the beginning of the abdomen. Forewing narrow, neuration normal. Hindwing with strongly stalked veins 3 + 4, 5 arises from a little above the lower cell-angle.

*grisea*. **St. grisea** Hmps. Body and forewing brownish grey. Interior line indistinct, double, obliquely outwards as far as the median vein, then bent inwards. Reniform macula light, 8-shaped, with 2 black central dots. Exterior line very indistinct, bent very much inwards below the cell. Submarginal line parallel to the distal margin. Hindwing white, somewhat hyaline, veins and margin somewhat brown. ♂ 14 mm. East Africa.

### 6. Genus: **Gyrtona** Wkr.

Proboscis normal, palpi extended by the length of the head. Antennae of ♂ ciliated. Abdomen with traces of tufts in the middle. Forewing long and narrow. Veins 3—5 from near the lower cell-angle, all the rest normal. Veins 3—5 of hindwing from the angle. Type: *proximalis* Wkr. from Malacca, Borneo. Only 1 species in Africa; about 20 others in the Indo-Australian regions, all of which are rather similar to *erebenna* in size and also often in colouring.

*erebenna*. **G. erebenna** Mab. (17 d). Thorax and forewing greyish brown with dark brown lines. The interior and median lines from below the costal margin obliquely inwards to the submedian fold, then again outwards, a brown band behind it. Two fine dots at the cross-vein. A faded exterior band excurved behind the cell, inwards in the submedian fold. Submarginal line grey, dentate. Hindwing smoke-brown. ♂ 14 mm. Madagascar.



Subfamily: **Sarrothripinae**.

More than 50 partly very dissimilar genera are united in this subfamily containing far more than 300 species; this number will increase yet considerably, if also the insignificant Moths resembling Microlepidoptera will be paid more attention to. Regarding the number of species known the Ethiopian Region containing about 70 species is not very prominent, yet it harbours the most imposing *Sarrothripina*: *Eligma laetepicta* Oberth., a diurnal flyer of glaring colours, which, owing to its habitus, might be placed rather to the *Agaristidae* or *Hypsidæ*.

The whole subfamily is entirely heterogeneous. On the whole, 4 types of Noctuids belonging to this subfamily can be distinguished: 1. the *Sarrothripus*-group containing mostly very small lepidoptera with broad wings; 2. the *Eligma*-group with large magnificently coloured species; 3. allied to them the *Gadirtha*-group with very long subuliform palpi and a flat-shaped body as in the *Eligma*, but of only half their size at most and of a protective colour adapted to the bark of trees; 4. the *Blenina*-group with a cylindrical body, very broad wings and an upper surface adapted to tree-trunks, especially to the lichens on them. The subfamily abounds in species with accessory sexual marks on the wings; we frequently find on the lower surface scent-patches, transverse or longitudinal stripes of raised or modified scales, hair-pencils and hair-brushes, extensive finely pubescent areas on the hindwing, hairlocks below the base of the wing as in *Gyrtothripa pusilla* from the Gold Coast, pubescent woolly fringes on the inner margin of the hindwing as in the (perhaps Ethiopian) *Giaura repletana* Wkr., moreover differently scaled sectors on the hindwing beneath as in certain (Indian) *Selepa*; sometimes also the hindwing shows a modified shape owing to indentations or notches on the distal margin, such as in the American *Elaeognatha troctopera* Schs. and *Etanna mackwoodi* Hmps. from Colombo, or projecting lobes on the margin of the hindwing (in *Dilothrothripa lobata* Hmps., *Blenina angulipennis* Mr. from Sikkim etc.). — The *Sarrothripinae* exhibit a similar individual variability as the *Stictopterinae*; 25 names have been given to the various colourations of the typical species of the subfamily alone. *Sarrothripus revayana* Scop., 10 different ones of which from the palaearctic region alone have been figured in Vol. III (pl. 53 d); about twenty forms of the Indian coffee-vermin *Plotheia decrescens* have been described by WALKER and named as species, all of which can be observed in Ceylon at the same time and all of which, according to HAMPSON, belong together.

In treating upon the *Sarrothripinae*, we must finally speak of another remarkable peculiarity which may be unique in the lepidopteral kingdom. An Eastern Asiatic species from the genus *Gadirtha* pupates on the trunks of trees by fixing a number of slightly convergent silk cords to the inside of the cocoon \*). If the tree on which the cocoon is fastened is shaken, the pupa strikes a chitinous listle at the end of the abdomen rhythmically against this self-made harp backward and forward, producing a scratching sound similar to the chirping of a large cicada (*Gaena maculata*) numbers of which often abide on the tree. (SEITZ.)

Proboscis almost invariably normally developed. Palpi long, especially the third joint. Antennae mostly ciliated. Thorax mostly tuftless, abdomen with 1 or 2 tufts at the base. Tibiae without spines and claws. Forewing mostly narrow, the costal margin bent forward at the base. Erect scales frequently on the places of the ring-macula and reniform macula. The retinaculum of the ♂ is transversely ringlet-shaped. Neuration as in the preceding subfamily. Veins 3 + 4 of hindwing often stalked, 8 farther fused with the cell than usual. The larvae have all their feet. The pupation takes place in a boat-shaped cocoon. The group contains about as many species as the two preceding ones together.

1. Genus: **Hesperothripa** Hmps.

Proboscis normal, palpi thin, very erect. Abdomen with a basal tuft. Tibiae thinly haired. Wings broad. Veins 3—5 of the forewing near the lower cell-angle. 7 + 8 + 9 stalked, without an areole. Veins 3 and 5 of hindwing from the lower cell-angle. 4 absent, 8 arising from the centre of the cell. Only 1 species is known.

**H. dicyma** Hmps. is somewhat like *Selepa viclescens* Hmps. (17 g) in its size and marking. Body and *dicyma*. forewing whitish greyish brown. Interior line oblique, black, slightly undulated. A fine streak at the cross-vein. Exterior line black, far outwards below the costal margin, parallel to the margin from veins 6—3, with a small inward point at vein 2. Submarginal line faded black, only recognizable in the central part. Hindwing brownish white. ♀ 18 mm. Sierra Leone.

2. Genus: **Garella** Wkr.

Similar to the preceding genus. A short tuft also on the metathorax. Forewing with a small areole from the apex of which veins 7 + 8 + 9 and 10 arise. Veins 3 + 5 of hindwing stalked, 4 absent. Type: *rotundipennis* Wkr. from India. The two other species from Africa.

\*) The figure of such a harp cf. Entomolog. Rundschau, Vol. 36, p. 14.



*nephelota*. **G. nephelota** *Hmps.* (17 f). Body and forewing light brown, somewhat grey, with a dark brown marking. Interior line uniformly excurved, dentate. A fine luna at the cross-vein. Exterior line convex behind the cell, also dentate, a faint dark brown shadow behind it. Submarginal line convex below the costal margin and in the middle. Hindwing whitish, narrowly brown at the margin. ♂ 22 mm. Niger District.

*nubilosa*. **G. nubilosa** *Hmps.* (17 i). Thorax brownish grey, abdomen brownish white. Forewing grey at the base and in the central area, predominantly olive brown. Marking black. Median line oblique as far as the lower cell-margin, then steeper. A black dot at the cross-vein. Exterior line faded, oblique as far as vein 6, then rather vertical. Submarginal line faded, undulate. Hindwing white, slightly brownish at the apex. ♂ 20 mm. East Africa.

### 3. Genus: **Characoma** *Wkr.*

Proboscis and palpi as hitherto. A hair-tuft on the metathorax and at the base of the abdomen. Forewing broad, veins 3—5 near the cell-angle, the areole normal. Veins 3 + 5 of hindwing stalked. Type: *albulalis* *Wkr.* from Borneo. Most of the species are Indo-Australian, one is known from Peru.

*nilotica*. **Ch. nilotica** *Rghf.* has been dealt with already in Vol. III, p. 290 and pl. 53 d. It occurs in the Southern Palaearctic Region as well as in West Africa, India, and America.

*sexilinea*. **Ch. sexilinea** *B.-Bak.* is somewhat like *Selepa violescens* (17 g). Forewing of ♂ with a scent-scale spot at the base. Thorax greyish white, abdomen greyish brown. Forewing greyish white with a black marking. Interior line double, convex at the median vein, with an inward angle at vein 1. A V-shaped mark behind it below the cell. A streak at the cross-vein. An indistinct streak from the middle of the costal margin obliquely inwards, and a dark brown spot behind it at the costal margin. Exterior line proceeding from this spot, double, convex behind the cell, inserted in the submedian fold. A short streak extends from it at vein 2 to the anal angle. Submarginal line undulate, inserted behind the cell, ending at vein 3. Hindwing pale brown. ♂ 22 mm. Congo District.

*stictigrapha*. **Ch. stictigrapha** *Hmps.* Thorax greyish brown, abdomen whitish brown. Forewing reddish brown with a black marking. Interior line composed of 4 dots in an oblique bent row, another dot behind them in the submedian fold. One dot at the cross-vein. Exterior line composed of 9 small dots, uniformly bent. Somewhat darker behind it at the costal margin. Submarginal line interrupted, excurved below vein 7 and in the middle. Hindwing pale reddish brown. — **stictigraphella** *Strd.* exhibits a round black spot in the submedian fold in the centre of the forewing. 25 mm. Gold Coast, Natal.

*melanographa*. **Ch. melanographa** *Hmps.* Thorax white with black spots, abdomen brownish white. Forewing white with a black marking. Interior line oblique, undulate, a few black dots before it, black dusting at the inner margin and a streak in the cell. A dot at the cross-vein and a spot below the cell-end. Exterior line outwards below the costal margin, excurved as far as vein 3, then undulate. A somewhat faded triangular spot behind it at the costal margin. Distal area dusted blackish except at the costal margin. An oblique line at the apex. Submarginal line beginning below the costal margin, undulate. Hindwing white, neuration and margin somewhat brown. ♂ 22 mm. Transvaal.

*nigricollaris*. **Ch. nigricollaris** *Hmps.* Thorax bluish grey with black spots, abdomen reddish brown. Forewing pale bluish grey, dusted reddish brown, with a black marking. Interior line oblique, slightly excurved as far as vein 1, where it ends. A fine streak behind it in the submedian fold as far as the exterior line. A fine dot at the cross-vein. Exterior line indistinct, edged somewhat white outside. Bent down below the costal margin outwards, then undulate, bent inwards behind the cell and below vein 4, a slight spot behind it at the costal margin. Submarginal line of dots, inserted behind the cell and below vein 5. Hindwing white, transparent, finely brown at the margin. ♂ 30 mm. Transvaal.

*glaphyra*. **Ch. glaphyra** *Holl.* (17 i). Thorax brownish ochreous, abdomen greyish brown. Forewing yellowish brown with a blackish brown marking. Interior line in a large bow vertical to the inner margin, connected with the exterior line by a faded spot in the submedian fold. Exterior line fine undulate, uniformly excurved behind the cell. A broad faded stripe from the apex to below vein 4, not quite to the exterior line. Traces of a submarginal line. Hindwing whitish, slightly brownish at the margin. ♀ 18 mm. Sierra Leone.

*miophora*. **Ch. miophora** *Hmps.* (17 f). Body and forewing olive brown, somewhat greenish with a blackish marking. Interior line undulate, vertical. Median line obliquely outwards as far as the median vein, then vertical, undulate, white outside. Exterior line obliquely outwards as far as vein 5, then rather sharply bent round vertical from vein 2, white outside. Submarginal line very undulate. Hindwing whitish, brownish at the margin. A side-form exhibits a white spot at the anal angle of the forewing, and darker hindwings. ♂ 22 mm. Sierra Leone, Transvaal.

*ferrigrisea*. **Ch. ferrigrisea** *Hmps.* (17 i). Body and forewing pale yellowish brown, the lines dark brown. Interior line obliquely outwards, obtusely angular in the submedian fold, edged white inside. A black dot at the cross-



vein. Exterior line oblique as far as behind the lower cell-angle, then angled and obliquely inwards, edged white outside. Submarginal line whitish, indistinct. Hindwing pale greyish brown, darker at the margin. ♂ 16 mm. Gambia.

#### 4. Genus: **Pardasena** Wkr.

Proboscis normal, palpi thin, very erect. A small tuft at the base of the abdomen. Tibiae somewhat hairy. Neuration of forewing normal with an areole. Veins 3 and 5 of hindwing from the same origin, 4 absent or on a short stalk with vein 3. Type: *roeselioides* Wkr. from Africa. One species in India and one in Colombia.

1. Forewing of ♂ beneath with black scent-scales in and below the cell. Hindwing with such at the costal margin, black hair at the anal angle.

**P. virgulana** Mab. (= *nigriscripta* Hmps.) (17 f). Body brownish white. Forewing brownish grey *virgulana*, with a black marking. A bent streak near the base below the costal margin. Interior line almost from the middle of the costal margin, extra-angular below it and below the cell, flawed outwards at vein 1, edged white inside. Two black streaks above the submedian fold to the exterior line which is edged white outside, obliquely outwards, slightly inserted behind the cell, inwards below vein 4. The veins behind it finely black. Submarginal line of dots, undulate. Hindwing white. In the ♀ the veins and the margin as far as vein 2 are brownish. 16 to 22 mm. South and East Africa, Madagascar.

2. Forewing and hindwing of ♂ normal.

**P. minorella** Wkr. (17 i). Thorax and forewing brownish white. Interior line near the middle, fine, *minorella*, oblique, undulate, dark, edged white inside. Exterior line punctiform, uniformly and far excurved, with a somewhat dark shadow outside in the anterior part. Submarginal line dark, punctiform. Finely black below the apex near the margin. Abdomen and hindwing white, somewhat brownish at the margin. ♀ 22 mm. Sierra Leone. Since 1866, when the species was described, apparently no further specimen has come to Europe.

**P. roeselioides** Wkr. (= *acronyctella* Wkr., *brunnescens* Hmps.). Body dark greyish brown, forewing *roeselioides*, somewhat lighter, the marking black. Interior line punctiform, from below the costal margin obliquely outwards to the inner margin. A black dot at the cross-vein and a darkening in the cell-end, as well as below it and behind it. Exterior line punctiform, very obliquely inwards to the costal margin and inner margin. Submarginal line faded, dentate. Hindwing white, brown at the veins and at the margin. 20—26 mm. West, Central and East Africa.

**P. lativia** Hmps. (17 f). Thorax and forewing greyish brown, the basal area whiter. Interior line very *lativia*, indistinct, double, blackish, filled with white, oblique. Exterior line from the costal margin oblique to vein 6, then undulate, otherwise like the interior line. Submarginal line blackish. Abdomen and hindwing brownish. ♀ 24 mm. Gold Coast.

**P. punctata** Hmps. (17 i) somewhat similar to *roeselioides*. Body brownish white, forewing somewhat *punctata*, lighter. Interior line marked by a dot in the centre of the cell and by scales as far as the inner margin. A fine dot at the cross-vein. The exterior row of dots towards the inner margin not quite so oblique as in *roeselioides*, somewhat blackish behind it at the costal margin. Submarginal line blackish, faded, vertical. Hindwing yellowish, brownish at the margin. ♀ 20 mm. Natal.

**P. punctilinea** Hmps. Body and wings pale reddish brown. A fine interior line very obliquely outwards from a black streak at the costal margin, then fine dots on the veins. A small black spot at the cross-vein and one below it. Exterior line proceeding from 2 black spots below the costal margin, then fine black dots directed somewhat outwards, bent inwards below vein 4, a blackish triangular spot behind it at the costal margin. Submarginal line of small black spots. Hindwing darker at the margin. ♂ 20 mm. Central Africa.

**P. atripuncta** Hmps. (17 i). Body and forewing greyish yellow, somewhat lighter in the median area, *atripuncta*. Two black dots at the base. An interior row of 4 black dots, the foremost somewhat inwards. Then one each below the costal margin and above the inner margin. A dot at the cross-vein and one above the inner margin. Hindwing brownish grey. ♂ 20 mm. Natal.

**P. melanosticta** Hmps. (17 i). Body and forewing light reddish brown. An oblique row of 5 black *melanosticta*, dots from almost the middle of the costal margin to  $\frac{3}{4}$  inner margin. At equal distances before this row one spot each at the costal and inner margins. Besides one behind it at the costal margin, at the cross-vein and vein 1. Hindwing somewhat lighter brown. ♂ 16 mm. East Africa.

#### 5. Genus: **Mniothripa** Hmps.

Proboscis normal, palpi very hairy. Metathorax and the base of the abdomen with small tufts. Forewing with a strongly bent costal margin, neuration normal. Veins 3 + 4 of hindwing on a long stalk, 5 from the cell-angle. Only 1 species known.

**M. lichenigera** Hmps. Thorax reddish brown, abdomen darker. Forewing greyish green and reddish *lichenigera*, brown. A faded black band in the submedian area, often only confined to the centre, ending at the exterior line, or bent downwards and extending to the anal angle. Sometimes yet a streak above the inner margin

from near the base to the exterior line. Interior line very oblique. Erect scales in the cell-end and near the base. Exterior line of erect black scales, very oblique from the costal margin to vein 4, bent inwards below vein 3 as far as below the cell-end, then edged white outside, oblique to the inner margin. Submarginal line whitish, bordered inside by a faded dark brown colour. The forewing may also be suffused with dark green, except at the centre of the costal margin, and the black band may be absent. On the other hand, the green colour may be absent altogether and the ground-colour may be violettish silvery grey, also without a black band. 18—20 mm. West Africa, also in India.

#### 6. Genus: **Nanarhyncha** Hmps.

Proboscis stunted, palpi enormously long, thickly scaled. Antennae of ♀ ciliated. Body tuftless. Forewing rounded. Vein 3 before the angle, 4 + 5 on a long stalk, 7 + 8 + 9 stalked. Veins 3 and 5 of the hindwing from the lower angle, 4 absent, 6 + 7 on a long stalk.

*nolophaea*. **N. nolophaea** Hmps. Body and wings dark red-brown, dusted somewhat grey, without markings. ♀ 16 mm. Sierra Leone. Only 1 specimen known.

#### 7. Genus: **Sarrothripus** Curt.

Only two of more than 30 species known from this genus have been found in the Ethiopian Region. The only European species which is distributed over nearly the whole Palaearctic Region, is however absent in Africa to the south of the Sahara, while it occurs yet on the Mediterranean Coast of Algeria near Philippeville. A whole dozen of species are Papuan and the rest Indian. In America only the common European species is known in several forms of which the greyish green *lintnerana* Spr. with a dark longitudinal spot at the centre of the costal margin predominates. A particularly great number of *Sarrothripus*-species occur in the Papuan Region, New Guinea and the north of Australia.

Proboscis normal, palpi far porrect, densely haired. A hair-listle between the antennae. Antennae of ♂ ciliated. Metathorax with a tuft, a small tuft also at the base of the abdomen. Costal margin of forewing strongly bent at the base. Vein 5 above the lower cell-angle, the rest of the neuration normal. Veins 3 and 4 of the hindwing are coalescent almost to the margin, vein 5 from the cell-angle. Type: *revayana* Curtis from Europe.

*malachitis*. **S. malachitis** Hmps. (17 i). Described from a single ♀. Thorax pale bluish green. Abdomen pale brown. Anterior half of forewing whitish and bluish green, the rest of the wing brownish, somewhat blue again only at the margin at veins 2—4. The lines black. Interior line sharply introangular in the cell and at vein 1, outwards in the submedian fold. Ring-macula and reniform macula small, finely edged with black. Median line from the middle of the costal margin to the middle of the inner margin, quadrangularly excurved to the reniform macula. Exterior line parallel to the distal margin, towards the costal margin and inwards in the submedian fold, outwardly angled at vein 1. Submarginal line black, dentate. Hindwing white. ♀ 22 mm. East Africa.

*mauritica*. **S. mauritia** Joan. (17 f). Thorax brownish, abdomen darker. Forewing violettish grey, with a triangular black spot in the median area at the costal margin, extending to behind the exterior line. Interior line double, undulate, extra-angular below the costal margin, indistinct towards the inner margin. Median line double, undulate, black, excurved towards the inner margin. A small violettish red spot at the cross-vein, with a white luna inside. Exterior line double, excurved below the costal margin and above the inner margin, inwards below vein 4. Submarginal line white, proceeding from a black dot at the costal margin, edged with brown inside. Hindwing dark brown. ♀ 22 mm. Mauritius.

#### 8. Genus: **Giaura** Wkr.

Proboscis normal, palpi thin, very erect. Metathorax and abdomen in front with a small tuft. Areole of forewing very long. Veins 3 + 4 of hindwing stalked. Type: *repletana* Wkr. About one third of the 17 species known occur in the Ethiopian Region, the others in the Indo-Australian Region. The habitat of the typical species, *G. repletana*, is unknown.

1. Hindwing of ♂ with a strong hair-bunch at the inner margin above and beneath.

*bostrycodes*. **G. bostrycodes** B.-Bak. (17 f). Body yellowish, forewing silvery white, brownish behind the exterior line. Interior line far towards the middle, finely black, dentate, double at the inner margin. A black dot at the lower cell-angle. Exterior line fine, undulate, far excurved behind the cell, then obliquely inwards; behind it a blackish spot at the costal margin. Submarginal line finely black, dentate, parallel to the margin. Hindwing white, brownish at the margin, the hair-pencil black. ♂ 22 mm. Portuguese West Africa.

2. Hindwing of ♂ normal.

*lia*. **G. lia** E. Prout. Body greyish red-brown. Forewing pale greyish-brown. Two dark lines bent downward from the base to  $\frac{1}{4}$  costal margin, encircling a luna. The luniform spot and the space before it at the costal margin light red-brown. Median line from  $\frac{2}{5}$  costal margin somewhat oblique to the submedian fold.



Exterior line brown, fine, undulate, from the costal margin near the median line, incurved at vein 8 and connected with the median line by a dark streak in the submedian fold. Traces of an undulate brown submarginal line. An oblique dark shadow from the apex to the exterior line at vein 5. The somewhat triangular space between this shadow, the costal margin and the median line pale reddish brown. Hindwing blackish brown, paler at the base. ♀ 22 mm. São Thomé.

**G. astarte** Fawc. (17 f) is somewhat similar to *minor* Hmps. from Ceylon. Thorax light grey, abdomen brownish. Forewing grey at the base with an irregular brown spot. Interior line black, irregular, adjoining to it the brown median area. Then follows at the costal margin an oblong grey spot almost to the apex. The exterior line borders on this spot, then it extends obliquely to vein 4, bending inwards, from vein 4 broadly edged with white outside. Marginal area darker brown, lighter at veins 2 and 3 at the margin. Hindwing white, somewhat brownish at the apex. ♂ 30 mm. East Africa.

**G. arethusa** Fawc. (17 g). Body and forewing grey. Interior line dark brown, obliquely outwards as far as below the cell, before it a still more oblique short streak. Exterior line excurved behind the cell, inwards below it, then very indistinct. Submarginal line strongly dentate, faded dark brown behind it, a black spot before it at the anal angle. Hindwing pale brown, darker at the margin. The original figure differs a little from the description. ♂ 34 mm. East Africa.

**G. leucotis** Hmps. (17 g). Thorax whitish grey, abdomen brownish white. Forewing white with some whitish scales. Interior line double, very undulate, not very oblique, the interior branch quite indistinct. Median area blackish, interrupted in the middle. Behind it a faded black streak and 2 dots in the submedian fold. Exterior line black, obliquely outwards as far as vein 6, and with an inward point below the costal margin, then indistinct; dark behind it at the costal margin. Submarginal line faded, dark brown, introangular behind the cell and in the submedian fold. Hindwing brownish white. ♀ 28 mm. East Africa.

**G. plumbeofusa** Hmps. Body pale red-brown. Forewing lead-coloured, the costal margin red-brown at the base. A narrow whitish ochreous interior band is traversed by a fine dark line, edged with red outside, excurved as far as the submedian fold. A semicircular whitish ochreous spot behind the middle of the costal margin. Exterior line double, red-brown, marked by 2 fine undulate lines near the inner margin of the costal spot, then filled with brownish ochre below its exterior angle, concave behind the cell. Submarginal line brownish ochreous, edged dark on both sides. Hindwing whitish ochreous, red-brown at the margin. ♀ 22 mm. Gold Coast.

### 9. Genus: **Epigiaura** E. Prout.

Proboscis normal, palpi very erect, thin. Abdomen with a small tuft at the base. Costal margin of forewing slightly bent at the base, venation normal. Hindwing concave behind the cell, inner margin with a lobe at the base, veins 6 + 7 on a short stalk. Only 1 species known so far.

**E. trachylepis** E. Prout. Thorax and forewing yellowish brown, abdomen dark grey. The lines on the forewing dark yellow. Interior line oblique from  $1\frac{1}{4}$  costal margin to the middle of the inner margin, incurved in the cell, introangular in the submedian fold. Exterior line excurved from behind the middle of the costal margin, strongly bent inwards in the submedian fold. Both the lines edged somewhat pale. A brown angle at the cross-vein. A dark brown submarginal shadow, somewhat spotted and notched. Hindwing pale grey, lighter at the base. 26 mm. São Thomé.

### 10. Genus: **Selepa** Mr.

The genus consists of about 20 species known, almost equally divided in the Indian and African regions.

Proboscis normal, palpi thin and far porrect. Antennae of ♂ almost plain. Abdomen with short tufts. Tibiae somewhat hairy. The round forewing with veins 3—5 near the lower cell-angle, 7 + 8 + 9 stalked from the apex of the short areole. Hindwing also with veins 3—5 near the lower cell-angle. Type: *celtis* Mr. from India and Australia.

**S. leucograptia** Hmps. (17 g). Body and wings dark greyish brown. Interior line of black scales, oblique from the costal margin to vein 1, edged with white inside. A black dot in the centre of the cell, and a black streak of erect scales at the cross-vein. Exterior line indistinctly double, filled with white, edged with white outside, uniformly bent behind the cell, the exterior branch dentate. A white patch from near the apex to the exterior line. Submarginal line edged with brown inside, with dots of black erect scales near the inner margin, slightly undulate. ♀ 22 mm. Niger District. Described from a ♀ from Lagos.

**S. violescens** Hmps. (17 g). Described from a ♂ from Bathurst. Body greyish brown. Forewing pale red-brown with a slight violet hue. Interior line indistinct, dark, edged light inside, excurved as far as the submedian fold. Exterior line fine dark, edged light on both sides. Beginning from the middle of the costal margin, excurved very far behind the cell, then obliquely inwards. Traces of a submarginal line. Hindwing pale, red-brown. ♂ 22 mm. Gambia.



- rufescens.* **S. rufescens** Hmps. (17 g). Body and forewing brownish ochreous. Interior line red-brown, with 2 strong outward angles, edged light inside, the basal area before it darker. A black dot of erect scales in the middle of the cell, and a streak at the cross-vein; a red-brown streak between them. Exterior line double, red-brown, beginning at the costal margin close behind the interior line, far excurved, inwards again at vein 4, whitish behind it at the costal margin. Submarginal line indistinct, whitish, with a bent black streak at vein 4 to the exterior line, and 2 fine streaks above vein 1. Hindwing whitish ochreous, broadly brown at the margin. ♀ 24 mm. Natal. The specimen figured, from East Africa, presumably belongs to this species.
- transvalica.* **S. transvalica** Hmps. (17 g). Thorax dark brown, abdomen lighter. Anterior half of forewing greyish brown, the rest light red-brown. Interior line of erect black and brown scales, excurved in the cell, inwards below it. An oblique blackish shadow from the costal margin behind the exterior line to the interior line at the median vein. A black dot of erect scales in the middle of the cell. A black luna on a round red-brown spot is at the cross-vein. Exterior line double, blackish brown. The interior branch begins near the interior line at the costal margin, excurved as far as vein 4, somewhat concave behind the cell. Submarginal line indicated by a slight brown shadow on the inside; behind it a dark red-brown spot in the submedian fold. Hindwing white, diaphanous, brown at the margin. The ♂ forewing exhibits the costal-marginal and inner-marginal areas lilac grey, red-brown between them with a whitish spot in the middle of the marginal area. A strong black streak in the submedian fold, less distinct ones at veins 7, 6 and 2. The other marking indistinct. 28 mm. Transvaal.
- ianthina.* **S. ianthina** B.-Bak. (17 h). Body brown, forewing reddish brown, somewhat grey at the costal margin. Interior line indistinct, double, blackish, slightly excurved in the middle. A black dot in the middle of the cell, a black luna at the cross-vein. Exterior line very indistinctly double, blackish, bent S-like; bluish grey behind it at the costal margin. Traces of a dark submarginal line. Hindwing white, diaphanous. ♂ 22 mm. Portuguese West Africa.
- cumasia.* **S. cumasia** Hmps. (17 h). Thorax and forewing red-brown. Interior line double, undulate, slightly excurved. Erect tufts of black scales in the middle of the cell and at the cross-vein. Exterior line double, the interior branch brown, the exterior one silvery grey, slightly concave behind the cell, somewhat inwards at vein 4, then obliquely to the inner margin. Submarginal line whitish, edged brown inside, parallel to the margin, undulate. Hindwing pale brown. ♂ 24 mm. Gold Coast, Niger District.
- leucogonia.* **S. leucogonia** Hmps. (17 h). Thorax reddish brown, abdomen greyer. Forewing white at the base and as far as beyond the middle of the inner margin, the rest of the wing ochreous. The border of the basal area is formed by a blackish brown line from the costal margin to the submedian fold with a prolongation to the exterior line. An oblique red-brown streak at the cross-vein. Exterior line indistinct, double, notched, parallel to the distal margin, extending at vein 2 almost to the cell, then excurved to the inner margin, a white spot behind it at the costal margin. Submarginal line hardly traceable. Hindwing white, slightly brownish at the margin. — The white spot on the forewing may also be absent: **simplex** Strd. — Or the body is browner, the white spot larger, the hindwing darker: **brunneiceps** Strd. 16—18 mm. West and East Africa.
- docilis.* **S. docilis** Btlr. (= *canofusa* Hmps.) (17 h). Body and forewing greyish brown. Interior line indistinctly double, brown, obliquely outwards. A small black dot in the middle of the cell and two at the cross-vein. Exterior line dark, edged white on both sides, far excurved from the middle of the costal margin, somewhat incurved in the submedian fold. Submarginal line indistinct. Hindwing white. West and South Africa, distributed as far as India.
- nephelozona.* **S. nephelozona** Hmps. (17 h). Thorax pale red-brown, abdomen lighter. Forewing pale red-brown, slightly dusted with black. Median band broad, blackish brown, widened at the costal margin towards the apex, at the inner margin a little towards the base. A small oblong pad of erect scales in the middle of the cell. Two black dots at the cross-vein. Submarginal line indistinct, a dark shadow proceeding from the apex. Hindwing white, diaphanous. ♀ 30 mm. East Africa. The specimen from Dar-es-Salaam used for the figure is considerably smaller.
- albissima.* **S. albissima** Hmps. Body brownish ochreous. Forewing whitish. The inner margin in the basal half and the marginal area dusted blackish brown. Interior line brown, interrupted, obliquely excurved. A red-brown shadow behind it in the anterior part. Black dots in the middle of the cell and at the cross-vein. Exterior line brown, edged white inside, very convex below the costal margin, black streaks behind it at the costal margin. A small white triangular spot at the margin below vein 3. Hindwing pale brown. ♀ 18 mm. Gold Coast.

### 11. Genus: **Cryptothripa** Hmps.

Proboscis normal, palpi obliquely crected, thin, very long. Antennae of ♂ tufted. Metathorax with a large tuft, smaller ones on the abdomen. Tibiae laterally hairy. Forewing with a normal areole. Veins 3 + 4 of hindwing from the lower cell-angle, 5 a little above it. Type: *occulta* Swb. from India, and this one species.

- polyhymnia.* **Cr. polyhymnia** Hmps. (17 h). Body greyish brown, forewing somewhat more reddish. A blackish radial band above and below the median vein, removed a little in front behind the cell, and somewhat oblique



from the submarginal line to the apex. Interior line indistinct, undulate. A little ring in the middle of the cell, a larger one at the cross-vein is brown inside. Exterior line indistinct, slightly excurved below the costal margin. The oblique band at the apex is edged white above. Submarginal line indistinct, light. black streaks behind them between the veins. Hindwing slightly brownish. — The strong dark radial band may also be shortened into a spot at the cell-end, or it may be quite absent. Such specimens are called: **polyhymniana** *polyhymniana* *Strd.* and **polyhymniodes** *Strd.* 30—32 mm. Natal, Cape Colony. *polyhymniodes*.

## 12. Genus: **Bryothripa** *Hmps.*

Proboscis normal, palpi thin, erected beyond the frons. Antenna of ♂ almost plain. Tufts as in the preceding genus. Vein 3 of forewing arises before the lower cell-angle, 4 and 5 from the angle, the rest normal. Vein 5 of hindwing a little above the angle as in the preceding genus. Only 1 species.

**B. miophaea** *Hmps.* Thorax dark sap-green, abdomen dark brown. Forewing sap-green, dusted black, *miophaea*. marking black. An oblique band from the base of the costal margin to the inner margin at vein 1, from there a faded band above the inner margin, widening a little towards the submarginal line. Interior line oblique, undulate. A dot in the middle of the cell, a luna at the cross-vein and a dot below it. Exterior line indistinct, double, obliquely outwards as far as vein 4, strongly bent inwards below the cell. Submarginal line black, edged white outside. Hindwing dark brown. — The thorax and the forewing may also be more intensely black, the hindwing red-brown. We figure this form; it is called: **transvaalensis** *Strd.* (17 h). 24 mm. — Niger District, South Africa.

## 13. Genus: **Bryophilopsis** *Hmps.*

This genus is entirely like the *Bryophila* in its exterior, and the only palaearctic species has also been described as "*Bryophila roederi*" by STANDFUSS. It was already WARREN (1909) who doubted whether the species belonged to the Bryophilids at all (Vol. III, p. 21). In 1912, HAMPSON placed it to the Indian type of his genus *Bryophilopsis*, which was registered yet by WARREN (1912) in Vol. III, p. 291. Beside this European species two Indian forms are known, one of which occurs in the Christmas I. All the other species are Ethiopian. — Proboscis normal, palpi very thin, erect. Antennae of ♂ with long tufts. Mesothorax and metathorax with a tuft, abdomen also with tufts. Neuration normal. Type: *griseata* *Hmps.* from India.

**B. lunifera** *Hmps.* (18 a). Body very pale red-brown, forewing pale red-brown. An oblique white *lunifera*. shadow from the costal margin near the apex to the lower cell-angle. Marginal area darker red-brown in its anterior part. A black horizontally placed luna from below the middle of the costal margin to behind the lower cell-angle. Interior line absent. Reniform macula with a faded light margin. Exterior line white, bent inwards at the costal and inner margins, straight between them. Submarginal line black, only traceable in its anterior part. Hindwing white, broadly brown at the margin. ♀ 20 mm. Niger District. Described from 1 ♀ from Old Calabar.

**B. nesta** *B.-Fletcher.* (18 a). Body and forewing pale greyish brown, somewhat dark brown at the costal *nesta*. and distal margins. Interior line black, edged white inside, rectilinear, obliquely outwards as far as the submedian fold. The median area with a bent down black streak in the submedian fold. Reniform macula large, elliptical, edged with black, basad also edged with white besides. Exterior line double, black, filled with white, from the submedian fold only white. Costal margin white near the apex. Submarginal line finely white, notched, faded black inside. Hindwing white. ♂ 22 mm. Seychelles.

**B. hamula** *Sn.* (18 a). Body brownish greyish-white. Forewing violet greyish-brown. Interior line *hamula*. black, oblique as far as the submedian fold, then indistinct. Behind it a black streak at the end of the median vein and a bent down streak to the exterior line in the submedian fold. Reniform macula brown, round, edged with white. Exterior line brown, edged white outside, excurved below the costal margin, then obliquely inwards. An oblique white shadow from the apex to the exterior line, brown below it. Submarginal line white, fadedly edged dark inside. Blackish at the margin above the anal angle. Hindwing brownish white. ♂ 20 mm. Lower Guinea.

**B. tarachoides** *Mab.* (18 a). Body and forewing brownish white. Whitish in the basal area except at *tarachoides*. the costal margin, whitish also a stripe from the apex to the reniform macula. Interior line strong, black, from  $\frac{1}{3}$  costal margin obliquely outwards to the submedian fold, where it is more excurved as far as the exterior line. Reniform macula brownish with a white ring, very indistinct. Exterior line black, from the middle of the costal margin to vein 4 in a downward curve, then united with the interior line. Submarginal line indistinctly blackish, a black streak behind it at vein 2. Hindwing diaphanous white. 20 mm. Niger District. East Africa, Madagascar. — We figure a specimen from Dar-es-Salaam.

**B. curvifera** *Hmps.* (18 a) is very similar to *tarachoides*. Forewing brownish violet in the basal area, *curvifera*. somewhat ochreous from the cell-end to the apex. Interior line indiscernible, exterior line double, black. Dark brown below the light apical stripe. Submarginal line white. Black streaks behind it at the margin of



veins 8—2, being absent in the specimen figured. Marginal area brown. Hindwing slightly browner than in *tarachoides*. 20 mm. Niger District, East Africa.

*cometes*. **Br. cometes** Hmps. (18 a). Similar to *curvifera*. Thorax pale grey, abdomen pale brown. Forewing grey, median and marginal areas brownish ochreous. Median line white, broadly edged with black outside, from the centre of the costal margin to the submedian fold, where it unites with the exterior line. Reniform macula brownish ochreous, elliptical. Exterior line fine, whitish, bending inwardly to the reniform macula, excurved below vein 4. A round blackish-brown spot behind it between veins 8 and 3. Submarginal line indistinct, blackish. Hindwing slightly brownish. The ♀ exhibits the curved median line edged with blackish-brown. The spot behind the exterior line is continued by a brown blotch to the margin, whereby a comet-like marking is produced. 22 mm. Gold Coast.

*melanoleuca*. **Br. melanoleuca** Hmps. (= *anomoiota* B.-Bak.) (18 a). Thorax white, abdomen brownish. Forewing white. Two black dots at the base. Interior line black, from  $\frac{1}{3}$  costal margin oblique to the submedian fold, with an inward angle at vein 1. Adjoining to it at the costal margin a square blackish-brown spot and a broader one at the inner margin. Reniform macula edged black in a U-shape. Exterior line marked by a black streak at the costal margin and a white border of the lower spot. Margin blackish brown. Submarginal line white, interrupted. Hindwing whitish. 20—22 mm. West Africa. Figured from a specimen from Cameroon. — In *variegata* B.-Bak. the base is browner. Portuguese West Africa.

#### 14. Genus: **Nolatype** Hmps.

Proboscis normal, palpi erect. Antennae of ♂ tufted. Body tuftless. Forewing rounded. Veins 3—5 near the lower cell-angle, 6 below the upper one, 7 from the upper angle, 8 + 9 + 10 stalked. Hindwing as hitherto. Only 1 species is known.

*phoenicolepia*. **N. phoenicolepia** Hmps. Body and forewing greyish black, somewhat violettish-red behind the middle. Interior line black, excurved from the costal margin to the submedian fold and above the inner margin, bent inwardly between. Median line black, excurved in the cell. Reniform macula large, edged black. Exterior line black, extra-angular behind the upper cell-angle, then oblique to the lower angle and vertical to the inner margin. Three black dots from the apex, obliquely arranged. Hindwing greyish brown. ♂ 24 mm. East Africa.

#### 15. Genus: **Ochrothripa** Hmps.

Containing only two species. Proboscis normal, palpi thin and very long. Antennae of ♀ finely ciliated. Metathorax with an appressed tuft, abdomen with tufts at the base. Forewing rounded, neuration normal. Vein 3 of hindwing before the cell-angle. Type: *leptochroma* Trnr. from Australia. The only other species from Africa.

*mesopis*. **L. mesopis** Hmps. Thorax red-brown, abdomen blackish brown. Forewing brownish ochreous, dusted black. Marginal area red-brown except at the apex, extending at the margin as far as the exterior line, veins of marginal area black. Interior line black, undulate, extinct in front. A black dot in the centre of the cell. Reniform macula irregularly edged with black, with a black centre. Exterior line somewhat undulate, far outwards as far as the submedian fold and at vein 1, inwards between them. Hindwing brownish ochreous, darker at the margin. ♀ 30 mm. Central Africa.

#### 16. Genus: **Megathripa** Hmps.

Proboscis normal, palpi oblique, moderately long. Antennae and tufts as in *Ochrothripa*. Forewing: vein 6 below the upper cell-angle, 7 from the angle, 10 + 8 + 9 stalked. Hindwing: veins 3 and 4 from the angle, 5 above it.

*rufimedia*. **M. rufimedia** Hmps. Thorax dark grey, abdomen brownish. Forewing greyish brown. Interior line double, black, oblique to the median vein, where it is extra-angular, then once more outwards in the submedian fold and at the inner margin. A large elliptical pale reddish-yellow spot in the centre of the wing contains a darker reddish-yellow spot at the cross-vein. Exterior line double, blackish, strongly outwards below the costal margin, introangular at vein 2. Submarginal line black, undulate. Hindwing white, brownish at the apex. — **subrufimedia** Strd. lacks the central spot, and the hindwing is more intensely brown. 28—34 mm. South Africa.

#### 17. Genus: **Oedicraspis** Hmps.

Proboscis normal, palpi projecting beyond the frons, thick. Thorax with a low tuft in front and behind, abdomen without a tuft. Forewing with a small bump close behind the middle. Neuration normal, areole short. Hindwing as hitherto.

*subfervida*. **Oed. subfervida** Hmps. Thorax and forewing dark violettish grey. Interior line indistinctly double, with a black spot inside at the inner margin, somewhat excurved at the median vein and strongly inwards at vein 1. A strong white streak at the cross-vein. Exterior line from the middle of the costal margin, then



strongly excurved, somewhat concave behind the cell, bent below vein 3 to the base of vein 2, then vertical. Blackish behind it at the costal margin. Submarginal line whitish. A dark oblique shadow from the apex, and one in the middle of the margin. Hindwing reddish ochreous, darker at the margin. ♀ 22 mm. East Africa. Described according to 3 ♀♀ from Taveta.

### 18. Genus: **Petrinia** Wkr.

Proboscis normal, palpi rather short. Antennae of ♂ ciliated. Metathorax with a tuft, abdomen with basal tufts. Vein 6 of forewing below the upper cell-angle, 7 from the angle, 10 + 8 + 9 stalked. Hindwing as hitherto.

**P. lignosa** Wkr. (18 b). Body and forewing dark ochreous, blackish at the base, costal margin and apical area blackish brown. An oblique dark shadow from before the centre of the costal margin to near the base at the inner margin, the distal margin introangular in the cell and at vein 1. From the interior line a fine black streak below the costal margin outwards, where it is bent and continued as an exterior line, concave behind the cell and in the submedian fold, double at the inner margin, filled with white. Behind it a parallel black line and traces of a white submarginal line. Hindwing dark. ♀ with less distinct markings, lighter. Forewing light olive brown, the basal spot not so distinctly edged, dark greenish brown. A dot at the cross-vein, a round spot before it. A large brown spot below the inner margin between the interior and exterior lines. 28—32 mm. West Africa.

### 19. Genus: **Eligma** Hbn.

HAMPSON whom we follow appends the large, most variegated *Eligma* to the mostly very small *Sarothripinae* resembling the *Bryophila* or *Tarache*. They differ in shape as well as colouring which, in a South Asiatic species to which also most of the Ethiopian species are closely allied, makes the flying imago similar to certain *Hypsidæ* with which the insects fly together in South China and India. Most remarkable is the slight height of the body of the resting imago which has a very short diameter anteposteriorly. Two types of colouring occur in Africa: one which is widely distributed, penetrating into the south-eastern palaearctic region as well as extending to the south as far as Australia, and a second, purely African type the colouring and shape of the wings of which approaches the African *Agaristidae*; the latter has neither such a very low structure. — Proboscis stunted, palpi very long. Antennae of ♂ tufted. Only the abdomen exhibits two small tufts. Forewing rather oblong, areole long. Hindwing normal. Type: *narcissus* Cr. from India and China. The latter species is figured in Vol. II, pl. 13 l. The other species excepting one are all African.

**E. laetepicta** Oberth. (17 e). This conspicuous and common species was described relatively late (1893). Thorax and forewing bluish-black. A broad sulphur-coloured band before the middle and a reniform spot behind the cell. Abdomen and hindwing orange red, margin broadly black. — **uncata** Strd. is an abnormal specimen in which a lobe branches off from the upper margin of the reniform spot inwards as far as the discal fold. 58—70 mm. East Africa.

**E. bettiana** E. Prout. Thorax brownish grey, abdomen orange red. Forewing grey with sulphur-coloured bands, the costal-marginal area dark grey, except at the base and apex. The principal band similar to *laetepicta*, but prolonged below the costal margin as far as the base. A black transverse line near the base, with some dots before it. The second line on  $\frac{1}{4}$  of the length of the wing, and a postmedian line, all three straight. Besides a flawed line. The yellow postcellular spot is straight in front, round behind. Five black triangular spots at the margin. Hindwing as in *laetepicta*, but with a large white apical spot. ♀ 80 mm. Tanganyika District.

**E. hypsoides** Wkr. (= *gloriosa* Btlr.) (17 e). Thorax greyish-brown, abdomen orange. Forewing chocolate brown at the costal margin as far as the middle, narrowly edged with sulphur-colour below, faded white below it, and the rest pale violettish brown. A few black dots and a fine line at the base of the wing. Two black dots behind the lower cell-angle and a series of spots upwards to the apex. A submarginal series of black spots. The line from the angle of the costal-marginal area to the inner margin is single. The costal-marginal area behind this angle is rounded. Hindwing yellow. Margin broadly black, white at the apex. 65 mm. West Africa.

**E. duplicata** Auriv. (= *gloriosa* Holl.) (17 d) is extremely similar to *hypsoides* and was for a long time mistaken for the much rarer *hypsoides*. The differences are as follows: *duplicata* exhibits two angles at the lower edge of the dark stripe on the forewing, *hypsoides* but one. The interior line is thick in *duplicata*, the exterior one double, while in *hypsoides* the interior line is fine, notched, the exterior one like the interior one. No differences on the hindwing. 65—70 mm. West and Central Africa.

**E. neumanni** Rothsch. resembles *hypsoides* and *duplicata*, from which it differs in its more strongly pectinated antennae and more numerous black spots on the abdomen above. The forewing shows the horizontal pale band near the exterior black line divided into two bands. The longer basal band is more bent than in the two other species. The black interior line is as serpentine as in *hypsoides*. The exterior line is



double only in its upper part, not on its whole length as in *duplicata*. The white apical spot on the hindwing is smaller, the black marginal band on two thirds of its length broader than in *hypsoides* and *duplicata*. ♂ 70 mm. Blue Nile.

*malagassica*. **E. malagassica** *Rothsch.* (17 e). Thorax brown, abdomen orange. Forewing dark olive brown at the costal margin, narrower than in *hypsoides*, finely sulphur-coloured below it. The median area as far as the apex white. The inner margin and outer margin olive brown. The basal line as thin as in *hypsoides*, undulate. A white median line behind it. Exterior line black, beginning in the discal fold, then inwardly to the lower cell-angle and vertically to the inner margin. A notched white submarginal line and a black one behind it. Hindwing orange with a narrow black margin. ♀ 60 mm. Madagascar.

## 20. Genus: **Gadirtha** *Wkr.*

Proboscis normal, palpi thin and long. Antennae of ♂ tufted. Metathorax with a small tuft, abdomen also with small tufts. Both wings with a normal neurulation. — More than a dozen of species form this genus, most of which are Papuan, from New Guinea or Australia. Only one of these species penetrates in China and Japan to the palaearctic region, for which reason the genus was described in detail in Vol. III (S. 292). The sound-organ which was mentioned in the introduction to this subfamily (p. 179) has been fully described there. — Type: *inexacta* *Wkr.* from India and New Guinea; only 1 species in Africa.

*glaucograptula*. **G. glaucograptula** *Hmps.* (18 b). Thorax light red-brown, abdomen brownish ochreous. Forewing pinkish brown. Interior line white, notched, oblique, more excurved above the inner margin. A moss-green spot before the line in front, and another one behind it at the inner margin, oblique above, as far as the anal angle. A fine black streak in the submedian fold. Erect black scales in the middle of the cell. Reniform macula round, edged black, with erect scales inside. Exterior line grey, double, far outwards, then notched, obliquely inwards. A large greenish white spot behind it at the costal margin. Submarginal line pale. Hindwing dark. The ♀ shows the centre of the inner margin on the forewing white, and the hindwing is also white at the anal angle. — In *plumbeomaculata* *Strd.* the spots at the interior line and the spot near the apex may exceptionally be lead-coloured. 40—44 mm. Sierra Leone, Gold Coast.

## 21. Genus: **Elesmoides** *E. Prout.*

Proboscis normal, palpi obliquely projecting. Antennae with a small pencil at the base. Prothorax with a tuft. Abdomen with a tuft on the first segment. Forewing narrow, without an areole, veins 7 + 8 + 9 stalked. Veins 3 + 4 of hindwing stalked, 8 branching off from the middle of the cell. Only 1 species known.

*thomae*. **E. thomae** *E. Prout.* Antennae of ♂ long-tufted, of ♀ shorter. Thorax bone-coloured brown, abdomen bluish grey. Forewing of ♂ yellowish brown, of ♀ bone-coloured brown, in the ♂ bone-coloured brown in the anterior half, at the base and behind the exterior line. The ring-macula and reniform macula are oval black spots. Transverse lines very indistinct. Interior line excurved in the cell, inwards in the submedian fold. Median and exterior lines similarly bent, all of them fine, pale, with a darker edge. Submarginal line indicated by pale spots between the veins. Hindwing bluish grey. 38—40 mm. São Thomé.

## 22. Genus: **Blenina** *Wkr.*

This genus abounding in forms (more than 20 species are known) initiates the third group of the *Sarrothripinae*. The body is still somewhat flattened, so that the lepidoptera the shape and colour of which are very much adapted to lichens are very difficult to recognise on the trunks of trees where they often sit in great numbers (as many as a dozen may be found on one trunk). The variability is enormous and by no means local so that types of the most varied colourings can be captured on the very same trunk. As the genus is also represented in the palaearctic region (in 2 species) it was exactly described in Vol. III (cf. p. 292). — Proboscis normal, palpi projecting beyond the frons. Antennae of ♂ finely ciliated. Metathorax with a small tuft, abdomen with basal tufts. Neurulation normal, but vein 8 of the hindwing arises from the cell already close behind the base. Type: *donans* *Wkr.* from India. Only few species in Africa.

*chloromelana*. **B. chloromelana** *Mab.* (= *chloroptila* *Holl.*) (18 b). Body reddish brown. Forewing dark green in the basal half, somewhat red-brown only at the costal and inner margins. Median area red-brown, marginal area blackish. Interior line yellowish, undulate, vertical. Median line oblique. Two black dots at the cross-vein, a pale spot behind it. Exterior line oblique, notched as far as vein 4, strongly bent inward at vein 2. Whitish green a little behind it at the costal margin. Submarginal line dark, strongly extra-angular at vein 7, dentate in the middle, inwards at vein 2. Hindwing dark reddish brown. 40 mm. West Africa.

*friederici*. **B. friederici** *n. sp.* (= *lichenosa* *Grünbg.* i. l.). In the scheme of markings it is most similar to *chloromelana* *Mab.*, but it differs in its small size and orange hindwings. Interior line of forewing projecting pointedly at the anterior cell-edge, above it somewhat inwards vertically to the costal margin, below the apex obliquely inwards to the inner margin, thickly white. Blackish brown before it from the costal margin to the submedian fold, broadly white directly at the base. Median line white, steeper at the costal margin than in



*chloromelana* (18 b), by which the point in the submedian fold is more prominent. Pale green before it as far as the interior line. Exterior line black, obliquely outwards as far as behind the cell and broadly edged white outside, then more indistinctly continued, the point in the submedian fold more rounded, not so distinct as in *chloromelana*. A black spot at the cross-vein, darker green behind and above it as far as the exterior line. Dark violettish brown behind the median line, somewhat lighter after it, dark again only at the apex. A large white triangle at the costal margin behind the exterior line, with a larger and a smaller black spot at the costal margin. The white spot indistinctly edged outside with black. Submarginal line black, notched, vertical above the anal angle, dusted dark green inside of it above the inner margin. The fringe at the anal angle white. Hindwing narrowly edged with smoky brown as far as vein 3. ♀ 30 mm. Lake Albert, expedition of Duke Adolf Friedrich, denominated by GRÜNBERG with a preoccupied name, but apparently not published.

**B. brevicosta** *E. Prout*. Thorax greenish white, abdomen yellow. Forewing white, dusted green in *brevicosta*. the basal half and behind the middle, band-like violettish brown in the middle. Interior line black, rather straight, from  $\frac{1}{3}$  costal margin to the middle of the inner margin, a black spot before it in the cell, a larger spot behind it. An erect black streak at the cross-vein. Exterior line oblique, undulate from the middle of the costal margin almost to the anal angle, indistinct. Submarginal line very dentate, parallel to the margin. Hindwing yellow, broadly darker at the apex. ♀ 34 mm. Sierra Leone.

**B. miota** *Hmps.* (18 b). Thorax greenish brown, abdomen reddish brown. Forewing greenish brown, *miota*. reddish brown between the median and exterior lines. Interior line vertical, black, below the median vein only as a black dot. A short oblique streak from the middle of the costal margin. Two black dots at the cross-vein. Exterior line double, introangular at the lower cell-angle and in the submedian fold, excurved between. Submarginal line of small black spots, excurved from veins 5 to 2. Hindwing reddish brown. Forewing of ♀ with a black spot before the exterior line in the submedian fold. 25—28 mm. Sierra Leone.

**B. diagona** *Hmps.* (18 b). Body brownish white. Forewing greenish white in the basal area as far as *diagona*. the interior line which extends from  $\frac{2}{5}$  of the costal margin to behind the middle of the inner margin. A dark green spot behind it as far as below the cell. Black erect tufts of scales in the cell and at its end. Red-brown below it at the inner margin. Exterior line from vein 7, rather vertical. Submarginal line somewhat more strongly notched, reddish-brown behind it. Hindwing brownish white, darker at the apex. 35 mm. Niger District, Cameroon.

**B. squamifera** *Wlgr.* (= *lichenosa* *Fldr.*, *autumnalis* *Dist.*) (18 a). Thorax greenish white, abdomen *squamifera*. brownish white. Forewing bluish green. Interior line black, oblique, undulate. A black tuft of scales at the cell-end and 2 at the cross-vein. Exterior line edged with white outside, dentate, concave behind the cell, incurved below vein 4. a darker green line behind it, and a black streak in the submedian fold. Submarginal line black, notched. A black spot at the apex and one below it. Hindwing white, diaphanous, brownish at the apex. — The forewing may be darkened blackish brown, either only in the median area, or a little behind it, and thirdly on the whole wing; in the latter case, another black spot is behind the interior line in the submedian fold. These forms were denominated as: *wallengreni* *Strd.*, *obscurior* *Strd.*, and *fuscumixta* *Strd.* 30 mm. South and East Africa.

**B. quadripuncta** *Hmps.* (18 c). Thorax brownish white, abdomen yellow. Forewing white. Basal area *quadripuncta*. and costal margin dusted green and black. Interior line interrupted, undulate, strongly excurved to the inner margin, absent in the original figure. A small black hair-tuft in the middle of the cell, and 3 at the cell-end. 4 black streaks at the middle of the costal margin. Marginal area dark brown, notchedly margined. Hindwing yellow with a black marginal band. 38 mm. Mozambique. The species is extremely variable.

**B. hyblaeoides** *Kenrick* (18 b). Thorax greenish grey, abdomen dark brown. Forewing greenish grey, *hyblaeoides*. Blackish at the base with a dentate margin in front, narrowly continued at the inner margin as far as the median band which is equably broad, slightly excurved at the inner margin. Three spots at the cell-end. Exterior line black, notched, rather vertical, edged light outside. Submarginal line brownish, notched. Hindwing dark orange with a black radial band. 33 mm. Madagascar.

### 23. Genus: **Risoba** *Mr.\**).

About 25 species have been described of this genus, a full third of them being known from New Guinea alone. It is uncertain whether several of these species of this extremely variable genus may not be put together later on. Nearly all of them exhibit the hindwing whitish with a costally broad, anally pointed marginal band. African are only three species, the rest Indian and mostly Papuan; in America the genus is replaced by the allied *Baileya*. — Proboscis normal, palpi erect, strong. Antennae tuftedly ciliated, almost as long as the forewing. Metathorax with a tuft, small tufts in the middle of the abdomen, anal tuft forked. Abdomen of ♂ rather long. Neuration of forewing normal. Veins 3—5 of hindwing somewhat separated, 8 branching off from near the base of the cell. Type: *repugnans* *Wkr.* from India.

\*) In Vol. III. on p. 293, the name is misprinted as *Risola*.



*lunata*. **R. lunata** *Mschlr.* (18 c). Body yellowish brown. Forewing dark brown and olive brown. A faded white line below the costal margin. The exterior part of the median area as far as vein 3 whitish. Interior line black, oblique at the costal margin, extra-angular in and below the cell, introangular at the median vein and vein 1. Reniform macula edged with black, angled. Veins 7—5 with black streaks as far as the exterior line which is black, oblique, dentate. Submarginal line blackish brown, finely dentate below the costal margin. between vein 8 and the discal fold, strongly incurved, strong, inwards below vein 3. Hindwing white, margin broadly brown. 30—33 mm. West Africa.

*diplogramma*. **R. diplogramma** *Hmps.* (18 c) and the following species are rather divergent. Body and forewing greyish brown, whiter in the median area. Whitish at the inner margin at the base, edged with black above. Interior line double, black, strongly extra-angular in the submedian fold, then ending near the basal spot. A black dot in the middle of the cell. Reniform macula round, finely edged with black. Exterior line fine blackish, bent inwards from vein 4, strongly notched. Black streaks behind it at the costal margin. Hindwing white, diaphanous, margin broadly smoky brown. ♂ 28 mm. Bechuana Land, East Africa. We figure a specimen from Tabora.

*sticticraspis*. **R. sticticraspis** *Hmps.* (18 c). Similar to *diplogramma*. Forewing with a longer white basal spot. The white median band extends only to the lower cell-edge. Interior line as a black streak at the inner margin. Reniform macula and cellular dot as in *diplogramma*. Median and exterior lines as a streak at the inner margin. A short black shadow from the apex. Hindwing as in *diplogramma*. ♀ 25 mm. East Africa.

## 24. Genus: **Gyrothripa** *Hmps.*

Proboscis normal, palpi thick, very long porrect. Antennae of ♂ finely ciliated, abdomen with 2 small tufts at the base. The ♂ with a hair-tuft below the base of the wing. Vein 3 of forewing far before the angle, 5 close above the angle, 10 and 7 + 8 + 9 from the apex of the small areole. Veins 3 + 4 of hindwing on a long stalk, arising with 5 from the same base. Vein 8 fused with the cell for a somewhat longer distance than in the last genera. Type: *pusilla* *Mr.*

*pusilla*. **G. pusilla** *Mr.* Body greyish brown. Forewing olive brown, the costal and distal margins violettish brown. Interior line indistinct, double, bent. Median line the same, slightly excurved in the middle, somewhat lead-coloured before it. Exterior line double, from vein 6, somewhat undulate, inwards, lead-coloured behind it. Submarginal line whitish, edged with olive brown on both sides. Hindwing white, diaphanous, brown at the margin. 16—20 mm. Gold Coast, besides from India to Australia.

## Subfamily **Acontianae**.

This very large subfamily — about 350 forms have been described — is chiefly tropical. Scarcely 8 or 9 species occur in Europe which has relatively little sunshine, and these especially in the south-east. A larger number, however, is distributed over Eastern Asia, extending here from the equatorial districts to Japan along the coast, so that the palaearctic region is reached there as well as at the frontier of the Indian region by further 30 species. These statements indeed do not agree with the previous publications, since the subfamily had formerly been quite differently grouped. Owing to the confusing interpretation of the nomenclatural rules, the *Acontia* were meant to be the *Tarache* of to-day, and the genus named now *Acontia* was formerly called *Xanthodes* *Gn.* Thus the former "*Acontianae*" became the "*Erastrinae*" dealt with on p. 111 to 166. It is also hardly to be recognized to-day in what way they were composed nomenclaturally, since the generally known generic name of *Thalpochares* is merged in other genera (*Eublemma*, p. 113). In this we follow exactly HAMPSON's classical work, without enlarging on the different redenominations in his "Catalogue".

Very little is known of the life-history of the *Acontianae*, if we take no account of the six species reaching Central Europe. The larvae have 16 feet, yet single species are said not to use the front pair of abdominal legs in their locomotion (as in the *Plusia*, *Gonospileia* and others), so that they move on somewhat like the Geometrids do. In spite of their frequently bright colouring, most of the lepidoptera seem to fly exclusively during the night, and sometimes the *Acontia* are the first in the evening to come to the lanterns. Many are unicoloured when at rest, with their hindwings covered, either green like most of the *Earias*, *Hylophila* and others, or also with a silvery gloss like the *Plusiocalpe* and some (Indian) *Westermannia*; a very uncommon impression is also made by the Indo-Papuan *Vizaga* with unicoloured blue hindwings. Of a strange colouring is also the quite unicoloured blackish-brown *Hypodeva superba*, with a faint violet reflection in the distal part of the hindwing, very unlike its proud name. — The remark that the larvae construct a canoe-shaped case for their pupation can hardly be generalized owing to the fact that there is only a small number of species, the early stages of which are known.

Proboscis almost invariably normally developed. Palpi long, mostly erect. Eyes round, without hair and cilia. Antennae mostly ciliated, rarely pectinated. Thorax with small tufts or without any at all. Tibiae



without spines and claws. Abdomen mostly with 1 or 2 tufts at the base. Forewing broad and triangular. Vein 3 sometimes before the lower cell-angle. The areole may be absent or also very long. Vein 8 of hindwing arises near the base of the cell, in few genera only from the centre of the cell. The retinaculum of the ♂ is bolt-shaped. All the larvae have 8 pairs of legs (SEITZ).

### 1. Genus: **Leucophanera** Hmps.

Proboscis stunted, palpi thin, porrect. Frons with a conical projection. Antennae of the ♀ somewhat laminated. Body tuftless. Forewing broad. Veins 3—5 near the lower cell-angle, 7 + 8 + 9 stalked. Hindwing: veins 3 and 4 from the angle, 5 a little above it, 6 + 7 on a short stalk, 8 from near the base of the cell. Only one small silvery white species with brown bands is known, described according to a single ♀ from Oudoula.

**L. argyrozona** Joan. Its exterior reminds us a little of that of a smaller sized *Neonegeta atriflava* (19 c). *argyrozona*. Thorax white, abdomen brownish. Forewing silvery white with a few copper-brown spots in the basal area. A copper-brown median band with silvery scales, the cross-vein in it with a black streak. The equally coloured marginal band inside with black spots, the margin itself narrowly white. Hindwing brownish white. ♀ 18 mm. Upper Guinea.

### 2. Genus: **Earias** Hbn.

Composed of about 25 species nearly all of which have unicoloured green or yellow forewings; all of them are small lepidoptera, their larvae living in leaf-cases in which they also pupate. Like the imagines also the larvae are nearly all green. The Papuan region harbours again most of the species (8) which are partly confined to this region; a few are Indian, while 8 occur in the palaearctic region and 6 species are Ethiopian. One of the latter, *insulana*, which is also widely distributed elsewhere, is able to do great harm to cotton plantations and is vigorously combated especially in Egypt and Abyssinia. — Proboscis normal, palpi extending to the frons. Antennae of ♂ finely ciliated. Abdomen with small tufts at the base. Forewing with a rather pointed apex. Vein 3 far before the lower cell-angle, 7 + 8 + 9 stalked. Veins 3 + 5 of hindwing stalked. Type: *chlorana* L. from Europe.

**E. ogovana** Holl. (18 c). Thorax yellowish green, abdomen brown. Forewing yellowish green. Median line dark green, slightly convex in the middle. Exterior line dark green, convex in its anterior part. Costal margin at the apex and a fine marginal line violettish brown. Hindwing violettish brown, lighter at the base. 25 mm. West Africa.

**E. biplaga** Wkr. (= *maculana* Sn., *plaga* Fldr.) (18 d). Body and forewing coloured as in *ogovana*. *biplaga*. Traces of median and exterior undulate lines, oblique and green as far as the middle of the cell, brown between them. A dark indistinct spot at the cross-vein. Traces of a green submarginal line. Hindwing white, diaphanous, margin violettish brown. The forewing may also have black dots at the lines and a very black discal spot, while at the same time the space between the two lines is not filled with brown. — **fusciciliana** Sn. is *fusciciliana*. without the discal spot and the brown area. 18—22 mm. West, South and East Africa, Mauritius.

**E. insulana** Bsd. has been dealt with already in Vol. III, p. 296 and figured there on pl. 53 i. It occurs *insulana*. in Southern Europe as well as in the whole of Africa, besides as far as the Philippine Is.

**E. cupreoviridis** Wkr. (= *chromataria* Wkr., *fervida* Wkr., *fulvidana* Wllgr., *limbana* Sn.) (18 e). Thorax yellowish green, abdomen white. Forewing yellowish green, red at the costal margin as far as the middle, expanded into a spot in the cell-end. Adjoining to it a fine median line, extra-angular below the costal margin, ending in the cell. A red spot at the cross-vein. Margin red-brown with 3 such spots, besides yellowish red spots at the apex, in the middle and above the anal angle. Hindwing white, diaphanous, brownish ochreous at the apex. The red costal margin may also be absent and the median line replaced by a dot in the cell. 18 to 20 mm. West and South Africa, also in India and in the Sunda Is.

**E. glaucescens** Hmps. (18 d). Thorax olive grey, abdomen brownish. Forewing olive green with a silky gloss. Traces of a slightly bent reddish interior and exterior line. Margin and fringe darker red. Hindwing reddish ochreous at the margin, lighter at the base. ♀ 22 mm. Niger District. Described according to 1 ♀ from Old Calabar.

**E. ansorgei** Tams. Thorax moss-green, abdomen reddish brown. Forewing moss-green, without markings. Hindwing brownish white, also without markings. 18—20 mm. Angola.

**E. citrina** Saalm. (= *crocea* Mab.) (18 d). Thorax and forewing reddish ochreous. Interior line finely brown, oblique, excurved below the costal margin and above the inner margin, then spots in the cell and submedian fold. A brown spot at the cross-vein. Exterior line finely brown, excurved between the costal margin and vein 4, then vertical to the inner margin. Submarginal line dentate. Hindwing white, diaphanous. — **citrinella** Strd. has the thorax and forewings yellowish orange. — **citrinoides** Strd. is similar, but with a blurred *citrinoides*.



*citrinula*. marking. — **citrinula** *Strd.* has the thorax and forewings yellow. the latter somewhat green except at the base and costal margin. Marking also greenish. 24 mm. South and East Africa, Madagascar.

### 3. Genus : **Chlorozada** *Hmps.*

Proboscis normal, palpi thin and very long. Antennae of ♂ ciliated. Abdomen with 2 small tufts. Forewing: veins 3—5 near the lower cell-angle, 6 below the upper angle, 7 from the angle, 10 + 8 + 9 stalked. Hindwing normal, vein 8 from near the base of the cell. Type: *verna* *Hmps.* All the species from Africa; excepting *metaleuca*, only 1 specimen is known of each species.

- pyrites*. **Ch. pyrites** *Hmps.* (18 d). Thorax pale green, abdomen flesh-coloured. Forewing green. Interior line white, edged with black in front outside, more incurved in the cell and submedian fold. Exterior line also white, edged with black inside in the anterior part, still more undulate than the interior line. Submarginal line white, dentate. Hindwing flesh-coloured. ♀ 26 mm. Gold Coast.
- prasina*. **Ch. prasina** *Hmps.* (18 d). Thorax and forewing yellowish green, abdomen and hindwing flesh-coloured. Interior line black, finely edged with black inside, almost straight, somewhat oblique. Exterior line edged with white outside, projecting outwardly in the cell, then somewhat steeper to the inner margin. Traces of a dark submarginal line. Hindwing somewhat darker above the inner margin. ♀ 28 mm. Gold Coast, Cameroon.
- metaleuca*. **Ch. metaleuca** *Hmps.* (= *esmeralda* *Hmps.*) (18 d). Thorax and forewing bluish green. Abdomen and hindwing reddish yellow. Interior and exterior lines of forewing white, both proceeding from a black spot at the costal margin. The interior one almost straight, somewhat obliquely outwards. The exterior one uniformly slightly excurved, only slightly concave in the submedian fold. A fine black dot at the cross-vein. The *metaleucana*. ♀ shows the thorax and forewings red-brown. Other forms of the ♀ are the following: — **metaleucana** *Strd.* Forewing with white dots at the two transverse lines in the submedian fold. — **purpureofusca** *Strd.* Median area of forewing suffused with violettish brown. — **olivaceoviridis** *Strd.* Basal and marginal areas of forewing olive green, median area violettish brown. — 18—20 mm. Central, South and East Africa. Besides there are two couples from East Africa before me, in which the whole forewing exhibits a violettish brown hue.
- verna*. **Ch. verna** *Hmps.* Thorax and forewing pale bluish green, abdomen brown. The marginal area on the forewing is slightly dusted with brown. Interior line black, edged with white inside, shaped as in *metaleuca*. At the cross-vein likewise a black dot. Exterior line black, edged with white outside, undulate, oblique as far as vein 6. then vertical, thus somewhat different from *metaleuca*. Submarginal line finely black, undulate, one white dot each before and behind it at the costal margin. Hindwing pale brownish ochreous, darker at the margin. ♂ 20 mm. Mashona Land. — Only the type seems to be known, captured by MARSHALL near Salisbury.
- endophaea*. **Ch. endophaea** *Hmps.* (18 e). Thorax light sap-green, abdomen brown. Forewing pale sap-green. Interior line white, edged with brown outside, oblique, concave in the middle. The median area behind it at the inner margin with a brown spot. The usual black dot at the cross-vein. Exterior line white, edged with brown inside, somewhat more excurved than the interior line. Submarginal line vertical, formed of black dots. Hindwing brown. ♂ 22 mm. Gold Coast.
- purpurea*. **Ch. purpurea** *Kenrick* (18 d). Body and wings violettish grey. Forewing dark violet behind the interior line, only the apical area lighter again. The interior line is fine white, dentate, similar to the other species. Two dark dots in the cell. Exterior line fine white, somewhat oblique, hardly visible. Submarginal line of 6 dark spots in the light apical area. 26 mm. Madagascar.

### 4. Genus: **Lophocrama** *Hmps.*

Excepting the pointed apex of the forewing, the exterior is similar to the Genus *Chlorozada*. Palpi likewise very long, but erect and very hairy behind. Forewing with the normal areole. Neuration of hindwing like that of *Chlorozada*. Type: *phoenicochlora* *Hmps.* Only three African species are known.

- phoenicochlora*. **L. phoenicochlora** *Hmps.* (18 e). Thorax yellowish green, abdomen reddish. Forewing yellowish green, the costal margin finely yellow. Interior and exterior lines with a black dot at the costal margin, then indistinct, dark, excurved. A black dot at the cross-vein, near the apex 3 white dots at a red streak. Submarginal line shadowy. Hindwing violettish red. — In **postalba** ♂ *Strd.* the hindwing is white at the base. — **mediopurpurea** *Strd.* shows the median area of the forewing hued with violettish grey and speckled brownish. — On the contrary, **medioclara** *Strd.* is whiter in the median area. There occur also specimens in which the forewing is brownish grey, somewhat reddish at the base. 26—28 mm. West and South Africa.
- hemipyria*. **L. hemipyria** *Hmps.* is similar to the preceding species, but the abdomen is fiery red, black at the end. Forewing also similar, but an iron-brown spot at the anal angle, the interior side of which is somewhat extra-angular in the submedian fold. Hindwing fiery red. ♂ 28 mm. Gold Coast.



**L. auritincta** *Hmps.* Thorax reddish brown with a silky gloss, abdomen lighter. Forewing reddish brown, with a greenish golden gloss, especially at the costal margin. The two black costal-marginal spots as in the other species, brown streaks near the apex between the 3 white dots. Hindwing fiery orange red. ♂ 24 mm. Niger District. Described according to 1 ♂ from Old Calabar.

### 5. Genus: **Aiteta** *Wkr.*

The (nearly 20) species constituting this genus do not exhibit the least resemblance to the habitus of the preceding genera. Their shape is much rather like that of *Sphingidae* or *Notodontidae*. The body is very robust and the abdomen projects far beyond the anal angle of the hindwing. The forewing is narrow at the base, widening uniformly with a long costal margin and a short inner margin, therefore with a very oblique distal margin. The hindwings which were rather large and broad in the *Earias*, are small and round here, very slightly oval. Half of the species known are Ethiopian, the other half Indo-Australian, a large part of the latter Papuan and distinctly allied to the genus *Sphingiforma* *B.-Bak.* from New Guinea, which derives its name from this resemblance to the *Sphingidae*. — Proboscis normal, palpi thin, erect. Antennae very long, tufted in the ♂. Middle and hind tibiae of ♂ with very long hairs. Abdomen with tufts at the base, long in the ♂; neurulation of forewing normal. Veins 3 + 4 of the hindwing on a short stalk, 5 normally strong, from the cell-angle or also stalked with 3 + 4. Type: *musculina* *Wkr.* from India and the Sunda Is. Several specimens are only known of *gamma*, *escalerai* and *meterythra*, whilst the descriptions of the other species are only based upon but one species each.

**A. gamma** *Hmps.* (18 f). Thorax reddish brown, abdomen greyish brown. Basal area of forewing violetish brown excepting the obliquely inward interior line. Then pinkish brown as far as a line from the middle of the costal margin to before the middle of the inner margin. Marginal half darker red-brown. A black spot in the cell-end. A whitish-edged  $\gamma$ -like mark at the cross-vein and veins 3 and 4. The interior border in the marginal area is broadly dark, the same being the case with a stripe to the middle of the distal margin and with the apex, the rest being somewhat less dark. Hindwing yellow, pink at the apex. ♂ 28 mm. Niger District, Adamaua.

**A. veluta** *Hmps.* (18 f). Thorax and forewing inside reddish brown with a violet shine, abdomen pinkish brown. Interior line of forewing straight, obliquely outward, dark, indistinct. The marginal area blackish brown, its interior border bent downward from before the middle of the costal margin, at vein 1 to the distal margin, somewhat paler at the apex. A light streak at the cross-vein, and a bluish-grey spot above it to the costal margin. Submarginal line strongly and uniformly bent, composed of black dots. Hindwing orange red at the apex, the rest more yellow. ♀ 28 mm. Niger District, Cameroons.

**A. escalerai** *Kheil* (18 f) differs slightly in its light colouring. Thorax sap-green, abdomen violetish grey. Forewing violetish grey, chocolate brown between the lower cell-angle and the anal angle. Inner margin dark sap-green at the base. Two triangular dark brown spots at the costal margin, a dark line between them to the inner margin. Submarginal line fine, dark, extra-angular at vein 6. Hindwing yellow, somewhat pink at the apex. ♀ 26 mm. West Africa.

**A. parallela** *Hmps.* (18 f). Thorax and forewing light chocolate brown, abdomen pinkish brown. Apical area ochreous, the border running from  $\frac{2}{3}$  costal margin to the anal angle. Interior line dark, straight, from  $\frac{1}{4}$  costal margin to  $\frac{2}{3}$  inner margin. Exterior line from behind the middle of the costal margin to the anal angle. The border of the dark area notched. Submarginal line fine, brown, introangular at vein 5. Hindwing orange red. ♀ 30 mm. Gold Coast. Described according to 1 ♀ from Kumasi.

**A. meterythra** *Hmps.* (18 f). Thorax and forewing dark red-brown, abdomen dark orange red. Interior line of forewing greyish white, oblique, slightly concave in the submedian fold. A dark streak at the cross-vein. Exterior line grey, outward as far as vein 4, slightly concave behind the cell, bent inward again at vein 2, terminating not far from the interior line. The median area between them somewhat darker in the ♂. Submarginal line fine dark, extra-angular at vein 5. Hindwing red. The ♀ exhibits a deeper bend of the submarginal line. Hindwing not so red. 26—30 mm. From South Nigeria.

**A. schaeferi** *Bryk* (18 e). Body and forewing coloured as in *meterythra*. Interior line running the same. Exterior line shortly outwardly angled below the costal margin, then straight, obliquely inward, ending near the interior line. A large blackish brown spot close in front of the exterior line behind the cell. Submarginal line of black dots, somewhat extra-angular at vein 6. Apical area darkened, with an oblique border. Hindwing yellow, reddish at the apex. ♂ 30 mm. Cameroons.

**A. acutipennis** *Strd.* (18 f) is a very small species. The body and the base of the forewing dark chocolate brown. The inner margin yellowish brown at the base, bordered by an oblique white line. Interior line white, almost vertical. Two black dots at the cross-vein. Exterior line with a white spot at the costal margin, then shortly excurved, finer and rectilinear, parallel with the distal margin to the inner margin. Submarginal line absent. Hindwing reddish-brown, not so red as in the other species. As the palpi are much shorter, the position of the species is doubtful. ♂ 22 mm. Cameroons.

**A. thermistis** *Hmps.* (19 a). Body red-brown. Forewing paler. Brown at the costal margin at the base



as well as behind the interior line at the inner margin and between the exterior line and the submarginal line. Interior line indistinct, brownish, excurved below the cell. A black dot in the cell-end, a white luna at the cross-vein, edged black inside. Exterior line faded, brown, outward as far as vein 4, introangular above the submedian fold; from this line a faded dark streak extends to the margin below the apex. Submarginal line indistinct, brown, ending above the anal angle. Hindwing yellowish brown, fiery red at the margin. ♂ 30 mm. Rhodesia. *thermistis* may be a form of *gamma*.

*costiplaga*. **A. costiplaga** Hmps. (18 g). Thorax and forewing red-brown, abdomen yellowish brown. Interior line of forewing indistinct, proceeding from an olive brown spot at the costal margin, obliquely outward. Exterior line also indistinct, obliquely inward, proceeding from the apex of a triangular olive brown spot at the costal margin. Submarginal line punctiformly marked. Hindwing orange. ♀ 30 mm. Niger District. 1 ♀ from Onitsha.

## 6. Genus: **Maurilia** Mschlr.

Proboscis normal, palpi highly erected. Antennae of ♂ finely ciliated. Abdomen with two short tufts at the base. Neuration of forewing normal, with an areole. Veins 3 + 4 of hindwing on a more or less long stalk. Type: *arcuata* Wkr. from Africa. Three of the few species occur in the Indo-Australian Region, the others in Africa. They are mostly very common and rather variable, therefore many names are given to deviations.

*albirivula*. **M. albirivula** Hmps. (18 g). Body and forewing pale olive brown, darker reddish brown in the lower part of the median area as well as below vein 4 as far as the margin. Interior line white, brown outside, undulate, oblique to the submedian fold, sharply incurved below it, outward at the inner margin. Exterior line white, edged with brown on both sides, obliquely outward as far as vein 4, then for some distance vertical, and an angle inward. Two pale brown dots in the cell. Submarginal line of black dots in the anterior part.

*violitincta*. Hindwing brown. — In **violitincta** Strd. the thorax and the forewing are somewhat greener than in the nomenclatural form, but the median area is purely violet. 24—28 mm. — Niger District, Cameroons.

*heterochroa*. **M. heterochroa** Hmps. (18 g). Body and forewing varying from light red-brown, greyish brown to dark brown. Forewing with a double undulate interior line, oblique to the middle of the inner margin. Two distinct black dots in the cell. Exterior line more distinct, black, double, outward as far as vein 4, then vertical. A faint dark shadow from the apex to the interior line below the cell. Submarginal line from a black spot at the costal margin, then punctiform. Hindwing blackish brown. — Besides, the following forms were designated: **semifuscata** Strd. (= *suffusa* Gaede). Forewing dark red-brown at the inner margin from near the base to the submarginal line and to the upper edge of the cell. — In **semiferruginea** Strd. this area is dark rusty red, besides a triangular spot behind the cell is rusty red, too. — **lunata** Gaede is a *semifuscata* with a black crescent at the cross-vein. — **cinereofusca** Strd. has dark greyish-brown forewings. — **fuscipicta** Strd. besides shows a blackish-brown area above the inner margin. — **cuneatipicta** Strd. is a *cinereofusca* with a blackish triangular spot behind the cell. — **busirensis** Strd. has greyish brown forewings. The submarginal line is expanded like a spot at the costal margin, a black transverse spot is at the cell-end, and the interior line blurred. 28—34 mm. — Niger District, Cameroons.

*rufirena*. **M. rufirena** Hmps. Body and forewing greyish brown with a leaden gloss, partly suffused with red-brown, the marginal area coppery red-brown. Interior line red-brown, indistinct, straight, oblique. Reniform macula light red-brown. Exterior line red-brown, somewhat undulate, outward as far as vein 4. Hindwing red-brown, with a copper gloss. ♀ 40 mm. Niger District.

*atrirena*. **M. atrirena** Hmps. Thorax and forewing pale red-brown, darker in the marginal area. Interior line fine red-brown, oblique as far as the median vein, then vertical. Reniform macula greyish black, indistinctly bordered. An oblique red-brown shadow from behind the upper cell-angle to the inner margin before the exterior line which is very fine, brown, excurved below the costal margin and behind the lower cell-angle. Submarginal line red-brown, undulate. Abdomen greyish brown, hindwing red-brown, lighter at the costal margin at the base. ♀ 36 mm. Niger District.

*phaea*. **M. phaea** Hmps. (18 g). Thorax and forewing olive brown or light reddish brown. Interior and exterior lines double, blackish, undulate. The interior one almost straight, obliquely outward, the exterior one excurved below the costal margin, then straight to the anal angle. A dark streak at the cross-vein. Submarginal line of black dots. Hindwing dark brown. 30—36 mm. West Africa.

*namjongensis*. **M. namjongensis** Strd. (18 g). Somewhat like a dark red-brown *phaea*. Abdomen blackish, the interior line of the forewing scarcely different. The first bow of the exterior line at the costal margin extends inwardly, in *phaea* outwardly. The end at the inner margin extends more parallel with the submarginal line, not towards it. The submarginal line itself is almost continuous, not formed of spots. Hindwing dark brown. ♀ 35 mm. Cameroons. — With some ♀♀ from Cameroons and Spanish Guinea, in which the forewing is dark violettish brown, it is uncertain whether they belong to *namjongensis*. We figure the type.

*arcuata*. **M. arcuata** Wkr. (= *lubina* Mschlr.) (18 g). This apparently very common and widely distributed species varies much in size and colouring and has therefore received numerous names. Thorax and forewing pale reddish brown. Interior and exterior lines double, dark, rather indistinct. The interior line obliquely



outward, extending for some distance outwardly at the median vein. A fine streak at the cross-vein. Exterior line somewhat concave in the middle of the cell and at vein 2, convex at the cell-angles. Submarginal line composed of black dots mostly only in the anterior part. Hindwing diaphanous whitish, with a faint yellow or reddish tint, always much lighter than in the other species. — **pallescent** *Strd.* is pale brownish *pallescent*, ochreous, not reddish. — **lubinata** *Strd.* is similar. The lines are more distinct, the submarginal line complete, *lubinata*, a brown spot at the margin behind the middle of the cell. — **lubinatula** *Strd.* is light red-brown, with distinct *lubinatula*, lines and a luna at the cross-vein. — **lubinatella** *Strd.* besides shows blackish brown dusting at the inner margin *lubinatella*, of the forewing near the anal angle and behind the cell. — In **lubinatoides** *Strd.* the dark dusting at the inner *lubinatoides*, margin extends from the first interior line to the second exterior line. All these names refer to West and South African specimens. The species occurs, however, also in masses in East Africa. On regarding larger numbers it is distinctly shown that the East Africans are more inclined to yellow colouring, the West Africans more to grey colouring, according to which the names *orientalis* and *occidentalis* Gaede were given. — Specimens exhibiting a dark reniform macula are called **signata** Gaede. — **bifasciata** Gaede (20 b) denotes specimens in *signata*, *bifasciata*, which the double interior and exterior lines are filled with dark. West African specimens also show the middle at the distal margin darkened as far as the exterior line (*bifascialis* Gaede), producing a distant resemblance to *semicircularis* *Strd.* 28—32 mm. Throughout Africa.

**M. bilineata** Gaede resembles *arcuata* by the light hindwing. Forewing violettish brown. The interior *bilineata*, and exterior lines indistinct, double, filled with white, hardly undulate. The interior one slightly oblique, feebly bent. The exterior line somewhat more bent behind the cell, then parallel with the interior line. A dark cellular dot between them. Submarginal line marked by a few dots. ♀ 22 mm. East Africa.

**M. semicircularis** *Strd.* (18 h). Forewing grey with a brownish violet touch, the marking dark brown, *semicircularis*, very indistinct. Interior line double, rather vertical, hardly undulate. A violettish black band bent downward from behind the middle of the costal margin to the distal margin below the apex, with rusty red scales below, more feebly continued to the anal angle. Below the band the double exterior line is only indicated, about vertical to the inner margin. A fine dark streak at the cross-vein. Submarginal line only indicated in front by black dots. Hindwing copper-brown. Distinguished from *bifasciata* by the short submarginal line, dark hindwings and larger size. — **umbrata** *Strd.* lacks the violettish black band on the forewing, the trans- *umbrata*, verse lines are still more indistinct. 28—30 mm. Cameroons.

## 7. Genus: **Microzada** *Hmps.*

Proboscis normal, palpi thin, erected to the frons. Antennae of ♂ strongly pectinated, ciliated at the tips. Abdomen with a basal tuft. Forewing: veins 7 + 10 + 8 + 9 stalked. Hindwing: veins 3 + 4 on a long stalk, 5 arises from the cell-angle, 8 branches off near the base of the cell. Type: *anaemica* *Hmps.* Only two species, both from Africa.

**M. anaemica** *Hmps.* Body pinkish white. Forewing violet pink with a green reflection. Interior line *anaemica*, fine dark, extra-angular at the median vein, then inward. A black dot in the middle of the cell, a black luna at the cross-vein. Exterior line indistinct, edged with white outside, slightly concave behind the cell, then inward parallel with the interior line. Submarginal line whitish with black dots outside. Hindwing white, with a faint violettish red touch except at the inner margin. Exceptionally also somewhat reddish flesh-coloured instead of white, though this may be another species. ♂ 18 mm. West Africa.

**M. subrosea** *E. Prout.* Distal margin of forewing slightly cut out. A pinkish ochreous spot behind *subrosea*, the cross-vein. Hindwing darker reddish than in *anaemica*. Interior line with more notches than in *anaemica*. Only the costal margin is dusted with green and besides the space between the exterior line and the submarginal line. Otherwise exactly like *anaemica*. Described according to a single ♂ from São Thomé.

## 8. Genus: **Acripia** *Wkr.*

Proboscis normal, palpi reaching the frons, a basal tuft on the abdomen. Antennae of ♂ ciliated. Forewing broad, the costal margin very much bent forward at the base, apex pointed, the margin below it cut out. Areole present. Neuration of hindwing normal. Type: *subolivacea* *Wkr.* All the 7 species of the genus are from Africa, and only 1 or 2 specimens of each were known when the diagnose was written.

**A. scapularis** *Fldr.* (19 b). Thorax red-brown, abdomen greyish brown. Forewing greyish brown, dust- *scapularis*, ed with brown. A red-brown spot at the base at the costal margin. Median area red-brown and striated blackish-brown. The interior edge of this area in the cell and above vein 1 bent to the base. The exterior edge oblique, extra-angular behind the cell-angles and above the inner margin. Hindwing reddish brown, white at the costal margin. ♀ 35 mm. Cape Colony.

**A. subolivacea** *Wkr.* (= *marginea* *Fldr.*) (19 a). Body brownish white, forewing the same and stria- *subolivacea*, ted lighter or darker brown. A round black dot with a white centre-dot is at the cross-vein. A line of black double dots indicated from the costal margin behind the middle to the margin at vein 4, then vertically on. Hindwing brownish white with a dark streak at the cross-vein. 30 mm. Cape Colony.



- leprosa*. **A. leprosa** *Fldr.* (19 b). Thorax yellowish red in front, violettish brown behind. Abdomen red-brown. Forewing greyish brown, here and there with a dark violettish brown touch. The base reddish yellow from the costal margin to vein 1. Interior line faded dark, extra-angular at the median vein, inward above it and below it. A small greyish brown spot in the middle of the cell, and a larger one at the cross-vein with a white central dot. Somewhat greenish behind and below the cell-end. Exterior line indistinct, extra-angular behind the cell-angles and above the inner margin, inward towards the costal margin. Submarginal line undulate, ending at the anal angle. Apical area yellowish green, brown below it. Hindwing pale reddish brown. ♀ 32 mm. Cape Colony.
- chloropera*. **A. chloropera** *Hmps.* (18 h). Body and forewing dark chocolate brown, with a violet reflection and dark streaks. A black dot in the middle of the cell, a round spot with a white streak inside is at the cross-vein. The latter spot situate on a light band extending in a bow from the middle of the costal margin to the anal angle, with a branch to the middle of the inner margin. Costal margin near the apex somewhat green. Hindwing paler than forewing. ♀ 30 mm. Cape Colony.
- semiviridis*. **A. semiviridis** *Hmps.* (18 h). Thorax and forewing pale green, somewhat brownish, with fine pale streaks, with hardly any marking. A faint oblique shadow from the costal margin to vein 6, replacing the exterior line, and a submarginal row of black dots, excurved below the costal margin and in the middle. Abdomen and hindwing pale reddish brown. ♂ 26—28 mm. South Africa.
- kilimandjaronis*. **A. kilimandjaronis** *Strd.* (18 d). Thorax and forewing unicoloured dark red-brown with a few light scales. Traces of a light exterior line at the costal margin. A black line at the anal angle, extending for some distance in front. Bluish-white scales a little above it at the distal margin, and a white dot obliquely below the apex. Abdomen and hindwing somewhat lighter than the forewing. ♀ 31 mm. Kilimandjaro. — We figure the type from the Berlin Museum.
- banakana*. **A. banakana** *Bryk* (18 h). Thorax dark red-brown, abdomen dark brown. Forewing dark red-brown with a leaden grey gloss. White dots at the margin, fringe white at the apex and above the anal angle. Distal margin cerise. Interior line marked by a yellow spot at the costal margin. Exterior line from the costal margin to vein 6 obliquely outward, formed of yellow spots, then faint greyish white dots which become more distinct towards the inner margin, extending parallel with the distal margin. A little below the centre, the cerise margin is interrupted by the ground-colour. Hindwing copper-brown. ♂ 25 mm. Cameroons. This is the only *Acripia* from West Africa.

### 9. Genus: **Goniocalpe** *Hmps.*

Proboscis normal, palpi highly erect, antennae of ♀ almost plain. Thorax with a sharp crest, abdomen with basal tufts and a parted anal tuft. Forewing with a pointed apex and an angle at vein 4. Veins 10 + 8 + 9 stalked, without an areole. Hindwing normal. Remarkable is the silvery silky lustre of this genus and the following genus. Type: *sericealis* *Hmps.* The latter and two other African species form the genus. Only 1 or 2 specimens of each species exist in the British Museum.

- sericealis*. **G. sericealis** *Hmps.* Thorax grey, abdomen whitish. Forewing silvery with a golden gloss, strewn with black scales. Interior line double, distinctly filled with white, obliquely outward, somewhat undulate. The small elliptical reniform macula is finely edged with white. Exterior line also filled with white. Excurved from the costal margin to vein 4, slightly incurved in the submedian fold. A submarginal row of black dots. Hindwing pale yellow. ♀ 24 mm. (Natal.)
- leucotrigona*. **G. leucotrigona** *Hmps.* Body reddish brown. Forewing white with few blackish-brown scales. The median and marginal areas form a silvery greyish brown triangle from the apex to vein 3, with a conspicuous silvery white spot at the costal margin from the exterior line to the apex. Interior line fine brownish, oblique as far as the submedian fold. Traces of a dark spot at the cross-vein. Exterior line white, bordering on the dark median area, very oblique and pointedly projecting as far as vein 6, bent inward below vein 3. Fine brown submarginal spots between veins 7 and 4. Hindwing reddish brown. ♀ 28 mm. Cameroons.
- heteromorpha*. **G. heteromorpha** *Hmps.* Body and forewing golden brown. Interior line blackish brown, edged white inside, oblique, undulate. Reniform macula edged black, small, elliptical. Exterior line blackish, edged white outside, oblique as far as below vein 6, then inward. Submarginal spots black. Hindwing yellowish white, browner at the margin. The body and forewing of the ♀ silvery grey with a few black scales. Reniform macula red-brown inside, exterior line less distinct, incurved in the submedian fold. Antennae of ♂ ciliated, anal tuft not forked; in the ♀ it is forked, the distal margin of the forewing undulate below vein 4. 24 mm. Natal.

### 10. Genus: **Plusiocalpe** *Holl.*

Proboscis normal, palpi reaching frons. Antennae of ♂ tufted. Middle tibiae with long hairs. Abdomen with small tufts at the base. Forewing with a round costal margin, inner margin curved, with a dent of scales at the anal angle. Forewing with a normal areole. Neuration of hindwing also normal. Type: *pallida* *Holl.*, besides one more species. This genus and the following one resemble short-winged *Plusia*.



1. Hindwing of ♂ above with long hair at the inner margin.

**Pl. sericina** Mab. (18 i). Thorax violettish brown, abdomen dark brown. Forewing silky whitish *sericina*, ochreous, dusted brown and black, with hardly any markings. Interior and exterior lines marked by white streaks at the inner margin, some white scales yet before the interior streak. The dent of scales at the anal angle is dark brown. Hindwing brownish white. 30 mm. Madagascar.

2. Hindwing of ♂ without hair at the inner margin.

**Pl. pallida** Holl. (18 i). Thorax brownish white, abdomen darker. Forewing silky white, dusted with *pallida*, brown. Interior line indistinct, brown, sharply intro-angular in the cell, extra-angular below it. Exterior line also brown, far excurved between veins 6 and 7, nearing the interior line in the submedian fold. Somewhat darker between the two lines. Submarginal line brownish, very undulate. Hindwing brown, lighter at the base. 30 mm. West Africa, Uganda. Several specimens known.

## 11. Genus: **Hypodeva** Holl.

Similar to the preceding genus in its contours. Antennae of ♂ only ciliated. Thorax with a tuft in front and behind. Neuration as in *Plusiocalpe*.

**H. barbata** Holl. (18 i). Thorax dark brown, abdomen grey. Forewing yellowish, with an olive green tinge, *barbata*, a broad violet band from the middle of the cell to the inner margin, extending below the cell towards the base. Interior line white, interrupted, a streak from the costal margin obliquely outward, then from the cell undulate to  $\frac{1}{4}$  inner margin. Reniform macula strigiform, grey, edged with white, a white spot above it at the costal margin. Exterior line chocolate brown, sharply extra-angular below the costal margin, then oblique, undulate, far inwards. Narrowly violet behind it, chocolate brown only at the costal margin. Then follow olive yellow spots. Traces of a white submarginal line. Hindwing dark brown. 32 mm. Niger District, Gabun. The species is easily discernible by the fringe at the tornus of the forewing being prolonged into a little beard.

The two following species look quite different in the shape of the wings and the marking.

**H. nocturna** Hmps. (18 h). Body pale greyish brown, wings more reddish. Forewing scantily marked, *nocturna*. A bent black streak from the costal margin before the middle. A fine streak at the cross-vein. A black streak bent downward from behind the middle of the costal margin to the apex, grey between it and the costal margin. Submarginal line hardly traceable. Hindwing pale red-brown. ♂ 36 mm. Niger District.

**H. superba** Drc. (18 i). Very insignificant, unicoloured. Body and forewing dark chocolate brown with *superba*, a slight bronze gloss, without any marking. Hindwing blackish brown, with a slight violet gloss at the margin. ♂ 36 mm. Congo District.

## 12. Genus: **Westermannia** Hbn.

Proboscis normal, palpi thin, erect, projecting beyond the frons. Antennae of ♂ ciliated. Thorax with a small tuft in front and behind, abdomen with basal tufts. Forewing somewhat convex at the inner margin; without a dent of scales. Neuration of forewing normal, with an areole, also the hindwing as in the preceding genera. Type: *superba* Hbn. from India. Half of the 20 species known occur in Africa, the others in the Indo-Australian Region. Among the latter there are very pretty species with an elegant bronze or silver lustre.

**W. argyroplaga** Hmps. (18 i) differs rather much from the other African species. Thorax light red- *argyroplaga*, brown, abdomen greyish brown. Forewing silvery white. Marginal area on  $\frac{1}{4}$  the length of the wing pale red-brown, continued at the inner margin as far as the base of vein 2, and more narrowly as far as  $\frac{1}{3}$  inner margin. The red-brown reniform macula broadly emanates into the costal margin. Traces of a dark notched submarginal line. Hindwing white. 28 mm. Uganda.

**W. cuprea** Hmps. (18 i). Body pale brown. Forewing copper brown. Broadly yellowish brown above *cuprea*, the inner margin as far as the anal angle which is somewhat grey. The costal margin, the cell before the interior line, moreover behind the cell as far as the exterior line and vein 2 downward feebly tinged with bluish grey. The veins in the distal area white. Ring-macula and reniform macula edged with white. Exterior line white, sharply extra-angular at vein 7, somewhat less at vein 3, then inwards, in a semicircle, touching the light inner margin, bent up again to the median vein. White streaks behind it near the apex. Hindwing pale brown. 30 mm. Gold Coast.

**W. agrapha** Hmps. (19 a). Body and forewing pale red-brown. A white streak from the base at vein 1 *agrapha*, as far as the end, with a branch at the median vein as far as the interior line, grey between them. Interior line from before the middle of the costal margin to the middle of the inner margin, very much bent inward. A somewhat triangular copper-brown spot at the cross-vein, encircled by white. Exterior line fine white, far excurved between the costal margin and vein 4, then vertical to the inner margin. Marginal area with a golden reflection. A white dot below the apex. ♀ 25 mm. Sierra Leone. — *Maurilia conjuncta* Gaede, described according to a damaged specimen, may be the same as *West. agrapha*.



*anchorita*. **W. anchorita** Holl. (= *leucogonia* Hmps.) (19 a). Body and forewing pale red-brown, the white marking not so much twisted as in the two preceding species. The space as far as the interior line greyish white as far as the submedian fold. The interior line extra-angular at the median vein almost to the lower cell-angle, united at vein 1 with the exterior line. A red-brown pear-shaped spot at the cross-vein, edged with white. Veins 3—5 fine white. Exterior line fine, outwards as far as vein 7, then parallel with the margin as far as vein 3, then strongly bent inward to the interior line. At the costal margin behind it there is a triangular white spot and a less intense spot at vein 2. Hindwing pale brown. 30 mm. Niger District, Gabun. Described according to 1 ♀ from Old Calabar.

*goodi*. **W. goodi** Holl. (19 a). Body dark greyish brown. Forewing dark chocolate brown, red-brown at the inner margin and in the marginal area, somewhat bluish white directly at the base. Interior line fine, bluish white, obliquely outward from  $\frac{1}{3}$  costal margin to below the cell, then sharply bent round and united with the exterior line in the submedian fold. A large round spot at the cross-vein, finely edged with white. Exterior line from a triangular white spot at the costal margin, slightly excurved and then united with the interior line. Submarginal line fine dark, inside with white dots, parallel with the margin. Hindwing dark red-brown. 35 mm. Niger District, Gabun. Cameroon.

The 3 next species paler.

*araeogramma*. **W. araeogramma** Hmps. (19 a). Body and forewing pale red-brown. A white line from the costal margin before the middle to the inner margin behind the middle. Reniform macula rather large, edged pale. Exterior line indistinct, double, excurved from the costal margin to vein 3, then vertical to the inner margin. Hindwing yellowish white. ♀ 25 mm. Central Africa.

*convergens*. **W. convergens** Hmps. (19 b). Thorax and forewing pale red-brown, abdomen lighter. Interior line white, from the costal margin near the base to the centre of the inner margin. Exterior line white, from a through-shaped yellowish spot at the costal margin, almost parallel with the distal margin. Hindwing yellowish white. The ♀ shows a much paler area before the interior line on the forewing, and the hindwing is brownish. 30 mm. Cape Colony.

*oediplaga*. **W. oediplaga** Hmps. (19 b). Body and forewing greyish ochreous, the marginal area reddish brown except at the anal angle, costal margin pale. A large chocolate brown spot from the costal margin behind the middle as far as the submedian fold, where it terminates in a dot. Its interior edge is bent inward, strongly excurved outside and bordered there by the fine dark exterior line, edged with white outside. Above the submedian fold it is introangular and then excurved almost to the anal angle. Submarginal line of dark dots traceable. Hindwing pale reddish brown. ♀ 35 mm. Rhodesia.

*monticola*. **W. monticola** Strd. (19 b) resembles *goodi*. Thorax and forewing dark red-brown with a violet lustre. Interior line fine white, obliquely outward as far as the median vein, where it forms an angle, then terminating in a bow in the submedian fold below the reniform macula. The latter is dark, somewhat triangular, basad to it a round spot, flown out towards the costal margin. Exterior line excurved around the cell, white, broadly edged with light, without a spot at the costal margin, united with the interior line in the submedian fold. Submarginal line marked by the notched margin of the darker marginal area. Abdomen and hindwing copper-brown. ♀ 30 mm. Cameroon. The specimen figured is the type.

*melanconica*. **W. melanconica** Bryk corresponds to *monticola* in its colouring. Thorax and forewing violettish brown. Interior line not recognizable, but the basal area is somewhat lighter than the median area, though without a distinct border. Reniform macula obliquely outward, rusty brown. Exterior line defined by the lighter area behind it. Projecting somewhat at the cell-angles, concave between them, from vein 2 vertical to the inner margin. Exterior half of the marginal area not violet but purely red-brown. Abdomen and hindwing copper-brown. ♀ 35 mm. Cameroon.

*pyridimacula*. **W. pyridimacula** Gaede (19 c) is somewhat similar to *araeogramma*. Body brownish white. Forewing light brown, with a violet lustre in the basal and marginal areas, not violet at the inner margin below vein 1 at the base. Interior line white, from  $\frac{1}{3}$  costal margin undulate to behind the middle of the inner margin, very light before it in the lower part. The ring-macula is a black dot, the reniform macula pear-shaped. Exterior line white, stronger at the costal margin, shaped as in *araeogramma*. Submarginal line marked by a few dark dots. Bronze brown behind it at the margin. Hindwing white. ♂ 22 mm. East Africa. — We figure the type.

### 13. Genus: **Trogobriga** Hmps.

A small dark brown insect with black markings forms this genus. In its contours it resembles the genus *Acripia*, but the forewing exhibits a small dent of scales at the anal angle. Veins 7 + 10 + 8 + 9 stalked. Thorax without tufts, the abdomen with 3 small ones at the base. Only one species.

*albifera*. **T. albifera** Hmps. Body and wings dark brown. Interior line black, sharply outward from  $\frac{1}{4}$  costal margin to the median vein, then obliquely inward almost to the base. A small white, black-edged spot at the costal margin near the apex. Traces of a dark submarginal line, edged white outside from vein 3. Hindwing without markings. ♀ 24 mm. Uganda. Founded upon 1 ♀ from Entebbe.



14. Genus: **Neonegeta** Hmps.

Proboscis normal, palpi long, obliquely porrect. Abdomen with 2 tufts at the base. Forewing slightly excurved at the inner margin before the middle and with a small dent of scales there. Veins  $10 + 8 + 9$  stalked. Neuration of hindwing normal. Type: *trigonica* Hmps. All the 6 species known from Africa, rather variegated in their marking, except the last species. Only 1 or 2 specimens are known of each species, except *purpurea*.

**N. xanthobasis** Hmps. (19 c). Thorax pale yellow, abdomen brownish. Forewing pale yellow in the *xanthobasis*. basal half; bordered by a faint silvery white line from the costal margin before the middle excurved to the middle of the inner margin, the costal margin in this part slightly brownish. The marginal half dark chocolate brown. Hindwing reddish-brown, paler at the base. Hindwing of ♀ more red-brown. 20—24 mm. Niger District, Cameroon.

**N. atriflava** Hmps. (19 c). Thorax yellowish white, abdomen brownish. Forewing yellowish white, *atriflava*. A greenish black spot at the costal margin at the base, blackish brown below it at the inner margin. Median band broadly greenish black, its interior edge in the middle with a point basad, the exterior edge slightly excurved. Marginal area blackish brown with a violet lustre, narrower at the anal angle. Hindwing blackish brown with a faded light median band. ♂ 24 mm. Gold Coast.

**N. zelia** Drc. (19 c). Body brownish white. Forewing white. A pointedly triangular brown band from *zelia*. the costal margin to the centre of the inner margin, with a copper lustre. Its interior edge prolonged to the base at the costal margin, the exterior edge oblique, slightly concave in the middle. A similarly coloured band in the marginal area, in the middle with a feeble point towards the base. Hindwing brownish white, darker at the margin. Hindwing of ♀ entirely darker. 20 mm. Gambia.

**N. purpurea** Hmps. (19 c). Similar to *zelia*. Thorax white, only the tegulae brown, abdomen brownish, *purpurea*. forewing yellowish white. Median band blackish brown, broader at the inner margin than in *zelia*. The marginal band not with a point, but uniformly slightly excurved below the middle. Hindwing dark copper-brown, lighter in the basal area. 24 mm. Gold Coast, Niger District, Cameroon.

**N. trigonica** Hmps. (19 c). Body light violettish brown. Forewing the same at the base. Interior line *trigonica*. white, beginning at the costal margin near the base, very oblique almost to the middle of the inner margin. Median line almost vertical, white. The area before it as far as the interior line darker violettish brown. Behind it as light as at the base, gradually darkening towards the submarginal line. The latter far inside, notched, slightly incurved behind the cell, extra-angular at vein 4. At the margin as dark as in the median area. Abdomen and hindwing pale copper-brown. Forewing of ♀ with a darker base and distal area. 25 mm. West Africa.

**N. pollusca** Schs. (19 c) is rather different. Body light brown. Forewing light brown with a violet *pollusca*. reflection. Interior line fine dark, straight, slightly outward. Exterior line just as fine, slightly extra-angular below the costal margin, then straight, inwards. A fine black dot at the upper cell-angle, a white one at the lower angle. Submarginal line marked by black dots. The margin behind it somewhat darker. Abdomen and hindwing copper-brown. 24 mm. Sierra Leone, Gold Coast.

15. Genus: **Metaleptina** Holl.

Proboscis normal, palpi highly erected. Antennae of ♂ ciliated. Tibiae of the ♂ in the first group with thick hair, the hind tibiae widened. Abdomen with basal tufts. Forewing with a triangular areole, otherwise normal. Vein 3 of hindwing arises before the cell-angle, 4 and 5 from the angle. Type: *nigribasis* Holl. All the 9 species hitherto known are Africans.

1. Patagia with hair-scales at the end. Hind tibiae of ♂ widened, with a long hair-pencil inside. In this group the forewing lacks the interior line.

**M. microcyma** (19 d) Hmps. Thorax and forewing brownish white, dusted dark. A black dot in the *microcyma*. middle of the cell and 2 at the cross-vein. Exterior line finely dentate, dark brown, somewhat white-edged outside, from near the apex to the middle of the inner margin. Hindwing brownish white. The ♀ shows a darker red-brown ground-colour on the forewing and a luniform spot at the cross-vein. 28—32 mm. Niger District.

**M. serrulilinea** Bryk (19 d). Thorax dark red-brown. Forewing slightly lighter. Inner margin white *serrulilinea*. at the base, bordered by a black bent line. A black dot in the cell, a large spot at the cross-vein above, a small one below. Exterior line of white dots bent inward near the apex, a white streak downward from veins 2 and 1, somewhat scalariform. These white dots are bordered inside by a fine black line. White scales at the anal angle. Abdomen and hindwing greyish brown. ♂ 26 mm. Cameroon. We figure the type.

**M. albibasis** Holl. (= *selenitis* Hmps.) (19 d). Thorax and forewing reddish brown. Interior line not *albibasis*. discernible. A black dot in the cell, a luna at the cross-vein. Exterior line dark, from near the apex, obliquely inwards, somewhat angular at vein 4 and concave in the submedian fold. A narrow white spot at the inner margin at the base, but it may also be absent. Hindwing and abdomen pale brown. 22—26 mm. West Africa.



- obliterata*. **M. obliterata** Holl. (19 d). Thorax intensely greyish white, abdomen greyish brown. Forewing pale red-brown. A white spot at the base at the inner margin, similar to *serrulilinea*. A black or white dot in the cell. Two white dots at the cross-vein, edged with brown and connected by a brown streak. Exterior line dark, almost straight, edged light outside. Hindwing greyish brown. 25—28 mm. West Africa.
- nigribasis*. **M. nigribasis** Holl. (19 d). Thorax dark brown and grey, abdomen reddish brown. Forewing pale red-brown. A blackish brown spot is at the base at the inner margin, instead of the light spot in some other species. A black dot at the upper cell-angle. A dark exterior line from near the apex to the middle of the inner margin, exactly like that of *obliterata*. Hindwing dark brown. 30 mm. West Africa.
- albilinea*. **M. albilinea** Hmps. (19 d). Body and forewing pale brown, narrowly white at the costal margin. The dark dot in the cell and the two dots at the cross-vein as in the other species. Exterior line brown, edged white outside, oblique and straight from the apex to the inner margin behind the middle. No spot at the base at the inner margin. Hindwing greyish brown. ♀ 34 mm. Niger District.
2. Patagia and tibiae normal. According to E. Prout, this group would be better placed to the following genus *Negeta* where *approximans* Hmps. is somewhat similar. — The two first species are rather alike each other, the third being very similar to *approximans*.
- dileuca*. **M. dileuca** Hmps. (19 e). Body and forewing dark violettish brown, tinged with silvery blue as far as the exterior line. Interior line pale grey, edged with black outside, oblique, excurved in the middle. A small white dot at the upper cell-angle, a larger one at the lower angle. Exterior line grey, black inside, excurved between the costal margin and vein 4, then obliquely continued to the inner margin. Hindwing dark brown. 26 mm. Niger District, Cameroon.
- geminastrea*. **M. geminastrea** Hmps. (19 e). Thorax pale red-brown, abdomen dark brown. Forewing red-brown with a coppery lustre. Interior line brown, edged white inside, undulate. Two white dots at the cross-vein, the lower one larger, both situate on a faded paler red-brown spot. Exterior line brown, edged white outside, similarly shaped as in *dileuca*. Hindwing lighter reddish brown. 24 mm. Niger District, Cameroon. — Numerous specimens of *dileuca* and *geminastrea*, also ♂♂, are before me from Cameroon. According to them *geminastrea* differs merely in much smaller white dots, the light spot occurs in but one specimen. The lines extend in the same way.
- digramma*. **M. digramma** Hmps. Thorax pale red-brown, abdomen greyish brown. Forewing pale red-brown. The two transverse lines similarly shaped as in *N. approximans* (19 e). Interior line straight, dark brown, obliquely outward. Two black spots with a few white scales at the cross-vein. Exterior line slightly incurved towards the costal margin, otherwise straight, about parallel with the distal margin. Hindwing brown with a silky gloss. ♂ 28 mm. Niger District.

## 16. Genus: **Negeta** Wkr.

As we mentioned above, it differs little from *Metaleptina*, excepting perhaps the shape of the areole. In *Metaleptina*, vein 7 arises laterally from the areole, and 8 + 9 and 10 from its apex, whereas in *Negeta* the areole is quite normal, 7 and 8 + 9 arising from its apex, vein 10 from the side. Type: *contrariata* Wkr. from the Indo-Australian Region where altogether about 4 species occur, while the numerous other species are exclusively Africans. The scheme of markings varies rather much in the different species.

- molybdota*. **N. molybdota** Hmps. (19 e). Thorax orange, abdomen brown. Forewing violet with a slight silvery lustre, the costal margin finely yellow. Marking very insignificant. A narrow yellow band at the inner margin from the base to the middle, besides 2 small yellow spots edged with brown at the cross-vein. Hindwing greyish brown, lustrous. 24 mm. Gold Coast. — **orichalcea-arcuata** Gaede (19 e) differs little. The basal spot on the forewing is in front nearer to the median vein and then more precipitous. It is bordered by brass-coloured scales. No dots discernible at the cross-vein. ♀ 23 mm. Cameroon.
- orichalcea-arcuata*. **N. incisurata** Gaede (19 e). Thorax whitish grey, abdomen brownish white. The greyish white basal spot similar to *molybdota*, but slightly indented at vein 1. Forewing very lustrous greyish brown. Cross-vein faded dark. The dark exterior line excurved between the costal margin and the submedian fold, then vertical to the inner margin. Hindwing almost white, somewhat brownish at the margin. ♀ 20 mm. East Africa.
- incisurata*. **N. approximans** Hmps. (19 e). Body and forewing yellowish brown, somewhat violet, median area darker red-brown. Interior line white, distinct, straight, obliquely outward. Sometimes fine black dots at the cell-angle. Exterior line also white, almost vertical to the inner margin, slightly excurved in the middle, very near to the interior line at the inner margin. A submarginal line may be indicated by blackish shadows. Hindwing copper-brown. 25—30 mm. Niger District, Cameroon.
- approximans*. **N. cyrtogramma** E. Prout. Thorax cinnamon-brown, abdomen greyish brown. Forewing of ♂ typically dull pinkish brown in the basal and marginal areas, the latter area brown at the margin. Other ♂♂ are violetish red. The median area dark cinnamon-brown. The forewing of the ♀ is uniformly brown, somewhat darker only at the margin. The transverse lines typically white, finely edged with black, in other specimens black. Interior line slightly concave in the middle, otherwise similar to *approximans*. The exterior line, however, is strongly incurved towards the costal margin, in its lower part parallel with the distal margin, bent somewhat



like that of *geminata*. Submarginal line of indistinct dark spots, parallel with the margin, somewhat more distinct in the ♀. A black dot at the cross-vein in front, a white one behind. Hindwing dark brown. 28 to 34 mm. Sao Thomé.

**N. stalactitis** *Hmps.* (19 e). Body greyish brown. Forewing pale reddish brown with a violet reflection. *stalactitis*. basal area greyer. Interior line brown, undulate, oblique. A triangular chocolate brown spot from the middle of the costal margin to vein 1, its edges white, undulate, ending pointedly. Three white dots at the cross-vein. Exterior line undulate, projecting at the cell-angles, incurved at vein 2. A chocolate brown spot behind it at the costal margin. Submarginal line of fine black and white dots. Hindwing pale red-brown. ♀ 28 mm. Niger District.

**N. cinerascens** *Holl.* (19 f). Body greyish brown. Forewing light chocolate brown, dusted with grey. *cinerascens*. Interior line darker red-brown, distally removed at the median vein. Two indistinct white dots at the cross-vein. Exterior line red-brown, excurved at veins 6 and 4, then straight inward. Submarginal line spotted, notched, greenish white scales before and behind it beginning from vein 4. Hindwing lighter red-brown. — In **geta** *Strd.* (= ab. 1 *Hmps.*) the dark submarginal spots are more distinct. The green dusting outside more *geta*. extensive. — **deviridata** *Strd.* (= ab. 2 *Hmps.*) shows hardly any green dusting outside. 30—32 mm. Niger *deviridata*. District, Cameroon.

**N. ulula** *Bryk* (19 f). Body and wings pale red-brown. Interior line bluish white, extending from the *ulula*. costal margin to the submedian fold, incurved between them. A dark brown indistinct spot behind it, connected with an oblique stripe from the middle of the costal margin obliquely outward as far as vein 2. Reniform macula large, dark, edged bluish white, veins 3 and 4 also bluish white. Exterior line white, uniformly bent from the costal margin to vein 2, then very indistinct. Submarginal line parallel with it, whitish, edged somewhat darker in front outside. ♂ 34 mm. Cameroon.

**N. nubilicosta** *Holl.* (19 f). Body greyish brown. Forewing light greyish brown with a violet reflection. *nubilicosta*. A faded blackish band from  $\frac{1}{4}$  costal margin, below the latter along to the apex. Exterior line brown, very indistinct, obliquely outward as far as vein 6, then inwards, dentate. Traces of a median line before it above the inner margin. A somewhat more distinct dark submarginal line, excurved at vein 7 and below the middle. Hindwing somewhat darker than the forewing. 26—32 mm. West Africa.

**N. phaeopepla** *Hmps.* (19 f). Body and forewing pale reddish brown, the costal margin paler except *phaeopepla*. in the median area. Interior line indistinct, dark, slightly bent inward. A very indistinct dark streak at the cross-vein. Exterior line indistinct, dark, faded, oblique as far as vein 6, then obliquely inwards, a dark spot behind it at vein 4. Hindwing pale reddish-brown. The original figure differs much from this description. ♀ 26 mm. Niger District. The type is from Sapele.

**N. ochreoplaga** *B.-Bak.* (19 f). Body and wings dark red-brown. Interior line black, bent inwards *ochreoplaga*. from  $\frac{2}{5}$  costal margin, with silvery grey scales outside. Exterior line edged with silvery grey, pointedly excurved behind the cell, then a long inward bend as far as vein 1. Ochreous olive green between the two lines, the rest green. A black dot at the cross-vein. Submarginal line pale brown, very dentate, a few black spots before and behind it. ♂ 22 mm. Congo District.

**N. secretaria** *Bryk* (19 f) resembles *ochreoplaga* and *purpurascens*. Ground-colour of the body and *secretaria*. the basal area of the forewing pale red-brown. Interior line from a dark costal-marginal spot to the anterior cell-edge outward, then slightly bent inward, white below the spot. Exterior line black, outward as far as vein 7, then straight, at vein 5 to the lower cell-angle where there is a black dot, then partly white, partly black, parallel with the interior line. The area between the lines olive green. A black dot at the upper cell-angle, 3 white rays proceeding from it: one horizontally basad as far as the interior line, one to the lower cell-angle, one obliquely upwards. A submarginal line is indicated by darker red-brown spots. Hindwing copper-brown. In a second specimen the white areas are much less prominent. 23—25 mm. Cameroon.

**N. purpurascens** *Hmps.* (19 g). Body greyish brown. Forewing brown in the basal half. Costal-marginal *purpurascens*. area tinged with red-brown. A black oblique streak from the middle of the costal margin. Two black dots at the cross-vein. An olive brown spot at the costal margin above the cell-end, an olive brown band in the exterior part of the centre of the cell as far as the inner margin and a little behind the cell. Exterior line fine black, somewhat white outside, as in *secretaria*. Marginal area red-brown. Submarginal line black, scaled white inside, with chocolate brown spots behind it. Hindwing greyish brown, diaphanous. ♂ 20 mm. Gold Coast.

**N. albiplagiata** *Hmps.* Thorax red-brown, abdomen greyish brown. Forewing red-brown, dusted with *albiplagiata*. ochreous brown. Interior line almost in the middle, very much excurved, brown, double below the cell, filled and edged with ochreous brown. A black dot at the lower cell-angle in a triangular silvery white spot, terminating towards the costal margin. Exterior line fine, brown, double, filled and edged with ochreous brown, strongly outward as far as vein 6, then inward, undulate, nearing the interior line below the cell. An oblique black diffuse spot behind it below the costal margin. Submarginal line blackish, undulate, edged with whitish ochre inside, interrupted at vein 3. Hindwing copper brown. ♂ 20 mm. Cameroon.



- mesoleuca*. **N. mesoleuca** Holl. (19 g). Body pale red-brown. Forewing white, dusted brown at the costal margin as far as beyond the middle. Traces of an undulate interior line. Marginal area violettish red-brown, its interior edge extends from the costal margin behind the middle undulately to the middle of the inner margin. In the middle of the distal margin a feeble black spot with white scales above and below it. Two black and silvery spots at the cross-vein. A white streak extends from them to the costal margin. A fine black line edged with silvery outside, from the costal margin behind the middle to vein 3, where a branch extends to the dots of the cross-vein, then obliquely to the inner margin. A faint black patch below the apex. Hindwing brownish white. ♀ thorax and forewings of a purer white. Hindwings brown. 16—22 mm. West Africa.
- semialba*. **N. semialba** Hmps. Body and basal half of forewing purely white, with an oblique margin. Marginal area brownish white, white only behind the exterior line from the costal margin to vein 4, strewn with some silver scales. Exterior line white, slightly excurved as far as vein 4, then inward, then again outward below the submedian fold to the anal angle, edged with brown outside in the lower part. A red-brown spot near the apex, and a dark luniform spot below it. Hindwing brownish white, lighter at the base. ♀ 16 mm. Gold Coast.
- luminosa*. **N. luminosa** Wkr. (= *parectata* Willgr., *lacteola* Mab.) (19 g). Thorax and forewing purely white. Costal margin and marginal area pale violettish grey. Olive brown spots at the cross-vein with silvery scales, and a band from the lower cell-angle to the inner margin. Exterior line silvery white from near the apex, somewhat undulate, inside with olive and black spots as far as vein 3, then incurved to the median band. Submarginal line fine white, undulate, grey spots behind it at the white margin. Hindwing white, somewhat brownish at the margin. The ♀ has a more extensively brown margin. 18—22 mm. West to East Africa. South Africa. *Cilix tenax* Saalm. from Madagascar, which we figure, is presumably the same species.
- albigrisea*. **N. albigrisea** Hmps. (19 g). Thorax white, abdomen somewhat more brownish. Forewing white in the basal area, slightly tinged with violettish grey. Costal margin red-brown, marginal area violettish grey. Median line rather faded, olive yellow, obliquely inwards. Behind it a large square silvery white spot from below the costal margin to vein 3, outside with black streaks before the exterior line. The latter indistinct, excurved below the costal margin and below the middle, then incurved almost to the median line. Traces of a red-brown submarginal line. Hindwing white, brownish at the margin. 24 mm. Rhodesia.
- ruficeps*. **N. ruficeps** Hmps. (19 g). Thorax white, abdomen brownish. Forewing creamy white, narrowly brownish olive at the costal margin. Two small black dots at the cross-vein. An olive brown band before them from the centre of the cell to the inner margin. Exterior line of dentate black spots, excurved below the costal margin, oblique to vein 4, then incurved. Marginal area red-brown, traces of a brown submarginal line. Hindwing white, diaphanous. ♂ 24 mm. Natal.
- lacteata*. **N. lacteata** Hmps. (19 g). Body and forewing creamy white with black scales, especially in the marginal area. A black dot at the cross-vein. Exterior line brown, arising near the apex, where it is somewhat extra-angular, then oblique to before the middle of the inner margin. A parallel brown submarginal line behind it from the middle of the wing. Hindwing whitish ochreous. ♂ 24 mm. Rhodesia.
- nivea*. **N. nivea** Hmps. (19 g). Thorax white, abdomen somewhat brownish. Forewing silvery white, somewhat brownish ochreous at the costal margin. Instead of the interior line a few black dots between the cell and the inner margin. A very indistinct yellowish median line, excurved below the costal margin, then obliquely inward. A brown dot at the lower cell-angle. Exterior line indistinct, brown, oblique. Submarginal line yellowish, indistinct. Hindwing white, brownish at the margin. The original figure does not show anything of the marking described. ♂ 26—30 mm. Central Africa, Mashonaland.

### 17. Genus: **Odontestis** Hmps.

Proboscis normal, palpi projecting beyond the frons. Antennae of ♂ ciliated. Frons with a small hair-pencil. Forewing with a curved inner margin similar as in *Plusiocalpe* (*pallida*, 18 i), but beside the scale of dents at the anal angle there is another one at the middle of the inner margin. Neuration normal. Veins 3 and 4 of the hindwing arise from the cell-angle, 5 a little above it. Type: *prosticta* Holl. 5 species are known, all from Africa.

1. Hind tibiae of the ♂ very broad and long-haired. Hindwing beneath with a pad of scales in the lower cell-end.

*cyphonota*. **O. cyphonota** Hmps. (19 h). Body greyish ochreous. Forewing greyish brown. A violettish brown spot at the costal margin above the cross-vein, somewhat compressed below in the middle, edged with black. A black dot at the lower cell-angle. Exterior line only distinct by the dark colouring on its inside. Excurved behind the costal-marginal spot, then straight, rather obliquely inward. A faded light submarginal line, excurved in the middle. Hindwing reddish brown, lighter at the base. ♂ 26 mm. Gold Coast, Togo. We figure a specimen from Uelleburg.

*prosticta*. **O. prosticta** Holl. (19 h). Body grey, forewing greyish brown, costal margin blackish at the base. This species also shows a spot at the costal margin, greyish black, shaped as in *cyphonota*, with its end above the dot at the cross-vein. Exterior line brown, faded in front, shaped as in *cyphonota*. Hindwing greyish brown, somewhat darker in the ♀. 24—28 mm. Gold Coast, Niger District, Sierra Leone. The specimen figured is from the Ogowe R.



2. Hind tibiae of the ♂ not widened, hindwing without the pad of scales. The tibiae of the first species with hairs inside.

**O. striata** Hmps. (19 h) looks somewhat different from the two preceding species. Body and wings *striata*, grey and red-brown. Forewing strewn with black scales, with hardly any marking. A blackish brown shadow behind the lower cell-angle to the margin at vein 2. 34 mm. Central and East Africa, Rhodesia. Besides a very dark specimen from Cameroon. The figured one from Tendaguru.

**O. fuscicon**a Hmps. (19 h). Body pale red-brown, forewing greyer. A semicircular or conical blackish *fuscicon*a brown spot at the middle of the costal margin. A fine black dot at the lower cell-angle. A faded blackish brown submarginal shadow, extra-angular at vein 7 and below the middle. Exterior line absent. Hindwing reddish ochreous, with a silky lustre. Thorax and forewings of ♀ greyer, without any red-brown tint. 24 mm. Rhodesia, Mozambique.

**O. mesonephele** B.-Bak. (19 h). Described as *Arcyophora*, remarkable for its distorted forewings by *mesonephele*, which it resembles the Indian genus *Tortriciforma* Hmps. Body brown, only the thorax with a white centre. Forewing pale brown at the base and behind the middle, the median and marginal areas darker. Interior line fine brown, obliquely inward. A large bluish white spot in the median area around the cross-vein. An oblique undulate brown line from the lower cell-angle to the inner margin. Exterior line brown, with points far outward at veins 5 and 2. Submarginal line fine, undulate, brown, from vein 6 to the inner margin. Hindwing dark brown. ♀ 24 mm. Congo District.

### 18. Genus: **Gonioxestis** Hmps.

Proboscis normal, palpi reaching the frons. Antennae ciliated. Forewing with a broad dent of scales at the middle of the inner margin and a small one at the anal angle, besides an angle at vein 4 at the distal margin. Neuration of forewing normal, with an areole. Vein 8 of hindwing fused with the cell as far as the centre of the cell. Only 1 species the shape, size and colour of which is somewhat like that of the palaearctic *Lophopteryx camelina*.

**G. zanderi** Fldr. (19 h). Thorax grey, abdomen white. Forewing brownish grey, densely striated brown. *zanderi*. Interior line pale violettish pink, edged with brown outside, very obliquely inward from the middle of the costal margin. Exterior line edged with brown inside, slightly extra-angular from the costal margin to vein 7, then still more obliquely inward than the interior line. A faded black oblique streak from the apex. Hindwing white, diaphanous, somewhat brownish at the margin. ♀ 46 mm. Abyssinia, West, South-West, and East Africa.

### 19. Genus: **Neaxestis** Hmps.

Somewhat similar to *Plusiocalpe* (18 i). Proboscis normal, palpi erect. Antennae of ♂ with long cilia. Abdomen only with a single tuft at the base. Neuration different from that of the last genera. Vein 3 of forewing before the lower angle, 6 and 7 from the upper cell-angle, 8 and 9 absent in the ♂, the ♀ with 7 + 8 on a short stalk. Veins 3 + 4 of hindwing on a short stalk, 5 from the cell-angle, 8 united with the cell almost as far as the middle. Type: *acutangula* Hmps. All the species from Africa.

**N. griseata** Hmps. (19 i). Body and forewing pale red-brown, costal margin white almost to the apex. *griseata*. Interior line brown, white outside, bent inward, especially at the inner margin. A brown luna at the cross-vein. Exterior line brown, edged white outside, extra-angular below the apex as far as the distal margin, then straight to the inner margin behind the middle, close behind it the equally coloured submarginal line. Hindwing white, diaphanous, yellowish at the margin. ♂ 30 mm. Mashonaland.

In the following species the interior line is more or less angled, not bent.

**N. acutangula** Hmps. Body brownish ochreous, forewing pale reddish brown, finely white at the costal *acutangula*. margin, except at the base. A fine long yellow streak in the submedian fold. Interior line whitish, sharply extra-angular at the median vein, then straightly inward. A black dot at the lower cell-angle. Exterior line whitish, very sharply excurved almost to the apex, then parallel with the interior line. Hindwing white, diaphanous, brownish at the margin. 24—28 mm. Transvaal, Cape Colony.

**N. rhoda** Hmps. (19 i). Thorax and forewing light pinkish brown, abdomen pale brown. Forewing *rhoda*. darker towards the distal margin. Interior line dark, almost from the middle of the costal margin, where it is shortly extra-angular, then obliquely inward, straight. A dark dot at the cross-vein is mostly present. Exterior line obliquely outward as far as vein 6, where it is obtusely angled and parallel with the interior line inward. Submarginal dark dots traceable. Hindwing white, diaphanous, yellow at the margin. 24 mm. Rhodesia, Transvaal.

**N. mesogonia** Hmps. (19 i). Body and forewing pale ochreous, costal and inner margins brown as far *mesogonia*. as the exterior line, the marginal area more reddish. Interior line brown, obtusely angled in the cell, then somewhat undulate, inward. Exterior line brown, angled at vein 6, then straightly inward, parallel with the interior line. Traces of a parallel submarginal line behind it, with a spot above the inner margin. Hindwing yellowish white, diaphanous. Forewing of ♀ with a dark brown median area, the marginal area brown. Hindwing more brownish. 22—24 mm. Gambia, Abyssinia.



*irrorata*. **N. irrorata** Hmps. (19 i). Body and forewing reddish ochreous, dusted black. Interior line very indistinct, extra-angular at the median vein. A black dot at the cross-vein. Exterior line indistinct, oblique as far as vein 6, then pale red-brown, bent inward below vein 5. Then a fine black submarginal shadow, excurved below the costal margin. Hindwing yellowish white. ♂ 25 mm. Rhodesia.

*piperita*. **N. piperita** Hmps. (19 i). Thorax brownish ochreous, abdomen whitish. Forewing brownish ochreous, marginal half red-brown, the margin itself finely striated brown. Interior line indistinct, slightly excurved below the costal margin, then oblique. Exterior line just as indistinct, excurved as far as vein 5, then parallel with the interior line inward. Submarginal line hardly traceable. Hindwing white, diaphanous, narrowly yellowish at the margin. ♀ 22 mm. Niger District.

## 20. Genus: **Paraxestis** Hmps.

Little different from *Neaxestis*. The lobe at the inner margin of the forewing situate in the middle, and the neurulation different, veins 7 + 8 + 9 being stalked. Hindwing not different from *Neaxestis*. Only one species with a similar marking.

*rufescens*. **P. rufescens** Hmps. (19 i). Body and forewing brownish ochreous, the costal margin finely pink. Interior line brown, concave between the costal margin and the median vein, then inward. Exterior line outward as far as vein 6, then rectangularly broken inward, adjoining to it a semicircular line behind it to the anal angle. Hindwing white, diaphanous. ♂ 26 mm. Natal.

## 21. Genus: **Arcyophora** Gn.

Palpi and body as in *Neaxestis*. Antennae of ♂ tufted. Wings shaped as in *Paraxestis*, but the dent of scales is not at the anal angle, but at the lobate projection in the middle of the inner margin of the forewing. Veins 3—5 from near the lower cell-angle, 6 below the upper angle, veins 7—10 from the areole. Veins 3—5 of the hindwing from near the lower cell-angle, 8 connected with the cell as far as behind the middle. Type: *longivalvis* Gn. from Africa. Besides the species dealt with here there are yet 3 in the Indo-Australian Region. One species is palaearctic, since it penetrates to Syria and Persia (cf. Vol. III, p. 300).

*piperitella*. **A. piperitella** Strd. (= *carniola* Hmps.) (19 i). Thorax pale brown, abdomen whitish ochreous. Forewing pale ochreous, the interior area with a violet reflection. Interior line dark brown, edged white inside, from before the middle of the costal margin obliquely inward as far as vein 1, then bent to the base. A brown spot at the upper cell-angle. Exterior line excurved behind the cell, then straight obliquely inward. An oblique streak from the apex to the exterior line, edged white outside. Traces of a brown submarginal line. Hindwing yellowish white, brownish at the margin. 26 mm. Rhodesia, Sambesi.

*longivalvis*. **A. longivalvis** Gn. (20 a). Thorax light red-brown or greyish brown, abdomen brownish ochreous. Forewing light red-brown, also yellowish or brown, with numerous pale streaks. Interior line dark brown, from the middle of the costal margin to  $\frac{1}{3}$  inner margin. Exterior line as far as vein 7 very obliquely outward, pointed, parallel with the interior line inward. A black oblique streak from the apex. Hindwing white, diaphanous, narrowly brown at the margin. The ♀ is usually more brownish ochreous, the striation dark, the interior and exterior lines more intensely edged brown. — **albipupillata** Strd. has a few small black, white-centred spots behind the exterior line below veins 5 and 4. 34—40 mm. South, South-West, and East Africa. — *somnambula* Bryk differs little from *albipupillata*. There is a white spot above and below vein 4, alternately varying in size, both only feebly edged dark. Cameroon.

*stali*. **A. stali** Wllgr. (20 a) looks rather differently. Body greyish brown, forewing yellow. The median area and the space before the submarginal line red-brown. Interior line brown, slightly bent inward from the middle of the costal margin. Exterior line brown, extra-angular at veins 6 and 4, inward below it. Submarginal line extra-angular at veins 7 and 4. Hindwing diaphanous whitish, somewhat yellowish brown at the margin. 24—26 mm. Bechuanaland.

## 22. Genus: **Setoctena** Wllgr.

Proboscis normal, palpi reaching the frons. Abdomen also without any tufts, while the last groups had yet a single tuft. Forewing without a lobe at the inner margin and without a dent of scales. Vein 6 from the upper cell-angle, the other veins as in *Arcyophora*. The same on the hindwing. Type: *ledereri* Wllgr. from West Africa. All the species are Africans excepting the Indian *trigramma* which, however, is very closely allied to the African *dives*. The species differ rather much in their exterior.

*dives*. **S. dives** Btlr. (20 a). Body greyish white. Forewing brownish with dark strigae, the costal margin golden brown. An oblique bent silvery streak from the discal fold in the cell to the submedian fold near the base, with a fine pale line from there to the inner margin, extra-angular below vein 1. The end of the median vein and the base of veins 3—5 whitish ochreous. An oblique bent silvery white streak from the apex to the submedian fold below the cell-end, continued as a pale line to the inner margin before the middle. Submarginal line indistinct dark, from vein 5 to the inner margin. Hindwing white. 34 mm. East Africa.



**S. patricula** *Hmps.* (20 a) is very similar to *Arc. longivalvis*. Body greyish brown. Forewing more reddish grey, with white strigae, the costal-marginal area as far as the interior line more distinct. The latter line white, edged brown outside, from the middle of the costal margin to the inner margin near the base. Two fine black streaks at the cross-vein. Exterior line and the streak from the apex shaped as in *Arc. longivalvis*. Submarginal spots traceable. Hindwing white, diaphanous, browner at the apex. — **patriculella** *Strd.* has the thorax and forewings pale red-brown without any grey and brown admixture. 38—45 mm. Abyssinia, Mashona Land, Transvaal, East Africa. — **elegantula** *Grünbg.* shows the interior line on the forewing somewhat steeper, the exterior line, beginning from the submedian fold, less oblique to the inner margin. From Bechuanaland.

**S. endoglaucia** *Hmps.* (20 a). Thorax greyish white, abdomen brownish ochreous. Forewing white, the costal-marginal area tinged with red-brown as far as behind the middle, somewhat grey at the inner margin and distal margin. A red-brown streak below the base of the cell. A very oblique red-brown streak from the costal margin before the middle to the upper cell-angle. A yellow oblique streak from the lower cell-angle to the inner margin near the base. Exterior line red-brown, very oblique from the costal margin to vein 6 below the apex, where it meets an apical oblique streak, dentately continued to the inner margin before the middle. Costal margin somewhat dark near the apex. Traces of a bent dark submarginal shadow. Hindwing whitish ochreous. ♂ 24 mm. Rhodesia.

**S. ledereri** *Wllgr.* (20 b). Thorax grey, abdomen whitish ochreous. Forewing brownish. Interior line brown, bent downward from the middle of the costal margin to  $\frac{1}{3}$  inner margin. Exterior line brown, excurved from  $\frac{3}{4}$  costal margin to below the cell, then obliquely inward. Hindwing diaphanous whitish ochreous, browner at the margin. ♂ 26 mm. South-West Africa.

? **S. polla** *Schs.* Somewhat similar to *ledereri*. Body brown. Forewing silvery white, somewhat brown at the distal margin. A somewhat darker median band is bordered by undulate lines and distally angled in the middle of the cell. Besides there is a dark undulate submarginal shadow. Hindwing diaphanous white, somewhat brown at the margin. 24 mm. Sierra Leone.

**S. clathrimaculata** *Strd.* (20 b) is somewhat like *patricula*. Thorax and forewing more intensely reddened, abdomen somewhat browner. Interior line more distinct only below the costal margin, not quite so very oblique as in *patricula*. Exterior line with its sharp distal flaw and the apical streak as in *patricula*. A large circular white spot above and below vein 4 is horizontally divided by vein 4 and also vertically divided into several pieces. Hindwing white. ♂ 30 mm. South Africa. While this name is certainly justified, I consider *riggenbachii* *Bryk* to be merely a stunted form of *patricula*.

### 23. Genus: **Acontia** O.

Proboscis normal, palpi reaching the frons, in the typical ♂ with downward hairs. Antennae of ♂ ciliated. Abdomen only with a basal tuft. Forewing with a somewhat undulate distal margin. Veins 3—5 from near the cell-angle, 7 + 8 and 9 + 10 stalked. Veins 3 and 4 of hindwing from the lower cell-angle, 5 almost normally developed, arising below the middle of the cross-vein, 8 branching off from near the base of the cell. Type: *malvae* *Esp.*, from Southern Europe to India, occurring also in South Africa. Of this genus being typical for the subfamily only a single species really occurs in Africa, if we set aside the cosmopolitan species *malvae* and *graellsii* as well as *gephyrias* from Aden, which is also somewhat remote already. The other 6 species are Indo-Australian. As to the palaearctic species cf. Vol. III, p. 300, pl. 52 m, n.

**A. malvae** *Esp.* This species having been dealt with already in Vol. III, p. 301 and pl. 52 m, occurs also in Sokotra, East and South Africa, as well as in the Comoros.

**A. gephyrias** *Meyr.* (20 b). Body pale yellowish brown. Forewing lemon-coloured with a dark brown striped radial band along the median vein, at vein 4 almost to the distal margin, with 3 shorter streaks above it up to the apex. The costal margin finely red-brown at the base. Faded red-brown above the band in the cell-end, a black dot at the apex, fringe dark. Hindwing diaphanous white. ♂ 35 mm. Aden.

**A. dinarodes** *Hmps.* (20 b). Body pale ochreous. Forewing yellow with few black scales. A red-brown radial stripe in the basal half of the submedian fold. A similar stripe from the cell-end to the faded red-brown distal margin. A black dot at the lower cell-angle, and one below the apex. Hindwing white, diaphanous, yellowish at the margin. ♀ 34 mm. East Africa.

**A. graellsii** *Feisth.* has also been dealt with in Vol. III, p. 301, pl. 52 m. It occurs in Southern Europe, throughout Africa, as well as in India and China.

### 24. Genus: **Leocyma** Gn.

Proboscis normal, palpi thin, projecting beyond the frons. Antennae of ♂ ciliated. Thorax tuftless. Front tibiae of ♂ typically long-haired. Neuration of forewing as in *Acontia*, though veins 7 + 8 on a shorter stalk. Neuration of hindwing not different. All the 6 species known are from Africa, all of them yellow, but



nevertheless rather differently marked, some quite similar to the African species of the genera *Euproctis* or *Soloë* (cf. Vol. XIV, p. 143 and 90). Type: *appollinis* Gn.

1. Anterior tibiae of ♂ with a large hair-tuft.

*appollinis*. **L. appollinis** Gn. (= *euproctisoides* Wkr.) (20 c). Body and wings orange. The ♂ with a black spot in the submedian fold on  $\frac{1}{3}$  of the length of the wing, the ♂ and ♀ with a variably sized black spot at the middle of the cross-vein. 32—35 mm. South and East Africa, Madagascar. Of this species, exceptionally, the larva is known. It is yellowish white with 3 fine interrupted red lines on the dorsum and lateral streaks. A black transverse stripe on the first segment, between the 4th and 11th segments 6 brown double stripes on each segment with a small red spot next to the centre of the dorsum. Red lateral streaks. Tubercles black. — It resembles exactly a light *Euproctis nessa* (Vol. XIV, pl. 27 h).

*vates*. **L. vates** Saalm. (20 c) is mentioned as a species by HAMPSON. In my opinion, it is a form at most, for it merely differs from *appollinis* in the hindwing of *vates*-♀ being narrowly darkened blackish at the distal margin in the anterior part. ♀ 34 mm. Madagascar. We figure the type (♂ and allotype of SAALMÜLLER).

2. Anterior tibiae of ♂ moderately hairy.

*discophora*. **L. discophora** Hmps. (20 c) is somewhat more different. Thorax yellow, abdomen brownish. Forewing yellow with few black scales. A triangular red-brown spot at the margin, terminating behind the cell with an obtuse point. Median line red-brown, excavated in the cell, below it with a round spot in the submedian fold and vertical to the inner margin. Exterior and submarginal lines red-brown, parallel, both excurved behind the cell, then inward as far as vein 2, vertically continued to the inner margin. Hindwing diaphanous yellowish white, narrowly yellow at the margin. ♂ 30 mm. West and South Africa.

The 3 following species resemble each other.

*camilla*. **L. camilla** Drc. (20 c). Thorax yellow, abdomen brownish white. Forewing lemon-coloured, the marginal area reddish brown, bordered inside in a uniform bow, enclosing a darker brown faded submarginal band, distally angled at vein 7. Hindwing whitish in the basal area, broadly pale brown at the margin. The ♀ has a more extensively brown hindwing. 28—32 mm. West Africa.

*candace*. **L. candace** Fawc. (20 c). Thorax pale yellow, abdomen brownish ochreous. Forewing yellow with few red-brown scales. While *camilla* exhibits a very insignificant reddish yellow dot in the submedian fold, *candace* shows a large white round spot here, edged with red-brown. The red-brown marginal area is darkest inside, its border more incurved in the middle. Hindwing more purely white at the base than in *camilla*, somewhat diaphanous, brownish ochreous at the margin. ♂ 30 mm. East Africa.

*congoënsis*. **L. congoënsis** Holl. Thorax reddish brown. Abdomen and wings dark yellow. Both wings red-brown in the marginal area. The border, on both wings, consists of a dark double line with a lighter filling. Forewing with a whitish oval spot finely edged dark, at the costal margin near the apex. A few white scales behind the cell in the marginal area, and more of them at the anal angle. ♂ 30 mm. Congo District.

#### Subfamily: **Catocalinae**.

This subfamily is mostly composed of rather large or also very large lepidoptera; most of the species have become known as the first *Heterocera* in their respective patria. The one cause of it is their fugacity, since they are very easily started and even leave their hiding-place in broad daylight, as soon as one approaches them. Even those species that rest on rocks or tree-trunks and might trust their protective colouring just as well as most of the *Notodontidae* being almost quite inert in their repose, flee immediately and betray themselves to the pursuer by doing so. Some, like the palaearctic *Mormonia*, begin even to swarm before the sun is setting; others, as for instance some *Erebus* (*Nyctipao*), rouse the attention of a person walking along in the calm of the evening by producing a distinctly audible sharp noise somewhat like the clicking of a snapping cock of a gun, by which timid persons passing through the gloomy tropical forest may be frightened.

A large part of the *Catocalinae* has conspicuous glaring colours. Their variability is not so great in the Ethiopian Region as with the *Catocalinae* of the northern temperate zone, yet the colours themselves are often of a great intensity. The magnificent hemochrome or deep pink colour on the hindwing of *Miniodes* (24 e) is not excelled by any northern species, and the widely distributed Tropical African *Egybolis vaillantina* (21 g), owing to its sympathetic colouring of metallic blue and bright gold orange, undoubtedly numbers among the most beautiful insects that are known.

Wherever the *Catocalinae* are not conspicuous by magnificent colours, they mostly exhibit imposing sizes. *Erebus walkeri* with an expanse of wings of up to 130 mm is the largest Ethiopian Noctuid and hardly



discernible from the Indian form (*E. macrops*) measuring up to 150 mm. This interesting lepidopteron also shows the expressive eye on the forewing, which is rather common among the Ethiopian *Catocalinae*, most conspicuously developed.

Another reason why the *Catocalinae* represent the best known group of the African *Noctuinae* is to be found in their strong desire for light, which makes these lepidoptera leave their hiding-place very early and forces them to come to the lantern. In stormy and damp nights, mostly when there is intense sheet-lightning, the insects are extremely lively and owing to their large size, they are often captured even by non-entomologists who are otherwise not in the habit of hunting after insects.

Of the more than 1000 forms of *Catocalinae* known to this day, about 400 forms occur in the Ethiopian Region, among which there is not any that belongs into the gigantic genus *Catocala* (which is now split into several genera which, however, are probably hardly more than subgenera, such as *Ephesia*, *Catabapta*, *Mormonia*). This is all the more remarkable since these *Catocala* are represented in really amazing numbers in the northern, non-Ethiopian parts of Africa. In certain years of flight, as for instance in 1904, there is hardly any nook or room to be found, in which *Catocala* do not try to conceal themselves, and in June their larvae cover the trunks and lower branches of the trees which are defoliated by them. But nevertheless not any specimen of these multitudes of lepidoptera is known to have ever crossed the Sahara and to have been captured in the south; the North African *Catocala* are strictly separated from the Ethiopian district by the entirely treeless desert-zone; merely *Achaea* and *Parallelia* resting on the bare ground or on rubble-stones are met with in Ethiopian Africa mostly only in those districts, where the *Catocala* have ceased to occur.

Hardly anything is known of the early stages of the Ethiopian *Catocalinae*. Whilst the palaearctic larvae of *Catocala*, relying on their protective colouring, are closely appressed to the bark of trees and thus distinctly visible, the Ethiopian larvae of *Catocalinae* seem to spend the day in hiding-places. As their North African allies are not possessed of any interior poisonous or disgusting saps and vast numbers of *Catocala*-larvae are destroyed by murderous insects (especially *Calosoma sycophanta*), the imagines by bats, the Ethiopian *Catocalinae* presumably are also without any interior protection; the frequently bright-coloured hindwings of the resting imago are usually covered with the leaf-like coloured forewings (SEITZ).

### 1. Genus: **Audea** Wkr.

This genus is composed of 15 Ethiopian forms and but one Indian species. All of them exhibit bark-coloured forewings and white or yellow, black-margined hindwings. — Proboscis normal, the palpi reaching the frons. Antennae of ♂ ciliated. All the tibiae with spines, body tuftless. Forewing mostly narrow. Veins 3—5 near the lower cell-angle, 6 from the upper angle, veins 7, 8 + 9, and 10 from the areole. Hindwing white or yellow with a dark margin, in the former case mostly somewhat diaphanous. Veins 3 and 4 from the lower cell-angle or on a short stalk, 5 a little above it. The sexes look rather different. Type: *bipunctata* Wkr. from Natal.

1. Forewing of ♂ beneath with androconia from near the base to the exterior line.

**A. endophaea** Hmps. (21 a). Thorax blackish brown, abdomen somewhat lighter. Forewing blackish brown, somewhat lighter in the apical area. Interior line black, notched, obliquely outward, beginning with a spot at the costal margin. Traces of a black luna at the cross-vein. Traces of a bent line from the lower cell-end to the exterior line at vein 2. The black exterior line outwards as far as vein 6, concave above it, then dentately in a bow inwards. Then follows a dark line, slightly outwards as far as vein 4 and vertically continued, the space behind it lighter. Hindwing broadly blackish at the apex, narrower blackish towards the anal angle. Broadly brown at the inner margin, yellowish white only at the costal margin at the base. The ♀ has a lighter, reddish-brown thorax and forewing. The interior line and the luna more distinct, also the two other lines. Hindwing white, brown only at the distal and inner margins. 50—56 mm. West Africa.

**A. hypostigmata** Hmps. (21 b). ♀ lighter than the preceding species. Forewing light red-brown, paler in the marginal area. Interior line black, dentate as in *endophaea*. A short black streak at the upper cell-angle, a light, black-edged spot at the lower angle. Both connected with the exterior line. The latter from the middle of the costal margin, oblique, faded, outward as far as vein 4, introangular at vein 2, ending close at the interior line, excurved between. The border-line of the dark basal area as in *endophaea*, whitish behind it. Fringe below the apex with a white dot. Hindwing white, also at the inner margin. Marginal area dark, very broad in front. ♀ 54 mm. Natal.

**A. hemihyala** Karsch (21 a). Regarding the dark colouring, midway between the two preceding species. Interior line just as thick as hitherto, somewhat steeper from the lower cell-angle. The exterior line as far as vein 4 as in *endophaea*, there with a bow to the lower cell-angle and upwards again at the cross-vein. An oblong black spot at vein 3. The continuation of the exterior line from the lower cell-angle much thinner. From there at first bent inward, then obliquely outward to the submedian fold and somewhat more strongly vertical to the



inner margin. The border-line of the dark area normal. The fringe at the apex and above the anal angle somewhat white, not at the other vein-ends between them. Hindwing as in *endophaea*, thus dark also at the inner margin. ♀ 48 mm. Togo.

*bipunctata*. **A. bipunctata** Wkr. (= *fatua* Fldr.) (21 a, b). Thorax blackish brown, abdomen dark brown. Forewing blackish brown, somewhat lighter in the marginal area. Interior line black, thin, hardly discernible, dentate, obliquely outward. The black luna at the cross-vein more distinct. Exterior line double, both the branches thickened at the costal margin. Excurred between the costal margin and the submedian fold. Fringe at the apex and anal angle white. Hindwing white, dark brown at the margin, very broad at the apex, narrow at the anal angle. — Specimens in which the marginal band extends only to vein 2 are called: — **abbreviata** Strd. The ♀ is badly figured by FELDER. In the colouring similar to *hemihyala*, the interior and exterior lines are more separated from each other at the inner margin. 48—52 mm. Natal, East Africa.

*agrotidea*. **A. agrotidea** Mab. (= *bipunctata* Saalm.) (21 b). ♂ thorax and forewing blackish as far as the interior line. The rest of the forewing and the abdomen somewhat lighter, whereby the streak at the cross-vein and the exterior line are distinct. The latter as far as vein 4 dentate, outward, inward in the submedian fold, then vertical to the inner margin. A triangular dark blotch behind it at the costal margin. A marginal row of white dots. The white hindwing shows the dark marginal band less broad at the apex than hitherto, it extends only to vein 2. ♂ 52 mm. Madagascar.

*melaleuca*. **A. melaleuca** Wkr. (21 c) is still darker than *bipunctata*. Thorax and forewing blackish brown, abdomen dark brown, with brownish ochreous hairs at the base. Marking of forewing hardly discernible, a marginal row of black dots, fringe without white spots. The brown marginal band on the hindwing extends to vein 2.

*nigrior*. — Extremely dark specimens are called: — **nigrior** Strd. ♂ 54 mm. Transvaal.

*fatilega*. **A. fatilega** Fldr. (21 c). Thorax blackish brown, abdomen brownish white. Forewing typically dark brown. Interior line black, extra-angular in the cell, in the submedian fold and at the inner margin, introangular at the median vein and vein 1. A lunulate spot edged with black below the cell-end. Exterior line dentate, very much distally angled behind the cell, then inward. Besides an indistinct submarginal line with white dots and long black streaks on the veins as far as the margin. Hindwing purely white, brownish at the middle of the distal margin, the veins there also brown. We figure a ♀ which is much lighter, whereby the lines are somewhat more distinct. ♀ 44 mm. South and East Africa.

## 2. Forewing of ♂ beneath without androconia.

*tegulata*. **A. tegulata** Hmps. (21 c). The ♂ is easily discernible by 4 yellowish brown lamellae near the apex of the antenna. Thorax dark greyish brown, abdomen yellowish brown, more brownish ochreous at the base. Forewing dark greyish brown. Interior line strong, black, excavated between the costal margin and the submedian fold, then obliquely outward to the inner margin. A fine black dot before it at the lower cell-margin. A bent fine black streak at the cross-vein. Exterior line black, dentate, outward as far as vein 6, then steeper as far as vein 4, connected at vein 3 with the lower cell-angle by a fine black line, ending vertical at the inner margin. Behind it at the costal margin a large dark spot, adjoining to it a faded band parallel with the exterior line. A strongly notched black marginal line. Hindwing white, veins and inner margin brownish ochreous. Distal margin as far as vein 2 narrowly dark, the veins black. 46—50 mm. Mashonaland, East Africa.

*humeralis*. **A. humeralis** Hmps. (21 d). Smaller than *tegulata*, otherwise similar, except the normal antennae. Thorax brownish white, abdomen brownish ochreous. Forewing greyish white, blackish in the basal area as far as the interior line which extends as in *tegulata*. Cross-vein finely black, a still finer short black interrupted streak before it in the cell. Exterior line somewhat dentate, double, uniformly bent, both the branches fused at the costal margin into a black spot. The median area between the interior and exterior lines whitish, diaphanous. Somewhat darker at the distal margin. Hindwing as in *tegulata*. 38—45 mm. Niger District, South and East Africa.

*melanoplaga*. **A. melanoplaga** Hmps. (21 c). Thorax brownish white, abdomen lighter. Forewing of ♂ with strong scales at the costal margin from the base to behind the cell. Ground-colour dark brown, whiter in the cell, a little behind it and below it. Interior line marked by a black streak at the inner margin. Hindwing purely white, black at the margin as far as vein 2. The ♀ looks quite different. Tegulae black, the rest of the body white. Forewing more or less purely white as far as beyond the middle. Costal margin black on  $\frac{1}{3}$  of its length, a large quadrangular black spot behind the middle. A round black spot at the inner margin before the middle. The exterior line begins on the inside of the costal-marginal spot, obliquely outward as far as vein 5, vertical from vein 3. Behind it below the costal-marginal spot a somewhat less black, very large spot, often bordered by a white dentate line, marginal area brown. Hindwing hyaline white, margin distinctly black. 38—46 mm. South-West, South and East Africa.

*fumata*. **A. fumata** Wlgr. Thorax dark brown, abdomen whitish ochreous. Forewing whitish grey and brownish, blackish at the middle of the inner margin. A black streak at the base as far as vein 1. Interior line white, edged with black outside, with 3 strong notches in the cell, then undulate, vertical to the inner margin. Two black dots at the cross-vein and a spot above them at the costal margin. A large reniform macula, edged black below the lower cell-angle. Exterior line black, edged white outside, notched, uniformly bent, edged dark outside.



Adjoining to it a notched white submarginal line. Hindwing white, the margin narrowly brown. The ♂ shows yellow androconia in the cell beneath. Thorax and forewing above of ♀ dusted black. 44—46 mm. South Africa.

**A. subligata** *Dist.* (21 e). ♂ thorax and forewing blackish brown, abdomen orange brown with black *subligata*. dorsal spots. Interior line not discernible. Exterior line light, uniformly bent, more inward only at the costal margin. Hindwing white, narrowly blackish at the distal margin, the inner margin orange brown towards the base. ♀ body and forewing orange brown, the marking very much like that of *melanoplaga* ♀. Basal half of costal margin black, a large black spot behind the middle, a smaller one at the inner margin near the base. The space below the large spot somewhat blackish, the marginal area the same, both with radial black streaks. Hindwing whitish, brown at the distal margin, ochreous at the inner margin. 40 mm. Transvaal.

**A. arabica** *Rbl.* This form may be identical with *U. stertzi* *Pnglr.* or only very slightly different from *arabica*. it. As it was described from the Dead Sea, it is figured in Vol. III (pl. 63 g) and dealt with on p. 320 as *Ulotrichopus* to which genus it presumably also belongs. It occurs also in Arabia.

## 2. Genus: **Ulotrichopus** *Wllgr.*

Of this genus as many species are known as of *Audea*, and it is also chiefly Ethiopian, though some species occur in the Indo-Australian Region, while a species from Ceylon (*U. rama* *Mr.*) forms the transition to the northern genus *Catocala*, so that *rama* at first sight is scarcely discernible from a *Catoc. nymphaea* or *conversa*. In the same way as this Ceylon-form approaches some South-West European *Catocala*, a Formosa-species approximates the East-Asiatic *Catocala*. The genus penetrates also into the Papuan Region, and a species from New Guinea was even described as *Catocala*. One species (*stertzi* *Pnglr.*) is palaearctic (cf. Vol. III, p. 320).

Proboscis normal, palpi obliquely projecting, the second joint long-haired. Antennae of ♂ tufted. Prothorax with an expanded tuft. Legs thickly haired. Forewing elongated. Cell of hindwing extending to the middle. Neuration normal. Type: *mesoleuca* *Wkr.* The sexes differ less than in the preceding genus.

**U. catocala** *Fldr.* (= *caupona* *Mschlr.*) (21 d). Thorax grey, in the anterior part as yellow as the abdomen. Forewing greyish brown. Interior line mostly only indicated by a dark spot at the costal margin, sometimes also a rusty brown one below the cell. Traces of a light spot at the cell-end and below it. A black dot at the base of vein 3. Exterior line black, very obliquely outward as far as below vein 6, far outward above and below vein 5, then very indistinct, strongly dentate, inward. Short black streaks before the margin. Hindwing orange, broadly blackish brown at the margin, somewhat yellow at the apex. ♀ with a more dark grey ground-colour, traces of a faded whitish submarginal line far away from the margin. 50—55 mm. South Africa.

**U. ochreipennis** *Btlr.* differs from all the others in the black marginal band of the hindwing being reduced *ochreipennis*. to a broad transverse spot before the middle of the margin. Thorax violet greyish brown, abdomen orange. Forewing like the thorax, red-brown in the inner-marginal area. Interior line black, intensified at the costal margin, somewhat oblique, undulate. A fine black streak at the cross-vein and above it a spot at the costal margin. A fine line obliquely inward below the cross-vein. Exterior line similar as in *catocala*. A submarginal line of white sagittal blotches. Black radial streaks at the margin in the anterior part. Hindwing orange, broadly blackish at the margin between veins 6 and 2. ♂ 52 mm. Madagascar.

**U. leucopasta** *Hmps.* (21 d). Thorax blackish brown, abdomen orange, with white hairs at the base. *leucopasta*. Forewing dark reddish grey. Interior line black, undulate, double, somewhat oblique, filled dark red-brown. Reniform macula indistinct, dark, edged light. A white dark-edged dot below the cell-end. Median line indistinct, dark, outward between the reniform macula and the white dot, then bent inward. Exterior line as in *catocala*, white before it, dentate, then more distinct than in *catocala*, obliquely inward, edged white outside. Submarginal line of white dots with black streaks outward. Hindwing pale yellow, darker towards the inner margin. Distal margin blackish. 44—46 mm. South Africa.

**U. glaucescens** *Hmps.* (21 f) is very similar to *leucopasta*. Thorax blackish brown, abdomen orange, *glaucescens*. brown at the end. Forewing dark red-brown with a green reflection. Interior line somewhat steeper, its interior branch somewhat indistinct, otherwise as in *leucopasta*. Reniform macula feebly red-brown, edged with black. A blackish line from the light spot below the cell-end to the inner margin. Exterior line black, obliquely outward as far as vein 5, then notched, inward. Submarginal line double, black, the exterior branch dentate, behind it black streaks to the margin. Hindwing as in *leucopasta*. ♀ 44 mm. Natal.

**U. catocaloides** *Strd.* ♀ similar to *catocala* (21 d), but the inner margin of the forewing is velvety black, *catocaloides*. sharply edged, with white scales at the base, extending to the light submarginal line. Apical area blackened and distinctly defined, 11 mm long at the costal margin. Broadly light below it from the middle of the costal margin to the distal margin. White marginal dots, black inside. Belgian Congo.

**U. primulina** *Hmps.* (21 e). Body as in *glaucescens*. Forewing dark red-brown. Interior line black, double. *primulina*.



- extra-angular below the costal margin, then undulate, somewhat inward. Reniform macula very indistinct, edged with black, with a brown centre-dot. Adjoining to it a brown dot below the cell-end. Exterior line black, double, obliquely outward as far as vein 5, sharply angled above and below it, then continued single, notched inward, indistinct, strongly introangular at vein 1. Submarginal line of black sagittae, excurved at vein 6, black streaks behind it. Hindwing as in the two last species. The ♀ shows the space above the inner margin very dark, the rest being also somewhat darker than in the ♂. A brown spot at the apex. — **primulinella** Strd. exhibits the inner-marginal area and the distal margin on the forewing lead-coloured grey with a green reflection. — In **primulinodes** Strd. the forewing is greyer, the interior area is black. 35—45 mm. South and East Africa. — This species most similar to the palaearctic *U. stertzi*.
- phaeoleuca*. **U. phaeoleuca** Hmps. (21 e). Thorax and forewing red-brown. Interior line double, black, very sinuous, the interior branch indistinct, almost vertical. A faint black luna at the cross-vein, below it traces of a black-edged spot. Exterior line oblique as far as above vein 5, where it is extra-angular, then notched inward, introangular at vein 1. Black lunae before the margin. Hindwing white, somewhat yellow at the inner margin, brown at the distal margin. ♂ 44 mm. Central Africa.
- mesoleuca*. **U. mesoleuca** Wkr. (= *tortuosus* Willgr.) (21 e). ♂ thorax and forewing red-brown with a grey reflection, abdomen greyish brown. Interior line of forewing fine, black, somewhat extra-angular below the costal margin, then slightly undulate, vertical. Reniform macula edged black, hardly discernible. A larger light black-edged spot below the cell-end is more distinct. Exterior line obliquely outward as far as vein 5, then inward, on all the veins with strong notches outward. Behind it fine black streaks towards the margin. Hindwing smoky brown, whitish ochreous at the base as far as below the cell and towards the apex. Forewing of ♀ much darker, paler brown only at the apex. 50—55 mm. South Africa.
- tinctipennis*. **U. tinctipennis** Hmps. (21 e). Described as *Audea* and also looking like it. Thorax greyish white, abdomen brownish. Forewing greyish white. A black streak at the base as far as into the submedian fold and in this as far as the interior line. Interior line double, black, somewhat extra-angular in the cell and submedian fold, more outward below vein 1. Reniform macula indistinctly marked by black edging. Below it a fine black ring, somewhat more distinct. Exterior line black, projecting far outward above and below vein 5, then notched, far inward at vein 1, then vertical. Behind it darker, a brown spot at the apex. Hindwing hyaline white, broadly brown at the inner margin, distal margin blackish. Forewing of ♀ darker above the inner margin. 38—44 mm. West, South and East Africa.
- phaeopera*. **U. phaeopera** Hmps. (21 f). Body and forewing reddish brown. A slightly bent line from  $\frac{1}{3}$  costal margin to below the cell. Reniform macula narrow, edged with black, and the usual spot below it. Exterior line indistinct, double, outward as far as vein 5, then notched, inward. Submarginal line of black sagittae. Hindwing reddish brown, whitish ochreous at the base, margin smoky brown. ♀ 44 mm. East Africa.
- variegata*. **U. variegata** Hmps. (21 f). Thorax dark red-brown, abdomen orange. ♀ forewing dark red-brown, sometimes with a green reflection. Interior line double, black, somewhat oblique, slightly introangular at the median vein. Reniform macula small, rusty red, edged black, the light spot below it. Traces of a median shadow, beginning close behind the reniform macula, as far as the inner margin. Exterior line double, projecting very much above and below vein 5, filled with light, reddish yellow before it; then inward, dentate, black outside above the inner margin, far inward at vein 1. Submarginal line of white notches, with black sagittae outside. Hindwing orange, with a black marginal band. Thorax and forewing of ♂ lighter, only the basal area as dark as in the ♀. In another form the dark basal area extends below the cell to the submarginal line. 45—55 mm. Natal, Delagoa Bay, East Africa.
- tessmanni*. **U. tessmanni** n. sp. (21 g). Forewing of ♂ beneath with androconia before the middle of the costal margin, whereby a small projection at the costal margin is formed. Hindwing beneath with long hairs at the lower cell-margin and in the submedian fold, distal margin slightly angled at vein 2 in the ♂. Thorax and forewing greyish brown with a green reflection. Abdomen orange, somewhat brown at the end. Interior line of forewing double, black, notched, more projecting below the cell than in *variegata*, and less at the inner margin. Reniform macula with a rusty yellow centre, then greenish, with a black edge. Below it below the lower cell-angle another large reniform spot filled with greenish and edged with black. A dark median line behind the reniform macula and extending from the lower spot. Exterior line black, oblique as far as vein 5, then distinctly black, notched straightly inward. The notch at vein 1 white, not deeper than the others. Broadly edged black outside as far as vein 5, then finely white. Submarginal line white, uniform, with black sagittae outside, as in *variegata*. White dots at the margin, black inside. Hindwing orange, with a broad black margin, similar to *catocala*, without a light apical spot. Fringe white as far as vein 2 with dark spots. 50—53 mm. Cameroon, Spanish Guinea, East Africa. Type in the Berlin Museum.

### 3. Genus: **Metatacha** Hmps.

Proboscis normal, palpi projecting beyond the frons. Antennae of ♂ ciliated, body tuftless. Front and hind tibiae without spines. Distal margin of forewing undulate, areole short, neuration otherwise normal.



Distal margin of hindwing concave between veins 2 and 6, so that it looks as if the distal-marginal part in the middle of the hindwing had been lost. Vein 5 somewhat more remote from 4 than usual. Only 1 species.

**Met. excavata** B.-Bak. (21 h). Body and wings brownish grey. Interior line of forewing thick, dark *excavata*, brown, somewhat undulate, oblique. Behind it a black dot replacing the ring-macula. A faded black luna at the cross-vein and a black dot below it, 2 black streaks above it from the costal margin. Median line fine undulate, black, somewhat concave at vein 2, otherwise vertical. Exterior line double, the exterior branch broad as far as vein 3, vertical below the costal margin, introangular at vein 4, excurved from there to the submedian fold, then vertical. Whitish behind it at vein 4 and above the inner margin. Black submarginal lunae. Hindwing with 3 light undulate bands extending from the centre. 48–52 mm. Uganda, Togo.

#### 4. Genus: **Chelecala** Hmps.

This genus was based upon 1 ♀ from Voi in British East Africa and differs from most of the preceding species in the absence of a distinct marginal band on the hindwing. — Proboscis absent, palpi short, thick. Antennae of ♀ ciliated. Prothorax with an expanded tuft. Front tibiae with a large claw inside, hind tibiae with few spines. Neuration normal. Only 1 ♀ known.

**Ch. trefoliata** Btlr. Thorax greyish brown, abdomen brownish white. Forewing greyish white and *trefoliata*, reddish brown. Traces of a dark interior line. Ring-macula represented by a small black ring in the centre of the cell. Reniform macula large, lobularly projecting behind and below the cell and pointedly prolonged inward at the median vein. Exterior line marked by a faded spot at the costal margin, then from below the reniform macula to the inner margin. Submarginal line indistinct, concave behind the cell and a little at vein 2. Hindwing brownish white, browner at the margin. ♀ 56 mm. East Africa.

#### 5. Genus: **Tachosa** Wkr.

Proboscis normal, palpi obliquely erected. Antennae of ♂ tufted. Hind tibiae little spined. Forewing elongated. Neuration normal. Only 1 species.

**T. acronyctoides** Wkr. (= *Anabathra una* Mschlr.) (21 h). Thorax brownish white, abdomen greyish *acronyctoides*, brown. Forewing brownish white. Interior line dark, edged white inside, pointed in the cell and very far outward, forming two bows below it. 1 or 2 black dots at the cross-vein. A broad reniform spot below the cell, light or dark, edged with white and outside with black. Exterior line uniformly bent, black, finely dentate, edged with white on both sides in front, then only outside. Black streaks from the notches inward. Submarginal line white, distinct, more dentate. Hindwing reddish brown. A ♂ lying before me is intensely darkened from the interior line to the margin and to the cell. 38–40 mm. Niger District, Cameroon. East Africa.

#### 6. Genus: **Lophotidia** Hmps.

Proboscis normal, palpi obliquely correct, frons with a horny plate. Antennae of ♂ tufted. Anterior tibiae slightly spined, hind tibiae altogether with spines. Neuration in both wings normal. Only 1 species.

**L. trisema** Hmps. is somewhat similar to *Crypsotidia conifera* (21 h) in its size, habitus, the light loam- *trisema*, coloured yellow forewings and the white hindwings. Thorax light brown, abdomen whitish ochreous. Forewing brownish white, browner at the costal margin as far as the cell-end. Interior area except at the base and the marginal area except at the apex dusted with blackish. Interior line white, projecting below the costal margin and above the inner margin, incurved between them. A little black luna at the cross-vein with a streak from the costal margin above it. An 8-shaped white, black-edged spot before it from the centre of the cell to the submedian fold; from there a dark line to the inner margin. Exterior line double, dark, filled with white, uniformly bent, finely dentate. A small black spot outside of it at the costal margin, below it as far as vein 7 brownish ochreous as far as the margin. Submarginal line fine, white, undulate. Hindwing white, narrowly brown at the margin. ♂ 28 mm. East Africa.

#### 7. Genus: **Hypotacha** Hmps.

Proboscis normal, palpi obliquely erected, frons with a projecting hair-pencil. Antennae of ♂ tufted. Front tibiae without spines, hind tibiae with spines at the end. Forewing elongated. Neuration of both wings normal. Type: *retracta* Hmps. The 4 species known occur in Africa and Arabia.

**H. nigristria** Hmps. (21 g). Body and forewing violettish brown. Interior line black, oblique as far as *nigristria*, the submedian fold, undulate, then inward. A blackish spot at the middle of the costal margin and an intense streak in the cell-end. Exterior line black, excurved from  $2\frac{2}{3}$  costal margin to vein 3, then inward to the streak at the cell and further obliquely outward to the inner margin. Submarginal line pale, edged dark inside, extra-angular at vein 7, otherwise undulate, uniformly bent. Hindwing whitish, somewhat reddish at the inner margin, violettish brown at the distal margin. ♀ 38 mm. Cape Colony.

*retracta*. **H. retracta** *Hmps.* Thorax greyish brown, abdomen more yellowish. Forewing greyish white, the veins black. Interior line black, bent outward at the median vein and at the inner margin, inward in the submedian fold. A blackish shadow in the cell-end, and a spot above it. A triangular white spot behind the lower cell-angle. Exterior line red-brown and black, oblique as far as vein 6, then undulate, at vein 3 inward to the base of vein 2, then vertical to the inner margin. Submarginal line faded white, from the apex inward as far as behind the cell, then slightly excurved; black streaks behind it. Hindwing purely white, narrowly dark at the margin. 34—36 mm. South Africa.

*indeccisa*. **H. indeccisa** *Wkr.* (= *sabulosa Swinh.*) (20 d). Thorax dark grey, abdomen brownish white. Forewing brownish grey, the median and marginal areas dusted black. Interior line reddish yellow, black outside, undulate, somewhat oblique. Cross-vein and a streak above it blackish. Exterior line reddish yellow, black inside, its course corresponding to the two other species. Submarginal line whitish, dentate, black inside, extra-angular at vein 7 and in the middle. White marginal dots. Hindwing white, brownish at the margin. 24 to 30 mm. In Aden, therefore perhaps also in Somaliland, besides in India.

*ochribasalis*. **H. ochribasalis** *Hmps.* (20 d). Here the exterior line is not bent inward to the cell. Body and forewing brownish ochreous, dusted black from the interior line to the distal margin. Interior line black, slightly undulated. A black luna at the cross-vein, edged with ochre outside. Exterior line black, edged with ochre outside; excurved below the costal margin, in the middle and at the inner margin; incurved behind the cell and below vein 4. Submarginal line whitish, angled at vein 7 and in the middle. White marginal dots. Hindwing white, narrowly brown at the margin. 24—26 mm. Aden, Sudan.

### 8. Genus: **Crypsotidia** *Rothsch.*

Proboscis normal, the second palpal joint very hairy, obliquely placed, third joint long. Anterior tibiae of ♂ long-haired. Anterior and posterior tibiae without spines. Antennae of ♂ long ciliated. Forewing elongated, neuration normal. Vein 5 of hindwing arises from the lower cell-angle, in the type veins 4 + 5 on a short stalk. Type: *wollastoni* *Rothsch.* The 5 rather small species known of this genus are all from Africa.

1. Second palpal joint bent downward, so that the palpi seem to be fixed the wrong way. Veins 3 + 4 of hindwing on a short stalk.

*mesosema*. **C. mesosema** *Hmps.* (21 h). Body and forewing ochreous. Interior line dark brown, oblique, slightly excurved, with a spur inward in the cell. Exterior line dark brown, excurved from the costal margin to vein 4, then inward to the lower cell-angle, from there obliquely outward to the inner margin. The space behind the interior line as far as the cross-vein darker brown, the space in the upper outward bend of the exterior line rather lighter than the ground-colour. Submarginal line whitish, edged with dark brown inside, strongly notched, with a blackish streak inside at vein 7. Hindwing lustrous white, pale brown at the margin. — **postfusca** *Strd.* has reddish brown hindwings. 20—22 mm. Sudan, East Africa.

2. Palpi shorter, placed somewhat obliquely upwards. Veins 4 + 5 of hindwing on a short stalk.

*wollastoni*. **C. wollastoni** *Rothsch.* (20 d). Larger than *mesosema*. Thorax pale red-brown, abdomen whitish brown. Forewing pale red-brown, lighter in the median area. A dark brown spot above the inner margin, bordered inside by a vertical line on  $1_3$  inner margin as far as the lower cell-margin, at the latter somewhat outward, then obliquely to the exterior line. A black spot at the cross-vein. Exterior line fine dark, edged whitish outside, far excurved between the costal margin and vein 3, then oblique, faded, inward, bordering on the dark spot. Dark brown from this line to the notched white submarginal line which begins with a large light spot. Black and white dots at the margin. Hindwing white, narrowly brown at the margin. ♂ 24 mm. Egypt, Abyssinia, Sudan.

*griseola*. **C. griseola** *Rothsch.* Thorax mouse-coloured, abdomen yellowish grey. Forewing mouse-coloured, darker at the base and on an irregularly bordered median band. Exterior line blackish, from the costal margin to the median vein. Behind it a faded dark band, proceeding from a black spot at the costal margin. Hindwing dingy white, broadly wood-coloured grey at the margin. 24 mm. North Nigeria.

*conifera*. **C. conifera** *Hmps.* (21 h). Thorax and forewing brownish ochreous, abdomen lighter. Forewing with a central spot from the cell to the inner margin. An interior line and a median one marked by black dots at the costal margin, also a streak at the cross-vein. Exterior line black, indistinct at the costal margin, notched, ending at the central spot. Submarginal line whitish, somewhat dentate, in the dark marginal area. Hindwing white, narrowly brown at the margin. The ♀ is paler. ♂ 26 mm. Niger District, Central Africa.

*parva*. **C. parva** *Rothsch.* Thorax wood-coloured brown, abdomen wood-coloured grey. Forewing wood-coloured brown in the first two thirds, interior and exterior lines notched, greyish white. Reniform macula dark grey. The last third paler greyish brown. A large brown spot at the costal margin before the apex. Hindwing pearl-coloured grey, diaphanous, darker at the margin. The smallest species of the genus, expanse only 15 mm. North Nigeria.



### 9. Genus: **Cocytodes** Gn.

To this genus belong two extraordinarily strong, rather large *Noctuae* with an enormous power of flight, one of which is distributed over the greatest part of India and has penetrated to very distant South-Sea islands, without varying much except in size. In Japan, the Amur District, China and Kashmir the genus reaches the palaearctic regions, for which reason it has been dealt with in Vol. III, p. 321, where also the very beautiful, variegated larva is described; that of the African species is not known, the Indian species lives on Urticaceae, especially *Boehmeria*; it flies in the daytime, is strongly hunched behind, and its colouring and way of moving is somewhat like that of the larvae of *Apopestes spectrum*. In both the members of the genus the shape of the hindwing is not homogeneous; whilst the Asiatic *coerulea* shows a deep roundish indentation, the Ethiopian *maura* exhibits a scarcely noticeable flattening of the distal margin. — Proboscis normal, palpi thin, short. Antennae of ♂ plain. Tibiae long-haired and spined. Body stout. Forewing with an undulated distal margin. Neuration normal. Veins 3 and 4 of hindwing from the same base. Type: *coerulea* Gn.

**C. maura** Holl. (21 h). Thorax and forewing dark red-brown, abdomen dark brown. Forewing with *maura*. a few silvery blue scales. Interior line black, oblique, forming three waves. A black dot behind it represents the ring-macula. Reniform macula with a black centre, only basad edged with black. Behind it begins a faded median shadow parallel with the exterior line which is black, angled at veins 6 and 4, then incurved. A dark shadow behind it in the anterior part, blackish between veins 6 and 5 as far as the margin. Submarginal line light, rather indistinct, dark behind it from vein 5 to the inner margin. Hindwing copper-brown. 50—64 mm. West and East Africa.

### 10. Genus: **Callophisma** Hmps.

Not quite so strongly built as *Cocytodes*. Proboscis normal, palpi extending far beyond the frons. Frons with a projecting hair-pencil. Antennae of ♂ with long cilia. Tibiae of ♂ very hairy, middle tibiae spined. Neuration of forewing normal, veins 3 and 4 of hindwing from the lower angle, 5 a little above it. Only 1 species.

**Call. flavicornis** Hmps. (21 g). Thorax dark grey, abdomen bluish white, dark brown at the end. *flavicornis*. Forewing dark grey with a greenish reflection. Interior line dark, very fine, the basal area extends a little beyond it. Then follows a broad blackish median band which widens still more below vein 2. Exterior line and submarginal line broad like bands, black, fused at the costal margin. Hindwing silvery blue in the basal area, broad black the margin. 44—50 mm. West Africa, Sudan.

### 11. Genus: **Egybolis** Bsd.

The only species forming this genus looks more like an *Agaristida* than like a *Catocalina*. The assortment of colours is most magnificent, and the greenish steel-coloured metallic reflection of the ground-colour (curiously enough there is no trace of it in CRAMER's figure of the type) is of an intense splendour in the sunshine. The described forms are presumably only local or casual deviations of one species which is distributed over the whole of Tropical Africa to the south of the Sahara, and common in some places. — Proboscis normal, palpi oblique, long. Antennae of ♂ with short double pectinations. Front and hind tibiae not spined. Neuration of forewing normal, veins 3 and 4 of hindwing from the lower cell-angle. Type: *vaillantina* Stoll.

**E. vaillantina** Stoll (= *formosa* Blanch., *natalii* Bsd., *vaillantiana* Augas) (21 g). Head orange red. *vaillantina*. Body and wings with a dark metallic blue lustre. A broad orange band at the base, edged black outside. A larger spot at the cell-end and a mostly smaller one at the costal margin above it. Exterior line black, only visible in a certain position, vertical from the costal margin to vein 4, then incurved. Hindwing without any marking. — **vittatula** Strd. shows instead of the black line an almost complete orange line from vein 7 to the *vittatula*. inner margin. — **cameroona** B.-Bak. has at the base, instead of the band, two small separated paler spots *cameroona*. edged with black. The spot at the cross-vein is smaller than that at the costal margin. — **dohertyi** Rothsch. *dohertyi*. is a combination of *vittatula* and *cameroona*. The basal area of the forewing shows a small orange spot at the costal margin, below it follows a narrow band to the inner margin, both being edged with black. A small spot at the cross-vein and one above it. The black exterior line is edged with orange from vein 8 to below vein 6. 50—60 mm. Throughout Africa. *vittatula* and *dohertyi* from East Africa. — All the forms are beneath unicoloured black with a steel reflection in the marginal area, without any orange spots. — The larva may attain a length of 70 mm, it is bright yellow with black transverse stripes at the ring-indentations which bear fine white rings; on the rings small tubercles with some blackish hairs. Head and anal segment with black and white markings. It lives on *Sapindus oblongifolius* and transforms to a reddish-yellow pupa in a thin web on the trunk, the eyes, antennae, veins of the wings and abdominal segments being surrounded or marked with whitish.



12. Genus: **Nyctipao** Hbn.

We keep to HÜBNER's denomination of this genus (in opposition to the old name of *Erebus* Latr. [1810]). In Africa only the group of *Patula* Gn. is represented, the ♂ of which exhibits a stunted marginal area of the hindwing, similar to the genus *Metacha* (21 h). The commonest species touches palaeartic regions in Central China and was therefore dealt with already in Vol. III, where the excellent figure on pl. 58 distinctly shows the bent over costal part of the ♂ hindwing and the hair-flock protruding from the fold. Some of the 25 species known penetrate also in New Guinea into the Papuan subdistrict. — Proboscis normal, palpi reaching the frons with the second joints, the third long and thin. Antennae of ♂ finely ciliated. All the 3 tibiae spined. Forewing broad, undulate at the distal margin. Vein 3 mostly more separated from 4 and 5 than normally, the cell very short. Cell of hindwing still shorter, veins 3, 4 and 5 from the lower angle. Type: *crepuscularis* L., distributed from Japan to New Guinea. In the Indo-Australian Region there are numerous species divided into many subordinate groups. Only 2 species in Africa.

*macrops.* **N. macrops** L. (Vol. III, pl. 58 e). This large conspicuous species is distributed in Japan, China and India (cf. Vol. III, p. 323 and pl. 58 b). It is most conspicuous for its warm brown tinge with the large eye-spot containing a brown comma-like mark, and the large scent-pencil on the hindwing of the ♂. Its range, however, is still larger than it was stated in Vol. III; it seems to be very common in East Africa, and there are also specimens before me from Togo and Cameroon.

*atavistis.* **N. atavistis** Hmps. shows the tibiae long-haired, the hindwing of the ♂ has no scent-pencil, and contrary to *macrops* it makes an insignificant impression. Body and wings dark brown. Interior line blackish, somewhat oblique, inward in the submedian fold, with a distal angle at vein 1. Instead of the complicated eye-marking of the Indian species a large, reversely placed comma-figure at the cross-vein, edged with black, somewhat whitish inside, with bluish scales outside of it. Exterior line black, incurved at the costal margin and vein 2, where it forms an angle, edged light outside. Three white spots near the apex down as far as vein 6. Submarginal line black, notched. Hindwing with an indistinct steep interior line. Cross-vein black. Median line projecting at vein 4 in a feeble angle, on both sides of which it is slightly inserted. ♂ 80 mm. Uganda.

13. Genus: **Cyligramma** Bsd.

This genus is composed of about 10 partly very similar species all of which live in the Ethiopian Region. They are all large, deep dark brown lepidoptera with a large, sometimes somewhat distorted eye-spot in the centre of the forewing. In addition, there are a number of serpentine black transverse lines through both the wings, and in many species also a white transverse band, sometimes confined to one sex alone. The lepidoptera are common in many places and come to the lantern in great numbers. — Proboscis normal, palpi not so extremely long as in *Nyctipao*. Antennae of ♂ finely ciliated. All the tibiae spined. Marking of forewing often similar to that of *Nyctipao*, but the neuration differs in the absence of the areole. Vein 3 remote from 4 and 5. Veins 3, 4 and 5 of hindwing from the lower cell-angle. Type: *latona* Cr. All the species from Africa. Most of them exhibit the reversed comma-mark on the forewing.

*latona.* **C. latona** Cr. (= troglodyta F.) (22 a). Body and forewing dark reddish brown, dusted brownish ochreous at the margin except at the costal margin. Interior line black, uniformly bent. The comma on the head is brown with 2 silvery spots, then blackish, the tail olive green, the bend filled with black. Towards the base the tail is edged with yellow, otherwise more olive brown. The median line surrounds this spot in a  $\frac{3}{4}$  circle, then it extends notched from vein 2 to the inner margin. Exterior line broad, yellowish, outward as far as vein 6, then inwardly removed and almost straight to the inner margin. A submarginal row of black triangles or a somewhat undulate line. Hindwing with a somewhat obsolete interior line. Exterior line yellow, broad, almost straight. Strongly curved black submarginal lunae are finely edged with yellow inside. Behind the exterior line dusted brownish ochreous. 65—85 mm. Throughout Africa, Madagascar, and Aden.

*magus.* **C. magus** Gn. (= goudotii Gn., buchholzi Plötz) (22 a, b). Body and wings reddish brown, forewing darker before the exterior line. Interior line extra-angular below the costal margin and below vein 2, otherwise obliquely inward. The reversed comma-spot with a black top, two-pointed, the tail olive brown, finely edged with yellow towards the base, and otherwise similar to *latona*. Median line also similar to *latona*, but somewhat more obliquely inward below vein 2. Exterior band greyish ochreous in the ♂, obliquely outward as far as vein 6, then double, almost straight to the inner margin. Submarginal line composed of a series of black spots, finely edged light inside, distally bent at veins 6 and 3, otherwise inward. Median line of hindwing less distinct, the straight exterior band broader, less light, the submarginal band similar to that of the forewing. The ♀ exhibits the exterior band white on both wings. 58—70 mm. Everywhere in Ethiopian Africa.

*duplex.* **C. duplex** Gn. (22 b). As the name intimates, it is a double of *magus*. Ground-colour the same, also the interior line, the comma and the median line are rather similar, except perhaps the rounding of the median line behind the comma being less flattened. The darkening at the inner margin extends from



outside not quite to the median line and is narrower at the costal margin. Between veins 2 and 5 behind the comma-spot, there are sometimes fine light traces of the exterior line, and the submarginal row is slightly more undulate than in *latona* (22 a). The median line of the hindwing is not different, the exterior line broad, black, uniformly bent. Submarginal spots as on forewing. The ♀ shows the exterior band similar to that of *magus*-♂, but the submarginal line corresponding to that of *duplex* ♂. The exterior dark band on the hindwing is narrower, edged more or less with white outside, and discernible by its bend. The submarginal spots are more intensely edged with white inside. 65–85 mm. Madagascar.

**C. simplex** *Grubg.* (22 c) is recognizable by the lack of a submarginal line or row of spots. Body and wings very dark, only the base of the forewing lighter as far as the median line. Interior line and the lower part of the median line similar to *magus*. The comma-like mark olive brown, tricuspid on the head, behind it and below it more broadly scaled blue than usual, then follows the black bow of the median line. Extending from vein 5 to the inner margin a faded brown straight band in the prolongation of which there is a similarly coloured spot at the costal margin. Deep dark stripes behind it, extending inward as far as the band and as far as into the bend of the comma-like mark, outward almost to the distal margin, ending like a lobe. The very dark hindwing shows traces of a light interior line in the anterior part. Median line almost straight, narrower than on the forewing. ♂ 64 mm. Sesse Is.

**C. fluctuosa** *Drury* (= *rudilinea* *Wkr.*) (22 c). Body and wings coloured as hitherto, darker in the ♂. lighter in the ♀. Interior line black, notched, almost vertical. The reverse comma-like mark is dark tricuspid at the head, broadly olive brown behind it. The black median line slightly concave behind the comma, inward at vein 2, and touching the comma with a spot, then parallel with the interior line to the inner margin; broadly dark behind it. Exterior line yellow, interrupted by the edge of the comma-mark. Lighter behind it as far as the dark submarginal line which is finely yellow inside. The latter line is strongly notched, as in *magus*, darker behind it. The dark hindwing shows a light and narrow exterior line, all the rest as in *magus*. The ♀ is lighter. *limacina* *Guer.*, according to SAALMÜLLER, is identical with *duplex*; in my opinion it is a somewhat dark *fluctuosa*. 62–80 mm. East Africa, Madagascar, Comoro, Mauritius.

**C. griseata** *nom. ncv.* (= *simplex* *Hmps.*) (22 c). Body and forewing brown, dusted grey behind the exterior line. Interior line notched, vertical. The head of the comma-mark is tricuspid, with blue scales, the tail yellow inside, edged with blue outside. Olive brown outside around the head, narrower olive brown towards the costal margin. No exterior line, but only a dark shadow which is mostly somewhat inwardly bent at the costal margin. Submarginal line as in *fluctuosa*, but indistinct, dusted grey or brown before it. Interior line of hindwing slightly excurved in the middle. Exterior line fine, yellowish, straight. Behind it as on the forewing. 45–60 mm. Niger District. Uganda, Togo, Adamaua, Senegal.

**C. amblyops** *Mab.* (22 d). Body and wings as far as the exterior line very dark brown. Interior line almost vertical, notched, only discernible on lighter specimens. The comma-mark tricuspid, blackish, white scales in the tail. Median line black, encircling the comma in small waves, thus quite different from all the preceding species; rusty brown between it and the comma, then the median line takes the usual course. Exterior line fine whitish, vertical upon  $\frac{2}{3}$  inner margin. Behind it some greyish white dusting as far as the very undulate submarginal line. Hindwing with a feeble, bent, undulate median line. Exterior line fine, almost straight. Submarginal line fine white. — **rhodesiana** *Strd.* is a name for lighter grey specimens. 80–90 mm. West Africa, Uganda, Rhodesia.

**C. disturbans** *Wkr.* (= *conturbans* *Wkr.*, *raboudou* *Luc.*, *concors* *Mab.*) (22 e). Dark red-brown. interior line of forewing blackish, thick, somewhat inward below the cell. The comma-mark somewhat disfigured, head more triangular, the tail thicker at the end, edged with yellow, rusty brown outside the head. Median line fine, black, outward as far as vein 5, undulate behind the comma, then oblique to vein 1. Exterior line slightly undulated, behind it yellow as far as the submarginal line which extends far outward below veins 6, 4 and 1. Hindwing with an indistinct interior line. Median line straight, yellow behind it as far as half-way to the fine yellow submarginal line which is notched as in the forewing. ♂: on the forewing the space between the interior line and the median line is uniformly dark. Exterior line straighter, lighter violettish brown behind it as far as the margin, the submarginal line only marked by spots. Hindwing with a darker yellow band. — **consiliatrix** *Saalm.* shows a distinct dark submarginal line, the space close behind it is also somewhat dark. 75–95 mm. Madagascar.

**C. joa** *Bsd.* (22 d, e). ♀: body and wings lighter reddish brown. Interior line of forewing undulate, somewhat oblique, outward below the cell. The head of the comma-mark is divided by a light border, the narrow tail is edged with black. Median line close behind it, outward as far as vein 5, then bent and obliquely inward, fused above the inner margin with the interior line and forming a triangular dark spot. The space between the two lines somewhat rusty brown. Exterior line broad, straight, yellow. Submarginal line quite indistinct, white, somewhat dentate, with black dots. Hindwing with a very indistinct median line. Exterior and submarginal lines corresponding to those on the forewing. — In **postreducta** *Strd.* ♀ the yellow line is narrower and light brown on both wings. The ♂ of *joa* is considerably darker. Lighter is only the basal area of



the forewing before the triangle at the inner margin as far as the comma-mark. Interior and median lines indiscernible. Exterior line marked by a very indistinct whitish fine line. Hindwing uniformly dark, only the fine exterior line present. Both wings with fine white submarginal dots. 75—95 mm. Madagascar.

#### 14. Genus: **Entomogramma** Gn.

Only one of the 4 very variable species of this genus is Ethiopian, the others are Indo-Australian. The typical species, *E. faultrix*, is locally very common in grassy places of China, but probably it penetrates but rarely into the palaearctic part of the Chinese Empire (cf. Vol. III, p. 320 and pl. 58 c). The imagines easily rise from the ground, where they rest, also in the day-time, but like most of the *Catocalinae* they soon settle down again. — Proboscis normal, palpi reaching the frons, the second joint very hairy. Antennae of ♂ typically with cilia and bristles, in the only African species serrate and tufted. All the tibiae spined. Forewing with a pointed apex. Neuration normal.

*pardus*.

**E. pardus** Gn. (= *panthera* Fldr., *anteponens* Wkr.) (23 a). Thorax greyish ochreous, abdomen yellow. Forewing greyish ochreous, marginal area darker brown. Interior line blackish, extra-angular below the costal margin, then straightly inward. A black luna at the cross-vein. Median line from behind the middle of the costal margin outward to the discal fold, then straight, feebly double to the centre of the inner margin; a rusty brown line from the apex to its angle. Two parallel oblique lines behind it at the costal margin, from the upper one of which the yellow distinct straight submarginal line proceeds. Hindwing similarly coloured, but somewhat orange at the costal and inner margins. Interior line dark, feebly double, straight. Submarginal line yellow, slightly curved. An undulate row of dark dots in the median area between them. There are also darker, somewhat violettish-brown specimens; the space between the median and submarginal lines may be as dark as the margin. They are named: *venustra* Wkr. and *pardalis* Saalm.; it may not always be possible to separate them strictly. In *pseudopardalis* Strd. the luna at the cross-vein is large. 35—45 mm. Throughout Africa, also in Madagascar.

#### 15. Genus: **Enmonodia** Wkr.

About 10—12 of the more than 30 forms belonging to this genus are known from Africa, the others are Indo-Australian; quite a number of forms, most of which, however, seem to be colouristic variations of very few species, live in Central China and Cashmir, where they may cross the palaearctic frontier, as they also do in Japan, for which reason many of them have been dealt with and figured in Vol. III (p. 324). Above all, this genus exhibits an enormous variability, and of the typical species alone five different forms have therefore been figured in Vol. III (pl. 59). The African forms also vary to a great extent; of *capensis* we have enumerated quite a number of very different forms which, however, are regarded as distinct species by other authors. There was also rather an uncertainty as to whether some of the species belonged to this genus, and species of very different looks, such as the large *megalesia* and the quite bone-white *allardi*, had formerly been assigned to other genera. — Proboscis normal, palpi highly erected, the second joint thickly haired. Antennae of ♂ typically serrate and tufted. All the tibiae spined, anterior tibiae long-haired, in the ♂ the hind tibiae and tarsi are long-haired only in the typical species. Forewing with a pointed apex, neuration normal. Veins 3 and 4 of hindwing from the lower cell-angle, 5 a little above it. Type: *pudens* Wkr.

1. Antennae of ♂ pectinated outside, tufted inside and at the tips. Anterior tibiae with a long hair-pencil. Apex of forewing very prominent.

*megalesia*.

**E. megalesia** Mab. (= *bosei* Saalm.) (23 c, d). Thorax ochreous, abdomen pale yellow. Forewing pale ochreous. Interior line marked by a brown streak at the costal margin and 2 dots farther downward. A faint red-brown luna at the cross-vein. Median line with a dark brown spot at the costal margin, then very thin, red-brown as far as vein 3, far excurved between. Exterior line brown, obliquely outward as far as vein 6, then light, straight, inwards, with black points on the veins inwards. A double brown line from the apex to  $\frac{1}{5}$  of the inner margin. Hindwing pale ochreous, a red-brown antemedian shadow. Exterior line straight, brown, double. ♀: the interior line on the forewing extends to vein 1, the black dots at the exterior line are absent, and the shadow at the inner margin is absent, too. Median line recognizable on the hindwing. 96 to 110 mm. Madagascar.

2. Antennae of ♂ serrate and tufted. Forewing not so pointed. Abdomen of ♂ with a long anal tuft.

*capensis*.

**E. capensis** H.-Schäff. (23 a). The species described by HAMPSON: *occidentalis*, *plumbefusa*, *pulverulenta*, and *endoxantha* are probably identical with *capensis* or only subordinate forms. The species is extraordinarily variable in both marking and colouring. HAMPSON, for instance, figures *capensis* with a light not undulated exterior line on the hindwing, while HERRICH-SCHÄFFER's original figure shows it black and somewhat undulated, owing to which fact AURIVILLIUS considers *capensis* Hmps. to be a different species which he names *hampsoni* Aur. (23 a, b). But he thinks *occidentalis* Hmps. and *capensis* H.-Schäff. to be probably one and the same species, although the figure of *occidentalis* Hmps. exhibits the line on the hindwing undulated but white, and the interior line on the forewing much more dentate. — Description of *capensis* ♂. Thorax and



forewing red-brown with a violet reflection. Abdomen carmine, anal tuft sometimes dark. Interior line mostly rather indistinct, extra-angular below the costal margin, then straightly inward, light inside, dark outside, sometimes also composed of black spots. Three black spots at the cross-vein, the uppermost always very small, the lowest may be elliptical or rectangular, and up to 5 mm long and 3 mm high, always edged with light. Median line marked by a dark spot at the costal margin, then from vein 3 oblique and straight to the inner margin. Greenish yellow behind it at the costal margin. This spot is traversed by the exterior line, sometimes indicated by black dots. From vein 7, it is more distinct, double, undulate, with white dots at the veins, filled with greenish white. A light line from the apex to the anal angle, edged with dark on both sides. Submarginal line of grey oblique streaks. Hindwing coloured like forewing, darkest from the anal angle to the centre of the distal margin, carmine at the inner margin. Interior line straight, dark. Median line white, notched, often scarcely indicated by white dots. Exterior line fine white, often somewhat undulate owing to notches at the veins, or showing through dark from beneath. Cape Colony. — **occidentalis** Hmps. (23 c) *occidentalis*. has already been dealt with above. — **plumbefusa** ♂ Hmps. (23 b) is somewhat lighter than *capensis* especially *plumbefusa*. on the forewing, with a leaden gloss in the distal area. A subordinate form of it is *lunifera* Aur. which is darker (thus = *capensis*), the central spot on the forewing being large, crescentiform; from the Congo District, whilst *plumbefusa* originates from Uganda and Natal. — **pulverulenta** Hmps. (23 d) has brownish ochreous *pulverulenta*. forewings dusted with dark brown. The median line on the forewing and the interior line on the hindwing are double. West to East Africa. There are specimens before me, the ground-colour of which is the same as in *pulverulenta*, but the lines are not double and the exterior line on the hindwing is black, uniform. — **enmonodiana** Strd. denotes specimens of *pulverulenta* with a large spot at the cross-vein, so that it may be the same that was later named *lunifera* Auriv. — The ♀♀ are just as variable. *capensis*-♀ is reddish ochreous in the type. The spots at the cross-vein are punctiform. The exterior line is only composed of black dots at the veins, linear only from vein 3. Median line of hindwing composed of black dots. Exterior line fine white, undulate. — *plumbefusa*-♀ and *occidentalis*-♀ lead-coloured on the forewing behind the exterior line and at the submarginal line. Hindwing also lead-coloured between the median line and the exterior line, and so are the submarginal spots. — *pulverulenta*-♀ almost like the ♂. 50—70 mm. All the forms probably occur everywhere. — The imagines rest in a very peculiar way on leaves not far from the soil. They are loosely suspended with their forelegs on a leaf, with their wings stretched out, the hindwings wound around the abdomen. In this position the insect looks like a withered leaf suspended on a live one by means of a spider's thread or otherwise.

**E. malgassica** Mab. (23 b). This might be a separate species owing to its isolation, though it is not *malgassica*. certain, since my two ♂♂ from Madagascar do not correspond much with HAMPSON's description. One of them is dark red-brown, the other one flesh-coloured. The dark specimen shows the median line of the forewing continuous from the costal-marginal spot to the inner margin. The exterior line is black, undulate. Median line of hindwing also black and notched. This may suffice to distinguish it from *capensis*. 60—80 mm. Madagascar.

**E. endoxantha** Hmps. (23 b) may be a distinct species. ♂ thorax brown, abdomen red. Forewing flesh-coloured, browner at the margin. Interior line as in *capensis*. Two small dots and a larger one at the cross-vein. Median line as in *capensis* indicated by a spot at the costal margin and a short line at the inner margin. Exterior line composed of black dots. Apical line as in *capensis*. Hindwing flesh-coloured, brown at the margin, costal and inner margins yellow. Interior line straight, dark. Median line of black dots. Exterior line light. The ♀ exhibits a yellow abdomen and yellow margins on the hindwing. The dots at the cross-vein of the forewing are insignificant. — **palliochracea** Strd. is of a pale ochreous colour, and in **coerulescentiviridis** *palliochracea*. *coerulescentiviridis*. Strd. both wings are tinged with bluish green. 65—70 mm. Everywhere in Africa.

3. Abdomen of ♂ without a hair-tuft at the end, otherwise like the 2nd group.

**E. rufescens** Ky. Body and wings brownish ochreous, red-brown at the margin. Exterior line of *rufescens*. forewing with a black spot at the costal margin, then red-brown, indistinct. A white line from the apex to the anal angle, edged with red-brown inside, slightly concave in the middle. Hindwing pale pink at the inner margin. Interior line red-brown, straight, from vein 6 to 1. Exterior line red-brown, white outside, ending at the anal angle. ♂ 80 mm. East Africa.

4. Antennae of ♂ with long cilia and bristles.

**E. africana** Ky. on the whole shows a slight resemblance to *Ctenusa pallida* (cf. pl. 24 a), but it is immediately discernible by a large dark discal spot almost resembling a reversed mushroom, instead of the much smaller cell-end spots in the genus *Ctenucha*. Thorax whitish ochreous, abdomen yellow, whitish ochreous at the base. Forewing whitish ochreous, marginal area brown, darker below the middle. Interior line fine, undulate, dark, below the cell as far as the inner margin. A brown luna at the cross-vein, connected with a large spot between veins 4 and 2, both edged with black. Median line indicated by dark streaks at the costal and inner margins. Exterior line formed by a row of dark dots. Submarginal line straight, light, in front with dark dots on both sides. Hindwing orange at the costal and inner margins. A small black luna at the cross-vein. Median line faded, thick, dark, a row of dark dots behind it. Submarginal line white. ♀: only two small dots at the cross-vein on the forewing and a small one below the lower cell-angle. 50—54 mm. East Africa.

**E. carneotincta** Hmps. (23 e). Thorax and forewing grey and flesh-coloured, abdomen more yellow. *carneotincta*. Forewing more red-brown at the distal margin. Interior line composed of a few oblique dark spots from the



cell to the inner margin. Two black spots at the cross-vein, a dark central spot at the inner margin. Dark dusting behind the cell-end. Exterior line with a dark spot at the costal margin, then pale, dentate, indistinct, oblique from vein 6 to the inner margin. Submarginal line grey, edged with dark, straight, somewhat more inwardly placed than usual. Hindwing like forewing, broader reddish at the costal margin, more narrowly so at the inner margin. Interior line dark, straight; median line dentate, light; exterior line straight, light, edged with brown. ♀ 50 mm. Bechuana Land.

5. Antennae of ♂ finely ciliated.

*allardi*. **E. allardi** Oberth. (= *leucochiton* Mab.) (23 d). Body white, yellow at the end. Forewing white, dusted red-brown except at the base and costal margin, also above the anal angle only white. The marking consists merely of a strong red-brown line from the apex to the centre of the inner margin. Darker brown below the apex. Hindwing purely white. ♂ 90 mm. West and East Africa, Madagascar.

## 16. Genus: **Calliodes** Gn.

This genus contains only 2 Ethiopian species which are at once recognizable by the six undulate parallel arcuate lines traversing the hindwing. Otherwise very similar to the following genus which likewise shows the spiral eye-spot. Separated by the antennae of the ♂ being serrate and set with bristles. Thorax clad with hair and scales. Type: *appollina* Gn. Only two species, both from Africa.

*appollina*. **C. appollina** Gn. (23 e). Body and wings whitish ochreous. Forewing with a dark brown marking. Costal margin dark brown, 4 oblique inward lines below it. A reverse black comma at the cell-end, edged with white and brown. A quadrangular spot below it above the centre of the inner margin. Exterior line yellowish white in brown surroundings, introangular at vein 1. Submarginal line yellowish white, undulate, uniformly bent, a row of dots before it. Hindwing whitish ochreous, brown at the margin, with numerous undulate brown transverse lines. ♂ 40 mm. Senegal, Abyssinia.

*pretiosissima*. **C. pretiosissima** Holl. (= *rivuligera* Btlr.) (23 e). Body and forewing greyish brown with a copper gloss. 5 blackish lines in the basal area, distally angled in the submedian fold. The head and tail of the comma are not so differently strong as in *appollina*; the space above it dark. Exterior line black, double, far excurved between  $\frac{3}{5}$  costal margin and the middle of the inner margin. Behind it two rows of triangular black spots. Hindwing coloured like forewing, densely covered with parallel undulate brown lines. Both wings with a few silvery blue scales. 44—50 mm. Throughout Africa excepting its palaearctic part.

## 17. Genus: **Speiredonia** Hbn.

Of the more than 20 forms described of this genus only two occur in the Ethiopian Region, one of which differs strikingly from the usual dark or blackish brown colouring of the genus in its yellow ground-colour. 10 forms penetrate into the palaearctic region, for which reason they have been dealt with already in Vol. III, p. 325. The 5 forms figured there are approximated by the other Ethiopian form, *glaucescens*, in its colouring and marking. The most conspicuous characteristic is the large eye on the forewing, the centre of which is everywhere recognizable as a dark 6-shaped figure. Most of the species are not rare in their patria. — Proboscis normal, palpi highly erected. Antennae of ♂ finely serrated and tufted in the type. Thorax only with hair. All the tibiae spined. Neuration of forewing normal. A hair-tuft in a fold at the inner margin of the ♂ hindwing in the type. The two African species are without this hair-pencil. The antennae of the ♂ are strongly serrated and tufted. Type: *retorta* L., from Japan to India.

*glaucescens*. **S. glaucescens** Btlr. (24 a). Thorax greyish brown, abdomen red. Forewing reddish brown. Interior line dark brown, slightly inward, straight. The comma-mark is very large, brown, black and silvery blue. Exterior line dark brown, beginning far inward at the costal margin, encircling the comma, widened at the middle of the inner margin. Submarginal line silvery white, double, undulate, coppery between, parallel with the exterior line. Hindwing reddish brown, pale red at the costal and inner margins. Median line blackish brown, thick, a finer line behind it. Two exterior undulate lines and two submarginal lines, all with a few silvery blue scales, bent parallel. 45—50 mm. Throughout Africa.

*griseisigna*. **S. griseisigna** Hmps. (24 a). Body and wings reddish yellow, the latter somewhat olive brown at the margins. Interior line composed of 3 dark dots. The comma is divided, grey, an 8-shaped spot behind the cell, a small one at vein 3, and the tail of the comma at the cross-vein grey. Median line dark brown, faded, beginning from the 8-shaped spot to behind the middle of the inner margin. Exterior line marked by a bent row of dots at the veins. Submarginal line pale, undulate, black dots behind it. Hindwing pale red at the inner margin. The median line and the other marking behind it as on the forewing. ♂ 50 mm. Mashona Land.



18. Genus : **Cometaster** *Hmps.*

The only species resembles *Calliodes appollina* (23 e), but the palpi are more hairy and the antennae of the ♂ are rather strongly pectinated. Anterior tibiae long-haired outside.

**C. pygula** *Hpf.* (= *lucida* *Fldr.*) (24 a). Body and forewing greyish white. Interior line blackish brown, *pygula*, projecting far and pointedly at the upper cell-margin, then widened, thick, ending near the base with silvery blue scales. The comma and the spot at the inner margin similar to *appollina*. Exterior line dark, slightly excurved below the costal margin, then parallel with the distal margin. Behind it a double undulate submarginal line. Marginal area red-brown. Hindwing greyish ochreous, median area brown like the margin. Interior line thick, dark, extra-angular in the middle. Median line excurved at the inner margin. Exterior line double, undulate. 38—45 mm. South and East Africa.

19. Genus : **Ctenusa** *Hmps.*

Proboscis normal, palpi erect, not so long-haired as in *Cometaster*, antennae shorter pectinated, the anterior tibiae not spined. Neurulation normal. Hindwing slightly projecting at vein 4. Type: *carnicolor* *Hmps.* All the species of this genus from Africa.

**C. curvilinea** *Hmps.* (24 a). Body and forewing pale brownish ochreous, the marginal area somewhat *curvilinea*, more red-brown. Interior line very fine, red-brown, excurved as far as the median vein. A blackish brown spot at the cross-vein and at the costal margin above it; from this spot the undulate faded brown median shadow extends obliquely inward. Exterior line with a black spot at the costal margin, then fine, brown, undulate, with black inward points at the veins. Submarginal line parallel with the exterior line, light brown, ending at the anal angle, edged darker. Hindwing whitish. Exterior line fine, brown, bent, with darker dots at the veins. Margin and submarginal line similar to the forewing. — In *obsoletilinea* *Strd.* the interior and *obsoletilinea*, exterior lines are faded, the central spot at the costal margin small. ♀ 40—45 mm. Abyssinia.

**C. rufirena** *Hmps.* Body and wings yellowish red-brown. Interior line indistinct, red, edged yellow *rufirena*, inside, bent. Reniform macula red-brown, edged yellow, an oblique red streak above it from the costal margin. Exterior line red, finely edged with yellow, beginning with a dark streak at the costal margin, excurved below the costal margin, then undulate. Submarginal line yellow, almost straight. Hindwing whitish at the costal margin. Exterior line fine, undulate, dark. A broad dark submarginal shadow. ♀ 52 mm. Rhodesia.

**C. rectilinea** *Fawc.* Body and wings pale ochreous. Forewing pinkish brown at the margin. Interior *rectilinea*, line absent. Reniform macula red-brown, a similar streak above it at the costal margin. Exterior line composed of blackish brown dots at the veins. Submarginal line yellowish, edged with red-brown on both sides, oblique to vein 2, where it ends with a pale spot. Brown dots behind it between the veins. ♀ 46 mm. East Africa. — **psamatha** *Fawc.* is only ochreous on the forewing, the reniform macula is scarcely discernible. Sub- *psamatha*, marginal line very feebly edged with red-brown only outside. ♀ 50 mm. East Africa.

**C. carnicolor** *Hmps.* resembles *seriopuncta* (24 b) in its pale ochreous or whitish ground-colour and the *carnicolor*, oblique cell-end spot of the forewing, but it is larger, and the ♂ hindwing shows a truncate dent at the end of the 1st median vein. Thorax ochreous, abdomen whitish ochreous. Forewing pale yellow and reddish. Interior line dark, edged pale yellow inside, excurved as far as the centre of the cell, then inward, punctiform. An elliptical red-brown spot at the cross-vein, below it the faded red-brown median line, edged yellow outside. Exterior line pale yellow, excurved behind the cell, extra-angular in the submedian fold, with a red-brown spot at the costal margin and dots at the veins. Submarginal line white, straight, edged with red-brown inside, with violettish grey outside. Hindwing whitish ochreous, tinged with red-brown at the margin. Median line from the lower cell-angle to the inner margin, brown, fine, bent. Exterior line beginning behind the cell, just as fine, with dark dots at the veins, excurved in the submedian fold. Submarginal line fine, pale. ♂ 50 mm. Damaraland.

**C. pallida** *Hmps.* (24 a). Thorax and forewing pale yellow, finely dusted brown. An elliptical brown *pallida*, spot at the cross-vein, inserted outside. Traces of a brown median shadow below it. Exterior line marked by a brown streak at the costal margin, then dark dots at the veins, excurved as far as vein 4. Submarginal line double, dark brown, with dark dots at the veins. Hindwing somewhat lighter, with a broad submarginal shadow, parted by a light line above the inner margin. ♀ more reddish on the thorax and forewing, the marking still less distinct. — Reddish ♂♂ are: **rufescentior** *Strd.* 46—50 mm. Rhodesia, Bechuana Land. *rufescentior*.

**C. brevipecten** *Hmps.* (24 b) has shorter pectinations on the inside of the antennae. Body and fore- *brevipecten*, wing pale ochreous, marginal area darker brown, bluish grey inside. Interior line finely brown, bent below the costal margin, then vertical. An elliptical brown spot at the cross-vein and a spot above it, obliquely inward, traces of an oblique median shadow below it. Exterior line marked by a black oblique spot at the costal margin, a row of dots below it on the veins inward as far as vein 2. Submarginal line brownish ochreous, vertical on the anal angle, with a row of black dots outside. Hindwing coloured like forewing. Median line of black dots, beginning behind the cell. The light submarginal line extends farther in front than in *pallida*. The latter and *brevipecten* may be forms of one species. ♂ 40 mm. Niger District, South-West Africa.



20. Genus: **Acanthonyx** Hmps.

Only few species, but the single species so variable that they have received quite a number of denominations. Proboscis normal, palpi obliquely rising, short. Antennae of ♂ with long double pectinations. Anterior tibiae spineless, but with a long claw outside. Neuration of forewing normal. Hindwing with veins 3 and 4 from the lower cell-angle, 5 a little above it. Distal margin slightly angled at vein 4. Type: *marginalis* Wkr. All the species are Ethiopian.

- marginalis*. **Ac. marginalis** Wkr. (= *marginifera* Wkr.) (24 b). Body brownish white. Forewing greyish yellow, darker before the submarginal line, the margin greyish-brown. Interior line with a brown streak from the costal margin, excurved as far as the median vein. A dark spot at the middle of the costal margin. A large greyish brown luna at the cross-vein, edged with dark. Exterior line with a brown spot at the costal margin, then traces of an undulate line excurved as far as vein 4, mostly indiscernible. Submarginal line white, distinct, uniformly bent. Hindwing white, with a dark spot at the end of vein 4. — The form **varians** Willgr. has *gilva*, a greyish white thorax and forewing. — **gilva** Strd. Thorax and forewing pale yellow, whiter at the margin. *angulata*. Hindwing margined with brown. — **angulata** Strd. Similar, but the spot at the cross-vein of the forewing *antealaris*. is prolonged at the median vein far inward and projects also far at the lower cell-angle. — **antealaris** Strd., however, scarcely shows this spot. 38—48 mm. South-West and South Africa.
- pretoriae*. **A. pretoriae** Dist. Body and forewing ochreous. Interior line dark brown, excurved towards the median vein, then very indistinctly inward. Reniform macula large, brown, a reddish brown spot above it at the costal margin. Exterior line with a brown spot at the costal margin, then a curved row of black dots. Submarginal line double, dark brown, somewhat bent, the interior branch with black dots at the veins. Hindwing pale yellow, pale reddish yellow at the margin, with a postmedian row of brown streaks. The ♀ lacks *zulu*. the spots at the costal margin of the forewing and the exterior row of black dots. — In **zulu** Strd. the thorax is whitish ochreous, abdomen white, forewing more purely ochreous. Hindwing white, a black marginal dot *seriopuncta*. at vein 4. Transvaal, Zululand. — **seriopuncta** Poult. (24 b). It is not mentioned whether *zulu* lacks the submarginal line, *seriopuncta* is without it, besides it lacks the spot above the reniform macula, and the marginal spot of the hindwing. We figure a specimen belonging to *seriopuncta* by the absence of the submarginal line, to *zulu* by the spot on the hindwing and at the centre of the costal margin. Besides there is another spot at the anal angle at the costal margin. ♂ 40 mm. East Africa, Somaliland.

21. Genus: **Euonychodes** Warr.

Separated from *Acanthonyx* by spines on the anterior tibiae and two claws instead of one. Only 1 species.

- albivenata*. **E. albivenata** Warr. (20 d). Body and forewing olive brown, costal and inner margins lighter like the veins. Cell black, somewhat lighter only in the middle. Black at the cross-vein, faded lighter olive brown behind it. Blackish in the submedian fold, with a radial light line. Darker in the distal area between the veins with lighter olive brown median lines. The light exterior and submarginal lines nearing each other between veins 5 and 2. Hindwing olive brown in the basal half, behind it a light band to the anal angle. Submarginal shadow blackish, margin olive brown. 32 mm. South Africa.

22. Genus: **Homaea** Gn.

Proboscis normal, palpi obliquely rising, thin. Antennae of ♂ ciliated. Thorax with hair and scales. The typical species has the tibiae of the ♂ and the hind tarsi long-haired. Forewing with a slightly undulating distal margin. Neuration normal. Hindwing with an undulating margin, vein 5 a little above the cell-angle. Type: *clathrum* Gn. The genus has 4 species.

- clathrum*. **H. clathrum** Gn. is chiefly Indian. Thorax blackish brown, abdomen brownish ochreous. Forewing dark ochreous, the veins white. Interior line white, edged black on both sides, obliquely inward. Median line white, thick, enclosing a black spot in the cell, obliquely inward. Reniform macula edged white, pointed above, projecting at the ends. Two indistinct white lines from the lower cell-angle to the inner margin. Exterior band white, narrower at the ends, close behind it another white line. Submarginal line fine white, with black spots inside. Hindwing blackish, browner at the margin. Three indistinct white lines in the basal area. A black spot at the cross-vein. A white oblique median band and a white line behind it. Submarginal line finely white, undulate. Separated from *hansali* already by the shape of the wings, all the distal margins showing in the middle a knot projecting beyond the margin. The wings are also more variegated with irregular white oblique and transverse bands. 34—35 mm. From Nepal and the Punjab across India, South Arabia and Bab-el-Mandeb to Abyssinia and the Atbara into the Ethiopian Region and almost to the Palaearctic Region.
- addisonae*. **H. addisonae** Hmps. Body and forewing reddish brown with black scales. Interior line indistinct, brownish ochreous, white at the costal margin, obliquely inward. A paler red-brown band in the median area. A slightly undulated black double median line, the exterior branch somewhat blurred, obliquely inward; with a white spot at the costal margin before it, between, and behind it. Reniform macula pale reddish, edged



black, with 3 white streaks inwardly, a small luniform spot outside in the middle, an oblong spot above it and two below it. Exterior line brownish ochreous, with black lunae inside, excurved as far as vein 4, a dark shadow behind it. Hindwing reddish brown. Interior line dark, double. Median line ending in the submedian fold. Two white dots behind the lower cell-angle. Exterior line double, dark. 40 mm. Sierra Leone.

In the following two species the tibiae and tarsi are not long-haired.

**H. hansali** *Fldr.* (24 c). Thorax and forewing pale reddish yellow, abdomen pale brown. A dark dot *hansali*, in the middle of the cell of the forewing, a few undulated dark lines before it. A white band from  $\frac{4}{5}$  costal margin to  $\frac{2}{3}$  inner margin, before it also a few dark undulate lines, rows of dark spots behind it. Hindwing pale reddish yellow, lighter at the base. A parted straight white median band, two straight dark bands before it, and rows of spots behind it. 30—34 mm. West, South, and East Africa.

**H. striatalis** *Hmps.* Body and forewing brownish white, the veins white. An oblique undulate interior *striatalis*, line is traceable. A black cellular dot and a streak at the cross-vein. Exterior line of brown streaks, indistinct below vein 4. Submarginal line indistinct, double, of brown striae, the exterior branch with black scales from the costal margin to vein 4. Hindwing brownish white, white at the veins. An indistinct exterior and submarginal line of brown streaks. ♀ 38 mm. Central Africa.

### 23. Genus: **Lobophyllodes** *Hmps.*

This genus is established for a very large Noctuid the colouring of which resembles that of a very large *Catocala*. This species as well as those of the following genera with their deep purple pink hindwings represent the most beautiful Heterocera of Africa. Proboscis normal. Palpi obliquely rising, very long, the second joint very hairy. Antennae of ♂ with short pectinations. Tibiae moderately hairy, strongly spined. Forewing with a short point at the apex, a large long-haired lobe at the inner margin near the base. Neuration of forewing normal, vein 5 of hindwing above the lower cell-angle.

**L. miniata** *Grnbg.* (24 d). Body and forewing reddish brown. A reddish yellow reniform spot at the *miniata*, upper cell-angle, from the lower angle a streak inward into the cell, and another reniform spot in the angle between veins 3 and 4, all edged white. Traces of a faded dark band behind it. A long bluish white spot before the apex, somewhat brown outside, a submarginal shadowy band below it. Hindwing carmine with 3 black spots, a triangular one from the middle of the costal margin, a round one between veins 2 and 4 behind the cell, an oblong one in the submedian fold. Margin broad black. ♂ 95 mm. Cameroon, Gold Coast.

### 24. Genus: **Miniophyllodes** *Joan.*

Proboscis normal. Palpi extremely long, thickly haired. Forewing with a rounded costal margin and apex. Vein 6 below the upper cell-angle, 7 below the apex of the areole. Hindwing as in *Lobophyllodes*. Likewise only 1 species the forewings of which resemble those of *Miniodes*, though they are much more truncate with a very round interior angle.

**M. aurora** *Joan.* Immediately discernible by the large rectangular black spot in the magnificently *aurora*, red hindwing behind the cell-end. Body fiery red. Forewing yellow and fiery red with yellow striae, marginal half greyish brown, redder at the costal margin. A faded blackish brown band from the middle of the costal margin to the lower cell-angle, where it is angled and very obliquely inward. A branch from the angle to the margin above a round grey spot near the margin. An exterior brown shadow from the costal margin obliquely to vein 5, then inward. Hindwing fiery red, the margin as far as vein 3 and at the apex yellow. A round black postmedian spot between veins 3 and 6. ♂ 70 mm. Madagascar.

### 25. Genus: **Miniodes** *Gn.*

Large lepidoptera in both sexes, with magnificently deep pinkish red hindwings. — Palpi very long as in the two preceding genera, but somewhat thinner than in the last genus. Antennae of ♂ slightly laminated in the type, almost plain. All the tibiae strongly spined, anterior tibiae with hair outside. Forewing with a pointed apex, neuration normal. Vein 5 of hindwing a little above the lower angle. Type: *discolor* *Gn.* Only 3 species, from Africa.

1. Antennae of ♂ with long bristles and cilia.

**M. phaeosoma** *Hmps.* Body reddish brown. Forewing dark brown with extinct yellow striae which *phaeosoma*, are more distinct at the costal margin, the same is the case with a spot from the cell-end, in half its length on vein 5, and towards the costal margin; besides at the apex and a small spot below vein 2 striated yellow and red. Two white dots and a white triangle at the cross-vein. Hindwing dark red, narrowly brown from the anal angle to vein 3 at the margin. — **phaeosomoides** *Strd.* (24 d, e) exhibits an oblique black streak on *phaeosomoides*, the forewing from the centre of the costal margin to the distal margin at vein 2. Broadly olive brown behind the exterior line. — **phaeosomella** *Strd.* is striated red and yellow on the forewing as far as the exterior line. *phaeosomella*, 70—80 mm. West Africa.

2. Antennae of ♂ laminated and almost plain.

**M. maculifera** *Hmps.* (24 d). Body greyish brown. Forewing olive brown, densely striated dark brown. *maculifera*, Traces of a dark interior line. Three white spots at the cross-vein similar to those in *phaeosoma*, the uppermost



somewhat oblong. Exterior band obsolete, blackish, from the costal margin obliquely outward to vein 4, then obliquely inward. A dark oblique shadow from the apex towards the bend. A grey spot below it between veins 5 and 3. Hindwing violettish red with a round black spot between veins 6 and 2, broadly brown at the inner margin. Thorax of ♀ somewhat red. Forewing red, densely striated brown. Hindwing less brown at the inner margin. 80 mm. Niger District, Uganda.

*discolor.* **M. discolor** Gn. (24 e) is just as variable as *phacosoma*, but at once discernible from it by the red abdomen. Thorax and forewing orange, densely striated dark brown. A dark band from  $\frac{1}{3}$  costal margin to the distal margin at vein 2. An exterior band is traceable, slightly broken behind the lower cell-angle. Of the 3 white spots at the cross-vein the lower one is mostly considerably larger. A submarginal line, excurved behind the cell, is mostly discernible, often darker behind it as far as the margin, except at the apex. Hindwing light red. ♀: forewing often also yellow, slightly dusted brown. The line from the costal margin to vein 2 is much more conspicuous, also the others often more distinct, especially one from the lower cell-angle inward. 75 to 85 mm. West, South, and East Africa, Madagascar.

## 26. Genus: **Dermaleipa** Saalm.

Of the 12 forms hitherto known from this genus one lives in the East Indies where it extends very far to the north as far as the Hoccoido and the Amur Land; this is *D. juno* figured in Vol. III, pl. 60 d. Three species are Australian, the rest from Africa. Many ♂♂ have a very pretty scent-organ. — Proboscis normal, palpi erect, antennae of ♂ finely ciliated. Hind tibiae laterally long-haired, the middle and hind tibiae spined. Neuration of forewing normal. Vein 5 of hindwing above the lower cell-angle, ♂ with a hair-pencil at the centre of the inner margin. Type: *parallelipeda* Gn.

*rubricata.* **D. rubricata** Holl. (= *ignicans* Hmps., *daseia* Fawc.) (24 b). Thorax and forewing red-brown, abdomen greyish brown, red at the end. Forewing darker at the costal margin, lighter around the reniform macula. Interior line yellow, rusty red outside, very oblique. A black dot in the cell, reniform macula large, pointed above, edged black, sometimes filled with black below. Exterior line also yellow and rusty red, obliquely outward, slightly bent inward at vein 5. Often traces of a dark postcellular spot. Submarginal line obsolete, light, with black dots at the veins, ending at the anal angle. Hindwing orange, more or less tinged with red. Blackish from the cell to the inner margin, a broad submarginal band as far as vein 6 forward. 42—52 mm. West, Central and East Africa.

*minians.* **D. minians** Mab. (24 f) is somewhat different from the other species. Body and forewing brownish ochreous, dusted red-brown. Interior line brown, oblique, undulate. Ring-macula small, edged dark. Reniform macula large, edged dark, with a dark median streak. Exterior line brown, slightly inward, excurved in the middle. Submarginal line indistinctly brown, undulate, with black dots. The ♀ is more intensely reddened on both wings. Hindwing orange. 50 mm. Madagascar. Tanganyica District. A great rarity.

*quadrilineata.* **D. quadrilineata** Strd. (24 b). Thorax and forewing pale red-brown. Interior line light, oblique, slightly distally convex at the median vein, somewhat darker behind it. Cellular spot black, reniform macula not so pointed above as in *rubricata*. Exterior line light, steeper than in *rubricata*, darker behind it, especially at the costal margin. Exterior line fine, light, straight. At the inner margin the exterior line is almost as distant from the submarginal line as from the interior one. Hindwing yellow, pale brown at the inner margin as far as the cell, with a narrow submarginal band. ♀ 45 mm. East Africa.

*meterythra.* **D. meterythra** Hmps. Thorax red-brown, abdomen yellow with a red apex. Forewing red-brown, darker at the costal margin. Interior line yellowish with dark margins, very oblique, straight. Ring-macula and reniform macula greyish-brown, edged with yellow. Exterior line yellow, edged dark outside, ending near the anal angle, where there is a dark shadow outside. ♂ 48 mm. Central Africa.

*arcifera.* **D. arcifera** Hmps. (24 f). Thorax and forewing coloured as in *quadrilineata*. Abdomen yellow. Interior line straight, very oblique. Reniform macula edged dark. Exterior line light, convex in the middle. Submarginal line pale, somewhat inward below the costal margin, then vertical. The exterior line terminates at the inner margin somewhat nearer to the submarginal line than to the interior line. Hindwing uniformly yellow. ♀ 52 mm. East Africa.

*nubilata.* **D. nubilata** Holl. Similar to *arcifera* (24 f.) A dark dot in the centre of the cell. Reniform macula edged dark. Exterior line at the ends as in *arcifera*, but straight between them. A triangular dark shadow behind it in the apical area. An inwardly bent submarginal line is indicated by black dots. Hindwing brownish ochreous. ♂ 45 mm. Congo.

*parallelipeda.* **D. parallelipeda** Gn. (= *saalmülleri* Mab.) (24 f). Thorax and forewing red-brown, abdomen yellow. Interior line of forewing somewhat steeper, the exterior one somewhat more oblique, terminating at the anal angle. Reniform macula brown, edged dark. Submarginal line pale, meeting the exterior line at the anal angle. Mostly a blackish spot before it, behind the cell. Hindwing yellow, slightly brown at the inner margin.

*renimacula.* — In **renimacula** Strd. (25 b) the reniform macula is black, but there are also specimens in which only the lower part of the macula is black (see the figure). — **luteimaculata** Strd. has this lower angle yellow; hindwing red at the margin. — **brunneipicta** Strd. Hindwing with a brown inner margin and the beginning of a submarginal band. — In **ochribrunnea** Strd. the forewing is more yellowish brown. 45—50 mm. West Africa.



— The ♂♂ of this species show the feather-like, extensible scent-organ at the inner margin of the hindwing especially beautifully developed, almost as in the Indo-palaeartic *juno*.

**D. metaphaea** *Hmps.* (25 b) of which only the ♀ is known may be only a form of the preceding genus. *metaphaea*. Body and forewing violettish greyish brown. The lines on the forewing are not different. Hindwing greyish brown with a yellow exterior band to the anal angle, yellow also at the margin from the apex to vein 2. — **metaphaeana** *Strd.* has a black reniform macula; here there are also specimens in which only the lower part *metaphaeana*. is black, but these forms have not been named. 48—55 mm. West Africa.

## 27. Genus: **Lagoptera** *Hbn.*

This genus composed of 9 species, mostly large beautiful *Noctuae*, is chiefly Indo-Australian. — Proboscis normal, palpi reaching the frons. Antennae of ♂ ciliated. Anterior and posterior tibiae of ♂ hairy, middle tibiae spined, posterior tibiae spined between the spurs. Forewing with a pointed apex, neuration normal. Veins 3—5 of hindwing well separated from each other; under surface of ♂ with androconia. Type: *honesta* *Hbn.* from India, from where nearly all the species originate.

**L. occident** *Hmps.* (24 f). Thorax and forewing pale red-brown, abdomen greyish brown. Interior line *occident*. black, very oblique, straight, slightly thickened at the costal margin. Median line as far as the lower cell-angle parallel to it, then steeper. Exterior line white, edged with brown inside, ending near the anal angle. A blackish line from the apex inwardly bent, then vertical to the anal angle, paler behind it. Hindwing blackish brown with a brown indistinct line from the centre of the costal margin to the anal angle; the middle of the distal margin and a small spot at the apex are brown. ♀ 52 mm. Sierra Leone, Gold Coast.

**L. durfa** *Plötz* is compared by the author with *Achaea praestans* *Gn.* and *macaria* *Cr.* which is perhaps *durfa*. identical with *Achaea echo* *Wkr.* But the two species look very different. AURIVILLIUS places the species to *Lagoptera*. It is described: Coloured like *macaria*. Basal area almost straightly cut off, brown. Median area lilac inside, brown outside, sinuately edged outside. Two brown dots at the cross-vein. Marginal area lilac, edged with brown, with a streak obliquely extending into the apex. Hindwing very similar to *macaria* (resp. *echo*). — **lineata** *Auriv.* is dark brown on the forewing as far as the margin, but the violettish white transverse *lineata*. lines not mentioned by PLÖTZ are present, besides the black median line and the oblique streak to the apex. *melanotica*. — **melanotica** *Aur.* is still darker. Blackish grey with blackish transverse lines bearing a few yellowish dots, the streak to the apex black. Small dots at the costal margin before the apex in all 3 forms. 65 mm. West Africa, Fernando Po.

## 28. Genus: **Minucia** *Mr.*

Palpi very long, thorax with an edge-like tuft. Anterior and posterior tibiae long-haired, middle and posterior tibiae spined. Type: *lunaris* *Schiff.*, distributed over the whole of Europe. Besides *wiskotti* *Pglr.* (Vol. III, pl. 63 g) from Palestine belongs to this genus.

**M. heliothis** *Rbl.* Light ochreous. Cross-vein of forewing brownish. A triangular blackish brown spot *heliothis*. above it somewhat outward at the costal margin. Marginal area somewhat darker than the rest. In it the same dentate submarginal line as in *lunaris*, dark brown behind it at the apex as far as vein 5 downward. Hindwing somewhat darker than the forewing, blackish at the margin, broad at the apex, disappearing at the anal angle. ♂ 22 mm. Sudan. Only this one specimen is known.

## 29. Genus: **Euminucia** *Hmps.*

Proboscis normal, palpi projecting beyond the frons, the second joint hairy. Antennae of ♂ ciliated and with bristles. Tibiae of ♂ long-haired. Anterior tibiae not spined, posterior tibiae spined only between the pairs of spurs. Neuration as hitherto. Wings of ♂ beneath with androconia in the basal halves of both wings. Type: *conflua* *Hmps.* Only 3 African species.

**E. conflua** *Hmps.* Thorax dark red-brown, abdomen greyish brown. Forewing light red-brown at *conflua*. the costal margin, pinkish brown below it in the middle and in the marginal area. Interior line yellowish, from the base bent upward to  $\frac{1}{4}$  costal margin, then to vein 1 downward about in the middle, from there as an exterior line bent upward to  $\frac{3}{4}$  costal margin. The space below these lines as far as the submarginal line very dark red-brown. Ring-macula small, edged dark. Reniform macula dark, edged light, with a narrow lobe as far as below the ring-macula, and an oblique prolongation outward again at vein 2. Submarginal line yellowish, very wavy, at vein 5 inward extending to the exterior line. Hindwing greyish brown. — **ligulifera** *ligulifera*. *Strd.* (20 e) shows a narrow deeper indentation at the junction of the interior and exterior lines. The point of the submarginal line is broader than in HAMPSON's figure of the nomenclatural form. 58—60 mm. West and East Africa.

**E. orthogona** *Hmps.* (20 e). Thorax dark red-brown. Forewing pale red-brown in the anterior part. *orthogona*. marginal area greyish brown, the rest dark red-brown. Interior line grey, bent downward only to the middle of the submedian fold and united there with the exterior line. Ring-macula small, reniform macula narrower



in the middle. Submarginal line from the apex to vein 5, inward there, then to the anal angle, rather rectilinear. Abdomen and hindwing dark brown. — *camerunica* Strd. (20 e) differs in its white interior and exterior lines. The angle at vein 5 at the submarginal line is thick white, the continuation fine white. Distal area below vein 5 in the middle bluish white. ♂ 52 mm. West Africa.

### 30. Genus: **Anua** Wkr.

Most of the almost 50 *Anua*-forms known, as well as the common African *tirhaca*, belong to the Ethiopian Region, if the genus is comprehended according to HAMPSON whom we follow. The imagines rest on the ground during the day; the larvae (only that of *tirhaca* is known) are apparently not so variegated as those of many *Ophiusa*, but more like those of *Catocala*, bark-coloured grey above. Food-plants: *Cistus*, *Pistacia*, and *Rhus coriaria*. — Proboscis normal, palpi reaching the frons, antennae of ♂ ciliated. Forelegs long-haired, middle and posterior tibiae hairy and spined. Margin of forewing slightly undulated. Neuration as hitherto. Type: *finifascia* Wkr. from Transvaal. The genus is also very well represented in the Indo-Australian Region.

1. Hindwing of ♂ beneath with hairs at the base and vein 1.

*coronata*. **A. coronata** F. (25 a) is widely distributed in the Indo-Australian Region, from Madagascar it is described as *ponderosa* Mab. Thorax and forewing pale red-brown. Two interior lines obliquely outward, two exterior lines obliquely inward, dark, parallel in pairs. The large reniform macula is 8-shaped. Abdomen and hindwing yellow with 2 broad black bands. Numerous forms in the oriental region. 70—90 mm. Madagascar.

2. Hindwing of ♂ at vein 1 without hairs.

*pelor*. **A. pelor** Mab. (25 a). Body brownish ochreous. Forewing darker, redder, lighter only around the black ring-macula. Reniform macula with a lighter edge, 8-shaped. Exterior line brownish ochreous, very oblique, straight. Submarginal line brownish ochreous, beginning near the apex, bent inward at veins 3—5. Darkest between it and the exterior line. Hindwing orange with a broad black submarginal band, the margin itself narrowly greyish brown. ♂ 104 mm. Madagascar.

*tirhaca*. **A. tirhaca** Cr. This species has been dealt with already in Vol. II, p. 327 and pl. 60 f. It occurs also in the whole of Africa and Madagascar.

The next 4 species are very much alike.

*dianaris*. **A. dianaris** Gn. (24 c). Thorax and forewing grey, abdomen yellowish grey. Forewing with a fine dark interior line, undulate, obliquely outward, mostly absent. A fine dot in the middle of the cell. Reniform macula brown, with a dark edge and median streak, 8-shaped. Exterior line from a dark spot at the costal margin, excurved around the cell, then vertical to the inner margin, rarely discernible. Submarginal line whitish, distinct, broadly faded dark brown before it, more pointedly extra-angular at vein 7, more obtusely at vein 4, blackish before it. From veins 3 to 5 mostly red-brown at the margin, the rest light grey. Hindwing yellow at the base, the rest blackish. ♀ with a darker forewing and a broader margin on the hindwing. 45—55 mm. Sokotra, Abyssinia, East, South, and South-West Africa.

*mejanesi*. **A. mejanesi** Gn. (24 c). Thorax and forewing red-brown, violettish grey at the margin. Interior line light, obliquely outward. The ring-macula is a black dot, the reniform macula brown, edged black, concave outside. Exterior line fine white, straight behind the cell, oblique, incurved to the costal margin and at vein 2, then slightly outward, and inward at the inner margin. Submarginal line light, similar to *dianaris*, the projection at vein 4 almost the same, ending somewhat more obliquely at the inner margin. The space behind it dark, often with black scales, then a bluish-grey shadow. Hindwing brownish ochreous, broadly blackish-brown at the margin. — In *purpurascens* Strd. the forewing is violettish grey as far as the submarginal line. 45—50 mm. Africa and India.

*tettensis*. **A. tettensis** Hpff. (25 b) is so similar that it may be merely a form of *mejanesi*. Forewing pale reddish brown, darker red-brown between the exterior line and the submarginal line. At the latter the corner at vein 4 is much more rounded. The hindwing is not brownish ochreous at the base, but whitish grey. — Some specimens, in which the interior line descends more steeply from vein 1 and the exterior line has the same shape but is situate a little more basad, are probably to be regarded only as aberrations, not as species. Their submarginal line has a short inward angle at vein 3. 40—44 mm. East Africa.

*wahlbergi*. **A. wahlbergi** Wlgr. (= *tettensis* Hmps.) (25 a, b). AURIVILLIUS states that *wahlbergi* is an older name for *tettensis*. Thorax yellow, abdomen whitish ochreous. Forewing yellow, darker behind the exterior line. Interior line straight, light. The cellular dot, the reniform macula and the following lines agree exactly with *tettensis* Hpff. The brownish marginal spots may be confluent or absent. Hindwing white, slightly brown in the interior area, marginal band as in *tettensis*. — In *rubicunda* Strd. the thorax and forewing are somewhat redder. 36—45 mm. West, South and East Africa. — It cannot be decided whether *expedita* Wkr. and *cameronis* Plötz belong to *tettensis* Hpff. or to *tettensis* Hmps.

*obsolescens*. **A. obsolescens** Hmps. Body reddish yellow. Forewing yellowish white, especially at the base. A red-brown streak at the cross-vein. Submarginal line red-brown, slightly excurved at vein 6, somewhat red-brown



behind it. Hindwing yellow, blackish brown at the margin, with a reddish reflection, narrower at the anal angle. ♂ 42 mm. Rhodesia.

**A. umbrilinea** *Hmps.* (25 c). Body and forewing yellowish brown. Interior line blackish, incurved *umbrilinea*, towards the costal margin, otherwise straight, faded dark behind it. Reniform macula 8-shaped with 2 dots inside. Exterior line blackish, thickened at the costal margin, then excurved as far as vein 6, somewhat undulated, obliquely inward, steeper from vein 2. Submarginal line whitish, shaped similar to *dianaris*, only at the anal angle farther outward. Hindwing white, brownish hairs at the inner margin. Distal margin broadly blackish. The only ♀ at hand is much greyer brown on the forewing and on the body. Hindwing brownish yellow in the basal area without any white. 48—50 mm. South-West Africa.

**A. verecunda** *Holl.* (25 c). Thorax and forewing red-brown, darker behind the exterior line. Interior *verecunda*, line brown, indistinct, projecting in the submedian fold. Cellular dot black, reniform macula brown, edged black. Exterior line blackish, slightly incurved at the costal margin, then almost straight, obliquely inward. Submarginal line indistinct, blackish, somewhat excurved at veins 6 and 3. Hindwing brown, broadly blackish at the margin, paler at the apex and at the inner margin at the base. ♂ 56 mm. Gabun. — **verecundoides** *verecundoides*, *Strd.* is smaller, lighter, Isabel-coloured on the forewing; hindwing cream-coloured in the light areas. A darker band before the lighter margin of the forewing. Also the dark hindwing with a narrow light margin. ♀ 40 mm. Congo District.

**A. selenaris** *Gn.* (= *obhaerens* *Wkr.*, *welwitschi* *Fldr.*) (25 c). Body and forewing brownish ochreous, *selenaris*, marginal area whitish violet. Interior line pale, oblique as far as the submedian fold, then inward. Cellular dot black, reniform macula 8-shaped. Exterior line pale, white behind the cell, excurved, then straight, oblique to the inner margin. Submarginal line pale, narrowly black outside, incurved between veins 5 and 3, otherwise parallel with the margin. Hindwing whitish grey, brown at the margin. — **selenaria** *Strd.* is more red- *selenaria*, brown on the forewing, whiter at the base of the hindwing. — In **anguligera** *Strd.* the interior line of the fore- *anguligera*, wing is extra-angular as far as the exterior line. — **feminicolorata** *Strd.* is a ♂ with a female colouring. The *feminicolorata*, ♀ has a chocolate brown thorax, the forewing tinged with violettish grey. Submarginal line more intensely edged black. 40—46 mm. West and South Africa.

**A. finifascia** *Wkr.* (= *amplior* *Wkr.*, *lilaceofasciata* *Pagst.*) (25 c). Thorax and forewing chocolate *finifascia*, brown, marginal area somewhat violettish grey. Interior line dark brown, strongly extra-angular in the submedian fold, inward at vein 1. Cellular dot and reniform macula as in *selenaris*. Exterior line obliquely outward as far as vein 7, slightly concave behind the middle of the cell, strongly inward in the submedian fold and connected with the interior line by a streak, the two lines nearing each other at the inner margin. Submarginal line greyish violet, more excurved at vein 7 and less so at vein 3. Hindwing whitish ochreous, broadly smoky brown at the margin, whitish only at the apex. Forewing of ♀ somewhat more brownish ochreous. 48—50 mm. South Africa, Comoros. — **dilecta** *Wkr.* is somewhat lighter, the interior and exterior lines are *dilecta*, not connected by a streak. The other lines are the same. Hindwing without the apical brightening. 42—46 mm. West and South Africa.

**A. violascens** *Hmps.* (25 c). Forewing lilac grey, brown before the submarginal line. Interior line *violascens*, whitish, undulate, oblique. Ring-macula and reniform macula as usual. Exterior line white, slightly compressed behind the cell and pointedly inward in the submarginal fold. Submarginal line white, excurved at vein 7, then uniformly bent inward, ending at the inner margin. Marginal area grey. Hindwing ochreous, margin broadly blackish. ♀ 42 mm. Natal.

**A. recurvata** *Hmps.* (25 d). Thorax and forewing light red-brown, marginal area light violettish brown. *recurvata*, Interior line pale, oblique. Ring-macula and reniform macula as usual. Exterior line pale, extra-angular close below the costal margin, excurved at veins 3 and 4, incurved in the submedian fold, intro-angular behind the cell. Submarginal line light, incurved at vein 7, then almost vertical to the anal angle. Hindwing reddish brown, greyish white before the margin. ♂ 50 mm. Gold Coast.

**A. hopei** *Bsd.* (25 b). Thorax and forewing brownish ochreous, more reddish before the submarginal *hopei*, line. Marginal area greyish yellow. Interior line indiscernible. A brown luna at the cross-vein. Exterior line fine, dark brown, obliquely inward. Submarginal line light, bordered with dark inside; more extra-angular at vein 7 than in the two preceding species, ending at the anal angle, strongly incurved between. Hindwing brownish ochreous, broadly dark at the margin. ♂ 50 mm. Madagascar.

**A. salita** *Dist.* (25 d). Thorax and forewing violettish greyish brown, red-brown in the anterior half, *salita*, marginal area violettish grey. Interior line yellowish brown, very oblique, straight. Ring-macula small, edged white, reniform macula elliptical, edged whitish, dark inside. Exterior line whitish, excurved behind the cell, incurved at vein 2. Submarginal line greyish white, excurved at vein 6, then a few notches and vertical to the anal angle, blackish behind it. Hindwing brownish ochreous, blackish at the margin. 40—45 mm. South Africa.

**A. melaconisia** *Hmps.* (25 d). Thorax and forewing grey, striated brown. Interior line white, oblique, *melaconisia*, straight. Ring-macula and reniform macula black, elliptical, edged lighter and traversed by light lines. Exterior line white, excurved between the costal margin and vein 4, incurved at vein 2, somewhat outward at vein 1. Submarginal line white from vein 6, slightly outward at vein 4, inward at vein 2. Behind it from vein 8 to below 6 three black spots edged brown outside. Hindwing ochreous brown, margined with dark.



Fringe white, brownish behind the cell. Hindwing beneath white with a blackish margin. ♂ 40 mm. Nyassa Land, Mashona Land.

3. Hindwing of ♂ beneath covered with androconia except at the costal margin.

*cancellata*.

**A. cancellata** *Saalm.* (25 d) strikingly resembles the preceding species. In the ♂ the two maculae and the 3 spots of the submarginal line seem to be slightly larger. Exterior line vertical from vein 2, but also incurved at the inner margin. Fringe of hindwing apparently brown. Hindwing beneath uniformly ochreous and covered with androconia. Fringe of hindwing brown also in the ♀. Under surface white with a dark margin. 40—44 mm. Madagascar, Angola, Uganda, Tanganyika.

4. Hindwing of ♂ beneath entirely covered with androconia. Distal margin of hindwing in the ♂ with a round projection. Exterior line undulated. It is difficult to determine the species owing to their resemblance and variability. The varying opinions of different authors are mentioned in the several species.

*conspicienda*.

*da*.

**A. conspicienda** *Wkr.* (25 d). Thorax and forewing brownish red. Interior line blackish with traces of a doubling inside, inwardly dentate as far as the median vein, far outward in the submedian fold, then inward. A black cellular dot and a mostly shadowy reniform macula with but one white dot each above and below. Exterior line blackish, more distinctly double, excurved below the costal margin and at veins 4 and 5, incurved between them. Submarginal line greyish white, mostly composed of white dots, very indistinct; below the apex mostly with two black spots, a grey one in the submedian fold. White dots at the margin.

*conspiciens*.

Hindwing brown, blackish in the marginal half. Fringe white in the anterior part. — In **conspiciens** *Strd.* the forewing is more dark grey. — A specimen from North-Western Cameroon, which probably also belongs to this species, has an ochreous ground-colour on the forewing, the doubling of the lines is very distinct, the darkening before the submarginal line more distinctly separated from the exterior line, the spot in the submedian fold greyish green. The fringe on the darker hindwing is light brown, not white. *inangulata* *Gaede* is only a smaller dark specimen of it. 55—65 mm. West and East Africa.

*reducta*.

**A. reducta** *Mab.* (25 e). Thorax and forewing dark violettish brown, with some leaden gloss, reddish before the exterior line. Interior line similar to that of *conspicienda*. Reniform macula very indistinct on the dark ground, with a white dot below. The exterior line, as far as it is discernible, is also similarly shaped as in *conspicienda*, except that the two lines seem to be nearer together at the inner margin. Submarginal line very indistinct, with a small black spot below the costal margin, with black dots at veins 4 and 3, with a small grey spot in the submedian fold. Hindwing blackish, lighter at the base, fringe yellowish in front. Forewing beneath greyish brown with a broad blackish brown margin. Hindwing ochreous, greyish brown at the margin.

*feminis*.

*pallidula*.

The ♀ shows a red-brown ground-colour on the forewing, the marking more distinct. — **feminis** ♂ *Strd.* is similarly light as the ♀. — **pallidula** ♂ *Strd.* is still lighter, the marking indistinct. 65 mm. Madagascar. — According to AURIVILLIUS, *maculata* ♀ *Willgr.*, from the Cape Colony, is allied with *fumida* *Hmps.* and hardly discernible from *reducta* ♀. *reducta*, however, has an undulated exterior line, which is dentate in *fumida*. Besides there is a ♂ from Fernando Po at hand, very similar to *conspicienda* beneath, but above it resembles *reducta* in the shape of the lines and the darkness; this may be *maculata* *Willgr.* We figure a specimen from Madagascar from the Senckenberg Museum, which is considerably lighter than HAMPSON's figure and more distinctly marked. It also shows that the exterior line is not bent so far basad at the costal margin as in *conspicienda*. — The species or form *A. maculata* *Willgr.* has been passed over by HAMPSON in his elaboration.

*subdiversa*.

**A. subdiversa** *Prout* (25 e) represents *reducta* in West Africa. The following differences are mentioned: exterior line less bent at vein 2. Submarginal line more distinct, with a stronger black spot at the costal margin. The grey spot in the submedian fold is larger. The smaller ♀ has sooty grey forewings and darker hindwings. 60—64 mm. Gambia.

*violisparsa*.

**A. violisparsa** *Prout* also resembles *reducta* (25 e). Thorax dark chocolate brown. Forewing reddish chocolate, dusted violettish, though less between the exterior and submarginal lines. Interior line indistinct, but in the submedian fold apparently less angular than the similar species. Exterior line indistinct, edged somewhat violet inside, otherwise similar to *reducta*, or somewhat more irregular. Submarginal line fine, black, interrupted, deeply incurved in the middle, with a more or less distinct black spot above vein 6. Exterior border of the submarginal line pale green, less interrupted, absent at the costal and inner margins; violet behind it, indistinctly defined. Hindwing dark greyish brown, narrowly violet before the middle of the distal margin. Fringe pale in front, but not white. 65—70 mm. Cameroon, Uganda.

*flavociliata*.

**A. flavociliata** *Aur.* (25 e). ♀ thorax dark red-brown. Forewing yellowish brown, darker greyish brown in the basal and marginal areas. The lines similar to the two preceding species. At the interior line the lobe projecting below the cell is narrower. The exterior line at the costal margin as in *reducta*, but more pointedly angled at the lower cell-angle, then straight to before the middle of the inner margin. The two maculae as hitherto. Submarginal line slightly bent inward above veins 3 and 4, with black dots, a black streak below vein 3, a bow below vein 2, the whole line with reddish yellow scales, a large black spot above vein 6. Hindwing blackish grey, lighter at the base. ♀ 62 mm. Cameroon.

*hypoxantha*.

**A. hypoxantha** *Hmps.* Thorax light red-brown, abdomen whitish brown. Forewing light red-brown, darker in the distal half. Interior line dark, faded inwardly, with white scales outside, extending as hitherto.



The ring-macula is a black dot. Reniform macula edged with bluish white dots, pointedly extended above. Exterior line dark, with white scales inside, similarly undulated as in *reducta*. Submarginal line chocolate brown with bluish white scales outside and a large black spot at the costal margin, indistinct in the centre of the wing, with a bluish white spot in the submedian fold. Hindwing of ♂ yellowish red-brown, darker before the margin, the margin from veins 7 to 4 yellowish. The ♀ has a dark brown abdomen and hindwing. — The thorax and forewing of the ♂ may be dark brown, with silvery blue scales. Hindwing likewise dark brown. — On the other hand, the ♂ and ♀ may also be pale brown with a violettish grey hue. Hindwing pale brown. 52—62 mm. Central and East Africa. — According to PROUT, *hypoxantha* is a form of *dauid* Holl. (p. 228) which has hardly any projection at the distal margin of the hindwing.

5. In the following species the hindwing of the ♂ is angular, the exterior line of the forewing dentate.

**A. fumida** Hmps. (25 f). Thorax and forewing greyish brown, with a leaden gloss, somewhat brownish *fumida*. ochreous before the margin. Interior line dark, indistinct, its course as usual, inward from vein 2. Reniform macula light brown, edged black. Exterior line indistinct, notched, somewhat outward below the costal margin and below the cell, introangular at vein 2. Submarginal line of blackish spots below the costal margin, then black dots as far as vein 2, a fine line below it to the inner margin. Hindwing brown with a broad blackish margin. ♂ 64 mm. Natal.

**A. hampsoni** Holl. (= *producta* Hmps.) (25 e). Thorax and forewing pale brown, the marking dark *hampsoni*. brown. The base as far as the interior line dark. The latter oblique from the costal margin to the submedian fold, then inward. Cellular dot black, reniform macula dark, edged blackish. Exterior line indistinct, the dents similar to *fumida*, but larger. Submarginal line very indistinct, marked by a few black dots. Darker brown from it to the exterior line or almost to it. Hindwing greyish brown, darker at the margin, fringe white in the anterior part. The ♀ has more brownish ochreous forewings. 58—64 mm. West Africa. — HOLLAND declares his unrecognizably described *producta* not to be identical with *producta* Hmps., unfortunately he does not mention any differences. — **rubescens** Prout, from Uganda, is more reddish with more distinct lines. The *rubescens*. waves at the exterior line are less deep. Distinct black spots in front at the submarginal line. It cannot be said of course whether the form belongs to *producta* or *hampsoni* or is identical with either of them.

**A. xylochroa** Drc. (25 f). Thorax and forewing ochreous greyish brown, dark brown at the base as *xylochroa*. far as the interior line. The latter obliquely outward, with angles at the upper and lower cell-margins and vein 1. Reniform macula brown, faded, connected with the interior line on the median vein. Exterior line dark, dentate as in *fumida*, but thicker. Submarginal band greyish brown, faded, undulate. Hindwing light brown, broadly dark at the margin. ♀ greyish brown on the forewing, costal and distal margins more reddish. Interior and exterior lines with bluish grey scales. Submarginal line marked by bluish grey spots. 65 mm. Congo District. — According to PROUT, *xylochroa* is only a pale *producta* Holl.

**A. gonoptera** Hmps. (26 a). On the whole very similar to *xylochroa*, but separated from all the species *gonoptera*. of this group by the round black subapical spot which is connected with the costal margin by a whitish streak. Interior line faded, fused with the dark basal area. The extinct reniform macula is surrounded by white dots. Exterior line faded, outward below vein 2 as in *xylochroa*. Submarginal band as in *xylochroa*, but with the already mentioned spot and streak at the costal margin. Hindwing not different. — **extincta** Gaede (25 f) *extincta*. belongs to this species owing to the apical marking. Interior and exterior lines absent. The ring-macula is a dot, the reniform macula scarcely darker, the white marginal dots extinct. Below the subapical spot the submarginal line is marked by an undulated row of black dots, lighter behind it as far as the margin. Hindwing not different. — 45—55 mm. Rhodesia, East Africa.

**A. tumiditermina** Hmps. (25 f). Thorax and forewing pale olive yellow. Interior line brown, indistinct, *tumiditermina*. pointedly outward below vein 2, then somewhat inward. Cellular dot black, reniform macula pale brown. Exterior line brown, somewhat dentate, slightly introangular at vein 6 and in the submedian fold. Submarginal line with 2 black spots at the costal margin, then formed of greyish brown dots, ending at the inner margin with two larger grey spots. Hindwing pale brown, with a broad dark brown margin. The ♀ is pale red-brown on the thorax and forewing. 58 mm. Rhodesia, Tanganyika District.

**A. despecta** Holl. (26 a). Thorax and forewing pale red-brown. Interior line dark brown, straight, *despecta*. somewhat inward. Close behind it the black cellular dot. Reniform macula only inside distinctly edged. Exterior line excurved below the costal margin, then obliquely inward, slightly inserted. Submarginal line with two black spots below the costal margin, then interrupted and partly extinct. Hindwing brown, blackish at the margin. ♀ red-brown on the thorax and forewing. 48—52 mm. Niger District, Gabun.

**A. rufescens** Hmps. (26 a). Similar to *tumiditermina*, but more reddish, except at the costal margin. *rufescens*. Interior line indistinct, projecting outward below vein 2. Cellular dot and reniform macula extinct, edged black. Exterior line indistinct, dark, apparently steeper from vein 2 than in *tumiditermina*. In the submarginal line the two black spots at the costal margin are larger, the grey spots at the inner margin smaller than in *tumiditermina*. Hindwing somewhat lighter, the dark marginal band narrower at the anal angle. ♂ 55 mm. Sierra Leone.



*dauid.* **A. dauid** Holl. Size and shape similar to the palaearctic *Min. lunaris* (Vol. III, pl. 60 e). As there is no coloured figure of the species, the description is somewhat unsafe. Forewing light red-brown. Interior line normal. Reniform macula fadedly brown. Exterior line in front as in *conspicienda* and *reducta*, more undulated below vein 2. Submarginal line of black streaks, with small grey spots outside. Hindwing dull reddish brown, marginal half somewhat darker. — In *viridipicta* Strd. the forewing is darker, especially behind the middle. Black spots in front at the submarginal line, greyish green scales outside in the submedian fold. 50—65 mm. West Africa, Rhodesia. — **camptogramma** Prout shows the interior line of the forewing from  $\frac{1}{4}$  costal margin inward rectilinear to the median vein. The exterior line is more deeply undulated in front, obtusely angled inward in the submedian fold. It may be identical with the earlier described *inangulata* Gaede (at *conspicienda* p. 226).

6. Hindwing of ♂ beneath without androconia, distal margin rounded. Middle tibiae of ♂ with a cavity containing large scales.

*nocturnia.* **A. nocturnia** Hmps., like *dauid*, also shows the size and shape of the palaearctic *lunaris*. Thorax and forewing red-brown, margin greyish brown. Interior line indistinctly brown, edged with white scales, intro-angular at the median vein, then oblique, undulate. Cellular dot black, reniform macula pale, finely edged with black. Median line indistinct, dark, undulate, from the costal margin to below the cell-end, where it is united with a similar line from the costal margin close behind the cell. Exterior line also indistinct, dark, edged with white scales in the anterior part, dentate, excurved as far as vein 4, then oblique. A triangular red-brown spot before the submarginal line at the costal margin. Submarginal line excurved below vein 7 and in the middle. Hindwing greyish brown. — **ochrascens** Strd. has the forewing brownish ochreous as far as the submarginal line, excepting the spot between the two median lines and the subapical spot. — In **ochrifusa** Strd. the lines of the forewing are edged with ochre, the apical spot has the same colour. 45—55 mm. South Africa.

*ambigua.* **A. ambigua** Gerstäcker (26 a). The species is still more dissimilar to the other *Anua*-species than *nocturnia*, but owing to the tibial cavity it agrees with *nocturnia*. That both are forms of a single species, as STRAND asserts, I do not believe. Forewing very dark red-brown. Interior line black, edged with dark yellow outside, notched, obliquely outward. Reniform macula blackish, edged dark yellow, surrounded by a black dentate line which is open at the costal margin. This may be the double median line in HAMPSON's description of *nocturnia*. The black exterior line is extra-angular at vein 6, then inward, with a slight projection at vein 3. Rusty brown streaks behind it below the costal margin, then black stripes and spots as far as the inner margin. Submarginal line yellowish, undulate, interrupted. Anal angle rusty brown. Hindwing dark brown. 45 to 50 mm. Usambara.

### 31. Genus: **Hypanua** Hmps.

Proboscis normal, palpi projecting beyond the frons, not porrect as in *Anua*. Middle tibiae not hairy. Neuration as in *Anua*. Hindwing beneath with scent-scales in the basal area. Only 2 species in Africa, 1 in New Guinea. Type: *xylina* Dist.

*xylina.* **H. xylina** Dist. is very similar to the palaearctic *Minucia lunaris* (Vol. III, pl. 60 d) in its shape and marking, but above with a reddish yellow ground-colour, beneath whitish ochreous. Thorax and forewing yellowish red-brown. Interior line yellow, edged dark outside, oblique, slightly undulated, steeper from vein 1. A black dot in the middle of the cell. Reniform macula large, red-brown, narrower below. Exterior line yellow, straight, obliquely inward, ending near the interior line. A dark brown undulate line at the margin. Hindwing smoky brown, lighter in the middle. 60 mm. South Africa.

*roseitincta.* **H. roseitincta** Hmps. Thorax dark yellow with a pink reflection, abdomen chrome-yellow. Forewing dark yellow with a pink reflection except in the basal area, costal margin and median area, partly dusted dark brown. Interior line red-brown, fine, incurved at the median vein, excurved close below the cell. Reniform macula red-brown, edged with dark brown, small and narrow. Exterior line red-brown, indistinct, excurved as far as vein 4, then more distinct, oblique. Black dots at the margin. Hindwing pale yellow, the margin pinkish brown from below the apex to the submedian fold. ♀ 55 mm. Natal.

### 32. Genus: **Heliophisma** Hmps.

Half a dozen rather variable species all of which are confined to the Ethiopian Region, particularly to its tropical west. The genus is similar to *Hypanua*, also in its colouring. The middle tibiae of the ♂ have a cavity edged with scales, the middle tarsi are hairy on the first joint. Forewing with a pointed apex. Hindwing angled in the middle. Neuration normal. Type: *croceipennis* Wkr. which we place here as a form to *klugii* Bsd.

In the first two species the interior and median lines are straight, undulate in the others.

*catocalina.* **H. catocalina** Holl. (26 b). Thorax and forewing from dark orange to light reddish brown, the lines dark brown. Interior line oblique, slightly excurved in the middle. Traces of a cellular dot. Reniform macula narrow, curved, indicated by dark borders. Median line straight or also feebly S-shaped. Exterior line ob-



liquely outward as far as vein 6, then undulated, straight, somewhat inward. Submarginal line slightly angled at vein 7, straight, faded. Hindwing pale brown as far as the middle, then narrowly orange, broadly black behind it, narrowly orange at the margin. 52—60 mm. West Africa. — **zanzibarica** *Hmps.* (26 b). described *zanzibarica*, from East Africa, occurs also in the Cape Colony and Nyassa Land. The colour of the forewing varies a little as also in *catocalina*, the scheme of markings is quite the same. Very different, however, is the abdomen and hindwing which are orange, while of the large black spot of *catocalina* only the middle part of a narrow short band is left. The band is not so strong as *HAMPSON* figures it in any of my ♂♂ or ♀♀. 50—55 mm.

**H. euryplaga** *Hmps.* (26 c). Thorax orange, abdomen pale brown. Forewing light red-brown, the lines *euryplaga*, dark brown. Interior line oblique, double, undulate, faded. Reniform macula grey, faded, with black marginal dots. Median line double, faded, undulate, inward close behind the reniform macula, above and below it. Exterior line distinct, notched, shaped as in *catocalina*. Submarginal line notched, faded, light brown before it as far as the exterior line, whitish at the margin. Hindwing orange with a large round black subapical spot. ♂ 60 mm. Madagascar.

**H. klugii** *Bsd.* (26 b). Thorax and forewing reddish orange, abdomen orange. The lines on the forewing *klugii*, faded, dark brown. Interior line double, undulate, the interior branch more or less faded. Reniform macula small, edged with dark. Median line also double, notched, undulate, encircling the reniform macula at a greater distance from it than in *euryplaga*, vertical from the lower cell-angle, the exterior branch often extinct. Exterior line shaped as in *catocalina*. Submarginal line of extinct spots, with a silvery violet hue over it, before it traces of another row of spots. Hindwing orange with a black spot between veins 6 and 2, narrowly prolonged to the anal angle. — In **rivularis** *Btlr.* the thorax and forewing are more yellow, the spot on the hindwing *rivularis*, slightly undulately edged. — **maculilinea** *Strd.* (26 c) is a less superfluous name. The shape of the lines is not *maculilinea*, different, only the median line seems to be always single, but they consist of mostly much darker spots, and the reniform macula is blackish, too. A row of black spots extends from the apex to the submarginal line, the white shine at the submarginal line is absent. — **croceipennis** *Wkr.* differs little from *maculilinea*. The median *croceipennis*, line is feeble, single, slightly S-shaped. Black marginal dots on the hindwing between veins 5 and 2. — **varians** *Mab.* is a subordinate form of it, in which the interior line is accompanied inside by black spots, as in *maculilinea*; *croceipennis* is without them. The apical row of spots is absent in *varians* as well as in *croceipennis*. 50 to 60 mm. West to East Africa, Madagascar.

**H. xanthoptera** *Hmps.* (26 c) is probably also only an extreme form of *klugii*. Body and wings pale *xanthoptera*, orange, the lines pale brown. Interior line single, a blackish spot before it in the submedian fold. Reniform macula present, median line single. Exterior line feebly double. Of the apical spots of the form *maculilinea* only that below vein 6 is present, very large and black, a smaller one below it. The margin is narrowly red-brown, except at the apex. Hindwing quite orange, somewhat brownish only near the anal angle. — **demaculata** *Strd.* has lost also the spot before the interior line and the spot below vein 6, and is thus the very contrary to *maculilinea*. 60—65 mm. West Africa. Delagoa Bay.

### 33. Genus: **Tolna** *Wkr.*

16 species, all of them Ethiopian, form this genus; throughout very large, robustly built lepidoptera with a rather bright marking to the varied designs of which the names *versicolor*, *meandrica*, *variegata* etc. refer. — Metathorax with a tuft, also the basal segments of the abdomen tufted. Tibiae of ♂ long-haired. Posterior tibiae with spines. Forewing with a round apex. Neuration normal. Type: *versicolor* *Wkr.*

**T. versicolor** *Wkr.* (= *versicolora* *Hmps.*) (26 c). Thorax and forewing blackish brown. Interior line *versicolor*, lighter brown, projecting outward below the costal margin, then somewhat inward, slightly introangular in the submedian fold, dusted bluish white. Exterior line from  $\frac{3}{5}$  costal margin to vein 4 as a thick white beam, then finely bluish white undulated as far as the submedian fold, from there straight to the inner margin. Before the exterior line another indistinct bluish white parallel undulate line, a black spot close behind it above and below vein 3. The apical line is distinctly white at vein 6, bent down before the distal margin and more feebly to the costal margin, the apical area dark rusty brown. Abdomen and hindwing dark rusty brown. 60—70 mm. West Africa.

**T. sypnoides** *Btlr.* (= *daedalea* *Mab.*, *meandrica* *Saalm.*) (26 d). ♂ body from reddish brown to greyish *sypnoides*, brown. Forewing olive brown at the base and apex, median area white, dusted brownish green. Interior line black, notched, vertical. Two fine black dots at the cross-vein. From a black spot above it at the costal margin the fine dark median line proceeds, outward as far as vein 4, then inward. Exterior line intensely black, dentate, outward as far as vein 3, then more feebly inward. Submarginal line indicating the exterior border of the apical spot, forming long waves, disappearing below it in the light margin. Hindwing reddish brown like the abdomen or whitish as far as behind the middle of the wing, where there is a fine dark median line, the rest brown. The smaller ♀ shows the median area of the forewing dusted brownish black or greenish black. A black square at the cross-vein, filled with olive brown, in white surroundings. The median line more distinct than in the ♂. The white submarginal line more distinct in the lower part owing to the dark surroundings. The under surface is also very elegantly coloured. 52—65 mm. West and South Africa, Madagascar.



- complicata*. **T. complicata** *Btlr.* (26 d). Thorax brownish ochreous, abdomen greyish brown. Forewing dark red-brown. Interior line fine, white, undulate, oblique. The reniform macula is a large white ring. Exterior line double, dentate, white and ochreous, outward as far as vein 3, then inward, with a white spot at the inner margin. Submarginal line yellowish white, somewhat outwardly angled at vein 7, far and pointedly inward at vein 5, black internerval streaks before it. Hindwing greyish brown, darker in the marginal half. ♀ 52 mm. Madagascar.
- strandi*. **T. strandi** *Bryk.* described as an *Achaea*, represents *complicata* in Cameroon. Ground-colour of forewing not different. Interior line as far as the median vein the same, then it disappears almost entirely. The dark ground-colour of the basal area projects far and pointedly at vein 2, finely white below it at vein 1 above a smaller point. Vein 2 is white on the left forewing of the type. Some white dusting at the base of veins 3 to 5. Submarginal line interrupted behind the cell by a black blotch, extending from the exterior line obliquely upward to vein 7. The inwardly directed point in the submedian fold is very blunt, with two faded black spots on its outside. Apex of hindwing yellowish white as far as vein 6. The fringe then gradually turns darker. ♀ 48 mm. Cameroon.
- macrosema*. **T. macrosema** *Hmps.* (26 e). Body and forewing dark reddish brown. Interior line black, vertical, then bent over and very obliquely outward along the inner margin. Median area yellow and pale red-brown. Reniform macula dark, on a blackish brown spot from the costal margin to below the cell, irregularly bordered. Median line reddish brown, obliquely outward from the exterior edge of this spot, undulate as far as vein 4, then inward, steeper from vein 2. Exterior line bordering on the light median area, blackish, dentate, excurved between veins 6 and 4, then inward, steeper from vein 2. The space behind it red-brown with black spots replacing the submarginal line. Hindwing blackish, the distal margin in front narrowly yellowish. ♂ 50 mm. Gold Coast.
- chionopera*. **T. chionopera** *Drc.* (26 f). Thorax and forewing dark reddish brown, blackish at the margin. Interior line yellowish white, double, filled with black, little undulated, slightly outward as far as the middle, then vertical. The reniform macula is almost as large as in *complicata*, edged dark. Median line indistinct, double, dentate, far excurved as far as vein 4. Exterior line double, whitish yellow, filled with black, dentate, broadly excurved in the middle. Submarginal line ochreous, dentate, rather straight. Abdomen and hindwing greyish brown, blackish in the distal half, with a white apical spot. ♀ 52 mm. Cameroon.
- hypogrammia*. **T. hypogrammica** *Hmps.* Body and forewing dark brown. Interior line blackish brown, edged with red-brown. Reniform macula indistinctly edged with black, prolonged upward, a black triangle behind it. Exterior line white, obliquely outward as far as vein 7, then inward. Submarginal line red-brown, indistinct, edged black inside except at the costal margin, incurved between veins 6 and 4. Hindwing blackish brown, the white apical spot extends to vein 4. ♂ 50 mm. Central Africa.
- variegata*. **T. variegata** *Hmps.* (26 e). Thorax and forewing dark red-brown, the veins somewhat white. Interior line black, undulate, edged with white on both sides. A large black, white-edged ring in the median area encloses the black reniform macula. Behind it traces of a faded dark median band. Exterior line double, whitish, dentate, filled with black, outward as far as vein 6, inward from vein 4, a white spot before it behind the cell. Submarginal line white, extinct behind the cell, a white horizontal streak before it below vein 7. A blackish spot at the apex. Abdomen and hindwing dark brown, marginal half blackish. ♂ 56 mm. Cape Colony.
- tethremicycla*. **T. tethremicycla** *Strd.* differs from *variegata* in a few white places on the forewing. Vein 2 is thickly white near the base on a length of  $3\frac{1}{2}$  mm. A spot between veins 3 and 5 near the base, slightly projecting outward at vein 4, besides spots at veins 6 and 10, all in a curved row outside at the ring around the reniform macula. Both wings very dark brown. ♀ 48 mm. Cameroon.
- sinifera*. **T. sinifera** *Hmps.* (26 e) differs from *variegata* in the white spots of *tethremicycla* being united into a finer white line which is rectangularly broken behind the centre of the cell. The submarginal line projects far rectangularly inward in the submedian fold. Hindwing blackish brown. ♀ 50 mm. Nigeria.
- niveipicta*. **T. niveipicta** *Strd.* (20 e). This might be the ♂ of *tethremicycla*. The streak at vein 2 is much feebler but still discernible, the spot between veins 3—5 is much smaller, the other 2 are absent. Quite different from the preceding species, however, is the hindwing. The base is white, at the costal margin as far as  $\frac{2}{5}$  of its length, then excurved as far as the anal angle, the rest blackish, only at the inner margin narrowly brown. ♂ 50 mm. Cameroon.
- cryptoleuca*. **T. cryptoleuca** *Hmps.* Thorax and forewing dark brown and red-brown, the median area darker. Interior line oblique, undulate, black, excurved in the submedian fold. Reniform macula edged black, small. Two undulate black median lines uniting in the submedian fold, the exterior one outwardly angled at vein 5, thus a transformation of the ring around the reniform macula in the preceding species. Exterior line black, undulate, bent, with silvery white scales outside at veins 5—7. Behind it a red-brown spot from the costal margin to vein 6. Submarginal line dark brown, slightly undulated, incurved between veins 6 and 4, a black triangular spot before it below vein 6. Hindwing white, brown at the costal margin as far as the middle, inner margin brown, distal margin blackish brown with a white apex. ♀ 58 mm. Central Africa.



**T. limula** *Mschlr.* (= *demaculata* *Strd.*) (26 e). Thorax and forewing pale red-brown, darker in the *limula*. marginal area. Interior line as in *cryptoleuca*. Reniform macula represented by a rusty red spot with a white angle inside. The two median lines pointedly united as far as vein 2, the exterior one strongly extra-angular above vein 5, the enclosed area darker red-brown. Exterior line fine, black, dentate, excurved as far as vein 6, incurved below vein 4. Black dots before the margin. The type shows also a submarginal line marked by the border of the red-brown distal area and the brown margin, a black oblique blotch below vein 6, from veins 4 to 1 yellowish white dots at the submarginal line. The two other specimens do not show anything of this. Hindwing red-brown, fringe lighter in front. ♀ 42—46 mm. Cape Colony.

**T. atrigona** *Prout* is near *complicata*, but the reniform macula is smaller and rounder. While *complicata* *atrigona*. is darker at the base and behind the exterior line, *atrigona* is darker between the interior and exterior lines, and the white parts are much reduced. Hindwing uniformly dark. ♀ 56 mm. Madagascar.

**T. bolengensis** *Holl.* (20 f) differs entirely in the marking and the contours of the wings. Antennae of *bolengensis*. ♂ feebly pectinated. Body dark brown. Forewing pinkish brown, dark brown in the distal area. A few light and dark lines near the base below the cell. Reniform macula pale yellow, with a black dot above, U-shaped below. From its interior edge a dark line distally light-edged extends rather vertically to the inner margin. Paler behind this line as far as the exterior line, dark only behind the reniform macula. The exterior line extends undulated from near the apex, straight as far as vein 2, then it bends round vertically to the inner margin near the anal angle, and then follows the dark margin. Hindwing smoky brown, lighter at the base. ♂ 42 mm. Congo.

**T. eximia** *Holl.* This species is also rather different. Body and forewing dark brown as far as the middle, *eximia*. marginal area paler, bordered inside by an oblique irregular silvery white line. The basal area is parted again by an interior and a median dentate silvery line and by silvery veins. The most remarkable is a dark triangle bordered by silvery lines at the costal margin near the apex, and obliquely below it a quadrangular spot behind the cell. Hindwing blackish brown. ♂ 50 mm. West Africa.

### 34. Genus: **Paratolna** *Auriv.*

Distinguished from *Tolna* merely by the posterior tibiae being only spined between the spurs. I presume that the *Tolna*-species beginning from *complicata* having the same scheme of markings also belong to this place here.

**Par. brunneovittata** *Auriv.* Body dark grey. Forewing blackish brown, dark yellowish brown at the *brunneovittata*. inner margin. Transverse lines black, dentate, edged with white. Ring-macula and reniform macula black. As for the rest, the author refers to his figure which shows an insect very similar to *T. tethremicycla*. Different is apparently a white radial streak in the cell (a rent?). Of the white spots behind the reniform macula the large one is reduced into 3 dots between veins 3 and 4, the thick streak following above it has become quite narrow, the last is absent. The exterior line, however, is more intensely white near the costal margin, and so is the whole submarginal line, with a brightening between the two lines above the inner margin, both interrupted dark between veins 3 and 5. ♀ 46 mm. Fernando Po.

### 35. Genus: **Ercheia** *Wkr.*

The only African form of this genus containing about a dozen species was denoted by SAALMÜLLER as *Melipotis* with HÜBNER's name which is latterly used again, since it is 30 years older than *Ercheia*. — Proboscis and palpi as hitherto. Abdomen with a basal tuft. Wings with a somewhat undulated margin. Tibiae slightly haired, the anterior tibiae without spines, the two other pairs spined. The many species, excepting a palaearctic one which is not rare in Central China and Japan, are all Indo-Australian except the one African species. They seem to be rather variable; some Indian species so much that they have been given more than a dozen names. Type: *diversipennis* *Wkr.* from India. For further particulars on this genus see Vol. III, p. 335.

**E. subsignata** *Wkr.* (= *mahagonica* *Saalm.*) (26 e). A very variable species. Thorax and forewing red- *subsignata*. brown. Interior line black, vertical, far outward in the submedian fold, then vertical. Median line double, vertical, faded, to a large black-edged spot in the submedian fold. Reniform macula feebly edged with black, and with some white dots. Exterior line black, double, from  $\frac{3}{5}$  costal margin, far excurved at veins 3—5, then dentately obliquely inward. Submarginal line white, dentate, mostly indistinct. Mostly darker behind it from vein 2. Hindwing blackish brown, margin and fringe from below the apex to vein 5 narrowly white. — Now the forms: **fuscobrunnea** *Strd.* Forewing uniformly dark brown. — **periploca** *Holl.* Forewing dark brown, the *fuscobrunnea*. interior and marginal areas greyish brown, with a faded black band in the submedian fold. — **nigroguttata** *Strd.* *periploca*. with black spots in the submedian fold before the interior and median line and behind the exterior line. — **cinereotincta** *Strd.* *nigroguttata*. is grey in the median area as far as into the submedian fold; base and inner margin darker. *cinereotincta*. — **albovariegata** *Strd.* is whiter in the median area. — **plumbea** *Strd.* is lead-coloured grey in the cell-end and its *albovariegata*. surroundings. 40—50 mm. West Africa. *plumbea*.



36. Genus: **Achaea** Hbn.

Proboscis and palpi normal. Antennae of ♂ ciliated, strongly pectinated only in the first species. Abdomen with short basal tufts. Middle and hind tibiae with spines. A genus consisting of more than 50 almost purely African species. Type: *melicerta* Hbn. distributed throughout the Indo-Australian Region as far as the celebrated Easter I.; a characteristic lepidopteron of the coasts of Tropical Asia.

*pectinicornis.* **A. pectinicornis** B.-Bak. (27 d). Size and shape of wings almost as in *Parallelia triplocyma* (29 d), but the whole forewing broader and the margin more convex, the oblique streak before the apical third of the forewing and the strigiform spot before the anal angle of the hindwing whiter. Thorax and forewing brownish ochreous and red-brown, darker in the median area. Interior line double, black, obliquely outward, vertical from the centre of the wing, the branches rather far separated. Reniform macula rusty brown, narrow, indistinct. Exterior line whitish, thick, oblique, somewhat double as far as vein 6, then finer, sharply bent inward at vein 6, and vertically on to the inner margin. At some distance before it traces of a dark line. Submarginal line fine white, undulate, distinct only at the costal margin. Hindwing smoky brown, lighter at the base, at the anal angle the beginning of a white line. 38—45 mm. Congo, Cameroon, Central Africa.

1. Middle tibiae of ♂ widened, enclosing a cavity and a hair-pencil. Middle tarsi not hairy. The two species of this group are very similar, the first has a very hairy base of the hindwing, the other only shows the base at the inner margin of the forewing hairy.

*illustrata.* **A. illustrata** Wkr. (= *mabillii* Saalm.) (26 f). Thorax rusty brown, abdomen brown. Forewing greyish brown with a violet reflection, a white dot at the base. Interior line dark brown, oblique, somewhat concave in the middle. Reniform macula narrow, edged with black. Median line dark brown, undulate, far excurved behind the cell, from vein 2 vertically to the inner margin. Exterior line dark, notched from near the apex to vein 2, somewhat excurved between, then yellowish, finely dentate, vertical to the inner margin. This line is surrounded at the costal margin by a large white spot, divided by the veins and a transverse line, a white spot before it below vein 2 and a small one above and below it. Hindwing greyish brown, darker in the marginal area. A white square at the apex, and white below it at the margin. The ♀ shows a less distinct marking. 50—65 mm. West Africa. A similar specimen is at hand from Madagascar from the Senckenberg Museum.

*dasybasis.* **A. dasybasis** Hmps. seems to differ in the absence of hair on the hindwing and an irregularly running interior line. The median line is not so far excurved behind the cell, the exterior line is less distinct. 60 mm. East Africa, Rhodesia.

2. Hindwing of ♂ with a fine hook at the base of the median vein and a horny plate at the base at the costal margin. The ♂ produces a sound in flying.

*mormoides.* **A. mormoides** Wkr. (= *mania* Fldr.) (27 a). Body and forewing reddish brown, the median area sometimes lighter. Interior line distinct, black, straight, mostly light-edged outside. A large black spot at the cross-vein and a small one below it; they may be fused. Median line undulate, excurved behind the cell, double, rather indistinct. Exterior line more excurved between veins 6 and 4 than the median line, single, dentate, blackish. Submarginal line light, dark outside, almost straight, lighter behind it, obliquely dark only at the apex. Hindwing lighter or darker brown. A faded light line excurved from the middle of the costal margin to the inner margin near the anal angle. A fine whitish submarginal line from the anal angle to vein 2. Variably broad white at the apex, the margin below it narrowly light. 60—66 mm. West, South, and East Africa. —

*schützei.* **schützei** Bryk, from Nigeria, differs only in very fine dots replacing the reniform macula, and is therefore hardly entitled to receive a special name.

*regularidia.* **A. regularidia** Strd. (27 a) is very similar to *mormoides* in colour and size. The interior line, however, obliquely outward, undulate as far as below the cell, then somewhat steeper. The two dots of the reniform macula equally large. The median line also double, but parallel to the exterior line, just as strongly bent as the latter. The indistinct light submarginal line in the darker marginal area more extra-angular at vein 7, much nearer to the margin than in *mormoides*. The two lines on the hindwing very indistinct. 56—64 mm. East Africa, Abyssinia.

3. Wings of the ♂ normal.

*praestans.* **A. praestans** Gn. (= *bryoxantha* Hmps.) (27 b). Rather variable. Body dark red-brown. Forewing the same, but with a variably intense green hue on it. A few dark undulate lines at the base. Interior line composed of 2 or 3 branches, vertical, slightly undulated, often also fused. Reniform macula finely edged with brown, with 2 black dots. Median line slightly double, dentate, brown, slightly excurved behind the cell. Exterior line dark, very oblique from the costal margin to vein 6, strongly edged white outside, then sharply inward, double, filled with white. Submarginal line pale, very dentate, parallel to the margin. A large rusty brown spot, often bluish white outside, is at the apex behind the exterior line. Hindwing dark red-brown. *praestantis.* blacker outwardly, with a large yellow spot at the apex as far as vein 4. — In **praestantis** Strd. the basal and marginal areas browner, the median area sap-green. — **brunnescens** Strd. is browner, the space between the anterior and median lines pale green, whitish at the costal margin, the apical spot dark outside. — In **rufobrunnea** Strd. (= *arabella* Bryk) (27 b) the colouring is uniformly red-brown, the marking indistinct, the narrow median area almost white. — **lunata** Strd. is red-brown with white lunar spots behind the median line above and below vein 3. — **cinereovirescens** Strd. differs from *lunata* in its greenish grey ground-colour. — As the exterior



edge of the white band in *rufobrunnea* (*arabella*) extends somewhat differently from the median line of *prae-stans*, I am inclined to consider these two to be separate species.

**A. poliopasta** *Hmps.* (27 b) is very similar to *prae-stans*. Forewing dark brown as far as the last interior line. Median area dusted bluish green. The black median line somewhat nearer behind the cell. Exterior line double, dentate, filled with pale green, from the darker red-brown apical spot somewhat steeper to the inner margin. Marginal area as dark as the base. The yellow apical spot of the hindwing extends at the costal margin less far inward. ♀ 64 mm. Cameroon.

**A. radama** *Fldr.* (27 a) resembles the two preceding species. Body and basal third of forewing blackish brown. Interior line yet in the dark area, light reddish brown, undulate, vertical. Median area violettish grey (in FELDER's figure green), dark brown at the costal margin, 2 black dots at the cross-vein. The outward border of the median area is formed by the double black dentate median line. A red-brown spot before the apex as in *poliopasta*. The double exterior line vertical, bent inward from vein 4. An irregular submarginal line is marked by the somewhat less dark margin. Hindwing as in *poliopasta*. — **radamana** *Strd.* is without the two white spots behind the median line at vein 3, the median area is bluish green. — **radamella** *Strd.* is similar, but the median area is red-brown, without any violet or green colouring. 70 mm. Madagascar.

**A. intercisa** *Wkr.* (27 c). Body dark brown. Forewing dark chocolate brown at the base, a similar spot at the costal margin near the apex. Interior line yellowish brown, edged with black outside, undulate, pointedly inward at the median vein and vein 1. Reniform macula edged with black, flat. Exterior line blackish, edged light outside next to the apical spot, outward as far as vein 5, then bent round and vertically to the anal angle. From a reddish spot above the reniform macula a faded reddish line extends around this macula and then from vein 5 parallel to the exterior line. Median area ochreous as far as the median line, more red-brown behind it. A black triangle at vein 5 outside at the exterior line. Hindwing blackish brown, the yellow apical spot not so undulately edged inside as hitherto. 50—52 mm. West Africa.

**A. stumpffi** *Saalm.* (27 c) and the two following species were placed far away from *illustrata* *Wkr.* by HAMPSON, although they show a great resemblance to it. Body greyish brown, forewing red-brown, the lines blackish. The interior one vertical, double, undulate, filled with light. Three black dots at the cross-vein. Median line dentate, excurved behind the cell, then straight inward, excurved again from the submedian fold. Exterior line almost parallel with it. A rusty brown spot behind it at the costal margin shaped as in *illustrata*, narrowly rusty red above the anal angle, traversed by the dark submarginal line which is otherwise not recognizable. Hindwing blackish brown, lighter at the base, with a white apical spot. ♂ 52 mm. Described from Madagascar, but there is also a specimen at hand from the Tanganyica District (from the Senckenberg Museum).

**A. imperatrix** *Saalm.* (26 f) is a beautiful large species. Body and forewing greyish brown. Interior line straight, undulate, somewhat oblique, edged somewhat white below the cell. A small brown ring in the cell and two at the cross-vein. Median line very indistinct, excurved behind the cell. A large white spot near the apex with a greyish brown zigzag line, similar to *illustrata*. A series of white, brown-edged lunae extends from it to  $\frac{3}{5}$  inner margin. Behind it black streaks on a rusty brown ground, this area is narrow at vein 5, reaching almost the margin at the inner margin. Margin narrowly whitish grey. Hindwing blackish brown, narrowly white at the margin, a greyish white triangle, long-haired, extends from the inner margin on the whole length with the apex to the centre of the wing. ♂ 80 mm. Madagascar.

**A. jamesoni** *Prout* also resembles *illustrata*. Body and forewing light-brown as far as the exterior line with a violet reflection. Interior line dark, indistinct, outward from  $\frac{1}{4}$  costal margin, less oblique below the cell. Reniform macula indicated by a dot above and below. Apical spot white with brown patches, relatively larger, but narrower than in *illustrata*. Exterior line undulate, better parallel with the margin than in *illustrata*, finely edged outside with white and rusty yellow. Submarginal line absent. Margin narrowly pale violet. Hindwing greyish brown with a white apical spot. ♀ 64 mm. Congo, Gold Coast.

**A. cyanobathra** *Prout*. Body and forewing dark brown, with an intense violet gloss in the basal area. Interior line somewhat paler than the ground-colour, straight, somewhat undulate. Reniform macula as in *intercisa* (27 c), but less distinct on the dark ground. Exterior line feeble, similar to *leucopera* (27 d), the veins behind it with pale blotches. Submarginal line dark, double, similar to *leucopera*, but nearer to the margin and without the apical spot. Hindwing with a yellow apical spot, shaped similarly to the white one of *leucopera*. ♂ 45 mm. Cameroon.

**A. chrysopera** *Drc.* (27 b). Body and forewing red-brown. Interior line threefold, blackish, undulate, somewhat oblique. A black streak at the cross-vein. Median line black, dentate, far excurved behind the cell, then to the middle of the inner margin. A semicircular bluish white spot at the costal margin before the apex. The dentate exterior line begins at the interior edge of that spot, then parallel with the margin. Submarginal line indistinct, parallel, uniformly dentate. Hindwing blackish brown, margin broadly yellow as far as vein 4 downward, red-brown at the anal angle. ♂ 52 mm. East Africa.

**A. dejeani** *Bsd.* (= *orea* *Mab.*) (27 c). Paler red-brown than *chrysopera*. Interior line finely double. The other lines as in *chrysopera*. Insignificantly lighter in the exterior median area behind the reniform macula. The



white apical spot is absent. Basal area of hindwing from the middle of the costal margin to the anal angle reddish brown, blackish behind it. The yellow apical spot straightly bordered inside. 50—55 mm. Madagascar.

*ezea*. **A. ezea** Cr. (= *hircus* F., *leona* Fldr.) (27 c). Red-brown, with a slight coppery gloss, the lines as indistinct as in *dejeani*. Interior line double, lighter red-brown, undulate, a lighter spot before it in the submedian fold. Reniform macula indicated by black dots. Median line mostly even less distinct than the exterior line, both parallel, excurved behind the cell, vertical from the submedian fold. Median area somewhat lighter from vein 3 to the costal margin. Traces of a lighter spot at the costal margin from the exterior line to the apex. Submarginal line not discernible, darkest behind it. Hindwing blackish brown, margin narrowly pale yellow as far as vein 4. — **A. thomensis** E. Prout, from São Thomé, differs only slightly. The yellow apical spot on the hindwing is somewhat darker, and somewhat broader at the apex. Besides the small, often absent yellow dots at the anal angle and next to it are larger in *thomensis*. — By far most of my continental *ezea* are almost uniformly red-brown, without any recognizable lines, and only determinable by the hindwing. 50—55 mm. West and South Africa.

*ezeoides*. **A. ezeoides** Strd. is somewhat smaller and darker than *ezea* (27 c), greyer at the base and narrowly so at the margin, the rest blackish brown. Interior line black, pale yellow outside, slightly undulated, somewhat oblique. Exterior line angled at vein 6, extinct soon below it. Submarginal line yellow, edged with black on both sides, almost parallel with the margin. Hindwing not different from *ezea*. ♀ 40 mm. Cameroon.

*busira*. **A. busira** Strd. Wings dark red-brown. Interior line of forewing black, dentate, straight, undulate. Behind it at the inner margin a short band light inside and dark outside, somewhat outward as far as vein 2, somewhat broader at the inner margin itself, otherwise very narrow. An oblique streak at the cross-vein. The usual costal-marginal spot grey, with an outward dent-like projection below. The exterior line traverses this spot, dentate, dark, somewhat outward, disappearing soon below it in the ground-colour. Costal margin and apex of hindwing narrowly golden yellow, blackish brown below it as far as vein 4, besides a slightly dentate black curved median line. Described according to a badly preserved ♀. 59 mm. Congo.

*flexuosa*. **A. flexuosa** E. Prout. Thorax tobacco-brown, abdomen greyer. Forewing pale brown at the base and between the exterior and submarginal lines, pale red-brown in the median area; around the interior line the two colours run into one another. Pale greenish brown at the exterior line. Margin red-brown with white spots before the black marginal line. Lines indistinct, blackish. Interior line from a light spot at the costal margin, then formed of dark red-brown dusting, perhaps forming a double line. Median line only at the costal margin, faded. Exterior line proceeding from 2 light spots at the costal margin, continued in dark lunar spots, somewhat excurved towards the inner margin. An exterior branch is indicated by dark dusting. Reniform macula somewhat dark, narrow, with pale marginal dots. Submarginal line blackish, faded, very undulate. Hindwing dark brown, broadly light yellow at the apex, more narrowly so at the costal margin. ♀ 70 mm. São Thomé.

*catocaloides*. **A. catocaloides** Gn. (= *exhibens* Wkr.) (27 e). Body and forewing reddish brown, the lines fine, dark. Interior line somewhat undulate, straight, oblique. Reniform macula small, with 2 black dots, a broad, vertical, quite extinct median shadow runs over it. Exterior line dentate outward as far as vein 6, then slightly concave inward, and vertical to the inner margin. An undulate dark submarginal line is rarely indicated. Hindwing dark brown, marginal area blackish brown. A yellow band from the middle of the costal margin, ending pointed at vein 2. Small yellow spots at the apex, at the middle of the distal margin and above the anal angle. — Three deviating forms have not been denominated. The first has a strong dark median band. The second shows the space from the band to the exterior line blackish brown. The third is light violet around the exterior line. 45—55 mm. West Africa, Uganda, East Africa.

*obvia*. **A. obvia** Hmps. (27 d). Distantly similar to *balteata*. Body brown, forewing dark brown, much lighter in the median area, the margin somewhat lighter. Interior line double, yellowish brown, filled with black, oblique and somewhat undulate. A black spot at the upper cell-angle. Traces of a dark double median line extending around the spot outside. Exterior line double, yellowish brown, parallel with the interior line, ending at the anal angle. A white spot at the apex. The border of the lighter marginal area from this spot inward, extra-angular at vein 4, then to the exterior line below vein 2. Hindwing dark brown with a white apical spot, narrowly prolonged as far as vein 4. Niger District. — **A. umbrata** Strd. (27 d) is dark also in the median area, the apical spot is rusty brown, a rather light reniform macula is present. 48 mm. Cameroon.

*lenzi*. **A. lenzi** Saalm. (27 d). Thorax and forewing chocolate brown, suffused with violet in the ♂. A lighter band from the middle of the costal margin to the inner margin near the anal angle, parted dark longitudinally, bordered by 2 dark brown lines which are edged lighter outside. Two black white-edged spots at the cross-vein, the edging of the lower one showing a point upward. Marginal area light brown, separated from the dark rest by a lighter line. The border-line is bent at vein 7, more pointedly outward at vein 3, then vertical to the anal angle, bent inward between. Apex slightly darkened, in the bendings above and below vein 3 there is one bluish-white faded spot each, more distinct in the ♂. Hindwing dark brown, lighter at the base. Narrowly yellow at the apex, with a yellow marginal line as far as vein 4. 40 mm. Madagascar.

*balteata*. **A. balteata** Joan. (29 b) is presumably only a subordinate form of *lenzi*. Thorax and forewing dark olive brown, the margin yellowish brown. All the lines oblique from the middle of the costal margin to the



inner margin near the anal angle. Interior line finely blackish brown, violettish white outside. Exterior line next to it, somewhat steeper, edged with white on both sides, bent inward, another parallel light line before it below the cell. Submarginal line whitish, extending at vein 7 to the margin, then blackish brown, bent inward, to the anal angle. Hindwing dark greyish brown, narrowly yellow at the margin as far as vein 4. ♀ 46 mm. Madagascar.

**A. leucopera** Drc. (27 d). Thorax and forewing at the base chocolate brown. The border-line is light, *leucopera*, somewhat outward, slightly projecting below the cell. The interior half of the median area is greenish white, the exterior half bluish brown. Reniform macula edged with a black streak and black dots. Median line dark, dentate, extra-angular at vein 5, bent inward in the submedian fold. Exterior line dentate as far as the submedian fold, forming a large bow, below it outward again. Marginal area darker. A rusty brown spot at the apex, edged with white inside. Submarginal line yellowish brown, parallel with the margin. Hindwing blackish brown, a white spot at the apex down to vein 5. The ♀ has a red-brown base on the forewing, the rest being more reddish, the median area with a violet hue. Hindwing lighter brown. — In **deviridata** Strd. the green *deviridata*, dusting in the median area has almost disappeared. — **banjonis** ♀ Strd. (20 f) has a dark red-brown basal area, *banjonis*, the space behind it as far as before the submarginal line is uniformly lighter. The interior line is quite straight, vertical. HAMPSON does not mention the latter in *leucopera*. In both the forms the white apical spot of the forewing is pointed behind. 45 mm. Cameroon, Congo.

The two following species are much stronger, similarly marked.

**A. retrorsa** Hmps. (27 e). Body pale red-brown. Forewing chocolate brown at the base. Median line *retrorsa*, dark, yellowish outside, bent inward from the middle of the costal margin to vein 1, then still more obliquely to the inner margin. Paler red-brown behind it, gradually darkening as far as the submarginal line. Reniform macula indicated by 2 black dots and a fine connecting line. Exterior line double, faded, bent S-like, somewhat dentate, dusted violettish white inside, the interior branch with a faintly black spot at the inner margin. A round spot of the ground-colour at the apex, encircled by dark brown. From vein 7 the inwardly broad dark border of the marginal area extends at first inward, then parallel with the margin, bent from vein 2 to the anal angle. Marginal area above somewhat white. Hindwing brown, dusted bluish white at the base and on a median band from the middle of the costal margin to the anal angle. Besides a light submarginal line near the anal angle. 70 mm. Madagascar.

**A. echo** Wkr. (= *mariaca* Plötz) (27 f). Body and base of forewing darker than in *retrorsa*. Median line *echo*, dark brown from the middle of the costal margin to the middle of the inner margin, uniformly bent inward between. Median area very pale red-brown inside, darker outwardly. Two black dots at the cross-vein. Exterior line single, more dentate than in *retrorsa*, also S-shaped. The border of the marginal area extends from the apex, otherwise similarly bent as in *retrorsa*, very dark before it. Margin pale red-brown, the veins in the interior part light, darker between. Hindwing somewhat darker than in *retrorsa*, otherwise similar, with a white apical spot. 62—70 mm. West and South Africa.

**A. indicabilis** Wkr. (27 f). Body greyish brown. Forewing chocolate brown in the basal area in front, *indicabilis*, greyish brown at the inner margin and in the median area. Interior line whitish, very irregular. Ring-macula and reniform macula edged with pale brown. Median line brown, shortly excurved around the cell, then inward to the middle of the inner margin. Exterior line black, dentate, extra-angular at vein 6, then straightly inward, greenish before it as far as the median line, dark red-brown behind it. The border of the marginal area similar to that in *retrorsa*. Margin slightly greenish. Hindwing greyish brown, darker in the distal half. A white spot at the apex as far as vein 5, a short light marginal and submarginal line from the anal angle. ♀ 58 mm. West Africa.

The following 3 species are lighter on the forewings.

**A. orthogramma** Mab. (= *sarcopasa* Drc.) (27 e). Body yellowish brown, forewing somewhat more *orthogramma*, reddish. Interior line white, edged with grey inside, oblique, straight. Reniform macula formed of two circles connected by a bent streak. Median band faded, straight, incurved from vein 3. Exterior line white, edged dark inside, vertical, almost straight. Submarginal line indicated by a few dark spots. Marginal area violettish white, tapering at the ends. Hindwing pale greyish brown, with a broad black band from  $\frac{4}{5}$  costal margin to the anal angle, margin broadly blackish, white behind the cell. 46—56 mm. Madagascar.

**A. leucopasa** Wkr. (= *karschi* Pag.) (27 e). Thorax and forewing reddish yellow, somewhat violet be- *leucopasa*, hind the median line, feebly rusty brown at the margin. Interior line dark, straight, undulate, rather oblique. Reniform macula with 2 black spots, shadowy. Exterior line of 3 parallel branches, the middle one less strong, dentate, slightly excurved behind the cell, vertical below vein 2. From the apex an oblique line to vein 6, where there is a dark spot, the margin behind it rusty brown. Hindwing similar to *orthogramma*. Around the white marginal spot the two black bands are fused. 55—70 mm. Madagascar.

**A. serva** F. (= *fasciculipes* Wkr.) is said to occur also in Madagascar, though it is distributed from India far *serva*, into the Australian archipelago. It is larger than the following species or form, quite similarly varying; the bluish white median band of the hindwing is interrupted in *serva* and less faded than in *mercatoria*. 65 mm. Madagascar.

**A. mercatoria** F. (= *melicerta* Cr., *vulpina* F., *ino* Hbn., *accelerans* Wkr., *serva* Mr.) (27 f). Thorax *mercatoria*, and forewing pale red-brown. Interior line indistinct, double, undulate, oblique as in *leucopasa*. Reniform macula



indicated by 2 or 3 dots. Median and exterior lines bent as in *leucopasa*, 3 or 4 branches. Submarginal line sometimes indicated by 1 or 2 rows of spots. Margin rusty brown. Hindwing greyish yellow at the base. Median band bluish white, dull. Bluish white spots at the apex, in the middle of the margin and near the anal angle. — **obscurior** *Strd.* denotes darker specimens. — **accelerans** *Wkr.* (= *signipennifera* *Strd.*) has distinctly double lines of blackish brown spots. — **obliqua** *Strd.* has an oblique blackish median band close behind the cell. — **violaceofascia** *Saalm.* is very indistinctly marked, but intensely suffused with violet. 50—58 mm. From Sokotra to South Africa, Madagascar, besides distributed as far as Java.

*obscurior.* **A. dmoë** *Prout* is very similar to *mercatoria*. From yellowish brown to red-brown, with a more or less intense violet lustre, the costal and distal margins yellow, the lines dark. The median line on the forewing is straight, the exterior line less irregular, all the rest as in *mercatoria*. Hindwing greyish ochreous, blackish in the anterior half at the margin, somewhat blackish also at the anal angle. A small white spot at the apex. An indistinct light ochreous postmedian band above the anal angle. — In **unilinea** *Prout* the interior line is feeble, the median shadow black and intense. 56—60 mm. Madagascar.

*seychellarum.* **A. seychellarum** *Holl.* (28 a) is also very closely allied to *mercatoria*. Thorax greyish brown, forewing more reddish. Interior line undulate, oblique, black. Ring-macula and reniform macula feebly indicated. Median line undulate, outward as far as behind the lower cell-angle, then undulately inward, blackish behind it as far as the exterior line which is dentate, uniformly excurved behind the cell, then straight to the inner margin. Submarginal line indicated by a double row of spots. Hindwing dark brown, blacker at the margin. Median line white, bent. Three white spots at the margin. — **immunda** *Holl.* is greyer, the marginal area browner, the lines very indistinct. 44 mm. Seychelles.

*umbriger.* **A. umbriger** *Mab.* (28 a) is very similar to *catocaloides* *Gn.* (27 e) on the forewing. Interior line the same. The dark median shadow still broader. The exterior line is shaped the same, but not undulate, the apex behind the cell sharper, finely edged with white outside. Hindwing blackish brown with an oblique yellowish brown median band. Marginal area still darker. ♂ 48 mm. Mauritius.

*trapezoides.* **A. trapezoides** *Gn.* (28 a). Body and forewing pale reddish brown. Interior line fine, dark, slightly excurved in the middle. Reniform macula indicated by 2 black dots. Median line slightly double, somewhat angular behind the cell-angles, then slightly concave. Exterior line indistinct, projecting obtusely at vein 6, then parallel with the median line. Submarginal line undulate, light, oblique from the apex, then parallel with the margin. Hindwing greyish brown with a light bent median line. Marginal area black, brown only at the margin itself, light ochreous at the apex. — In **caeruleoalba** *Strd.* the costal margin is dusted bluish white behind the exterior line. — **renimacula** *Strd.* has the reniform macula filled with black. 56 mm. South Africa, Madagascar, Mauritius. The species is just as variable as *faber* from which it differs chiefly in its habitat.

*faber.* **A. faber** *Holl.* (28 a). Thorax and forewing pale reddish brown like *trapezoides*. Interior line dark, straight, oblique. Reniform macula marked by a light streak with 2 black dots. Median line faded, very little excurved behind the cell, almost vertical. Exterior line obtusely angled at vein 6, then slightly obliquely inward, slightly concave. Submarginal line light, irregular. Hindwing greyish brown, with a brownish ochreous bent median band ending near the anal angle. Margin blackish brown as far as vein 3, then more narrowly so before a brownish ochreous anal spot. Somewhat pale yellow at the apex and in the middle of the margin. — **faberis** *Strd.* shows the reniform macula filled with black. 50—55 mm. West and East Africa.

*indeterminata.* **A. indeterminata** *Wkr.* (= *denta* *Mschlr.*) (28 b) is very similar to *faber*. Interior line steeper, sometimes concave in the middle. Median line as in *trapezoides*, but more incurved in the submedian fold. The flaw of the exterior line is more rounded. The undulate line is rather indistinct, but similar to *faber*, rusty brown before it, often rusty brown at the apex and anal angle as far as the margin, otherwise violettish brown there. Hindwing with a bent light median line, not with a band. The margin more narrowly lighter at vein 2—4, so that the black distal area is not so very narrow there as in *faber*. 40—50 mm. South Africa.

*rothkirchi.* **A. rothkirchi** *Strd.* (27 f) is a very variable species. Dark brown. Interior line of forewing straight, somewhat oblique, broadly edged with violet outside almost as far as the median line which is prominent at the costal margin, at the lower cell angle, and still more at the inner margin, incurved between, edged with a faded light colour outside. Two black dots at the cross-vein, connected by a bar. Exterior line bluish white, far excurved between veins 3 and 6, concave below it, and then vertical to the costal margin, inwardly bent below vein 2, then very oblique to the inner margin near the anal angle. A dark submarginal shadow from the apex. Hindwing somewhat lighter, with a yellowish median line and submarginal shadow. 65—70 mm. Cameroon, Fernando Po. — **ochrocraspeda** *Prout* is somewhat violet in the median area, especially at the interior and exterior lines. The ♂ with 1 or 2 S-shaped median shadows, the ♀ with but one, though more distinct. Exterior line of ♂ bent behind the cell, obliquely inward above and below it, while it is somewhat concave in the submedian fold in the ♀. 74 mm. Sudan, Cameroon. — **hypopolia** *Hmps.* is presumably only a simplified form of *rothkirchi*. It is described: body greyish reddish brown. Forewing red-brown at the base and in the exterior median area, the rest lighter. Interior line dark brown, slightly bent. Two dark dots at the cross-vein. Median line dark, excurved as far as vein 4, then inward, exterior line parallel with it. Submarginal line



finely whitish, with faint reddish brown spots outside, excurved below the costal margin and in the middle, an oblique brown streak from the apex. Hindwing dark red-brown with a white bent median line, darker behind it. Apex as far as vein 5 white. ♀ 60 mm. Central Africa.

**A. cymatias** *E. Prout* may be only a form of *hypopolia*. Interior line of forewing more vertical, exterior line more bent inward, with a violet reflection in the median area. Hindwing with a white apical spot. ♂ 70 to 75 mm. Cameroon.

**A. determinata** *E. Prout*. Body and forewing pale reddish brown. Interior line corresponding to *faber*. *determinata*. Two black dots at the cross-vein. Median line undulate, feeble, parallel, and near the exterior line which is similar in *indeterminata*, but not parallel with the median line, both excurved behind the cell, incurved in the submedian fold, then vertical to the inner margin. Submarginal line extinct, indicated by the marginal area being light inside, darker reddish brown outside. Hindwing brownish white with a dark median and exterior line, somewhat darker also at the margin. ♂ 42 mm. Central Africa.

The two following species are very much alike. The slight differences in the shape of the line are rather inconspicuous owing to its indistinctness. *boris* is smaller, the grey margin on the forewing is more fadedly defined. *finita* is larger, the margin distinctly defined.

**A. boris** *Geyer* (= *oblita* *Wkr.*, senior *Wkr.*, *sinistra* *Mab.*, *debilis* *Holl.*) (28 b). Body and wings dark greyish brown. Interior line dark, undulate, straight, somewhat oblique. Median line dark, rather straight and oblique as far as vein 4 close behind the nebulous reniform macula, bending rather sharply round as far as the submedian fold, then vertical. Exterior line parallel, undulate, bent down at vein 4, slightly bent inward in the submedian fold. Submarginal line as a dark shadow, margin faded grey. Hindwing with a bent indistinct light median line. Marginal area darker. — In *mundissima* *Wkr.* the forewing is lighter, reddish brown. 42 to 48 mm. West, South and East Africa, Madagascar. — The form *renata* *Strd.* is regarded as a species by *PROUT*. Reniform macula filled with black. The median and exterior lines are more excurved at about vein 6. Moreover, the exterior line is more notched, though less bent than in *boris*. The median line touches the reniform macula at the ends and is excurved between, then more vertically continued. Niger District, São Thomé.

**A. finita** *Gn.* (= *limbata* *Fldr.*) (28 b). Interior line as in *boris*. Reniform macula replaced by two black dots. Median line rounded at vein 4, the bend in the submedian fold is also softer, sometimes there is besides a feebler branch to be noticed behind it. Exterior line parallel to it, both uniformly dentate. Marginal area grey, straight and distinctly defined, excurved to the apex. Hindwing with a quite indistinct, rather straight median band, mostly a white spot at the apex. — In *infinita* *Gn.* the margin of the forewing is as brown as the ground-colour. *regularidia* *Strd.* (27 a) is very similar, but I take it to be different. — In another form from East Africa the median and exterior lines are sharply introangular in the submedian fold. Hindwing with a fine white submarginal line extending from the feeble apical spot to the anal angle. 58—62 mm. West, South and East Africa, Madagascar.

**A. externesignata** *Saalm.* (28 b). Thorax greyish brown. Forewing reddish brown, with a violet reflection, especially in the median area. Interior line dark, extra-angular below the costal margin, then somewhat outward, uniformly concave in the middle. A black dot at the lower cell-angle. Median line fine, notched, outward as far as vein 4, slightly angled, vertical to the inner margin. Exterior line dentate, bent behind the cell and straight to the inner margin. Submarginal line fine, straight. Before it at the costal margin a quadrangular black spot with an outward dent. Hindwing bluish grey, darker towards the margin. White marginal spots at the apex and behind the cell. ♂ 45 mm. Madagascar.

**A. albicilia** *Wkr.* (= *ebenaui* *Saalm.*) (28 c). Red-brown with a very indistinct marking. Fringe of forewing white, except at the apex and anal angle, by which it is easily recognized. Interior line oblique, undulate, sometimes edged with white and then more distinct. Reniform macula indicated by 2 or 3 black dots. Median line more curved behind the cell than the exterior line, then obliquely inward, hardly recognizable. Exterior line strongly dentate, with white points at the veins. Margin darker, submarginal line not discernible. Hindwing greyish brown, a bluish white median line extending to below the cell. 48—52 mm. West Africa, Nyassa District, Madagascar.

**A. usitata** *E. Prout* resembles *albicilia*. Ground-colour cinnamon brown, fringe not so white. Interior line more oblique. A dark shadow between the median and exterior lines. Exterior line not so strongly dentate, without white points at the veins, otherwise not different. The light median line of the hindwing extends to the anal angle. ♀ 55 mm. São Thomé.

**A. diplographa** *Hmps.* (28 c). Reddish brown and somewhat greyish brown. Interior line double, dark, flatly undulated. Reniform macula small. Median and exterior lines indistinctly double, dentate, excurved behind the cell, then straightly inward, parallel. Submarginal line faded. Marginal area darker except at the costal margin beginning from the median line. Hindwing greyish brown, a grey median line traceable almost as far as the anal angle, marginal area darker. 48 mm. Comoro.

**A. sordida** *Wkr.* (= *pretoriae* *Dist.*) (28 c). In spite of the indistinct marking mostly well recognizable by the exterior line being only feebly undulated and extending vertically from vein 5. Hindwing with a light submarginal line from a small spot at the apex to the anal angle. Forewing from greyish brown to reddish brown.



Interior line fine dark, undulate, excurved. Two dots at the cross-vein. Median line single, excurved at vein 4, slightly concave at vein 2. Exterior line single, slightly incurved towards the costal margin, edged light outside. Submarginal line straight, dentate, the margin behind it somewhat darker. Hindwing with a feeble bent grey median line almost to the anal angle, darker behind it, then a submarginal line. 46—52 mm. South Africa.

*cupreotincta*. **A. cupreotincta** *Hmps.* Greyish brown, with a copper gloss. Interior line dark, excurved below the costal margin and below the cell. Two black dots at the cross-vein. Median line dark, undulate, excurved as far as vein 5, then inward. Exterior line dark brown, bent and dentate. Submarginal line whitish, edged with dark copper-brown on both sides. Hindwing greyish brown, with a copper gloss. Median line dark, faded, curved. Submarginal line whitish, more purely white at the anal angle, edged with copper-brown inside. Somewhat white at the apex. ♀ 56 mm. Uganda.

*tornistigma*. **A. tornistigma** *E. Prout.* Pale ochreous, more red-brown at the base and behind the middle. Interior line black, extra-angular below the costal margin, then obliquely outward, concave in the middle. Reniform macula indicated by 3 black dots at the cross-vein. Median line undulate, slightly excurved at vein 4, slightly inward at vein 2. Exterior line stronger, more dentate, extending more irregularly, near the median line. Marginal area light, obliquely defined from the apex to vein 6, then vertical to the inner margin near the anal angle, where a black spot is to be seen. The dark brown hindwing with a light undulate submarginal line and traces of a light median line. 50 mm. São Thomé.

*thermopera*. **A. thermopera** *Hmps.* (28 c). Greyish brown, with a semicircular chocolate brown spot at the apex. Interior line undulate, oblique, dark. Reniform macula indistinctly edged dark, a broad dark oblique shadow extends from it to the inner margin. Exterior line indistinct, undulate, far excurved behind the cell, then very obliquely inward. Traces of a submarginal line from vein 4 to the inner margin. Hindwing also greyish brown, darker in the marginal area which exhibits a reddish brown undulate submarginal line. ♀ 50 mm. Niger District. — I have a specimen from East Africa at hand, forming a transition from *thermopera* to *phaeobasis*. Interior line bluish white, as oblique as in *thermopera*. The apical spot distinctly white and thickly edged, as in *phaeobasis*, the brightening at the anal angle being also the same. The hindwing as dark as in *phaeobasis*, but the fringe in the middle of the distal margin white, and with traces of a light submarginal line as in *thermopera*.

*atrimacula*. **A. atrimacula** *Gaede* (20 f). Reddish brown with a violet reflection, the marking blackish brown. A small spot at the base above and below the cell. Interior line extra-angular below the costal margin and below the cell, otherwise vertical, a circular large spot before it below the cell. Reniform macula thickly edged with black, traversed by a faded dark median shadow extending to the inner margin. Exterior line dentate, shaped as in *thermopera*, but more oblique from the submedian fold, narrowly lighter behind it. Then follows a large dark spot at the costal margin as far as the apex, and then the faded dark submarginal band extending close behind the exterior line. Hindwing dark red-brown. Indistinct traces of a light submarginal line and median line. ♂ 52 mm. East Africa.

*phaeobasis*. **A. phaeobasis** *Hmps.* (28 d). Body and forewing dark red-brown. Interior line dark, oblique, intro-angular at vein 1, edged light on both sides. Reniform macula light, indistinct. Exterior line dark, straight, oblique as far as vein 6, then dentately inward. A large dark spot behind it at the costal margin. Submarginal line dark, faded, with a light spot at the inner margin. Hindwing dark brown, without markings. 48 mm. Sudan, Uganda.

*albifimbria*. **A. albifimbria** *Wkr.* (= *apiciplaga* *Holl.*) (28 d). Thorax and forewing yellowish red-brown. Interior line double, dentate, oblique. A luna at the cross-vein, prolonged towards the costal margin. Median line double, dentate, slightly excurved behind the cell, then vertical. A spot edged with silvery blue behind it at the costal margin, outwardly filled with dark brown; the faded dark exterior line proceeds from this spot, edged with a few bluish white scales. Submarginal line indicated by the darker, inside dentate margin. Hindwing blackish brown, traces of a dark yellow median line and a short submarginal line. — **subvariegata** *Strd.* is less yellow, more reddish on the forewing. 45—50 mm. West Africa, Uganda.

*xanthodera*. **A. xanthodera** *Holl.* (28 d) resembles *albifimbria* in its colouring, with a yellower base of the forewing. Interior line single, dentate, oblique. Median shadow very dark, faded, rather vertical, another parallel shadow behind it. Exterior line dentate, extra-angular at vein 6. Submarginal line yellow, finely dentate, straight. Hindwing dark brown, without markings. 48 mm. West Africa.

*russoi*. **A. russoi** *Strd.* Forewing black at the base, border-line oblique. Median area greyish brown, enclosing the fine dark reniform macula. Exterior line fine, black, dentate, pointedly projecting far outward at vein 6. A large blackish brown spot with tapering ends is at the costal margin before the apex. A light submarginal line is only discernible near the inner margin, edged dark inside. Hindwing blackish with a submarginal line which is light outside, black inside, and traces of a similar line a little more basad. Fringe at the middle of the margin white. ♀ 50 mm. Congo.

*ferreotincta*. **A. ferreotincta** *Hmps.* Body and wings bluish grey, slightly dusted rusty red, especially in the basal area and around the submarginal line. Interior line indistinct, brown, excurved below the costal margin, at the



median vein and vein 1. Two black dots at the cross-vein. Exterior line double, brown, excurved as far as vein 4, then inward. Submarginal line indistinct, pale, undulate, dark behind it at the anal angle. Hindwing bluish grey, browner at the margin. Exterior line indistinct, oblique, whitish. Margin bluish white with a bluish grey spot near the anal angle. ♂ 55 mm. Central Africa.

**A. violascens** *Hmps.* Body and forewing bluish grey with a violet reflection. Basal area pale violettish red, bordered by the pale brown faded interior line, slightly excurved below the costal margin. Two black dots at the cross-vein. Distal area olive brown. Median line double behind the cell, slightly undulated, pale red-brown, slightly incurved below vein 4. Exterior line close behind it, edged with bluish grey outside. Dark violettish red before the margin, the submarginal line in it pale, slightly undulated, edged with pale brown on both sides. Hindwing bluish white at the base, then browner near the narrow exterior white band, the space behind it black. Apex and margin bluish white. 66 mm. Mashona Land.

3. Middle tibiae of ♂ not thickened, without a groove and hair-pencil.

**A. lienardi** *Bsd.* (= *zabulon* *Gn.*, *hilaris* *Plötz*, *locra* *Plötz*) can hardly be described owing to its extreme variability. Somewhat constant is only the hindwing which is blackish, with a large white spot at the apex and behind the cell at the margin. A small marginal spot at the submedian fold, a small dot above it and a faded bluish white median band only in the centre of the wing. Forewing red-brown. Interior line indistinct, oblique, almost straight. Two dots at the cross-vein. Median line faded, outward as far as behind the lower cell-angle, bent inward in the submedian fold. Exterior line dentate, dark, edged white outside, oblique as far as vein 6, bent inward below vein 4. Costal margin somewhat darker before the apex. Submarginal line dark, slightly undulated, ending near the apex and the anal angle. — The denominated forms are: — **olivaceotincta** *Strd.* is greyish brown on the forewing, with an olive hue on it. — **cerbera** *Gn.* shows a chocolate brown spot at the apex of the forewing, and a small one at the anal angle. — **partita** *Wkr.* has a dark red-brown basal area, and some red-brown also before the submarginal line. — **partitana** *Strd.* is a *partita* with the spots of *cerbera*. — In **antemedialis** *Strd.* the interior line is black and inwardly faded. — In **spectatura** *Wkr.* (28 d) almost the whole basal area is blackish, the reniform macula black or edged with black, the space around the submarginal line dark. — **chamaeleon** *Gn.* (28 e) is similar, but the median area more or less blackish. — **lienardi** *Bsd.* (28 d) has beside the black median area also a black apical spot. — **lienardiana** *Strd.* has besides yet a black band before the interior line. — In **ophismoides** *Wkr.* (28 e), however, the median area is more or less white. The number of these names could easily be doubled, but fortunately nobody has cared to do so. 50—55 mm. Throughout Africa and in Madagascar.

**A. catella** *Gn.* (28 e). Forewing greyish brown. Interior line black, slightly double, somewhat intro-angular at the median vein, more sharply inward at vein 1. The reniform macula is a yellowish white spot. Median line dark, faded, dentate, parallel with the exterior line which is distinctly black, uniformly excurved, feebly incurved at vein 2, dentate, with black rays at the veins. A black streak at vein 6 from the costal margin near the apex to the exterior line. Submarginal line indistinct, whitish, undulate, parallel with the margin. Hindwing blackish brown, median band bluish white. Three white spots at the margin, besides a small one at the anal angle. — **rufotincta** *Strd.* is red-brown at the base and behind the middle. — **nigrosuffusa** *Strd.* is faded blackish before the interior and exterior lines. — **medioalba** *Strd.* is whitish inside in the median area. — 40—55 mm. Throughout Africa.

**A. oedipodina** *Mab.* (= *semiluna* *Saalm.*) (28 f). is presumably only a large form of *catella*, confined to Madagascar. Interior line somewhat more uniformly bent, less sinuate at the median vein, scarcely intro-angular at vein 1, behind it as far as the cross-vein with a bluish white hue. Exterior line more distinctly double, with a more distinct white spot in the submedian fold. The brown apical spot is more conspicuous, the margin narrowly bluish white. Hindwing as in *catella*. 60—65 mm. Madagascar.

**A. joiceyi** *E. Prout* differs entirely from the other species. Thorax brownish white, abdomen yellow. Forewing white with a brown marking. Interior line composed of three spots and a smaller one at the inner margin, edged outside by a fine white line. The ring-macula is a small ring, the reniform macula with a dark centre and edge, vertical. Close behind it a dentate double median line from the middle of the costal margin to the middle of the inner margin. Exterior line likewise double, dentate, finer, uniformly bent behind the cell, then parallel with the margin. Blackish spots behind it, the most intense ones near the costal margin. Hindwing yellow with a dark brown margin growing narrower towards the anal angle, small yellow areas at the apex. ♀ 48 mm. Ivory Coast.

### 37. Genus: **Ophisma** *Gn.*

This genus is composed of about a dozen of mostly large *Noctuae* with an enormous power of flight; only three of them, among them the smallest, inhabit the Ethiopian Region. They are so closely allied to the *Achaea*, *Ercheia* and *Grammodes*, that single *Ophisma* had been ranged by their authors under these genera, whilst others were placed to the genus *Ophiusa*. One species, *O. gravata* *Gn.*, distributed over nearly the whole of India as far as Australia, has been ascertained in Central China, where, however, it scarcely traverses the



palaeartic southern frontier; nevertheless the genus has been dealt with in Vol. III (p. 328). It is well represented in Tropical America and extends in the Old World as far as Australia. — Very similar to the genus *Achaea*. Forewing somewhat more pointed. Middle tibiae spined, but the anterior and posterior tibiae not spined. Type: *gravata* Gn. from India and China.

1. Middle tibiae of ♂ widened, with a hollow and a hair-pencil in it.

*albitermia*. **O. albitermia** Hmps. (28 f). Body and wings yellow. Forewing with very indistinct dark brown moon-spots. Interior row double, slightly bent, oblique. Two black dots at the cross-vein and one before it in the centre of the cell. Median and exterior rows indistinct, double. Submarginal line blackish, vertical above the anal angle, somewhat outwardly bent from vein 6, rusty yellow before it. Hindwing black at the distal margin, with a broad exterior and narrow median black band before it. 50 mm. Rhodesia, Eritrea.

*cuprizonea*. **O. cuprizonea** Hmps. (28 f). Body and forewing dark brown, the space between the exterior and submarginal lines lighter copper red. Interior line dark brown, almost straight, vertical to the inner margin, with bluish white scales outside. Two black dots surrounded by light brown at the cross-vein. Exterior line dark, slightly excurved behind the cell, inward in the submedian fold, outward to the inner margin, a parallel median line before it. Submarginal line almost straight, bordering on the copper-red area outside. Hindwing with a light marginal line. The ♂ is somewhat darker, the submarginal line inside at the costal and inner margins with a few white scales. 44 mm. Madagascar.

2. Middle tibiae of ♂ normal.

*teterrima*. **O. teterrima** Hmps. (27 f). Thorax and forewing reddish brown with a violet reflection, with hardly any markings, only the exterior line recognizable, extending as in *cuprizonea*. Hindwing brown, broadly lighter at the costal margin, a large round black spot before the middle of the distal margin. 35 mm. Niger District, Ogowe.

### 38. Genus: **Euphiusa** Hmps.

Distinguished from *Ophisma* by a little frontal hair-tuft. — Hind tibiae with a single spur. Only 2 small species. Type: *harmonica* Hmps.

*harmonica*. **Eu. harmonica** Hmps. is externally somewhat similar to an *Ophiusa minula* from China in its size and violettish grey colouring, as we have figured it in Vol. III on pl. 61 d. Body pale grey, forewing violettish grey. Interior line black, undulate, inward from the median vein, red-brown before it. Exterior line projecting at vein 4, dentate below and above it, straightly inward, broadly dark brown before it. Submarginal line dentate, whitish, in red-brown surroundings. Hindwing brownish white. A white median line from the centre of the costal margin to the anal angle, a white submarginal line from vein 4 to the anal angle, the lines surrounded with dark. ♂ 34 mm. Bechuana Land. Described from a single ♂. According to Fawcett, the species seems to be more common and somewhat variable in East Africa. The extent of the dark brown area before the exterior line varies in width. The interior line and the red-brown dusting before it may be extinct.

*hermione*. **Eu. hermione** Fawc. (20 f). Body pale ochreous. Interior line of forewing pale violet. Median line more intensely brown only at the costal margin. As far as this line, the wing is pale ochreous with a radial violet median stripe. Greyish violet behind it as far as the margin. Exterior line red-brown as far as vein 6, a square red-brown spot before it, paler brown behind it as far as the margin and as far as vein 6. Hindwing light ochreous with a greyish violet exterior and submarginal band, and a narrow grey margin. — *ochreata* Fawc. has the pale violet places of the forewing replaced by pale ochre colouring as far as the submarginal line which is light ochreous here. Some specimens exhibit the marginal area of the hindwing broadly dark brown. 34 mm. East Africa.

### 39. Genus: **Parallelia** Hbn.

A most extensive genus of which about 300 forms are named, distributed over the whole earth and occurring at times and locally in great numbers of individuals. In Vol. III the vast number of species has been split into several genera (*Ophiusa*, *Naxia*, *Pindara*), and many species have been described or ranged as *Ophisma*, *Dysgonia*, *Thyas*, *Grammodes*, *Caranilla* etc. In the Ethiopian Region about one sixth of the forms known have been ascertained; in Europe, however, only few species are found in the south, to the north as far as Switzerland and Austria; Germany is no more reached by the genus. — Most of the species hide among rubble-stones in the day-time, and in China, where more than a dozen of forms live, the lepidoptera sit in the deep cañon in the loess, but they are easily started. — The larvae are known of but very few species so far; they are slender, difficult to discover by day, like the larvae of *Catocala*, but frequently green and closely appressed to the food-plant; in running, only the hinder pair of abdominal legs are used. — Imago marked like the *Achaea*, otherwise more like the *Ophiusa* owing to the solely spined middle tibiae. Frons with a small hair-pencil as in *Euphiusa*. Middle tibiae of ♂ thickened, with a hollow and a hair-pencil in it. Most of the species originate from the district to the east of the Sunda Is., some reach the palaeartic region in Japan, some belong to the American Fauna. In Africa the genus is moderately represented. Type: *bistriaris* Hbn., from North America.



**P. palpalis** Wkr. (= plutonia Holl.) (29 a). Thorax and forewing violettish grey and brownish. Interior *palpalis*. line double, dark, somewhat inward. Median line fine, close behind the narrow reniform macula, incurved at vein 2, somewhat extra-angular above vein 1. A violettish brown subapical spot at the costal margin with a dent below, outside. The dentate exterior line extends from the spot at vein 6, somewhat steeper from the submedian fold. A variably dark shadow from vein 2 in front far around the apical spot. A fine brown undulate submarginal line is sometimes discernible. Hindwing dark brown, lighter inside. Traces of a whitish submarginal line from the anal angle to vein 2. 36—42 mm. West and East Africa. — **distincta** E. Prout is some- *distincta*. what larger, the ground-colour darker. Interior line straighter, more distinct, the shadow before it more distinct. The exterior shadow in the median area almost as dark as the apical spot. Median line extinct, the exterior edge of the light subapical spot is quite straight. ♂ 48—50 mm. São Thomé.

**P. nesites** E. Prout resembles *palpalis* (29 a) in its ground-colour and marking. The light subapical *nesites*. spot is less distinct, scarcely indented outside, with a dark spot in it outside, leaving only a narrow light margin. Interior line excurved, broadly dark before it. Median and exterior lines more distinct than in *palpalis*, with a feeble line between them, nearer to the median one. The light apical spot is surrounded with red-brown inside and outside, continued at the distal margin as a dark double line. ♂ 45—50 mm. São Thomé.

**P. trogosema** Hmps. (29 a) differs from *nesites* in a straight interior line, the space before it being darker. *trogosema*. Exterior line, according to HAMPSON's figure, not dentate as in *palpalis*, but smooth, its course the same. Hindwing dark greyish brown. 36—40 mm. West Africa.

**P. proxima** Hmps. (29 a). Thorax and forewing violettish brown, the interior part of the median area *proxima*. and the marginal area greyer. Interior line straight, vertical, darker towards the base. A faded dark streak at the cross-vein. Median line brown, undulate, excurved around the cell, then rectilinear, somewhat inward. Exterior line red-brown, pointedly projecting at vein 6, but the point not turned upward as in *palpalis* and *trogosema*, then undulate, straightly inward. A light violettish brown spot behind it at the costal margin. Submarginal line dark, notched, double. Hindwing without the violet reflection, darker in the marginal area, with a short light submarginal line near the anal angle. — In **purpureogrisea** Strd. the forewing is suffused with dark *purpurco-grisea*. brown. — 40—44 mm. West, South, and Central Africa.

**P. pudica** Mschr. (= orthaea Mab.) (29 a). Copper-brown. Forewing mostly somewhat darker in the *pudica*. basal area. Interior line straight, dark, light outside, vertical. Two extinct black dots at the cross-vein. Median line mostly indistinct, dark, excurved at vein 4, incurved in the submedian fold. Exterior line white, outward as far as vein 6, then bent S-like, darker. The bend in the submedian fold varies much, sometimes angled at vein 4, not rounded. The ♂ with a pinkish brown apical spot at the costal margin behind the exterior line. Hindwing with a light median line. — **derubida** Strd. is greyish brown without any reddish admixture. 45—50 mm. *derubida*. West Africa. — Owing to the whole scheme of marking and the variability of the exterior line, *rothkirchi* (p. 236, pl. 27 f) and the allied forms are presumably better ranged here than under *Achaca*, where HAMPSON placed them.

**P. arcifera** Drc. (29 b) resembles a darkened *algira* L. Violettish brown. Interior line whitish, vertical, *arcifera*. bent inward from the submedian fold. Median line uniformly and strongly bent inward, very dark behind it as far as the exterior line. Exterior line whitish, projecting uncommonly far at vein 6, slightly excurved below vein 2, strongly inward above it, ending at the inner margin near the median line. A dark oblique shadow from the apex almost to the angle of the exterior line at vein 6. Hindwing with a feeble pale line from vein 3 to the anal angle. ♂ 42 mm. Gambia. Apparently only 1 specimen known; it may belong to *conjunctura* (29 b).

**P. humilis** Holl. (29 a). Reddish brown. Interior line dark, vertical, slightly incurved towards the inner *humilis*. margin. Exterior line whitish, slightly concave between the costal margin and vein 6, angled at vein 6, bent inward below it to the inner margin. Submarginal line greyish white, dentate, straight. Hindwing dark greyish brown. 36 mm. West Africa.

**P. isotima** Prout resembles a small *humilis* (29 a). Prothorax yellowish brown, the rest of the body *isotima*. greyish brown. Forewing with a scheme of marking like that of *humilis*, though paler, somewhat glossy, more intensely olive brown. Exterior line more concave below vein 6, the dent therefore more pointed. Hindwing somewhat less dark, narrowly lighter at the margin behind, whiter below at the margin, whilst in *humilis* there is no white margin. 30—35 mm. Cameroon.

**P. albilinea** Hmps. Thorax red-brown and whitish, abdomen greyish brown. Forewing dark chocolate *albilinea*. brown as far as the exterior line. Costal-marginal area dusted whitish, the rest greyish brown and dusted somewhat violettish white. Interior line thick, white, somewhat obliquely inward. Exterior line white, finely red-brown outside, bent downward as far as vein 6, where it is pointedly extra-angular, then inward. An oblique dark brown band from the apex to the angle of the exterior line, edged white below. Submarginal line faded, whitish, undulate, with indistinct red-brown spots before it below vein 4. Hindwing greyish brown, with a coppery gloss. ♀ 36 mm. Portuguese East Africa.

**P. conjunctura** Wkr. (= neptunia Holl.) (29 b). Body and forewing red-brown, more or less tinged *conjunctura*. with violet, somewhat darker in the basal area. Interior line whitish, slightly outward, somewhat steeper from the submedian fold. Median line whitish, strongly and uniformly bent inward, very dark from it to the exterior



line. Exterior line white, straight as far as vein 6, where it projects far pointedly, then inward, slightly concave, ending near the median line. Apical spot dark outside; the dentate submarginal line with white points proceeds from it straightly to the inner margin. Hindwing somewhat lighter, with the beginning of a light submarginal line at the anal angle. — An aberrative specimen from the Berlin Museum shows a somewhat more projecting point of the exterior line at vein 6 and a slight outward bend in the submedian fold. *arcifera* which was described above seems to be a still more aberrative specimen of *conjunctura*. 36—40 mm. West and South Africa. Two specimens from East Africa are somewhat lighter.

*diffusa*. **P. diffusa** E. Prout. Body brown. Forewing more violettish brown, somewhat lead-coloured at the base, median area outside with a metallic greenish hue. Interior line somewhat oblique, almost straight. Interior and exterior lines dark red-brown, edged outside with flesh-colour. The oblique apical streak is dark brown, faded towards the base and warming into violet. Median line quite faded, forming the interior border of the exterior dark area, shaped as in *proxima* and *pudica*. Exterior line almost rectangular at vein 6, as in *proxima*, but not undulate. Hindwing greyish brown with traces of a submarginal line. 38—40 mm. Cameroon.

*perexcurvata*. **P. perexcurvata** Hmps. Thorax light red-brown, abdomen greyish brown. Forewing chocolate brown with whitish scales, marginal area somewhat paler. Interior line double, white, incurved in the cell, excurved below it, oblique. Reniform macula edged with white, slightly prolonged inward at the median vein, two white streaks above it at the costal margin. Exterior line white, from behind the middle of the costal margin, behind the middle of the cell almost to the margin, projecting once more at vein 2, then very obliquely inward. Hindwing dark greyish brown with a coppery gloss. Short white streaks at the base. Exterior line white, extra-angular at vein 5, ending at the anal angle. ♂ 46 mm. Niger District.

*P. fulvotaenia* Gn. (Vol. III, pl. 61 d). This species is distributed over India, China, the Sunda Is. and Japan. One ♂ is mentioned from Natal; unless it be a mistake, it might be an imported specimen at most.

*properans*. **P. properans** Wkr. (29 b) is somewhat like *conjunctura*. Thorax and base of forewing reddish brown. Interior line blackish brown, slightly excurved below the cell. Median band pale pinkish brown, narrower in the middle, dark brown behind it as far as the exterior line. Exterior line blackish, with white scales outside, extra-angular at vein 6, excurved at veins 4 and 1, incurved at vein 2, ending near the median line. Submarginal line dentate, straight, somewhat inward from the apex, greyer behind it. Hindwing greyish brown, with a light band from the centre of the costal margin almost to the anal angle. 42—48 mm. South Africa.

*algira*. **P. algira** L. (Vol. III, pl. 61 a, b). This species has been dealt with already in Vol. III, p. 329, and is also very common throughout Africa.

*rectivia*. **P. rectivia** Hmps. (20 f) is quite isolated. Thorax and forewing dark red-brown. A narrow white band from the middle of the costal margin to the anal angle, edged with black, brown inside, with two black dots in it at the cross-vein; outside the band is edged somewhat lighter. Traces of a dark submarginal line. Hindwing blackish brown, the ♂ with a reddish yellow spot at the margin above vein 2. 40—45 mm. Gold Coast.

*erectata*. **P. erectata** Hmps. (29 c). Body greyish brown. Forewing more reddish brown. Interior line black, edged light outside, straight, somewhat obliquely outward. A dark streak at the cross-vein. Median line feeble, projecting a little at veins 6 and 4, slightly concave between them, bent to the costal margin and submedian fold, ending near the interior line; lighter before it. Exterior line as usual, extra-angular at vein 6, vertical from the submedian fold. Two black intense spots below each other behind it below the costal margin. Hindwing lighter or darker brown with traces of light median and exterior lines. — In *erectatella* Strd. the exterior half of the median area is paler, the black apical spots are smaller. — 30—35 mm. South and East Africa.

*adunca*. **P. adunca** Prout is very similar to *erectata* (29 c) and may be a form of it. Forewing light ochreous, somewhat darker in the exterior median area, but less reddish than in *erectata*. Interior line intensified, except at the ends, steeper than in *erectata*. A dark luna at the cross-vein. Median line grey. Exterior line black, with an angle at vein 6, bent inward in the submedian fold, not so straight as in *erectata*, somewhat undulate. Hindwing somewhat less distinctly marked. ♀ 36 mm. Cameroon.

*macrorhyncha*. **P. macrorhyncha** Hmps. is coloured like *erectata* (29 c). Interior line black, oblique, slightly concave in the middle, a dark triangular spot before it in the submedian fold. A dark streak at the cross-vein, close behind it the little curved median line, turned outward towards the inner margin. Exterior line light, projecting long and pointedly at vein 6. Behind it at the costal margin a somewhat darker spot, finely edged light, then continued obliquely inward, inwardly bent at vein 2, somewhat outwardly angled at vein 1. Submarginal line light, dentate, somewhat darker before it. Hindwing greyish brown, a light submarginal line from vein 3 to the anal angle. ♂ 40 mm. Rhodesia.

*porphyrescens*. **P. porphyrescens** Hmps. (29 c). Violettish brown. Interior line dark brown, straight, vertical. A dark streak or 2 dots at the cross-vein. Median line indistinct, dark, pointedly indented behind the cell, then dentately inward, steeper from the submedian fold. Exterior line dark, outward as far as vein 6, a light apical spot behind it, a dark oblique shadow from the apex to vein 6, then undulately inward as far as the submedian



fold, from where it is continued rectilinearly or somewhat steeper. Feeble traces of a dentate submarginal line. Hindwing greyish brown, darker at the margin. 35 mm. Rhodesia, East Africa.

**P. derogans** Wkr. (chiliensis Gn.) (29 c) is somewhat similar to a small *algira* (Vol. III, pl. 61 a, b). Forewing greyish brown at the base. Interior line steeper than in *algira*, slightly excurved in the middle, broadly dark olive brown before it. The light interior part of the median area is shaped as in *algira*, but more steeply placed. Exterior line fine white, very pointedly projecting at vein 6 and then again in the submedian fold, slightly concave above it, very obliquely inward to the inner margin. Two black subapical spots, the margin narrowly grey. Hindwing greyish brown, without a median band. 28—32 mm. Throughout Africa and in Madagascar.

**P. mesonephele** Hmps. (29 c). Thorax and forewing violettish brown. Interior line black, vertical, straight, somewhat faded. Exterior line vertical, undulate, black, the exterior half of the median area before it very dark. Submarginal line as far inward as otherwise the exterior line, faded white, dentate, darker behind it at the costal margin, besides a black apical spot. Hindwing greyish brown. ♀ 35 mm. Rhodesia.

**P. goniophora** Hmps. (20 f). Thorax and base of forewing greyish brown with a violet reflection, blackish brown between the median and exterior lines. Interior line fine, dark, vertical. Median line somewhat faded, almost vertical. Exterior line from the apex scalariformly inward, with angles at veins 6, 2 and in the submedian fold. A few light areas at the costal margin before the exterior line. Abdomen and hindwing brown. 1 ♂ 44 mm. Congo. — **diamesa** Prout has a more undulated exterior line, by which it forms a transition to *triplocyma* which may be only an extreme race of *goniophora*. *diamesa* is somewhat greyer than *goniophora*, especially in the basal half of the forewing. — ♂ 48 mm. São Thomé.

**P. triplocyma** Hmps. (29 d). Thorax and base of forewing greyish brown, the rest dark red-brown. Interior line brown, fine, vertical. Median line also vertical, straight. Reniform macula indistinct, blackish. Exterior line black, edged with white as far as vein 6, where it projects pointedly, far excurved between veins 3 and 2, and pointedly outward at vein 1, much darker before it. A dark spot behind it at the costal margin. Hindwing dark brown, somewhat lighter at the middle of the distal margin. ♂ 40 mm. Central Africa.

**P. diplocyma** Gaede. Resembles a small *triplocyma* (29 d) and may be a form of it. Base of forewing as far as the median line pale red-brown. Interior line vertical, thick (double?). Median line slightly bent S-like, dark red-brown behind it as far as the exterior line. The two upper notches as in *triplocyma*, but here the exterior line extends sharply inward at vein 2 and then vertically to the inner margin, so that the third dent at vein 1 is absent. Marginal area lighter than the base. A very conspicuous black submarginal spot above vein 6, dark scales above it. Abdomen and hindwing dark brown, not lighter at the margin. ♀ 34 mm. Madagascar.

**P. angularis** Bsd. (= camerunica Holl.) (29 d). Reddish brown with a violet reflection. Interior line vertical, slightly excurved in the middle, broadly blackish before it. The exterior part of the median area is just as dark, its interior edge faded, vertical. Exterior line light, with a point at vein 6, a slight outward bend at vein 5, a large indentation above vein 2, an obtuse projection below it. Submarginal line pale, almost parallel with the exterior line, a dark brown spot before it at the costal margin, a blackish one behind it. Hindwing copper-brown, sometimes with traces of a short light submarginal line. 32—38 mm. Throughout Africa, in Madagascar and other islands.

**P. portia** Fawc. (20 g) is somewhat like *angularis*. Thorax and forewing red-brown. Interior line bent forward in the middle, straight above and below it. Interior half of the median area light grey, faded, slightly bent, contrasting with the dark red-brown exterior area. Exterior line dark, extra-angular at veins 6, 4 and 1, less distinct between veins 6 and 4, more pointedly intro-angular between 4 and 1. Behind it a parallel rusty red line from vein 6 to the inner margin, where it ends in a black spot. A red-brown spot before the apex, edged white inside. Marginal area grey outside. Hindwing pale brown with an indistinct light median band. ♂ 32 mm. East Africa.

**P. rectifascia** Fawc. (20 g) resembles *portia*, but it is smaller and darker. Interior line of forewing vertical, somewhat inwardly bent towards the costal margin, red-brown before it. The grey median band is narrower, its edges parallel. Exterior line vertically from the costal margin, bent forward at vein 5 and at vein 1, bent inward between them. Likewise a rusty red line behind it. Apical spot darker, not edged with white inside. Hindwing dark brown in the distal area, lighter at the base. ♂ 32 mm. East Africa.

**P. abnegans** Wkr. (29 c). Body and forewing light red-brown. Interior line dark, excurved from the costal margin to vein 1, where there is a small inward angle, then on outward, dark before it, broadly blackish at the inner margin, lighter behind it. Median line faded, outward, concave behind the cell, from vein 4 inward as far as the submedian fold, then obliquely outward. Exterior line in front thick white as far as vein 6, where it forms a short dent, vertical as far as vein 4, semicircularly bent inward at vein 2, then vertical to the inner margin. A black angled spot, light-edged above, before the apex, and a smaller one at the apex. Submarginal line light brown, dentate, parallel with the exterior line, darker before it. Hindwing reddish brown with a light submarginal line at the anal angle. 35—40 mm. West and East Africa.

**P. prorasigna** Hmps. (29 c). The interior line and the light interior median area is straighter than in *abnegans*, somewhat outward. Exterior line only slightly incurved at vein 2, below it vertical to the inner



margin, the bends similar to those of *abnegans*, but slighter. Submarginal line light, undulate, extra-angular at vein 7, a dark spot above and below it. Hindwing reddish brown with a light exterior and submarginal line near the anal angle. ♀ 32 mm. Uganda.

*glaphyra*. **P. glaphyra** E. Prout is very similar to *prorassigna* (29 c), but the black subapical spot is smaller. In *glaphyra*, the exterior line extends dentately inward. The interior and exterior lines are nearer together at the inner margin in the ♀ than in the ♂. Hindwing of *glaphyra* only with a faint light patch at the anal angle. 35—40 mm. São Thomé.

*multilineata*. **P. multilineata** Holl. (29 d). Body and forewing light reddish brown with a violet shine. Interior line double, vertical, excurved in the middle, dark. A faded streak at the cross-vein. Median line excurved close behind the cell, then straight, obliquely inward, undulate. Exterior line dark, parallel with the median line, meeting at vein 6 an oblique streak from the apex, then slightly double. Submarginal line double, parallel with the margin, beginning below the apical oblique streak. Hindwing as in *prorassigna*. ♀ 38 mm. West Africa.

*palumbiodes*. **P. palumbiodes** Hmps. (29 d) is very different. Greyish brown. Median area of forewing more or less tinged with pink. Interior line dark, undulate, vertical. Exterior line fine, black, slightly dentate, somewhat incurved towards the costal margin, otherwise straight, oblique, surrounded by bluish white. A broad dark parallel line behind it. Marginal area olive brown, quite outside narrowly grey. Hindwing greyish brown without a pink reflection. Median line fine, blackish. Exterior line less distinct, with 3 white moon-spots between vein 3 and the submedian fold, rusty red behind it. 30—35 mm. West, South, and East Africa.

#### 40. Genus: **Attatha** Mr.

This genus and the following two genera look quite differently compared with the preceding and following genera. The bright variegation resembles that of the *Arctianae*. Antennae of ♂ laminated. Middle tibiae spined on their whole length, the hind tibiae only between the spurs. Type: *regalis* Mr. from India, where another species occurs.

*ethiopica*. **A. ethiopica** Hmps. (= *attathoides* Karsch) (29 d). Body and forewing ochreous with a reddish reflection. A black triangular spot in the cell and below it, projecting pointedly in the submedian fold. Interior margin broadly black as far as behind the middle. A broad spot from the middle of the costal margin to behind the lower cell-angle, with a narrow prolongation below vein 2, where it ends with two tips. A triangular spot before the apex, almost reaching the margin at the apex and at vein 3, with 3 small black spots there. Hindwing orange with a black marginal band as far as vein 3, black dots behind it. OBERTHÜR has named the species once more as *gaetana* in the *Arctiid*-genus *Secusio* (Vol. X, p. 266 and Vol. XIV, p. 113). 34 mm. Throughout Africa to the south of the Sahara and besides in Madagascar.

*barlowi*. **A. barlowi** E. Prout. Thorax and forewing pale flesh-coloured. The marking similar to *ethiopica* (29 d). The basal spot spindle-shaped, not extending into the cell. The blackening at the inner margin extends only to its middle. The main spot from the middle of the costal margin little different, but the prolongation below vein 2 is not widened into two tips at the end. Somewhat more different is the apical spot extending outside as far as the distal margin of the wing and as far as below vein 3, slightly undulated inside without a flaw. Hindwing reddish ochreous, at the margin as in *ethiopica*. ♂ 40 mm. Zomba Plateau.

*metaleuca*. **A. metaleuca** Hmps. (29 e). Thorax and forewing pinkish flesh-coloured. The basal spot still smaller than in *barlowi*. The spot at the inner margin beginning farther from the base. The spot at the middle of the costal margin less extensive outward at the costal margin, the prolongation below vein 2 strigiform. The apical spot below vein 6 indented on its inside. Hindwing whitish, the margin pale brown in the anterior part.

*abyssinica*. ♂ 32 mm. Nigeria. — **abyssinica** Bryk differs only in its pinkish flesh-coloured hindwing with a more yellowish basal part, the margin not darkened. Eritrea. As the two forms were described according to but one ♂ each, it cannot be decided whether they are races or casual forms.

#### 41. Genus: **Colbusa** Wkr.

Separated from the preceding genus by quite spineless posterior tibiae. Only two species which are still more *Arctiid*-like in their variegation than the *Attatha*. Type: *euclidica* Wkr.

*euclidica*. **C. euclidica** Wkr. (29 e). Thorax and forewing blackish brown, abdomen ochreous. Costal margin of forewing white almost to the middle, widened at the base and enclosing a dark wedge. Adjoining to the marginal band a narrow white band to a red spot at the anal angle. The band, however, is in my specimens broader than it is figured by HAMPSON. Around this red spot 2 small black ones each inside and outside. The fine white margin is brown outside. Hindwing red with a blackish marginal band, broad at the apex. A fine black streak at the inner margin above the anal angle is absent in my specimens. — The species occurs also with yellow

*discrepans*, hindwings: **discrepans** Karsch (= *posthutea* Srd.). 30—45 mm. West Africa. — An East-African form exhibits a still broader white median band on the forewing above. The outermost brown marginal line is replaced behind



by black spots which almost disappear in front. Beneath the median band is not white, but burning yellow, and extends somewhat basad at the costal margin.

**C. restricta** *Hmps.* Forewing only dark chocolate brown. The marking not purely white, but more *restricta*, flesh-coloured. Costal-marginal band not differently shaped. Median band slightly incurved on its inner side behind the cell, also above the anal angle, with a few red scales there. The narrowly white flesh-coloured margin is finely brown outside. Hindwing red, the marginal band broad as far as vein 4, then 3 decreasing black spots. Beneath the white median band of the forewing is faded inside. 40—42 mm. Niger District.

#### 42. Genus: **Acanthodelta** *Hmps.*

Somewhat different from the usual neurulation, since vein 3 arises somewhat farther basad in both wings than in the other genera. All the tibiae spined. Only 1 species.

**A. distriga** *Hmps.* is a rather unicoloured greyish brown species with a coppery gloss, of the size of *distriga*. *C. euclidica*, with relatively large hindwings. Thorax dull reddish brown, wings and abdomen greyish brown. Forewing with a black dot at the lower cell-angle. A white streak behind the middle of the cell almost to the margin, a similar one in the submedian fold, enclosing a black dot behind the middle. Hindwing with an undulated dark marginal line. ♂ 40 mm. Cape Colony.

#### 43. Genus: **Grammodes** *Gn.*

This genus and the following ones look again like those preceding *Attatha*. Neurulation normal. Middle and hind tibiae spined. Type: *geometrica* *F.* from Europe. About half of the 14 species known occur in Africa. Some are distributed over the warmer districts of nearly the whole Earth.

**G. congenita** *Wkr.* (29 e). Greyish brown with a violet reflection. Interior band white, somewhat in- *congenita*. ward, straight, beginning below the costal margin. Broadly blackish before it, narrower blackish towards the costal margin. Median area blackish from below the costal margin to the inner margin. Exterior band olive brown, edged white inside, bent basad at the costal and inner margins. The band is bordered outside by black spots which project pointedly outward at veins 6 and 4 as well as at the inner margin. A black spot at the apex, bordered outside by a distinct oblique line from the apex, faded towards the base. A whitish submarginal shadow behind it from the apex to the inner margin. Hindwing dark brown, blackish at the margin, with an extinct white band from the middle of the costal margin to the inner margin near the anal angle. 35—40 mm. Africa, to the south of the Sahara, presumably everywhere common.

**G. geometrica** *F.* (Vol. III, pl. 61 d) is larger on an average than the preceding species. The differences *geometrica*. are very slight; perhaps they are forms of one species. Median band of hindwing above broader and more conspicuous, not so extinct. Forewing beneath with a stronger white exterior band which is more distinctly traversed by the dark veins. There are specimens in which the white median band on the forewing above is very narrow and does not extend in front into the cell, or it is normally broad and of a glaring yellow colour. 35—45 mm. From Southern Europe to Australia, and throughout Africa. It has been dealt with already in Vol. III, p. 331, where all the details about the larva are also to be found.

**G. exclusiva** *Pag.* (29 e) is placed by HAMPSON as a form to *congenita* (29 e). But it does not differ merely *exclusiva*. in a narrow interior band. It is considerably smaller, darker, and above all the exterior line is slightly though distinctly inserted between veins 2 and 3, whereas it is straight in *congenita* and *geometrica*. The dark apical spot is bordered by a white oblique line from the apex in nearly all the specimens, which line mostly extends at vein 6 to the exterior band. All the typical specimens are from Madagascar, but I have also a specimen at hand from East Africa, which likewise shows the bend of the exterior line. Median band of hindwing lighter than in *congenita*. 25—30 mm.

**G. stolidia** *F.* (Vol. III, pl. 61 f) has a range just as large as that of *geometrica*. It has been dealt with *stolidia*. in Vol. III, p. 331.

**G. euclidioides** *Gn.* (= *dubitans* *Wkr.*) (29 f). Forewing so very similar to that of *exclusiva* that we *euclidioides*. may refer to the description of the latter. Only the hindwing and the under surface of both wings are dark orange. Hindwing above with a double straight dull brown median line. Submarginal band black, mostly broad, but sometimes only at the apex so. Margin likewise black, narrowest behind the cell. 25—30 mm. Everywhere common in South Africa.

**G. microgonia** *Hmps.* (29 e) is marked like the *Chalciope*-species (p. 346) and was originally also described *microgonia*. as a *Chalciope*. Thorax and forewing reddish brown with a slight violet reflection. A velvety black triangular spot at the base below the cell, extending at vein 1 almost to the centre of the wing. A similar spot behind the middle. One side parallel with the costal margin, the other obliquely parallel with the exterior edge of the basal spot, the third vertical to the inner margin. A black oblique line from the apex to vein 6, then straight on, somewhat inward. On the outside of this line irregular short black notches. The broad margin behind it more intensely violet. Hindwing greyish brown, the margin broadly blackish brown. 40 mm. Rhodesia.



*buchanani*. **G. buchanani** *Rothsch.* is much smaller than *microgonia*. Forewing dove-coloured grey at the base. Interior band dark chocolate brown, edged with white outside, thrice as broad above the inner margin as at the costal margin. Median band broad, equally coloured, edged with white outside. Ground-colour of forewing dove-coloured grey above the median vein, olive yellow below it. A brown exterior dentate line begins at a large black apical spot. Between this line and the median vein, the wing is grey above vein 6, olive yellow below it as far as the inner margin. Margin dove-coloured, darker outward, a white spot below the apex. Hindwing wood-coloured grey and dull reddish. A median line, a submarginal band and a marginal band blackish grey. ♀ 24 mm. Niger District.

#### 44. Genus: **Chalciope** *Hbn.*

The few species belonging to this genus have a very homogeneous marking. A basal triangle and a triangle in the distal area are divided by a light band from the middle of the costal margin to the anal angle. The ♂ forewing beneath has a hirsute basal area. Type: *cephisa* *Cr.* from India. The genus is also represented in Jamaica by 1 species.

*hyppasia*. **Ch. hyppasia** *Cr.* (= *deliana* *Stoll*, *anfractuosa* *Mab.*, *acutata* *Gn.*) (29 f). Costal and inner margins broadly violettish brown. A narrow light brown stripe extends from  $\frac{2}{3}$  inner margin towards the middle of the costal margin, but not quite reaching the light part. Before and behind this stripe one blackish brown triangle each, all being edged with white except the anterior edge. Submarginal line light from the apex to the anal angle, forming a flat hollow a little below the centre of the wing. Darker before it at the costal and inner margins. Margin violettish grey, darker in the middle. Hindwing greyish brown, darker at the margin, a dark median line. The ♀ is darker on the hindwing. — In *hyppasiana* *Strd.* the light median stripe is narrower and somewhat shorter. As also the submarginal line is much less — though uniformly — bent, it may be another species. — In *inacuta* *Gn.* the exterior dark triangle is more intensely edged with white, and shorter below. 35—40 mm. Common throughout Africa, distributed as far as Australia. As the species reaches the palae-arctic frontier in Central China and Japan, it has been dealt with already in Vol. III (p. 332), where it is also figured according to a South Asiatic specimen (pl. 61 f).

*pusilla*. **Ch. pusilla** *Holl.* (29 f). Body and forewing light greyish yellow, more or less tinged with pink. The interior lower black triangular spot is flat and oblong, the exterior one almost equilateral, both finely edged light. Behind it fine light and dark straight lines at the margin. Hindwing greyish brown or dark brown. 25—30 mm. West and East Africa. Somewhat less common than *hyppasia*.

#### 45. Genus: **Cuneisigna** *Hmps.*

Marked somewhat like the preceding species. Distinguished by the tibiae being less spined and more hairy. The middle tibiae of the ♂ contain a hollow with a hair-pencil. Type: *obstans* *Wkr.* Besides this species two others are known, all from Africa.

*obstans*. **C. obstans** *Wkr.* (29 f). Forewing reddish grey with a violet reflection. A black triangular spot from the inner margin near the base to the lower cell-angle, a short black streak above it above vein 4. Submarginal band dark olive brown, edged with white; the exterior edge excurved to the apex and slightly excurved at the inner margin. The interior edge bent basad behind the cell and in the submedian fold, excurved between them; traces of a few somewhat darker lines before it. Two somewhat darker lines behind the exterior edge. Hindwing dark brown, lighter at the base. 32—40 mm. South and East Africa.

*cumamita*. **C. cumamita** *B.-Bak.* (29 f) is quite similar to *obstans* in colour and marking. Instead of the triangular spot there is here a longer more horizontal band. A somewhat rhombic figure above it at the cell-end, and a black dot in the centre of the cell. Submarginal band olive brown, edged with black, from the apex to  $\frac{2}{3}$  of the inner margin, excurved at veins 3 and 4. Fine dark lines before it, dark violet towards the margin. Hindwing similar to that of *obstans*. 35 mm. South and East Africa.

*rivulata*. **C. rivulata** *Hmps.* (29 g). The basal triangle of *obstans* has become almost linear here, slightly bent. The rhombic figure at the lower cell-angle and the central dot of the cell as in *cumamita*. The olive brown submarginal band strongly curved, far excurved between veins 3 and 4, so that the ground-colour projects outward like a finger, bent far basad from vein 3 to the submedian fold, then outward again. A few black spots in front in the marginal area. Hindwing similar to that of *obstans* (29 f). 30—34 mm. South and East Africa. The commonest of the three species.

#### 46. Genus: **Parachalciope** *Hmps.*

Palpi long, highly erected. Only the middle tibiae spined. Excepting these theoretical differences, the species of this also purely African genus are partly extremely similar to those of the genus *Chalciope*. Type: *euclidicola* *Wkr.*



**P. euclidicola** Wkr. (= *furcifera* Hmps.) (29 g). Forewing blackish brown, dark red-brown at the costal *euclidicola*. margin. The lines yellowish white. A very oblique line at the base to  $\frac{1}{3}$  inner margin. An oblique line from below the middle of the costal margin to  $\frac{3}{4}$  inner margin, connected in the submedian fold with another line proceeding from below  $\frac{3}{4}$  costal margin. Hindwing somewhat less dark. 35–40 mm. West Africa, also in South Africa.

**P. benitensis** Holl. (29 g). Forewing lighter red-brown at the costal margin than *euclidicola*, the margin *benitensis*. sharply cut off, but not white. The rest of the wing blackish brown as far as the exterior white line. The latter extends from below the costal margin vertically towards the anal angle shortly before which it is narrowed and inwardly bent, connected there with the somewhat thicker oblique white median line. Somewhat darker behind the exterior line, only the outermost marginal part as light as the costal margin. Hindwing from greyish brown to dark brown. 32–38 mm. West Africa.

The following 5 species are more or less similar to *Chalc. hyppasia* (29 f).

**P. trigonometrica** Hmps. (29 g). Costal margin of forewing pale brown with a violet reflection like *trigonometrica*. the inner margin below vein 1, too. A large triangular black spot in the basal area, distally bordered by a broad white oblique band. Behind it the black apical triangle, finely edged with white outside, slightly bent parallel with the distal margin, ending pointed below. A submarginal dark shadow behind it, proceeding from the apex, contrasting with the white border-line. Hindwing pale brown, darker at the margin. ♂ 40 mm. East Africa.

**P. rotundata** sp. n. (20 g) is the West African representative of *trigonometrica*. Scheme of markings *rotundata*. and colouring not different. The white oblique band is narrower and somewhat steeper. In this way the lower point of the exterior black triangle is somewhat rounded, its narrow white outer margin is somewhat straighter than in *trigonometrica*. 35 mm. Cameroon; Togo.

**P. deltifera** Fldr. (= *albifissa* Hmps.) (29 g). Costal and distal margins of forewing light red-brown. *deltifera*. The white median band extends very obliquely, so that the apex of the black basal triangle is situate above the middle of the base of the triangle. Both the triangles are finely edged with white at the costal margin. The outer margin of the exterior triangle is straight outside and thickly edged with white. The dark submarginal line is quite straight. Hindwing dark brown. 30–35 mm. West Africa, Rhodesia. Rather common.

**P. mixta** Rothsch. is very similar to *deltifera* (29 g), but the white oblique band of the forewing gradually widens towards the anal angle and is not equally broad everywhere as in *deltifera*. Hindwing not unicoloured, but with a median band similar to *Chalc. hyppasia* (29 f). ♀ 40 mm. North Nigeria. Described according to this one specimen.

**P. mahura** Fldr. (= *ditrigona* Hmps.) (30 a) resembles *deltifera* by the sharp-edged exterior triangle. *mahura*. Ground-colour somewhat lighter than in *deltifera*. The oblique band broader, somewhat steeper, not white, but of the ground-colour. At the inner margin, the edge of the ground-colour is broader than in *deltifera*. A double straight dark submarginal line at the somewhat darker distal margin. Hindwing greyish brown, fadedly darker at the margin. 35–38 mm. East Africa, common; also in South Africa.

The following species exhibit quite a different scheme of markings.

**P. longiplaga** Hmps. (30 a). Thorax and forewing in the costal-marginal area light greyish ochreous, *longiplaga*. coarsely dusted blackish. A black triangle extends from the base to the middle of the wing to the oblique submarginal line. Its upper edge is straight, the lower border bent upward in the middle. A dark oblique line from the apex, the space behind it more brownish. Hindwing pale brown, darker at the margin. ♂ 40 mm. Uganda. Only 1 specimen known.

**P. binaria** Holl. (30 a). Body and forewing greyish brown. The black spot begins near the base below *binaria*. the middle of the wing and then extends down to vein 1. The upper edge is straight and almost parallel with the costal margin of the wing, the white exterior edge parallel with the distal margin of the wing. From its lower angle a broad incision extends into the triangle almost as far as its anterior edge, with a black cellular dot above it. A dark oblique patch from the apex, dark clouds below it at the margin. Hindwing greyish brown, broadly darker at the margin. 40–45 mm. West Africa, Uganda.

**P. monoplaneta** Hmps. (30 a). Brownish ochreous, light or dark. An oblong triangular black spot *monoplaneta*. below the cell, extending outside above almost to the base of vein 3, the lower apex at vein 1, inserted outside between, narrower towards the base of the wing. A semicircular spot hanging below vein 5, thickly edged with yellowish in dark specimens. A spot at the middle of the cross-vein. Submarginal line dark, from near the apex into the submedian fold, touching the spot. Somewhat darker behind it. Hindwing greyish brown, darker at the margin. ♂ and ♀ 45 mm. East Africa, Uganda. — A ♀ from Nigeria in the Berlin Museum shows this scanty marking still more reduced. It forms a transition to *agonia*.

**P. agonia** Hmps. (30 b) is an extreme *monoplaneta* with hardly any marking. Body and wings pale *agonia*. ochreous, much lighter than the ♀ mentioned just now. The feeble spot at the cross-vein is yet present. A blackish brown shadow from the apex is fused with the very hazy exterior spot and less distinctly continued



towards the inner margin. Some dark patches traceable behind the apical line. Hindwing with the same broad dark marginal band as in *monoplaneta*. 45—50 mm. From Uganda, described according to a couple.

#### 47. Genus: **Euclidisema** Hmps.

Palpi erect, but not so extremely long as in *Parachalciope*. Tibiae of ♂ long-haired, the middle tibiae with a hollow and a hair-pencil, less hairy in the ♀. Spines only on the middle tibiae. Beside 5 South Asiatic resp. Papuan species (see Vol. XI) there are only two African ones, very unlike each other, the first resembling a *Parallelia*, the second more like a *Parachalciope*. Type: *mygdon* Cr. from India.

*erecta* **E. erecta** Hmps. (30 b). Body dark red-brown. Forewing blackish brown as far as the exterior line, dark brown behind it with a violet reflection. Interior line yellowish white, straight, somewhat inward. Exterior line finely white, sharply extra-angular at vein 6, then inward, slightly compressed in the middle, edged rusty red outside. A dark line bent downward from the apex to the angle of the exterior line, inwardly indistinctly bordered with dark. A light dentate line behind the exterior line, the points filled inside with dark. Hindwing dark without any marking. 30 mm. East Africa, Natal.

*delta* **E. delta** Bsd. (= *crestonion* Sn.) (30 a). Thorax and forewing dark chocolate brown, somewhat lighter only at the costal margin. A strong white line from the base near the costal margin to the distal margin at the anal angle. A white line at the anterior edge of the cell, beginning somewhat distant from the base, as long as the first line, both connected by a third line ending pointedly below. The narrow light distal margin is divided by a dark line. Hindwing lighter reddish brown, paler in the ♂ at the base. 28—32 mm. Very common in East Africa, besides in South Africa, in Madagascar and the adjoining islands.

#### 48. Genus: **Hypaetra** Gn.

Palpi very long. Anterior tibiae long-haired, only the middle tibiae spined. The only African species shows the middle tibiae widened with a long hair-pencil. Several species in the Indo-Australian Region, among them the type: *noctuoides* Gn.

*ethiopica* **H. ethiopica** Hmps. is rather strongly built. Thorax and forewing dark brown, paler in the marginal area. Interior line black, undulate, outward as far as the submedian fold, then very obliquely inward, broadly blackish before it. Brownish ochreous on its outside, extending far outward in the cell, otherwise narrower. Median line double, dark, indistinct, outward as far as the upper cell-angle, then dentately inward. Exterior line black, parallel with it, a dark brown band behind it. Submarginal line dark, dentate, parallel with the distal margin, edged with light brown inside, with such spots outside at the costal margin. Hindwing dark brown, with short white lines near the anal angle. 42—44 mm. West Africa, Uganda.

#### 49. Genus: **Remigiodes** Hmps.

The only species of this genus has a conical frontal process and bipectinated antennae, which is rare in this subordinate family. Palpi obliquely projecting. Middle and hind tibiae spined.

*remigina* **R. remigina** Mab. (= *pectinata* Hmps.) (30 b). Thorax and forewing dark red-brown with a violet reflection. Interior band blackish, obliquely outward, strongly projecting inward in the submedian fold, sharply edged. A median band, dark, obliquely outward, distinct only at the costal margin. The reniform macula is a large indistinct dark ring, blackish behind it as far as the exterior line, a similarly large indistinct ring, indented outside, is below the reniform macula. Exterior line blackish, outward as far as vein 7, then slightly undulated, parallel with the margin inward. Submarginal line indistinct, dark, dentate, blackish before it at the costal margin. Hindwing yellow, broadly brown at the margin, abdomen likewise yellow. 40—45 mm. Togo, Nigeria, Uganda, East Africa, Madagascar. The beautiful species is apparently widely distributed, but not common.

#### 50. Genus: **Mocis** Hbn.

Under this name not being used in Vol. III HAMPSON has united about 30 species, the palaearctic forms of which were treated as *Cavninda* Mr., *Pelamia* Gn., and *Remigia* Gn., and to which also *frugalis* F. belongs, being distributed over several continents and often doing considerable harm to all kinds of cultivated plants in America, especially to ginger. Europe is the only continent, where the genus is not represented. The *Mocis* are real grass-loving *Noctuae*, sitting, like the European *Gonossp. glyphica*, on blades and suddenly flying up, when they hear the step of an approaching person, only to drop into the grass again a few steps further. All the species exhibit an earthy brown colouring. Some come to the light in the evening in astounding numbers. — Antennae of the ♂ only ciliated. Apex of forewing rather pointed. Legs thin, tibiae of ♂ long-



haired, middle and hind tibiae spined. The genus contains numerous American species, besides 6 Africans, the first three of a very wide range, all very common. Type: *undata* F. from Africa.

Hind tibiae and tarsi of ♂ very hairy.

**M. repanda** F. (30 b). Thorax and forewing greyish brown, brownish ochreous, or reddish brown. Interior line dark, almost straight, somewhat outward, exceptionally before it a small black spot or at it a larger one above the inner margin, sometimes also 2 spots above and below vein 2. Reniform macula oval, large, edged with dark, with a dark streak inside. Below it another larger fine dark ring, adjoining to it a similarly indistinct double notched median line. Exterior line dark brown, straight, obliquely inward, shortly bent basad only at the costal margin, distally edged with rusty yellow. Submarginal line parallel with it, formed of black dots, darker before it. Hindwing mostly lighter than the forewing, with a dark median line and a broad margin which is lighter in the middle. According to the somewhat variable ground-colour different names: *repandana* Strd., *repandella* and *repandoides* Strd. The names: *indentata* Harr. and *latines* Gn. presumably refer to American specimens. The range is almost incredibly vast, extending over the whole of Africa, Madagascar and the adjoining islands. Besides from Labrador to Argentina.

**M. frugalis** F. (= *lycopodia* Geyer, *translata* Wkr.). Thorax and forewing pale olive brown. A black dot near the base at the inner margin, another one in the centre of the cell. A strong dark radial blotch in the submedian fold. Reniform macula hardly discernible, finely edged dark. Exterior line black, from vein 6 to vein 1, extinct above and below it, edged light inside, to  $2\frac{1}{3}$  inner margin. The submarginal line is a straight row of black dots, dark before it as far as the exterior line. Hindwing somewhat more yellow, with a dark median line and a dark margin. The normal form just described is called: *frugalisana* Strd. (30 b), the rare typical form is without the dark blotch in the submedian fold and it is only slightly darkened behind the exterior line. 35—40 mm. — Larva long, slender, yellowish brown with fine reddish and dark undulate lines, with black macular bands on the dorsum between the 5th and 8th segments, a yellow lateral streak below the stigmata; on ginger. — Distributed over the whole of Africa and the African islands, far into the Australian archipelago.

The following 4 species show only the tibiae hairy, not the tarsi. Their markings are quite dissimilar and they also differ entirely from those of the two preceding species.

**M. undata** F. (30 c). This species being likewise widely distributed and very common has been differently named by WALKER: *mutuata*, *jugalis*, *diffundens*, *associata*, *subaenescens*, *inconcisa*. Forewing from greyish brown to reddish brown with a slight violet tinge. Interior line yellowish white, excurved at the inner margin. If there is a black dot before it above the inner margin, it is *virbia* Stoll, being narrowly edged dark outside. Median line undulate, double, somewhat steeper than the interior line. Reniform macula large, indistinctly edged. Somewhat dark before the exterior line, tapering towards the inner margin. Exterior line arched between the costal margin and the middle of the cross-vein, then obliquely outward as far as vein 2, where it ends. — *pellita* Gn. is darkened behind the interior and exterior lines. Submarginal line of black dots, sometimes a light lunar line behind it. Hindwing ochreous with a dark median line and margin. — Small specimens of *pellita* occurring in Madagascar are called: *mayeri* Bsd. — 38—48 mm. Very common throughout Africa, occurring as far as Japan and the Sunda Is.; also the Indian *gregaris* Gn. is a race of it. — Larva violettish brown, speckled dark, the sides yellowish with red lines and rows of small black dots. Head with a brown and red stripe on the sides. It lives in India on the telegraph-plant and presumably also on other Papilionaceae.

**M. mutuaria** Wkr. (= *judicans* Wkr., *torpida* Wkr., *insula* Willgr., *nigrimacula* Mab.) (30 c). Body and forewing greyish brown with an intense violet admixture. Interior line steeper than in *undata*, very slightly extra-angular at the costal margin. Reniform macula large, edged with dark. Median line from its lower edge to the submedian fold inward, arched at vein 1. There may also be another irregular line indicated before this line, extending from the costal margin to the inner margin. Exterior line far excurved between the costal margin and the discal fold, forming an inward point in the fold, then downward to the submedian fold and upward to the reniform macula. Submarginal line light, dentate, edged with dark, dark rusty brown before it as far as the exterior line. ♂ with a bicuspid black spot behind the reniform macula and another spot at the submarginal line at vein 7. Hindwing darker than in *undata* with a single median line and a double exterior line. — *mutuarides* Strd. exhibits a black spot behind the exterior line in the discal fold on the forewing. 34—38 mm. Throughout Africa and Madagascar. Somewhat less common.

**M. persinuosa** Hmps. (20 g). Very similar to *P. monopuncta* (30 a). Body and wings greyish brown, coarsely dusted dark. Forewing with a black spot at the cross-vein. Exterior line fine black, obliquely outward from the costal margin as far as vein 6, somewhat inward between veins 5 and 3, then very obliquely inward to vein 1, where it forms an outward point. A somewhat faded oblique streak from the apex to vein 4, an indistinct row of dark dots behind it. Hindwing with a straight light median line, the margin broadly dark. The ♀ exhibits a more extinct marking on the forewing. 46 mm. Congo District, Rhodesia.

**M. inornata** Holl. (30 c) is likewise greyish brown with a spot at the cross-vein. An indistinct brown undulate line from the lower cell-angle to the inner margin. Exterior line brown, edged with a faded red-brown colour inside, obliquely bent downward from the costal margin to vein 6, where it is connected with



an oblique apical shadow enclosing a light spot at the costal margin, then oblique, undulate. Submarginal line composed of dark spots. Hindwing with a dark marginal shadow from the apex to vein 4. ♂ 48 mm. Ogowe. Apparently only this one specimen is known.

### 51. Genus: **Plecopterodes** *Hmps.*

Palpi long and obliquely projecting. Middle and hind tibiae spined, thin and long, hairless. All the species from Africa, small and insignificantly marked. Type: *moderata* *Wllgr.*

*melliflua.* **P. melliflua** *Holl.* (30 d). Thorax and forewing red-brown with a grey reflection, the marginal area more intensely red. Interior line dark, thick, slightly undulated, vertical. Reniform macula narrow, dark. The very indistinct dark median line excurved around the cell, from the submedian fold vertical to the inner margin. Exterior line more distinct, black, finely notched, excurved behind the cell, from vein 3 somewhat obliquely inward, with white scales outside. Submarginal line yellowish, straight. Hindwing greyish brown with a dark median line and a dark margin. — **P. mellifluana** *Strd.* shows the reniform macula not filled with black. — **P. calida** *Hmps.* is besides still smaller, unicoloured red-brown. — **P. mellifluodes** *Strd.* is pale greyish brown as far as the submarginal line. — 30—40 mm. Niger District as far as Abyssinia and South Africa.

*exigua.* **P. exigua** *Gaede* resembles *melliflua* (30 d), but the interior line of the forewing is somewhat more oblique. Reniform macula and exterior line not different. The submarginal line is absent altogether, the margin is just as dark as in *melliflua*. Hindwing not different. ♀ 34 mm. Bechuana Land.

*heterochroa.* **P. heterochroa** *Hmps.* (30 d). Thorax and forewing greyish brown with a greenish reflection. Interior line dark, somewhat extra-angular below the costal margin, then straight, vertical. A dark streak at the cross-vein. Exterior line feebly double, somewhat undulate, excurved behind the cell, then inward, vertical from vein 2. Submarginal line yellowish, vertical from vein 6, somewhat inwardly angled above it; there may be three black spots at its distal margin. Hindwing dark reddish brown, with a light submarginal line. — **P. heterochroana** *Strd.* lacks the greenish tint; white dots at the exterior branch of the exterior line. — **P. heterochroides** *Strd.* is darker violettish grey. 30—34 mm. South Africa.

*heterochroana.*  
*heterochroides.*  
*griseicilia.* **P. griseicilia** *Hmps.* (20 g) is considerably larger. Thorax and forewing brown with a somewhat reddish tint. Interior line indistinctly dark, almost vertical. A dark line at the cross-vein. Exterior line of black dots, shaped similarly as in *heterochroa* (30 d). Submarginal line grey, with dark streaks outside, excurved to the apex and anal angle. Hindwing more greyish brown, marginal area broadly darker. ♀ forewing copper-coloured. 36 mm. Northern Rhodesia.

*synthes.* **P. synthes** *Hmps.* (30 d). Thorax and forewing greyish brown, rusty brown behind the exterior line. Interior line fine, dark, excurved as far as the median vein, then almost vertical. Exterior line dark, edged light outside, somewhat outward at the costal margin, then vertical as far as vein 4, later on slightly inward. Submarginal line pale, notched, indistinct, light, edged darker outside. Hindwing with a whitish faded median line, brownish before it, blackish behind it. Described according to the only ♀ known from East Africa. A ♂ from the same district, which seems to me to belong to it, is slightly different. Intense bluish white dusting behind the interior line of the forewing. Two black dots at the cross-vein. The median line behind the middle of the cell with an inward point, bent more inward in the submedian fold. The exterior line is also more concave than in *HAMPSON*'s figure. Submarginal line in darker surroundings. 35—38 mm. East Africa.

*lutosa.* **P. lutosa** *Grnbg.* (= *deprivata* *Warr.*) (30 d). ♀. Forewing greyish brown, darker behind the exterior line. Interior line strong, dark, somewhat undulately outward, straight, edged light inside. Reniform macula narrow. Exterior line excurved as far as vein 4, then almost vertical, edged light outside. Hindwing brownish ochreous with a dark median line, broadly dark behind it. The ♂ shows the interior line extra-angular below the costal margin, slightly concave between the angle and the inner margin, as in *moderata*. A light submarginal line excurved at vein 6 is recognizable in the dark marginal area. The dark median line on the hindwing is narrower, more distinct, the margin darker only at the apex. 30—32 mm. ♀ from the Ovamboland, ♂ from Windhoek. It may be identical with *moderata alypophanes*.

*dissidens.* **P. dissidens** *Gaede* (30 e) is also similar to *moderata*, but the basal area of the forewing is not so light. Interior line without an angle, straight, somewhat outward. Reniform macula 8-shaped. Exterior line bent more inward at the costal margin, not thickened. Marginal area darker, an extinct black spot at the anal angle and at the middle of the margin. Submarginal line shaped as in *moderata*, hardly discernible. Hindwing, dark greyish brown at the base, with a dark median line; close behind it begins the dark distal margin. Basal area in both wings beneath white, not yellow. ♀ 26 mm. East Africa.

*moderata.* **P. moderata** *Wllgr.* (30 d, e). Thorax and forewing in the basal area greyish brown, the rest red-brown. Interior line dark brown, edged white inside, straight, vertical. Reniform macula indistinct, brown, with a white dot above and below. Median line indistinct, excurved around the cell. Exterior line brown, intensely white outside. Obliquely outward as far as vein 6, then vertical. Submarginal line pale, edged dark on both



sides, excurved at vein 6, bent inward above and below it. Hindwing pale reddish brown with a faded dark median and exterior band. The ♀ is quite greyish brown, the median line distinct, the exterior line composed of light and dark dots. Submarginal line more extensively edged with red-brown. — **postaurantiaca** Strd. with orange hindwings. — **alypophanes** (♀) B.-Bak. has both wings brownish ochreous. — **variabilis** (♂) Mab. is similar, but the exterior line of the forewing begins with a black spot. — **subflava** Warr. is orange on the hindwing above. Both wings beneath of a bright yellow, broadly blackish at the margin. 38 mm. Distributed all over Africa.

**P. clytie** sp. n. (30 e) resembles *moderata* and *lutosa* on the forewing. Ground-colour variable, reddish brown, reddish, or ochreous. Interior line extra-angular below the costal margin, more oblique than in *moderata*, more similar to *lutosa* (30 d). Reniform macula mostly very strong, black. Exterior line somewhat farther incurved at vein 2 than in *moderata*. The submarginal line extends from the angle at vein 6 somewhat more inward to the costal margin than in *moderata* and *lutosa*. Interior and exterior lines dark in light specimens, light edged with dark in dark specimens. Hindwing as broadly margined with dark as in the genus *Clytie* Hbn., with a light marginal spot at the anal angle as far as behind the cell. Ground-colour ochreous or brownish. Both wings beneath yellowish white with a distinct broad dark marginal area. ♂ and ♀ 35 mm. East Africa. Type in the Berlin Museum.

**P. molybdopasta** Hmps. (20 h) is a very different, very dark species. Thorax and forewing dark red-brown, dusted silvery blue at the costal margin as far as behind the middle. Marginal area paler. Interior line black, spot-like at the costal margin, somewhat excurved, very indistinct. A black luna at the cross-vein. Exterior line black, also beginning with a spot at the costal margin, slightly excurved behind the cell, slightly bent inward at vein 2, outward again towards the inner margin. Directly behind the line much lighter. Hindwing reddish brown, with a broad dark margin and a straight dark median line. 35 mm. 1 ♀ captured in Northern Rhodesia. — **argenteocaerulea** Strd. is the other ♀ from the same habitat. Its whole forewing is dusted silvery blue, the marginal area scarcely paler, the hindwing darker.

The following genera sometimes show a resemblance to *Boarmiinae* in their contours and the different scheme of markings.

## 52. Genus: **Sypnoides** Hmps.

Palpi very long, obliquely projecting. Middle and hind tibiae with spines, feebly haired. Antennae of ♂ bipectinated in the only African species. Beside the species mentioned here two Indian ones are known. Type: *pannosa* M.

**S. equatorialis** Holl. The only African species of this genus exhibits superficially quite the image of the common Japanese and Chinese *Sypna picta* Btlr. (Vol. III, pl. 66 g), which resemblance may also have occasioned the name of the genus. — Thorax and forewing reddish brown. Median area white, irregularly bordered. In it a conical blackish brown spot from the costal margin to the centre of the cell, and a short narrow band inward from the base of vein 3, expanded into a large spot at the inner margin. Ring-macula indicated by a black ring. Reniform macula with a reddish brown centre and a bluish white edge, irregularly shaped outside. Exterior line indistinctly double, thickened from the costal margin, straightly downward, slightly excurved at veins 4 and 5, then undulate obliquely inward. Submarginal line blackish brown, brownish ochreous inside, undulate, projecting at vein 4, slightly concave above it, then parallel to the margin. White dots before the margin. Hindwing reddish brown with a black median line which turns white near the inner margin. Exterior line indistinctly dark. ♂ 50 mm. Gold Coast, Ogowe. 3 ♂♂ known.

## 53. Genus: **Cerocala** Bsd.

The genus has been treated upon already in Vol. III, p. 340; of the 4 species enumerated there, however, *confusa* is not palaearctic. Most of the African species are as beautiful as the palaearctic ones. One species is known from Indo-China. Type: *scapulosa* Hbn. from Southern Europe. Cf. Vol. III, p. 340.

1. Antennae of ♂ and ♀ bipectinated, though very short in the ♀.

**C. caelata** Karsch (30 e). Light brown with a violet reflection. Interior line dark, vertical, the basal area before it also dark. The ring-macula is a black dot with silvery scales, the reniform macula composed of 2 white dots. Exterior line downward as far as below vein 3, then bent upward to the lower cell-angle and vertical to the inner margin. The line is partly edged silvery, the space behind it as dark as the base. Hindwing dark greyish brown, with a light median and exterior band. 22—28 mm. Togo, Niger District. French Sudan.

2. Antennae of ♀ ciliated.

**C. illustrata** Holl. (= *lineata* Drc.) (30 c) is quite dissimilar to the other *Cerocala*. Thorax and forewing brownish grey. A faded triangular white spot in and below the cell, bordered below by a black streak in the submedian fold, which is turned up to the lower cell-angle. An extinct black streak at the cross-vein. Exterior line black, bordered inside by an oblique white band, from the upper cell-angle to vein 3. Submarginal line white, strongly introangular behind the middle of the cell, another inward point at vein 1. Hind-



- illustratoides. wing brownish white with a broad brown margin. — **illustratoides** *Strd.* is less white on the forewing. — **basialbissima** *Strd.* has a purely white basal half of the hindwing. 30—35 mm. Abyssinia, Somaliland.
- C. albimacula** *Poult.* Body and forewing greyish brown, also somewhat reddish brown, an almost square white spot behind the reniform macula. Interior line double from the centre of the wing, black, bent inward, black and silvery scales before it. The ring-macula and reniform macula with a silvery and brown centre, edged with black. Before the reniform macula a dark streak in the cell-end below. Exterior line black, excurved below the costal margin and at veins 2—3 almost to the submarginal line, then upward to the lower cell-angle, then obliquely to the inner margin, a few silvery scales behind it in the indentation. Submarginal line white, edged with black inside, extra-angular at vein 7 and in the middle. Hindwing pale yellowish brown, with a dark central luna and a dark margin. Forewing of ♀ whiter, especially at the base and distal margin. 25—30 mm. A few specimens from British Somaliland.
- C. oppia** *Drc.* (30 d). Thorax and forewing dark violettish brown, the narrow greyish brown costal margin with silvery scales, the distal margin greyish white. Interior line black, white outside, straight, somewhat outward, brownish ochreous behind it. The ring-macula is a silvery dot. Reniform macula edged with black, silvery and dark brown inside. An oblique white band behind the cell from below the costal margin to the submarginal line at vein 2, bordered outside by the black exterior line extending at vein 2 to the lower cell-angle and then to the inner margin. Behind it an oblique silvery band from the costal margin to vein 3, and an incurved band from vein 2 to the inner margin. Submarginal line yellowish white, incurved behind the cell, then parallel to the margin. Hindwing white, with a broad brown margin. The description being difficult to understand is supplemented by a figure. ♀ 26 mm. Somali Land. Only two specimens known.
- C. munda** *Drc.* (30 f). Thorax and forewing reddish brown. The costal margin, the middle of the inner margin and the distal margin greyish brown. Interior line black, edged with white outside, excurved in the middle, very obliquely inward to the inner margin, silvery scales before it in and below the cell. The ring-macula is a black dot, the reniform macula edged with black. Exterior line black, obliquely outward as far as vein 2, then upward to the lower cell-angle, obliquely inward as far as above vein 1, then outward to the inner margin. White before it, red-brown behind it. Hindwing pale reddish brown, with a blackish central spot and a narrow dark margin. ♀ 30 mm. Somaliland. Only 1 specimen known.
- C. vermiculosa** *H.-Schäff.* (30 e). Greyish white or brownish white. Interior line dark, strongly excurved, sharply curved inward at vein 1, very dark before it. Median area yellowish brown, enclosing the large black ring-macula. Reniform macula large, olive brown, edged with black, centred black. Behind it a white or yellowish oblique band as far as vein 2, below it a blackish spot forming a  $\frac{3}{4}$  circle. Submarginal line white, edged with olive brown outside, deeply introangular behind the cell and still more pointedly inward above vein 1. Marginal area behind it at first bluish grey, then brown. Hindwing blackish, mostly lighter at the base, with a white or yellow median band and such spots at the apex and anal angle. 34—40 mm. South and South-West Africa, apparently very common. Darker in Madagascar.
- C. sokotrensis** *Hmps.* (30 f) is very similar to *vermiculosa*. The interior line is bent outward at the inner margin from vein 1. The white stripe behind the reniform macula does not extend so far downward. Hindwing with a narrower light median band. 32—42 mm. Sokotra. Rather common.
- C. confusa** *Warr.* (Vol. III, pl. 62 f). Although the species is very closely allied to the Algerian *insana* *H.-Schäff.* and has therefore been dealt with already in Vol. III, yet it belongs to the Ethiopian Fauna. We therefore repeat the description. The light median areas of the forewing suffused with yellowish reddish olive. The white borders of the lines less conspicuous. The area bordered by the upper course of the exterior line is not so beak-shaped, filled with yellowish red, not edged with white. Black wedges before the submarginal line. Hindwing dark olive brown. From Abyssinia.
- C. masaica** *Hmps.* (30 f). Thorax and forewing light red-brown. The median area and the band behind the cell whitish. Marginal area somewhat grey, a small V-shaped silver marking before the interior line. Interior line black, slightly excurved. Ring-macula and reniform macula silvery, edged with black. The light band behind the cell outward as far as vein 2, bordered outside by the black exterior line. The latter is slightly compressed in its upper part, then bent up to the reniform macula and downward obliquely outward near the interior line. Behind it a feeble silvery line from the costal margin to vein 3. Short black streaks before the submarginal line. This line is fine white, concave behind the cell, extending to vein 3. Hindwing brown, with a light median and exterior line. 30 mm. East Africa.
- C. contraria** *Wkr.* (= *revulsa* *Willgr.*) (30 f) is somewhat larger and darker than *masaica*. Interior line of forewing obliquely outward straight, somewhat before it a silvery streak. Ring-macula punctiform, reniform macula broad, both with silvery scales. Exterior line rather straight, somewhat outward as far as vein 3, then to the cell-angle, often indistinctly bordered, then bent S-like, vertical to the inner margin. There is a much larger interspace between the interior and exterior lines than in *masaica*. Parallel with the exterior line a silvery line on its outside, followed in the anterior part by a black, distally notched band. Hindwing light brown with traces of a light median band. Submarginal line dentate white, ending at the anal angle, often very indistinct. 30—36 mm. East Africa, Natal.



54. Genus: **Gnamptonyx** *Hmps.*

The marking of the typical species similar to the species of the preceding genus. Anterior tibiae short, with a long claw inside and a short one outside, instead of 2 short claws outside. Palpi somewhat shorter than hitherto, obliquely projecting. The three species known occur in the eastern parts of Africa. The typical species (*vilis*) is distributed as far as India.

**G. vilis** *Wkr.* (30 f). Thorax and forewing brownish white, with darker bands. Interior line black, *vilis*, undulate, vertical, dark brown before it. The ring-macula is a black dot. Reniform macula white, indistinctly edged with black, white before it at the costal margin. An undulate exterior band behind it, very broad at the costal margin and enclosing a pale spot. This exterior band is united with the likewise broad median band at the inner margin, forming a somewhat darker spot. Margin whitish with light reddish brown spots. Hindwing brownish white with a double median and exterior line, the margin somewhat reddish. — In *devittata* *Strd.* the light ground-colour behind the interior line and the reniform macula are darkened. The hindwing lacks the brightening between the median and exterior lines. 28—32 mm. Sudan, Somaliland, Arabia, India.

**G. obsoleta** *Hmps.* (30 f). Body and forewing pale red-brown. Traces of an undulate brown interior *obsoleta*, line. A dark streak is traceable at the cross-vein. An undulate dark median line is somewhat more distinct. Traces of an undulate submarginal line with a whitish streak from the costal margin. Hindwing pale reddish brown, a light exterior line in dark surroundings. ♀ 24 mm. Perim, thus right in front of the African coast. Only this one specimen is known. — The following species may be only an indistinctly marked form of *obsoleta*.

**G. limbalis** *Strd.* As only 1 specimen of *limbalis* is known and thus nothing can be said about any *limbalis*, variations, we do not know whether it is entitled to be called a species. Forewing dark reddish brown. An oval rusty brown spot at the cross-vein is edged with black inside and outside, the interior edge seems to extend obliquely inward to the costal margin. Distal margin broadly rusty brown, dentately bordered inside. Hindwing dark orange, an almost square black spot at the apex. Both wings beneath somewhat lighter than the hindwing above, without any marking. ♀ 25 mm. Madagascar.

55. Genus: **Clytie** *Hbn.*

The genus contains quite a number of palaearctic species (about 10) occurring on the more or less desert-like stripe from Turkestan to Algiers. They have been dealt with in Vol. III, p. 336. For the present volume only two species are to be mentioned. Type: *illunaris* *Hbn.* from Southern Europe.

**C. euryphaea** *Hmps.* is presumably somewhat like the Indian *devia* *Suh.* dealt with in Vol. XI. Thorax *euryphaea*, whitish ochreous, forewing creamy white and grey, marginal area bluish grey. Interior line blackish, slightly undulated, rather oblique as far as the submedian fold. The ring-macula is a white, dark-edged dot. Reniform macula greyish brown, edged with dark brown, 8-shaped. Exterior line beginning with a black streak at the costal margin, then indistinctly double, slightly undulated, obliquely inward below vein 4. Submarginal line edged with black in front inside, white outside, excurved below vein 7 and filled with black there inside, then white, edged with brown on both sides, undulate. Hindwing creamy white, the broad margin dark brown, with a narrow light submarginal band. ♂ 54 mm. Arabia.

**C. sancta** *Stgr.* (Vol. III, pl. 62 b) chiefly occurs in Algiers and Egypt, but it occurs also to the south *sancta*, of the Sahara, thus in Ethiopian districts. Cf. Vol. III, p. 337.

56. Genus: **Pericyma** *H.-Schäff.*

Here we find exceptionally tufts on the thorax in front and behind, the abdomen also showing a series of tufts, the middle ones of which are somewhat larger. Tibiae of ♂ very hairy. Only the middle tibiae spined. Type: *albidentaria* *Frr.* (Vol. III, pl. 62 d) from the eastern palaearctic district. About half of the species are African, the others Indian; 3 forms reach the palaearctic region.

**P. turbida** *Bllr.* (30 g). Forewing beneath in the basal half and the whole hindwing of the ♂ covered *turbida*, with androconia. Body and forewing brownish ochreous, slightly tinged with violettish grey. Interior line black, double, dentate, inward, filled with dark. The ring-macula is a fine yellow dot. Reniform macula indistinct, edged with brown, filled with red-brown. Median area with 3 fine red-brown undulate lines, turned inward. Exterior line distinctly black, outward as far as vein 6, parallel with the margin as far as vein 4, then inwardly removed, darker red-brown before it in the anterior part. Marginal area pale red-brown inside, grey outside. Hindwing with numerous parallel dark lines and a black submarginal line. ♂ 45 mm. Rodriguez. Only 1 specimen known.

**P. umbrina** *Gn.* (Vol. III, pl. 62 d). The species being known from Cashmere, Sikkim and India has *umbrina*, been dealt with in Vol. III, p. 338, in the genus *Alamis*, together with all its forms. As 1 ♂ has become known from Kedai in East Africa, it must also be mentioned here. It is similar to *polygramma* (30 g) on the forewing, but the exterior line is not so strongly introangular behind the cell, and below vein 4 there is also a small angle at vein 3. Submarginal line of hindwing not so conspicuous. Beneath the base of the forewing is long-haired on the forewing in the ♂ and the whole hindwing is covered with androconia. — A specimen which may belong to the form *albicineta* *Gn.* (30 g) is before me from South-West Africa. Forewing dark red-brown. *albicineta*,



Interior line excurved in the middle, then inward, lighter whitish behind it. Reniform macula below bent outward, edged with black. The white dots at its lower edge are absent. The black exterior line is very distinct, introangular behind the middle of the cell, extra-angular behind the upper and lower cell-angles. A flat inward bow at vein 2. Submarginal line white, dentate, dark behind it at the apex and in the centre of the wing, the rest greyish white. Hindwing almost white as far as near the indistinct exterior black line, not red-brown. The rest paler red-brown than in typical *albicincta*. The dentate submarginal line white inside, black outside. ♀ 28 mm, instead of 35—38 mm. South-West Africa.

- atrifusa*. **P. atrifusa** Hmps. (30 g). The ♂ with woolly hair at the base on the wings beneath. Thorax and forewing dark red-brown. Three black lines at the base, incurved below the cell, yellowish brown before them. A similar band behind them with a brown median line, turned inward. Reniform macula narrowly yellow, edged with dark brown, surrounded by numerous parallel dark lines. Exterior line black, undulate, somewhat extra-angular at vein 6, more so at vein 4, to the inner margin near the anal angle, incurved above it. Submarginal line whitish, edged dark, dentate. Hindwing whitish brown with many parallel dark lines, leaving a narrow light band free behind the middle. — In *transvaalica* Strd. the forewing is red-brown as far as behind the exterior line, the marginal area white with brown spots at the apex and the middle of the margin. 28 to 35 mm. South Africa.
- mendax*. **P. mendax** Wkr. (= *cilipes* Wkr.) is much larger than *albidentaria* (Vol. III, pl. 62 d), similar, but more distinctly marked with numerous undulating lines. Wings hairy as in *atrifusa*. Thorax and forewing red-brown, paler at the base and distal margin. With numerous dark undulate parallel lines, obliquely inward, slightly excurved at vein 7. The ring-macula is a dark dot. Reniform macula indicated by its blackish brown edge. Exterior line black, somewhat more conspicuous. Hindwing similarly densely and irregularly covered with parallel lines. — *delineosa* Wkr. shows the median area of the forewing traversed by blackish lines. — In *mendaciella* Strd. the forewing is blackish from behind the interior line to behind the exterior line. — *disjuncta* Wkr., however, shows the median area traversed with white, except at the costal margin and a spot at the cell-end. — In *mendaciana* Strd. the median area is suffused with violettish white. 32—40 mm. Throughout Africa. — Larva pale yellow with 3 white dorsal lines and a white accessory line. Lateral line interrupted, partly edged with black above, with red below. Anal legs pale red.
- metaleuca*. **P. metaleuca** Hmps. (30 f) is a small species. Thorax and forewing pale reddish brown. Interior line undulate, vertical, black, threefold, dark brown before it. Median area with 4 feeble brown lines, undulate, vertical. Reniform macula indistinct. Exterior line black, dentate, projecting equally far at veins 6, 4 and 3, vertical below. A small black and white spot at the costal margin before the white submarginal line which is indistinct, undulate, with a black spot at the inner margin. A black dentate line at the margin. Hindwing white, somewhat brown at the middle of the distal margin. ♂ 24 mm. East Africa. Only the type is known.
- scandulata*. **P. scandulata** Fldr. (= *exarata* Mab.) (30 g). Wings beneath without androconia or long hairs. Body and wings reddish brown. Interior and median lines dark, double, undulate, vertical, slightly excurved in the middle. The ring-macula is a dark dot, the reniform macula is indistinctly edged with brown. Exterior line double, black, the interior branch distinct, dentate, excurved between the costal margin and vein 2, then slightly oblique, straight to the inner margin. Submarginal line reddish, edged dark, excurved below vein 7 and in the middle. Hindwing with a double blackish median line and a faded reddish submarginal line, the lines with black dots at the veins. — The name *ugandana* Strd. denotes dark greyish black specimens without any brown tint. 34—40 mm. Uganda to South Africa.
- polygramma*. **P. polygramma** Hmps. (30 g). Antennae of ♂ ciliated. Both wings long-haired in the middle in the basal area. Thorax and interior half of forewing at the costal margin dark red-brown, the rest and the hindwing lighter. Interior line dark, incurved in the cell, with an angle at the median vein, then obliquely inward, dark before it. Median area with indistinct fine lines, obliquely inward. The ring-macula and reniform macula feebly traceable. Exterior line double, black, the interior branch more distinct, from the costal margin near the apex inward to behind the centre of the cell, extra-angular at vein 4, then obliquely inward. Black spots behind it at the costal margin, black dots behind it from vein 4 to the inner margin. Feeble rusty brown spots in the marginal area. Hindwing with numerous fine dark lines, somewhat excurved above vein 7, slightly incurved in the submedian fold. Submarginal line more distinctly black, straight from the apex to the anal angle. — *polygrammata* Strd. is pale brownish ochreous. — *lignicolora* Strd. is blackish as far as the exterior line, the rusty brown spots behind it forming a fine dentate line. — The *disjuncta*-form, as in *mendax*, occurs also here. 30—35 mm. Niger District, Transvaal, East Africa, Eritrea.

## 57. Genus: **Cortyta** Wkr.

In the scheme of markings, the species are mostly similar to those of the preceding genus. Here the middle tibiae are also spined. Metathorax with a feeble tuft, the abdomen, however, tuftless. Only few species in the palaearctic and Indian regions, the majority in Africa. Type: *canescens* Wkr. from East Africa.

1. Antennae of ♂ serrated. Middle tibiae without a hollow with a scaled edge.

- remigiana*. **C. remigiana** Hmps. Body and wings pale ochreous, slightly suffused with red-brown. Marginal area of forewing paler. Interior line fine brown, obliquely outward as far as into the cell, then vertical to the inner



Below the cell a chocolate-brown spot distally, from which a line extends to postmedian line at inner margin. Reniform stigma with brown surround, expanding below and dark brown posteriorly. Outer line delicate, fuscous, outwards to vein 7, then somewhat inwards to submedian fold, bending upwards to lower corner of reniform stigma and then again outwards to inner margin. Distally blackish spots from vein 6—3. Submarginal line indistinct, pale, dentate, edged on both sides by fuscous. Hindwings inclined to fuscous in marginal area. A delicate undulate brown line from lower angle of cell to inner margin. ♂ 30 mm. East Africa.

2. Antennae of ♂ ciliate. Central tibiae of ♂ obese, with a cavity, edged by coarse scales. The 3 first species white.

**C. diapera** Hmps. (30 h). Thorax and forewings white. Antemedian line delicately brown, angulated *diapera*. outwards on median nervure in a right angle and then inwards. Median line indistinct, double, parallel to antemedian. Reniform stigma indicated by brown lateral streaks. Postmedian line black, faintly duplicated outwardly. Slightly excurved at vein 6 and again more boldly at vein 4, somewhat impressed behind cell, further incurved at vein 2. A wide diffuse oblique stripe extends from apex to postmedian line. Hindwings yellowish white, browner at margin. ♂ 30 mm. Transvaal. Only 2 specimens are known.

**C. setifera** Hmps. Antennae of ♂ with long hairs on upper side before the centre. Foretibiae with long *setifera*. hairs, central and hind tibiae with shorter hairs. Hindwings on underside with hairs that are directed downwards at lower end of cell, but upwards on submedian fold. Body and wings white, faintly tinged with brown. Forewings slightly fuscous in marginal area. Antemedian line consists of black dots forming a line downwards from median nervure, angulated outwards on submedian fold. A black dot in centre of cell and a streak at disco-cellular. Postmedian line black with a spot on costa, excurved below costa, undulate to vein 5, then inwards, angulated outwards below vein 2. Submarginal line whitish, edged by brown on both sides and undulate. Hindwings slightly brownish at margin. A black streak at disco-cellular, with a diffuse line below to inner margin. Postmedian line dark, undulate, submarginal line pale. ♂ 30 mm. Central Africa. Only this one specimen is known.

**C. leucoptera** Hmps. (30 g). Thorax and forewings ochreous white, marginal area grey-white. Inner *leucoptera* line heavy, black, obliquely outwards to submedian fold, then vertically. Proximally a grey suffusion. Median line indistinct, double, brown, undulate. Reniform stigma blackish and elliptical. Postmedian line black, excurved below costa and widely in the centre. Behind the cell it is faintly incurved and more boldly again on submedian fold with a grey-brown shade distally. Hindwings with dark streaks on vein 1 and 2 in marginal area. The ♀ from East Africa, that we are illustrating, has a darker margin to both wings than HAMPSON's original illustration, but nevertheless should probably be placed here. 27—30 mm. Algeria, Somaliland, East Africa, Aden.

According to ROTHSCILD in Novit. Zool. 27, p. 23, *fasciolata* Warr., *balnearia* Dist., and also *dispar* Pnglr. from the Dead Sea, *impar* Hmps. and *eremochroa* Hmps., both from India, are all forms of one species, that occurs in transition forms on the coast of Somaliland. HAMPSON and we, in this work, have treated them as separate species. *leucoptera* Hmps., which is the rarest form, was unfortunately described first.

**C. metaxantha** Hmps. (30 h). Forewings ochreous grey admixed with fuscous, basal area blackish. Inner *metaxantha*. line bold, black, excurved and undulate with a parallel fainter line proximally. Median line indistinct, double, excurved to median nervure, then vertically, darker posteriorly at costa and inner margin. Reniform fuscous, boldly curved. Postmedian line black, undulate, sharply incurved below vein 4, distally narrowly brown. A pale grey band vertically to anal angle, darker distally. Hindwings orange-yellow, an outer line indicated on inner margin, outer margin narrowly dark. The specimen illustrated (♂) differs from the original illustration by the much more acute angulations of inner and outer lines on submedian fold. As only this species has orange-yellow hindwings, probably a specimen before me from South West Africa, will prove to be the hitherto unknown ♀ belonging here, especially as the ♂ illustrated also occurs there. On it the angulations of both lines are much less acute on the submedian fold, than in the illustration. The grey band, distally of the postmedian line is absent. A few further specimens from South West Africa are much less distinctly marked than shown in our illustration. 26—30 mm. South West Africa, Damaraland and the Cape.

**C. minyas** Fawc. (20 h). Body ochreous grey. Forewings pale fuscous at base to antemedian line. Lines *minyas*. black and undulate, approximately vertical. Central area grey to postmedian line with indistinct dark lines. Reniform stigma with faint ochreous brown surround. Outer line black, distinct, angulated outwards below costa, again on vein 6 and 4 and angulated inwards on vein 3 behind the cell and on submedian fold. Distally thereof paler rusty brown with dark spots before the margin. Hindwings pale ochreous brown, somewhat darker at margin; double median and submarginal lines at inner margin. 30—34 mm. East Africa.

**C. griseacea** Fawc. Very similar to *minyas* (20 h) and originally described as a form of it. Forewings *griseacea*. greyer distally of antemedian line, with a rusty brown band submarginally, that is most distinct at apex. Hindwings paler. According to the author, these two species come between the palaearctic *dispar* Pnglr. and *fasciolata* Warr. (Vol. 3, pl. 62 e and 63 a). ♀ 30 mm. East Africa. Only this one specimen of *griseacea* is known.

**C. fasciolata** Warr. (30 h). Thorax and forewings ochreous reddish. In basal area, the outer median *fasciolata*. area and close behind the postmedian line, the colouration is browner. Antemedian line black, somewhat double,



slightly excurved in centre, undulate. Distally 2 indistinct undulate dark median lines. Reniform stigma small with black surround. Postmedian line finely black, angulated outwards below costa and on vein 4, in between somewhat inwards, below vein 2 obliquely inwards. Submarginal line indistinct, pale, undulate. Hindwings pale ochreous brown; a median and outer line are indicated at inner margin. In ♀ forewings are more uniformly fuscous. 20—25 mm. Algeria, Soudan, East Africa.

*balnearia*. **C. balnearia** *Dist.* (30 h). A nice large species. Body grey-brown. Forewings darker at base. Antemedian line distinct, black, somewhat excurved at submedian fold, otherwise vertical. Median area fulvous with 3 delicate fuscous lines. Reniform stigma small, quadrangular, with black edge. Outer line black, excurved in a small semicircle in centre, impressed behind cell, at vein 2 in a large arc edged by dark shading inwardly and narrowly outwards. Marginal area pale grey, enclosing the white dentate submarginal line, that has a darker patch distally at apex. Hindwings yellowish, tinged with brown at margin. 26—34 mm. Mashonaland, Transvaal, Tanganyika, East Africa.

*polycyma*. **C. polycyma** *Hmps.* (30 h). Thorax and forewings dark reddish brown. Antemedian line black, somewhat angulated outwards below costa, then undulate, vertical and somewhat darker proximally. In central area a few indistinct dark lines. Reniform stigma narrow with diffuse dark outline and with a line proceeding from it to inner margin. Outer line distinct and black, angulated inwards behind the cell, above and below in equal large arcs outwardly. At vein 2 the large arc extends slightly further inwards than in *balnearia*. Parallel distally a fainter dentate line, the interstice between the two being darker. Submarginal line pale, dentate, somewhat darker proximally of it at costa. Hindwings ochreous brown, darker at margin. ♀ 32—36 mm. Uganda, Rhodesia. Only 2 ♀♀ known.

*phaecocyma*. **C. phaecocyma** *Hmps.* (30 h). Body and forewings dark brown. Antemedian line black, rather indistinct, bulging forwards in centre. Median line diffuse, double. Reniform stigma whitish, with black edge, elliptical, a dark line proceeds from it to inner margin. Postmedian line black, distinct, more pronouncedly angulated outwards below costa than hitherto, then approximately vertical, slightly incurved behind the cell and below vein 4. Submarginal line pale, excurved at vein 7 and in centre. Hindwings whitish, ochreous brown at inner margin and dark brown at margin. ♀ 32 mm. Transvaal. Only the specimen illustrated is known as yet.

*vetusta*. **C. vetusta** *Wkr.* (Vol. 3, pl. 62 e). This and the following species differ in appearance by the many dentate lines on hindwings. Body and wings brown with yellow scales. Antemedian line on forewings, black, double, undulate, approximately vertical and diffuse. The black median line is double, proceeding outwards to median nervure, thence vertically, undulate and rather indistinct. Close distally an annulate mark on discocellular in fulvous surround. Postmedian line excurved between costa and vein 3, proceeding vertically from submedian fold. All 3 lines with a fulvous interfilling. Submarginal line fulvous, dentate, excurved at vein 7 and in centre and with dark edges. Margin grey. On hindwings a double median and postmedian line and simple submarginal line. 35—38 mm. Bechuanaland, Soudan, Somaliland extending to India. As it also occurs *pallidior*, in Syria and Algeria, it was already mentioned in Vol. 3, p. 339. — The name **pallidior** *Strd.* denotes paler specimens.

*acrosticta*. **C. acrosticta** *Pnglr.* (Vol. 3, pl. 62 e) is described as a species from Palestine. Typical specimens are rather more reddish than shown by the illustration in Vol. 3, pl. 62 e. It also occurs in Egypt and in the Niger district; whether it is a form of *vetusta* as HAMPSON assumed, or whether it is a separate species, as is the opinion of Lord ROTHCHILD, need not be examined here. The lines have a very similar arrangement and form, but the ochreous yellow or reddish ground colour give a very different impression. The black spot at apex is very striking.

*rosacea*. **C. rosacea** *Rbl.* (20 h). According to WARREN this is also only a form of *vetusta* (Vol. 3, pl. 62 e). However, if HAMPSON's illustration is correct (which we are copying here), the markings vary a good deal. Ground colour reddish yellow. Antemedian and median lines are more vertical, rather inclined somewhat outwards. The postmedian and submarginal lines do not proceed towards the base on costa. On hindwings the formation of the lines does not vary. — **nigrapex** *Strd.* has a black spot at apex of forewings. 35 mm. Soudan, Socotra.

*nigrapex*. **C. canescens** *Wkr.* (20 h). This species differs by the oblique formation of the lines. ♂ grey-brown, ♀ somewhat darker. Antemedian line blackish, indistinct, very obliquely inwards below the cell. In paler median area, a few very indistinct dark lines extending obliquely inwards. Reniform stigma pale, with black surround, small and rarely distinct. Postmedian line black, arising near apex, proceeding to centre of inner margin, forming a large arc behind the cell and a smaller one outwardly on submedian fold. Distally traces of dark lines. Postmedian line on hindwings black, undulate, straight. The space distally somewhat darker, enclosing 2 paler lines. 30—36 mm. Widely distributed, but apparently not common in South, South West and East Africa, also in Aden.

#### Subfamily: **Phytometrinae.**

The usual name for this group of moths, that has been in use for over 100 years, is "*Plusia*" (= the rich.). The denomination was one of the happiest for these gold and silver spangled insects, but it has to be replaced by the name *Phytometra* according to a rigid observation of the rules of nomenclature, although this



may lead to temporary confusion. *Phytometrinae* is an analogous denomination to *Geometrinae* and *Dendrometrinae*, which however only refer to *Geometrids*. — Of this well defined subfamily about 250 species are known today, which is not a very large number when compared to most other subfamilies of the *Noctuids*. Nevertheless one must recognise, by their universal distribution, that they are well adapted to the present conditions prevailing on this globe. Among them we find pronounced high alpine forms and also inhabitants of the hottest and even of the most moist lowlands. Of all lepidopterous forms they extend furthest into the polar regions. In the exceedingly barren Greenland, that is so poor in insect life, certain *Plusia* (as for instance *Phytometra parilis*) penetrate furthest of all insects into polar regions. In the typical arctic plains in Labrador, that are devoid of all tree life, the *Plusia* are still common. In S. America they extend to Patagonia and again in Chile far into antarctic circles and in Australia the richly bespangled *Phytometra argentifera* Gn. extends to Tasmania, that is to say to the most southerly point of the indo-australian territory. In New Zealand the well-known *Phyt. chalcytes* occurs, partially exceedingly commonly, where it is known as "*Plusia chalcites*" and it is found even on the remote South Sea Islands as far as Tahiti, the Marquesas and Oahu Islands. It has penetrated in the indian Ocean as far as the Keeling Islands and Madagascar. There is scarcely a spot in the inhabited globe, where *Plusias* are not to be found.

The metallic spangles, to which the *Plusianae* owe their name, occur in nearly all species, but the markings naturally vary a great deal. The most common form is a "y" shaped mark on forewings, that may be varied to form a semicolon. On the other hand in some of the others, large patches are covered with golden or bronze metallic gloss. Whilst a number of such richly marked species (*chrysitis*, *zosimi*, *aurea*, *orichalcea*) or others with large spot marks (*chryson*, *festucae*, *bractea*), occur in palaearctic regions, the aethiopean *Plusiids* have very modest decorations with the exception of the corresponding Madagascar form to the palaearctic *orichalcea* F. (*aurifera* Hbn.). This and the type form, which occur over the whole of Africa are more richly marked with gold.

The larvae are easily recognisable by their somewhat geometrid-like form of proceeding (as they have but 12 legs). They mostly feed on non-poisonous low growing plants and herbs and as a rule feed by day. The imagines also, especially in the more northerly and in high alpine localities fly by day, visiting flowers in the sunshine. They are good fliers and very nimble. Occasionally they occur in swarms on widely removed islands, as for instance *Phytom. gamma* in the year 1873, when on 15th to 20th July, the insects arrived in thousands and flew all over the island by day and by night (GAETKE, MS.). The species with intensive gold markings generally only fly at dusk and appear immediately after the sun has gone down. A few fly by day, or are easily disturbed and settle a few yards away. They settle in an upright position, but then quickly turn round and come to rest head downwards closing their wings over the body with an energetic and abrupt movement of the wings. Except for the fact that the golden patches on the wings, when at rest, may appear surprising to their enemies, the *Plusiids* do not appear to have any protective disguise and RANGNOW observed that large *Aeschnidae* pursued them with great success in northerly regions.

### 1. Genus: **Syngrapha** Hbn.

This Genus is represented in palaearctic regions by 5 species and was therefore dealt with in Vol. 3, p. 345; subsequently a sixth (*pyrenaica* Hmps.) was added. Of the total of approximately 30 species, all the others with the exception of 4 are from North America. Only one single species, that is otherwise also palaearctic occurs in Africa.

**S. circumflexa** L. (Vol. 3, pl. 64 c). This species was already described in Vol. 3, p. 347. In Africa it *circumflexa*. occurs in the palaearctic Canary Islands and has also been found in South West, South and East Africa, as well as in Abyssinia.

### 2. Genus: **Plusioparpa** Holl.

This Genus, which consists of 2 species is distinguishable by the highly erect palpi, the long terminal pointed segment of which is hairy anteriorly and posteriorly. Type: *adrasta* Fldr.

**P. camptogamma** Hmps. (31 a). Thorax fuscous, abdomen grey-brown. Forewing violaceous fuscous. *camptogamma*. A narrow silvery mark below end of cell, the lower tip bent inwards and prolonged upwards to the lower edge of cell, conjoining there with the projecting angle of the antemedian line. The latter consists of a fine pale line, that encloses a slightly paler basal area. Above the inner margin coppery brown distally of antemedian line to the silver mark. Postmedian line indistinct, excurved below costa, somewhat inwards below the silver mark. Submarginal line grey, touching the outer margin at vein 6, then straightly to anal angle, proximally dark brown. Narrowly pale at outer margin. Hindwings coppery brown. 34 mm. East-Afrika. Only 1 ♀ known.

**P. adrasta** Fldr. (= *dichora* Holl., *crassipalpus* Hmps.) (31 a). Thorax and forewings yellowish fuscous, *adrasta*. abdomen ochreous white, only the tufts brown. Forewings with a slight bronze gloss. Inner line brownish, with grey inner edge, turning inwards below cell; distally thereof in cell a black dot. At base of vein 2 there



is a small silver "V", posteriorly a dot and above another at lower angle of cell. Reniform stigma "V" shaped, dark, proximally a silver dot at lower angle of cell. Postmedian line finely double, undulate, only slightly incurved on submedian fold, in contrast to *camptogamma*. Postmedian line grey, undulate, angulated outwards at vein 7 and 6; proximally chocolate-brown to below vein 5. An oblique brown shade from postmedian line at vein 2 to the margin at vein 1, where the submarginal line terminates. Hindwings pale coppery brown, paler in basal area. 40—42 mm. Described from Celebes, but also occurring elsewhere in Asia. In our territory it is found in Gaboon and Natal. A specimen from Madagascar, that probably also belongs here, is considerably darker. The silver "V" and the silver spot distally thereof are both replaced by large silver patches.

### 3. Genus: **Phytometra** Haw.

This Genus embraces also the most of the african species, that belong to the subfamily *Phytometrinae*, in a similar way to all other fauna. Type: *festucae* L. from Europe.

#### I. Antennae of ♂ serrate.

*lavendula*. **Ph. lavendula** Hmps. Thorax brown, abdomen brownish white. Forewings grey-violaceous with black scales, brown in median area below cell, similarly before the submarginal line. Antemedian line fine, white, edged on both sides by dark edges, vertical, inwards above inner margin. Orbicular stigma very small, black. The silver mark below end of cell compressed, proximally thereof grey. Reniform stigma long with brown surround, below white, extending somewhat inwards on median nervure. Postmedian line violet-grey, double, with dark interfilling, impressed behind the cell and proceeding further inwards on submedian fold. Submarginal line white, parallel to postmedian. Hindwings brownish white, widely darker at margin, a pale spot near anal angle. 38 mm. The Cape. Described from a single ♂.

#### II. Antennae of ♂ ciliate.

*livida*. **Ph. livida** Holl. (31 a). The species is easily recognisable by the position of the silver mark below base of cell and a white spot at lower angle of cell. Body and wings pale coppery brown. Antemedian line fine on forewings, proceeding outwards to the narrow oblique orbicular stigma, then inwards. In and below the cell dark brown forming a large "8" shaped patch. Postmedian line dark brown, undulate, terminating at vein 2. Submarginal band wide, brown and uninterrupted. 32 mm. Described from a single ♂ from Gaboon.

*euchroa*. **Ph. euchroa** Hmps. Body grey-brown. Forewings silvery grey, dusted with black. At end of cell, as well as distally and below bronze-yellow. Antemedian line bronze-yellow, double interfilled with white, incurved below cell. A silver spot in central area between subcostal nervure and submedian fold; it is formed like an inverted "V". Reniform stigma bronze-yellow with white edge inwardly and above; it is large and round. Postmedian line double, bronze-yellow, widely excurved outwardly below costa, then to vein 4, incurved on submedian fold to the silver spot. Submarginal line bronze-yellow, with white outer edge, boldly excurved behind the cell and also somewhat incurved in between on the submedian fold. Hindwings glossy grey-brown, paler at inner margin, darker at outer margin. 36 mm. Described from 3 specimens from Natal.

In the 2 following species the outer margin of hindwings projects somewhat at vein 4.

*phoea*. **Ph. phoea** Hmps. (31 a). Thorax fuscous, abdomen ochreous brown. Forewings fuscous with silvery grey gloss. Antemedian line white, commencing below the cell, obliquely inwards. Distally thereof a dark shade forming a triangular patch below the silver marking. The silver marking is fine, "U" shaped, with a silver spot distally below the lower end. Reniform stigma indistinct, dark brown, somewhat quadrangular. Postmedian line fine, silvery white, with dark edge on both sides, straight to vein 4, somewhat inwards, impressed between vein 3 and the inner margin. Submarginal line silvery grey, somewhat angulated outwards at vein 7, thence straight to anal angle. 3 ♂♂ from St. Thomé are darker, the silver dot is placed only in 2 specimens, as generally in *phoea*; in the 3rd it is at lower angle of cell, as otherwise generally in *livida*. Hindwings coppery brown. 34 mm. Uganda, South Africa. No illustration exists of *phoea*, therefore we are illustrating a specimen from East Africa, that also shows the striking angulation on hindwings, but also differs in some other respects. The silver mark is large, distinct and wide in its upper part. Distally thereof there is a striking fuscous patch. — *bryki*. **bryki** form. nov. (31 a) is probably only a form of *phoea*. On forewings the antemedian line is distinct, angulated outwards below costa, then straightly inwards. Posteriorly dark from lower margin of cell to the angle of postmedian line. The silver mark is fine, widely "V" shaped and without a dot posteriorly. Postmedian line is angulated inwards on submedian fold, boldly edged with dark shading from vein 4, but only inwardly. At outer margin anteriorly a dark triangle from apex to vein 3, extending inwardly to vein 4. Fringes dark at apex and vein 4. Hindwings somewhat paler than forewings. One ♂. 30 mm. Mount Elgon, collected by BRYK. Type in the Berlin Museum.

*fracta*. **Ph. fracta** Wkr. (31 a). Thorax and forewings pale violet-brown with slight bronze sheen. Antemedian line white, excurved below costa, not angulated, inwards below cell, distally somewhat darker below cell.



Orbicular stigma with dark surround, it is not precisely circular. Below end of cell a paler triangle. Reniform stigma distended and scarcely recognisable. Postmedian line brown, double, interfilled with whitish. Somewhat excurved below costa, then faintly undulate, straightly inwards, paler proximally. Submarginal line white, with distinct dark inner edge, at first near margin, from vein 5 inwards to vein 3, then vertically to inner margin. Hindwings pale brown. 30—35 mm. West, South and East Africa, Abyssinia.

**Ph. gammaloba** *Hmps.* (31 b). Thorax and forewings glossy dark coppery brown, abdomen paler fuscous. *gammaloba*. Antemedian line heavy on forewings, silvery white, slightly angulated outwards below costa, then somewhat obsolete, below the cell obliquely inwards. Orbicular stigma a black dot, with silvery white inner and outer edge. Below a triangular mark outlined in silver with an adjoining pear-shaped mark. At disco-cellular silvery white dots. Postmedian line dark, double, interfilled with white, undulate, curved parallel to margin, projecting inwards above and below vein 2; distally of vein 4 narrowly paler. Submarginal line white, excurved at vein 6, then straight. Finely rusty fuscous at margin. Hindwings paler coppery brown. 35—40 mm. Madagascar.

**Ph. cupreomicans** *Hmps.* (31 b). Thorax and forewings glossy coppery red. Antemedian line double, *cupreomicans*. brown, somewhat inwards, indistinct. In and below the centre of cell an oval silvery spot, distally of its lower edge, near postmedian line, a small, round silver spot, both with dark surrounds. Reniform stigma diffuse and dark. Postmedian line double, dark, pressed inwards behind cell and on submedian fold, in between arched outwards. Submarginal line brown, obsolescent. Hindwings pale coppery brown, paler at base. 26—30 mm. One specimen is known from each Nigeria, Uganda and Rhodesia.

**Ph. chalcedona** *Hmps.* (31 b). Thorax fuscous, abdomen fulvous. Forewings violaceous grey with *chalcedona*. golden gloss, especially above centre of inner margin. Antemedian line silvery, obsolescent, angulated outwards below costa, then undulate inwards. A silver spot below centre of cell, consisting of a small “U” shaped mark, with a small silver lunule above in cell. A small oval spot also occurs further distally. Postmedian line finely brown, with widely white outer edge, straight, inclining somewhat inwards. Submarginal line indistinct and brown. Hindwings pale brownish, widely darker at margin. 28—32 mm. South Africa, Uganda.

**Ph. hemichalcea** *Hmps.* (31 b). Thorax pale fuscous, abdomen paler. Forewings grey at base and on *hemichalcea*. costa, the remainder of wing suffused with pale coppery brown. Antemedian line dull white, bending inwards from below the cell, distally darker brown. Orbicular stigma small, with white surround, indistinct. The silver mark obliquely below centre of cell, yellow in middle, horizontally prolonged at end, narrow. Reniform stigma indistinct, with paler brown surround, obliquely inwards and darker below to silver mark. Postmedian line indistinct, double, brown interfilled with yellow, excurved below costa and in centre. Hindwings coppery brown, paler at base. 26 mm. Only 1 ♂ is known; from Nigeria.

**Ph. dorfmeisteri** *Fldr.* (= *siculifera* *Holl.*, *rhodochrysa* *Joan.*) (31 b). Body olive-brown, forewings *dorfmeisteri*. paler in basal area, more yellow, darker golden glossy yellow in central area and at margin. Antemedian line white, obliquely inwards down from cell, undulate. Orbicular stigma small, black with pale surround. Below an oblique quadrate spot silvery edge, extended below vein 2 as a wide silvery streak. Reniform stigma with black edge, the ground below being darker to the silver mark and to outer margin. Postmedian line double, brown, dentate, with white interfilling, projecting behind the cell and at vein 3, with wider pale outer edge. Marginal area darker up to the pale submarginal line. Hindwings coppery brown, somewhat paler at base. 26—28 mm. West and South Africa, Mauritius. Only a few specimens are known. — **edora** *E. Prout.* Ground *edora*. colour inclined to roseate. Median area anteriorly violaceous brown with metallic gloss below cell. In basal area a white spot below cell. Antemedian line commencing already at 1/3rd of costa, then interrupted and proceeding as in *dorfmeisteri*. The silver mark more boldly white. Postmedian line interfilled with rose. Submarginal line only indicated by the dark inner edge. Hindwings paler at base. Larger than typical form. ♂ 36 mm. San Thomé.

**Ph. ni** *Hbn.* (Vol. 3, pl. 65 g). This species, that is common in southern Europe, is already dealt with *ni*. in Vol. 3, p. 356 and illustrated on pl. 65 g. It occurs throughout Africa.

**Ph. angulum** *Gn.* (31 b). As the name indicates, this is recognisable by the angulated silver mark. *angulum*. Thorax and forewing fuscous with wide bronze gloss at margin above vein 2 and narrowly at vein 6; somewhat darker in median area below cell. Antemedian line is absent. Orbicular stigma with narrow pale surround, proceeding from costa in a somewhat similar shape as the silver mark situate below, the horizontal branch of which is generally short. Reniform stigma with delicate white edge, almost divided in centre into an upper quadrate and a lower triangle, generally barely visible. Postmedian line brown, simple, very dentate, oblique, only somewhat curved inwards on submedian fold, very indistinct. Submarginal line dark, dentate, impressed behind cell and on submedian fold; it is the most distinct of all the lines. Abdomen and hindwings pale coppery brown, paler at base. 32—40 mm. South Africa; fairly common. The larva is pale green with fine white double dorsal line. Subdorsal line of curved white streaks, the white lateral line is bolder. Warts each with 1 hair. The two anterior ventral legs are absent.



*limbirena*. **Ph. limbirena** Gn. (= gamma Kollar) (31 c). Thorax and forewings dark violaceous brown. Antemedian line brown, double, interfilled with white, undulate, inclining inwards. Orbicular stigma with pale edge, almost forming a prone "8". Below the silver edged "U" mark, with the inner point incurved. Closely adjoining a large silver spot, which in the similar *signata* is widely removed. Reniform stigma narrow, with pale edge, the space proximally and especially distally darker, this darker shade extending to below the silver mark. Outer line pale with dark interfilling, with silver spot at inner margin. It is incurved behind the cell, deeply dentate inwards on submedian fold, the inner branch there being generally rusty yellow. Submarginal line indistinct, dentate, with white saggitate point above vein 2. Hindwings coppery brown. — **limbirenoides** Strd. has the silver mark in "Y" shape, instead of "U". 26—30 mm. Common and widely distributed. It occurs from St. Helena to Madagascar and Mauritius, throughout the whole of Africa south of the Sahara and also in India.

*melanocephala*. **Ph. melanocephala** Mschr. (= aenescens E. Prout). In the typical specimen there is little to be seen; in most of the african *Phytometra* species, there are specimens in which the markings are almost unrecognisable and this is the case in this species. Thorax and forewings black-brown, heavily bronze-green above centre of inner margin. Silver markings as in *limbirena*. Postmedian line bronze-green, excurved below costa and at vein 3. A row of white submarginal and marginal dots, of the latter the one at vein 4 is very large. Hindwings also dark at base. In *aenescens* there is besides a silvery white antemedian line visible, that proceeds obliquely outwards. The submarginal line consists of black and white dots. The stigmata in one specimen are as in *melanocephala* and *limbirena*, in another they are divided and similar to *signata* (31 d). 31—33 mm. The Cape, Natal and Rhodesia.

*furcifera*. **Ph. furcifera** Wkr. (= mutans Wkr., ogovana Holl., babooni B.-Bak.) (31 c). This species is easily recognisable by the dark triangle on costa of forewings, that is much more contrasting than in *limbirena*. Further by the end tip of the silver mark, that is frequently all that is present. Forewings reddish brown, with dense dark striations, otherwise everything as in *limbirena*. Antemedian line and orbicular stigma similarly. The adjoining silvery spot is boot-shaped, but only the tip is distinct. Above this and to the antemedian line or approximately so, the ground is dark, also to  $\frac{1}{3}$ rd of costa. Postmedian line as in *limbirena*. There are no white streaks in the indistinct submarginal line. 28—30 mm. Common and widely distributed. West, South and East Africa and extending to Australia.

HAMPSON inserts here a few species, in which the silver mark is absent or very indistinct.

*ablusa*. **Ph. ablusa** Feldr. (31 c). Thorax and forewings dark golden yellow, end of cell and apical area pale violet. Antemedian line finely fuscous, arched, inwards below cell. Orbicular and reniform stigmata indicated by faint rusty brown spots. Below the cell a narrow rusty brown cuneiform mark in place of the silver mark, which is barely discernible. Median line diffuse, fuscous, outwards to lower angle of cell, then inwards. Postmedian line somewhat outwards at costa, parallel to margin to vein 4, incurved at vein 2, then vertically. Submarginal line faintly undulate, parallel to margin. Hindwings whitish yellow, faintly brown at margin. 30 to 32 mm. South Africa.

*violascens*. **Ph. violascens** Hmps. (31 c). Very similar to *ablusa*, also in the colouration. Antemedian line obliquely inwards on forewings, brown, with inner silvery scales, which however are here and elsewhere barely discernible. Orbicular stigma oblique, "8" shaped with silvery edge, as also the small reniform stigma. Postmedian line is not impressed on submedian fold. Submarginal line and hindwings as in *ablusa*. In ♀ hindwings are more reddish, the silvery scales even less distinguishable. 34—36 mm. Three specimens from South Africa are known.

*lunata*. **Ph. lunata** F. (= anargyra Gn., spoliata Wkr., reticulata Mr.) (31 c). Recognisable by the short acute incurving of the postmedian line on the submedian fold. Thorax and forewings dark violaceous brown with delicate white lines. Antemedian line widely excurved to median nervure, acutely dentate. Orbicular stigma obliquely rectangular, prolonged to vein 2, thus replacing a silver mark. Reniform stigma consists of 2 prone oval marks, that are slightly conjoined towards the base. Postmedian line obliquely inwards, undulate. Submarginal line somewhat indented at vein 5. The white line at margin is the most distinct. 32—35 mm. West Africa, Uganda, Madagascar. Also distributed over India.

*gorilla*. **Ph. gorilla** Holl. (31 d). Striking by the poverty of marking. Thorax and forewings coppery brown. Antemedian line fine, double, undulate, barely discernible. Orbicular stigma absent, reniform indicated by faint brown edge. Postmedian line indistinguishable, double, inwards behind the cell and below vein 3. Hindwings somewhat paler. 30 mm. Described from 1 ♀ from the Congo region.

*microstigma*. **Ph. microstigma** Hmps. (31 d). Resembles a small *violascens*. Body and forewings glossy golden bronze, inclined to grey distally of postmedian line. An oblique antemedian line is indicated. A small silver mark below cell. Orbicular and reniform stigmata indistinguishable except through the dark outline. Postmedian line indistinct, undulate, parallel to margin. Submarginal line and hindwings as in *violascens*, less pale in basal area. 26 mm. Described from 1 ♀ from the Gold Coast.

*distalagma*. **Ph. distalagma** Hmps. (31 d). Body and forewings violaceous roscate brown, a spot below end of cell and at margin being glossy coppery. Antemedian line dark brown, almost obsolete. Two short silvery streaks



below the cell. A diffuse dark brown spot at disco-cellular with a band to inner margin. Postmedian line somewhat more distinct, faintly undulate, vertically to inner margin. Submarginal line very indistinct. Hindwings grey-brown, widely dark at margin. 30 mm. From 1 ♀ from Johannesburg.

**Ph. obtusisigna** Wkr. This species really belongs to the indian territory, where it is widely distributed *obtusisigna*. and it is therefore dealt with fully in Vol. XI. We must however refer to it here, as 1 specimen has been captured in Natal. Body and forewings pale violet brown. Antemedian line white with fuscous edge, proceeding outwards, only incurved in cell. Orbicular stigma with white edge, narrow and oblique. Below the cell an oblique white cuneiform mark. Reniform stigma dark brown, constricted in centre. A coppery brown spot below the cell distally of the white spot. Postmedian line double, brown, incurved behind the cell. Submarginal line white, with coppery brown inner edge. Hindwings coppery brown. On forewings sometimes there is a white spot similar to that of *limbirena*. 24—32 mm. The larva green with white dorsal lines, striations adjoining and white lateral spots. The spiracles of the central segments are dotted with black.

**Ph. chalcytes** Esp. (Vol. 3, 5, pl. 64 g, h). The species is dealt with in Vol. 3, p. 349. It occurs in Madagascar and Mauritius, besides in southern Europe. *chalcytes*.

**Ph. acuta** Wkr. (31 d). HAMPSON classifies this species far removed from *chalcytes*. It is slightly larger, *acuta*. more of a pale violet-brown than bronze-yellow. Otherwise it closely resembles *chalcytes*. A fine oblique silvery mark occurs at disco-cellular. Postmedian line more acutely dentate behind the cell and on submedian fold than in *chalcytes*. 35—40 mm. It occurs throughout Africa, south of the Sahara.

**Ph. signata** F. (= *diminuta* Wkr.) (31 d). The silver mark in this and the following species is like that of *limbirena*, but intersected. Postmedian and submarginal lines are more undulate in *signata*, less pale and distinct than in *geminipuncta* (31 d). Body and wings fuscous. Forewings darker in median area, glossily bronze, especially before postmedian line at inner margin. Antemedian line white, proceeding somewhat outwards at subcostal nervure, then vertically and inwards over the inner margin. Below the cell a silver "U" and distally a spot. Reniform stigma boldly bent and constricted in centre. Postmedian line white, very indistinct anteriorly, straight to vein 2, then inwards, below sharply incurved and at vein 1 widely outwards. Submarginal line very indistinct, boldly undulate. Hindwings coppery brown. A dark spot in centre of outer margin. 24—30 mm. Common in Africa south of the Sahara, in India and extending to the Fiji Islands. It also occurs on palaearctic territory at Teneriffe, in Central China and Japan. *signata*.

**Ph. indicator** Wkr. (31 e). Thorax and abdomen ochreous brown. Forewings dark chocolate-brown, *indicator*. especially in median area below the cell. Antemedian line silvery white, inwards below the cell. Orbicular stigma small with silvery edge. Below the cell an extended silver "V", its inner branch extending to antemedian line, the outer branch almost to postmedian line. Reniform stigma with silver edge, indented in centre. Also postmedian line is silvery with brown edge. Only the submarginal line is blackish with a few silvery scales outwardly. Hindwings ochreous white, browner at margin. 26—28 mm. West and South Africa, Mauritius. Probably only a form of the palaearctic *daubi* Bsd.

The following species without the lateral brush of hairs on abdomen.

**Ph. geminipuncta** Hmps. (31 d). Thorax and forewings fuscous with violaceous sheen. Antemedian line silvery white, vertical below cell, almost conjoined at lower edge of cell with the silver "U" mark, distally of which there is a silver dot. Orbicular stigma as an oblique rectangle with pale edge. Reniform stigma indistinct. Postmedian line pale brown, with dark inner edge, faintly excurved behind the cell, slightly inwards on submedian fold, distally pale violet. Submarginal line excurved at vein 7, then straight. Towards the centre of outer margin a double black spot. Hindwings smoky brown, paler at base. 28—30 mm. Transvaal, Natal. *geminipuncta*.

**Ph. dalei** Woll. (31 e) from St. Helena is classified here by HAMPSON. One might describe it as a flesh-coloured *pulchrina* (Vol. 3, pl. 64 k) or *iota* (pl. 64 i). The postmedian line is unusually pointed and prolonged inwards on submedian fold. 40 mm. Since 5 specimens were sent to the British Museum about 60 years ago, the species has not been found again. It may have been exterminated by the destruction of the virgin vegetation. *dalei*.

**Ph. sestertia** Fldr. (31 e). This was placed here erroneously by HAMPSON, as the ♂ has a brush of hairs. It is easily recognisable and differs from all other species by the two large silver spots and the white margin. Base and inner margin of forewings are also white, the space around the stigmata being blackish, costa brown. Antemedian line silver, commencing below the cell. The grey-brown orbicular stigma adjoins the upper silver mark and has a white spot that extends to costa. Reniform stigma fuscous with black edge. A postmedian line is indicated by white dots on vein 4—1. The submarginal line is white, dentate, incurved between vein 4—2, with inner black-brown edge and proximally thereof a grey-brown and white spot to reniform stigma. Hindwings coppery brown. 28—30 mm. West, South and East Africa. *sestertia*.

**Ph. clarki** Hmps. (31 e). Also erroneously classified by HAMPSON in this group, as the ♂ has a brush of hairs. Body dark violaceous grey. Forewings almost completely suffused with dark coppery gloss. Antemedian line silver, obliquely inwards from the cell, appearing as a streak on costa. The silver mark and the



somewhat separated accessory spot are similar to those of *limbirena*. At lower angle of cell, a silver dot. Reniform stigma indicated by a dark spot, distally thereof a few white dots on vein 5. Postmedian line dark, double, with white interfilling and pale outer edge. On costa it is rather further outwards, otherwise similar to *limbirena*. A silver marginal line from vein 3 to anal angle. Hindwings whitish, brownish at margin. 30—36 mm. East Africa (♂), Natal (♀).

*exquisita*. **Ph. exquisita** Fldr. (31 e). Reminding one strongly by the hindwings of the mainly american species of the Genus *Syngrapha* Hbn. Thorax and forewings dark fuscous. Antemedian line chiefly indicated by a white lunule below the cell. Orbicular stigma with dense white surround, adjoining an oblique white double spot below the cell. Reniform stigma dark, outwardly compressed to a point and with pale brown surround. Postmedian line yellowish, double, interfilled with brown anteriorly, blue-black downwards from vein 5, excurved at vein 3. Submarginal line black, dentate, with white outer edge, parallel to outer line; a yellow spot at anal angle. Hindwings orange with black marginal band. Exceptionally the orbicular stigma of forewings can be completely white. 28—34 mm. South Africa. One ♀ specimen is also known from Beluchistan.

*orbifer*. **Ph. orbifer** Gn. Forewings chocolate-brown to postmedian line. Costal area rosy grey almost along its entire extent; marginal spot dark brown, only a rosy grey marginal spot behind the cell and another on submedian fold. Antemedian line and round orbicular stigma golden yellow. Below the cell a "U" shaped silver mark, with an oval spot below, both with golden outline. Reniform stigma with brown centre and golden yellow surround. Postmedian line golden yellow, dentate. Hindwings grey-brown. 50 mm. Described from 1 ♂ from Madagascar found in 1865. Since then it has never been re-discovered.

*argyrodonta*. **Ph. argyrodonta** Hmps. (31 g). This is the only species of this Genus that is recognisable by its white hindwings. Forewings pale yellow-grey, coppery brown above the inner margin distally of antemedian line, similarly behind the cell and before the submarginal line. Antemedian line white, obliquely inwards below the cell. The silver mark filled with brown, uniformly wide. Reniform stigma with faint white edge, indented in centre. Postmedian line double interfilled with white, straight to submedian fold, then somewhat outwards. Submarginal line indicated by a white edge, inwardly brown. 34 mm. Described from 1 ♂ from Natal.

*transfixa*. **Ph. transfixa** Wkr. (commidendri Woll.) (31 f). This and the following species are distinguishable by a long white streak on forewings. Dark fuscous, darkest in median area, with violet sheen. Antemedian line black, double, undulate, obliquely outwards. Orbicular stigma situate far inwardly, small and yellowish. Adjoining below vein 2 a long yellowish white stripe. Reniform stigma as a narrow black lunule. Postmedian line black, double, dentate, straight, angulated outwards from submedian fold downwards. Submarginal line distinct, black, dentate. Hindwings coppery brown. 32—38 mm. St. Helena, throughout Africa south of the Sahara, Madagascar and Mauritius.

*arachnoides*. **Ph. arachnoides** Dist. (31 f). Forewing dark coppery brown. The pale stripe with only a white edge, commencing already at costa, extending to vein 2. Antemedian line white, widely angulated outwards below cell. Reniform stigma barely recognisable. Postmedian line white, double, incurved from costa to vein 5, then from vein 2 simple and downwards. Submarginal line parallel to it to vein 4, then sharply dentate onwards. Hindwings coppery brown, whitish at base. 30—32 mm. Transvaal.

*aranea*. **Ph. aranea** Hmps. (31 f). Chocolate-brown. Resembling an *Arbelidae* by the white striation. A dull white stripe from before centre of costa to the outer margin above the anal angle. The apical area distally less covered with white striations. Antemedian line delicately white, inwards from below the cell. Orbicular and reniform stigmata barely indicated. Postmedian line finely white, somewhat incurved between vein 7 and 3. Hindwings whitish, widely brownish at margin. 30 mm. Uganda, Transvaal, described from a single pair.

*tetrastigma*. **Ph. tetrastigma** Hmps. (31 f). Body grey-brown. Forewings fuscous, darker from apex to end of cell and to vein 2, except at margin. The markings consist of 4 silver spots, of which 2 are above the centre of vein 2, one there-above at median nervure and a punctiform mark in cell. Further lines and markings are scarcely indicated. Hindwings pale fuscous, whitish at base. ♀ 30 mm. Transvaal, Natal.

*pratti*. **Ph. pratti** Kenr. Dark grey-brown, forewings glossy copper-brown in centre. Antemedian line silver, obliquely inwards below the cell. Below the cell 2 large horizontal silver spots. No other markings. 32 mm. Described from a single specimen from Madagascar.

*orichalcea*. **Ph. orichalcea** F. (= *aurifera* Hbn.). This species is dealt with fully in Vol. 3, p. 349 and pl. 64 g. It occurs commonly throughout Africa. — **Ph. florina** Gn. (31 f) is somewhat smaller. The golden band in basal area does not only extend to lower margin of cell, but penetrates in a flat curve somewhat into the cell. 30—32 mm. Only found in Madagascar.

*accentifera*. **Ph. accentifera** Lef. (Vol. 3, pl. 65 c). This palaearctic species was already described and illustrated in Vol. 3, p. 353. Dr. ROMIEUX has reported in the Mitt. Schweiz. Ent. Ges. 16, Vol. 11, in regard to its occurrence in the aethiopian territory (in the range of High Katanga, where the foodplant *Mentha* is very common). Further localities in Africa do not appear to be known.



4. Genus: **Abrostola** O.

The approximately 10 species of this Genus are distributed over the whole world. In Africa there are 2 of them. They differ from the *Phytometra* by the different marking of the imagines and the differences in the larvae.

**A. triopis** *Hmps.* (= *bicyclata* *Gaede*) (31 g). Thorax and forewings brownish grey. The 3 stigmata *triopis*. with black surrounds. Orbicular stigma and a similar mark below the reniform, large and round. Antemedian line black, double, excurved at costa, then vertically. Postmedian line almost straight, slightly incurved at vein 2, double. Both lines interfilled with brown. Submarginal line grey-white, finely dentate, straight. Hindwings coppery brown. 28—32 mm. South, South West and East Africa.

**A. brevipennis** *Wkr.* (31 g). Reddish ochreous brown. Antemedian line double, black, vertical, ex- *brevipennis*. curved in centre. Orbicular stigma and a spot below with a common edge. Reniform stigma large, indistinctly outlined. A dark patch between the stigmata. Postmedian line black, double, interfilled with grey-brown anteriorly, proceeding from near apex to  $\frac{3}{4}$  of inner margin, straight, only slightly excurved at vein 3. Distally widely dark brown from apex to vein 4. Hindwings coppery brown, paler at base. 30—34 mm. South and East Africa.

Subfamily: **Noctuinae**.

In the elaboration of the indian *Heterocera* by HAMPSON, we miss the subdivision of the *Noctuinae*. This name seems to have first appeared when working on the south african fauna in Ann. S. Afr. Mus. 2, p. 255 etc in the year 1902. There a subdivision took place in subfamilies according to whether the tibiae had spurs or not. The groups in which vein 5 of hindwings is weaker, do not interest us here. We are only dealing with the subfamilies in which vein 5 is bolder and the central tibiae are without spurs. These are the *Mominae*, *Erastrinae*, *Phytometrinae*, *Noctuinae*. The *Mominae*, which in this work are classified quite close to the *Acronyctinae*, HAMPSON placed widely separated. The *Phytometrinae* vary so much, that almost any layman can distinguish and separate them. The *Erastrinae* differ by the weaker vein 5 on hindwings, that also arises further removed from lower angle of cell; both in contrast to the *Noctuinae*. As can be gathered from the widely diverging classifications of the *Mominae*, the separation of the subfamily on the basis of such insignificant characteristics may be held to be a merely temporary measure. Practically all the *Noctuinae* could be classified partly with the *Erastrinae*, partly, in fact largely with the *Catocalinae*. Thereby this already so numerous group, would become so unwieldy as to be impracticable. The number of species in the *Noctuinae* is actually very vast. HAMPSON's work on the *Noctuidae* comprised 10 Volumes. The volumes of the *Noctuinae*, which were not published, would have amounted to another 5 Volumes. Even though the group of *Noctuinae* is heterogenous, it should be retained for reasons of expediency. Otherwise and on general grounds there is no reason why a *Hypocala* should be separated from a *Catocala*, a *Fodina* from *Grammodes*, an *Arcte* from *Cocytodes*; all might in fact be classified among the *Catocalinae*. Similarly those Genera with palpi, the monstrous size of which would compare favourably with many a *Hypeninae* (as for instance *Aburina* and *Deinypena*) could just as well be placed among the *Hypeninae*.

Very little is known in regard to the ecology and habits of the species and their larvae. The number of species often seems to be very considerable. Also the variability, which in some cases has produced a large crop of denominations, although this is not quite so enormous as in the *Stictopterinae*.

Up to the *Phytometrinae*, HAMPSON's Catalogue has been a great help in the production of this work. For the now following groups we owe a great debt of thanks to the British Museum for their generous help and especially to Mr. W. H. T. TAMS, without whose support and friendly collaboration, both in regard to the text and the illustrations, we should have been unable to complete our work.

1. Genus: **Barcita** *Mschlr.*

Palpi projecting over the frons, the 3rd segment long. Collar somewhat erect. Abdomen stout, extending beyond the hindwings, flat, with faint tuft at base; legs sparsely hairy. Antennae of ♀ finely ciliate. Forewings wide, outer margin undulate. Type: *muscosa* *Mschlr.* from Jamaica. Besides the species from America, two from Madagascar are classified in this Genus.

**B. tessellata** *Kenr.* (42 a). Body and wings dark brown. Antemedian line whitish, double, irregular. *tessellata*. Median and postmedian lines dark, obsolescent. Submarginal line like the antemedian line. On hindwings only the submarginal line is discernible. The type is poor in markings. Other specimens are darker to the postmedian line, with a pale triangle in centre of costa. At outer margin to the centre, grey-white, distally of the vertical submarginal line, which proceeds inwards from the centre, parallel to postmedian line. 45 mm. Madagascar.

**B. pratti** *Kenr.* (42 a). Differing completely from the preceding species. Forewings pale ochreous *pratti*. brown with lilac sheen. Antemedian band wide, brown, approximately vertical, enclosing an undulate dark line. Distally a dark cell spot and 3 indistinct median lines. The postmedian and submarginal lines are just



as indistinct. From centre of costa almost to the apex a large brown triangular patch, enclosing a pale spot. Hindwings pale ochreous brown with innumerable narrow dark lines. 35 mm. Madagascar.

## 2. Genus: **Oedebasis** *Hmps.*

Palpi obliquely erect. Frons with small tuft. Antennae of ♂ almost simple. Thorax anteriorly and posteriorly with a small tuft. Tibiae well haired. Abdomen with tufts. Forewings narrow, with lobe at base on inner margin. Hindwings narrow, costa with lobe at base. Neuration normal. On hindwings vein 8 separates near base of cell, proceeding however close next to it. Only 1 species.

*ovipennis*.

**O. ovipennis** *Hmps.* (33 a). Body and forewings pale reddish brown, dusted with black and with black spots on costa. Antemedian line undulate, indistinct, proximally with a black spot in cell. Claviform stigma large, black. Orbicular and reniform stigmata large, elliptical, with black outlines. Postmedian line boldly dentate, widely excurved behind the cell, vertically downwards from vein 2. Submarginal line undulate, whitish. Hindwings pale brown. In ♀ inner margin of forewings is white in centre and upwards to submedian fold. A white spot at end of claviform stigma and from inner edge of the reniform stigma to the costa. Submarginal line white. Wings wider. 22—34 mm. Delagoa Bay, Seychelles, Aldabia. 2 ♀♀ from Mauritius are much paler. Forewings white, blackish at base to close to reniform stigma. Costa pale brownish. Antemedian line black, dentate. Claviform stigma short, obese, black. Orbicular stigma white and punctiform, reniform white with dark outline. Postmedian line as in type form. Marginal area brownish. — In the typical ♂ of *ovipennis* the dark outline of the basal area extends obliquely in an almost straight line. In a ♂ in the British Museum from Madagascar on the other hand, this outline is almost exactly like that of the ♀♀, as it is much more vertical towards the costa and then incurved. Also the size of this ♂ (32 mm) more closely resembles that of the ♀♀.

## 3. Genus: **Taveta** *Fawc.*

Palpi long and erect. Hind tibiae with spurs without long hairs. Abdomen with tuft on first 3 segments. Wings wide with undulate margin. On forewings vein 2—4 arise near lower angle of cell, vein 5 a little above, 6 and 7 from upper angle, 8—10 form an appendicular cell. Neuration of hindwings is similar. Type: *syrinx* *Fawc.*

*syrinx*.

**T. syrinx** *Fawc.* (42 a). Body and wings pale fulvous. Forewings with double pale undulate antemedian line, interfilled with dark and with indications of anterior parallel undulate lines. Postmedian line narrowly black, dentate, with white inner edge, surrounded by a dark band, obliquely inwards below vein 4. Submarginal line whitish, regularly dentate. Hindwings with 2 parallel black dentate median lines, the inner one of which has an inner white edge. Submarginal line as on forewings. 36 mm. Described from a pair from East Africa.

*eucosmia*.

**T. eucosmia** *Hmps.* (33 a). Body and forewings darker fuscous than *syrinx*. Basal half below the cell whitish with black-brown scales. Median area below cell and distally to vein 6 leaden grey. Postmedian line brown, indistinct, undulate, double anteriorly. Reniform stigma with white surround, constricted in centre, an oblique undulate line proceeds from it to inner margin. Postmedian line double, black, with white outer edge, angulated outwards below vein 7 and 4, dentate. The submarginal line is similar to that of *syrinx*. Hindwings grey-brown, black below the cell and dusted with white. Postmedian line black, double, undulate, edged outwardly with white near the inner margin. Submarginal line white, undulate. 35—38 mm. East Africa.

## 4. Genus: **Polydesma** *Bsd.*

Palpi erect, slender. Abdomen with few and insignificant tufts. Tibiae without spurs. Fore tibiae with long hairs in ♂. Forewings with long hairs below in cell, hindwings with long silky hairs at base. Type: *collutrix* *G.*

*collutrix*.

**P. collutrix** *Geyer* (= *umbricola* *Bsd.*, *sagulata* *Wllgrn.*, *laudula* *Gn.*, *boarmioides* *Gn.*, *scriptilis* *Gn.*, *mastrucata* *Fldr.*) (33 a). Reddish brown. Forewings with black lines, that commence at black costal dots. Antemedian line indistinctly dentate, excurved in centre. Median line parallel to it. Reniform stigma with black edge. Postmedian line obliquely outwards, then incurved to lower angle of cell and continuing close to median line. Submarginal line pale, dentate, with dark diffuse inner edge. Hindwings with dark inner band and narrow median line. Submarginal line as on forewings. 40—46 mm. West, South and East Africa, Madagascar and as far as Formosa.

*otiosa*.

**P. otiosa** *Gn.* (= *brevipalpis* *Wkr.*, *determinata* *Wllgrn.*). The species was dealt with and illustrated in Vol. 3, p. 367, pl. 67 g. Smaller and paler than *collutrix*, otherwise very similar. On underside only the costa of hindwings is dark, almost the entire hindwing of ♂ is covered with silky ochreous yellow hairs. 40 mm. South West Africa and distributed through India, also occurring in China.

*waelbroeckii*.

**P. waelbroeckii** *Strd.* Body and wings ochreous yellow. A somewhat paler median band on forewings, intersected by an interrupted dark dentate line. This band is also continued somewhat on hindwings. Besides there are a few dark ochreous yellow dentate bands. At disco-cellular of forewings two sharply defined dots



with a third distally thereof. A distinct round black spot near anal angle. This spot is absent on hindwings, it is replaced by 2 black dots. Somewhat similar to *Naxia infirma* Holl. 43 mm. Described from a pair from the Belgian Congo.

**P. vinsonii** Gn. (42 a). Classified here owing to the dentate wings. Grey-white, ashen blue, carmelite brown. Lines indistinct. On forewings basal area is darker brown with triangular outline and containing the undulate black antemedian line. Median area varyingly coloured, it encloses a lunular grey-brown spot and is edged by a very undulate narrow black transverse line, that proceeds from a dark brown triangular costal mark. On hindwings a brown band, edged delicately by black and that extends from anal angle to centre of wing. 42 mm. Réunion.

### 5. Genus: **Cnodifrontia** Hmps.

Palpi porrect. Frons with large round projecting process. Antennae of ♀ ciliate. Thorax without tuft, abdomen with tuft on first segment. Hindwing with different neurulation. Vein 5 arises below angle at disco-cellular, curved, 6 and 7 with short stalk, vein 8 anastomosing with the cell to the centre. Only 1 species.

**C. dissimilis** Dist. Described as a *Polydesma*. Body and forewings dark brown-grey with silvery gloss. The entire marking consists only of a postmedian line, that is diffuse, dark, commencing behind the cell then curving round and under the cell to inner margin close to base. At outer margin dark streaks between the veins. Hindwings grey-white, silvery, devoid of markings. ♀ 34 mm. Transvaal. Apparently only the type is known.

### 6. Genus: **Eudrapa** Wkr.

Body delicate, extending slightly beyond the hindwings. Palpi moderately long. Antennae filiform. Forelegs densely hairy. Forewings narrow, apex rounded, outer margin oblique. Type: *mollis* Wkr. All the species are from West Africa.

**Eu. mollis** Wkr. (= *malachitis* B.-B.) (33 a). Greenish brown, forewings partially suffused by brown. Antemedian line consists of 3—4 spots. The outer line black and dentate. Hindwings brown with 2 black dots at disco-cellular. Described from Ashanti, occurring besides on Gold Coast and in the Niger regions. 35—40 mm.

**Eu. basipunctum** Wkr. (33 a). Reddish white. Thorax anteriorly with brown band. Abdomen more grey. Forewings brownish at outer margin. The lines blackish brown, dentate, expanding at costa. A black dot at base. Antemedian line somewhat interrupted. Submarginal line whitish, dentate. Reniform stigma whitish with 2 brown spots. Hindwings grey-brown. 30—35 mm. Sierra Leone, Cameroons, Congo.

**Eu. labandodes** Hmps. Probably not specifically different from *mollis*. Thorax olive-green and somewhat whitish. Abdomen brown. Forewings olive-grey somewhat suffused with silvery green and yellow streaks in centre of costa. Antemedian line delicately grey, somewhat black distally, angulated outwards in cell. Median shade blackish, diffuse, undulate. Disco-cellular nervure grey. Postmedian line black, oblique to vein 5, thence dentate to vein 3 and undulate inwards. Submarginal line distinct, grey, undulate. Hindwings dark brown. 32—36 mm. Gold Coast, Nigeria.

**Eu. olivaria** Hmps. Thorax whitish brown, abdomen grey-brown. Forewings olive-green with silvery suffusion. Only differing from *mollis* by the more coppery green spots. Costa black and with white marks. Antemedian line black, boldly interrupted. Disco-cellular whitish, with black dots at the corners. Postmedian line as in *labandodes*. The pale submarginal line with a somewhat diffuse dark brown outer edge. Hindwings dark brown. 38 mm. Niger region, Ivory Coast, Cameroons.

**Eu. metaphaearia** Wkr. (32 a). Forewings grey-white. Antemedian line fuscous, with dark spot on costa, extending outwards to centre of cell, then vertically, with a spot under cell, angulated inwards at vein 1, outwards below. Reniform stigma white with 2 black dots, adjoining the outer edge of a pale red-brown median line. Postmedian line delicate, black, dentate, somewhat outwards to vein 7, then vertically, slightly excurved between vein 3—5. Distally fuscous with a diffuse white dentate submarginal line. Hindwings brown. 30 mm. West Africa.

**Eu. metathermeola** Hmps. (32 a). Similar to a dark *metaphaearia*. Forewings fuscous, suffused with violet and greenish white to postmedian line. Costa and outer margin dark. Antemedian line undulate, black, with fuscous inner edge. Reniform stigma white with 2 black dots. Postmedian line black with narrow white edge, angulated outwards at vein 6, excurved below. Submarginal line white, dentate. Hindwings fuscous. 26 mm. Gold Coast, Niger regions, Cameroons.

**Eu. lepraota** Hmps. Body and forewings similar to preceding species. Base and inner part of median area of forewings whitish. Costa and marginal area dusted with black. Antemedian line fuscous, commencing at costa in a black spot, undulate. Reniform stigma white, with 2 black dots. Postmedian line anteriorly brown, then deep black, with narrow white outer edge, somewhat curved inwards behind cell. Submarginal line arising in a diffuse spot on costa, then undulate and not dentate. Hindwings do not vary. 30 mm. Nigeria.



7. Genus: **Lophotavia** Hmps.

Palpi similar to those of *Tavia*, but the terminal segment expanding somewhat. Thorax with outspread tuft posteriorly. Tibiae of ♂ with long hairs. Central tibiae with a large cavity. Abdomen with tufts of metallic scales (in *globulipes*). Forewings with round apex. Outer margin undulate. Neuration as in *Tavia*. Type: *globulipes* Wkr.

*globulipes*. **L. globulipes** Wkr. (= *incivilis* Wkr.) (33 b). Dark rusty red, partly blue-black. Abdomen with black tufts. Forewings wide with 3 black lines. The first and second somewhat undulate, the latter double, touching the inner side of reniform stigma, the third dentate. Submarginal line obscure in the ground colour, dentate. Orbicular stigma as a black spot. Reniform stigma large, with black edge. Hindwings with the same lines as forewings. 54 mm. Sierra Leone, South West Africa, Abyssinia.

*pulcherrima*. **L. pulcherrima** Holl. (= *prunicolora* Hmps.) (33 b). Body and wings dark brown, with violet sheen in suitable light. At angles of cell, 2 silvery white dots, the lower one being the larger, proximally the dark reniform stigma. On costa before the apex, 4 short silvery white streaks, in the cell a black dot. Antemedian line narrow, undulate. Median line double, black, proceeding inwardly from the reniform stigma. A line extends from the innermost spot on costa downwards to vein 4, then to lower spot at disco-cellular. The submarginal line undulate, dark. Hindwings paler at costa, with 3 dark lines near anal angle, the innermost being the most distinct. 30—45 mm. West and East Africa.

*nigrocyanea*. **O. nigrocyanea** Joan. (42 a). Body and forewings dark fuscous with a slight violet sheen. Transverse lines black, undulate, fairly straight, laterally edged by paler brown, commencing with a white dot on costa. Antemedian line fairly vertical. Postmedian line inclined outwards to vein 4, then downwards to vein 2, again upwards to lower angle of cell, touching at disco-cellular an indistinct dark mark, then downwards to inner margin. The submarginal line is pale, indistinct, with 3 dots near costa. Hindwings paler brown, with 4 blue-black lines. Median line more distinct, slightly undulate, whilst the inner, outer and submarginal lines are wide and diffuse. 35 mm. Described from 1 ♀ from Mauritius.

8. Genus: **Tavia** Wkr.

Thorax without tufts. Abdomen with small tufts at base. The second segment of palpi with many hairs anteriorly, extending beyond the frons. Wings with undulate margins. On forewings vein 3—5 arise near lower angle of cell, 6 from upper angle, 8 and 9 with long stalk together with vein 7 from upper angle of the appendicular cell, 10 from its costal edge. In ♂ there is a fold between vein 5 and 6, 6 below the upper angle of cell. Neuration of hindwings normal. Type: *nycterina* Bsd.

*nycterina*. **T. nycterina** Bsd. (= *instruens* Wkr.) (31 i). Body and forewing dark reddish brown with violet sheen. Antemedian line on forewings dark brown, fairly vertical, undulate. Median line parallel to it, with a large black spot at inner margin. Postmedian line black, dentate, excurved to vein 4, somewhat incurved behind the cell and more boldly so on submedian fold. Submarginal line pale, dentate, with heavier black inner edge below vein 3. Hindwings with a triplicated dark median line, the central of which is dentate. Submarginal line as on forewings. 42—50 mm. West and South Africa. Madagascar. — **lyga** E. Prout has a rather different wing contour, the costa is more boldly curved, the outer margin more oblique, veins 4 and 5 in the ♂ approximate to one another along a considerable stretch. Ground colour is darker, submarginal line with a less wide dark edge inwardly. San Thomé. — **plicata** Hmps. is somewhat paler. Veins 4 and 5 in ♂ do not approximate to the same degree. Postmedian line double, black with pale interfilling. Submarginal line inwardly with a white spot at vein 4. On hindwings only the central dentate line is retained of the triplicated median lines. ♀ darker. 42—50 mm. Congo, Rhodesia, Nyassaland.

*merulina*. **T. merulina** Bsd. Somewhat larger than *nycterina*. Ground colour not quite so dark, inclined to reddish. Transverse lines less distinct, bunched together. Costal and inner margins suffused with blackish. West Africa.

*polycyma*. **T. polycyma** Hmps. Body and wings dark grey-brown, inclined to violet. Antemedian and median lines on forewings blackish, undulate. Antemedian and postmedian lines with grey edges, the latter shaped as in *nycterina*. Submarginal line grey with narrow blackish inner edge. On hindwings the postmedian line is blackish, outwardly grey. The grey submarginal line has a blackish edge on both sides, terminating at anal angle. 44 mm. West Africa.

*nyctombra*. **T. nyctombra** Hmps. Body and wings coloured as in *polycyma*. The antemedian line of forewings is double, the median line is diffuse, the postmedian line has grey edge. The submarginal line is whitish, otherwise as hitherto. Hindwings with diffuse black median line, postmedian double, black with grey inner edge, dentate. Submarginal line as in *polycyma*. 46 mm. One ♂ from Sierra Leone is known.

*nana*. **T. nana** Hmps. As the name indicates, this is a small species. Dark with very indistinct markings. Body and wings dark brown. Antemedian line brown, curved, with white dot on costa. No median line. At



disco-cellular a narrow black streak. Postmedian line very indistinct, dark, with white dot on costa, shaped similarly to that of the other species. A white submarginal line is indicated. Hindwings with vestiges of an arched dark antemedian line, with a similar line distally of centre and a dark submarginal line. ♂ 28 mm. Nigeria.

**T. latebra** Hmps. (33 b). The largest species. Body and wings dark reddish brown. Antemedian line *latebra*. of forewings black, incurved in cell, excurved below and at inner margin. Reniform stigma with black edge and a few white dots. Median line rather diffuse, blackish, extending over the reniform stigma. Postmedian line double, black, dentate, incurved below vein 4 and conjoined below end of cell by an indistinct ring. Submarginal line ochreous yellow, black-brown inwardly. On hindwings median line is blackish, indistinct; postmedian line is double, dentate. Submarginal line grey with blackish edges on both sides. 48—54 mm. South Africa.

### 9. Genus: **Taviodes** Hmps.

Palpi similar to those of *Lophotavia*. Thorax and abdomen devoid of tufts. Forewings with acute apex. Outer margin not undulate, but impressed in centre in ♂. Vein 6 of forewings below upper angle of cell. Type: *discomma* Hmps.

**T. excisa** Hmps. (33 b). Body and wings grey-brown. Antemedian line of forewings indistinct, brown, *excisa*. incurved in cell, excurved above and below. In centre of cell a white dot. Median line behind the cell, dark, outwards to vein 6, then undulate and inwards. Postmedian line angulated outwards to vein 7, then inwards, more oblique below vein 3. Hindwings with a dark streak at disco-cellular. The median and postmedian lines are dark, curved. In ♀ the postmedian line on forewings is excurved to vein 6 and parallel to median line. A dark spot on costa before apex. ♂ 50 mm, ♀ 46 mm. Nigeria.

**T. congenita** Hmps. (33 c). Body and wings paler grey-brown with violet sheen. The lines of forewings *congenita*. are brown. Antemedian line narrow, eurved. Besides the white cell spot, there are 2 further spots at disco-cellular. The median line indistinct, excurved behind the upper angle of cell, more boldly inwards at inner margin. The postmedian line with an white spot on costa and outer white edge, from vein 7 down inwards and undulate. Hindwings with brown lines. Median line narrow, oblique, postmedian line whitish outwardly. Submarginal line diffuse, the last two lines incurved below the cell. 36 mm. One ♂ from Nigeria.

**T. tamsi** n. spec. (33 c). The ♂ resembles a dark *excisa*. On forewings there is a white dot in the cell *tamsi*. and another at lower angle of cell. No difference is discernible in the formation of the lines in the dark ground colour to those of *excisa*. On hindwings the 3 lines are more approximated to one another, they are straighter, the median and postmedian lines with fine white edges. Outwardly of the centre of the postmedian line there is an irregular yellow spot. Outer margin from anal angle to vein 4 is suffused with bluish. The ♀ also resembles the *excisa* ♀, however, the median line is acutely angulated inwards behind the cell. Postmedian line is more excurved at vein 7, thus being similar to the ♂. Hindwings are not darker than forewings. Median and postmedian lines are closer together. the bluish sheen at margin is fainter than in ♂. 45 mm. A pair from the Gold Coast. Type in the British Museum.

**T. subjecta** Wkr. (32 a). Similar to the indian *fulvescens* Hmps., but the median and postmedian lines *subjecta*. of forewings are closer together and dentate on both wings. Ground colour is generally darker ochreous red-brown. An aberrative specimen has the same shade of ground colour as *fulvescens*, but on forewings behind the postmedian line there are bold dark spots and on hindwings 2 rows of smaller dots. 35—40 mm. Congo region, Natal, Rhodesia. — **africana** Strd. is more richly suffused with brown than the main type form. *africana*.

**T. discomma** Hmps. (33 c). Body and wings grey-brown with reddish sheen. Lines brown. Antemedian *discomma*. line on forewings undulate, incurved in cell. Here also a white cell spot, but with dark brown disco-cellular dusted with bluish white. Median line indistinct, undulate, excurved behind the cell, then inwards, touching the spot (only in the type). Postmedian line outwardly white at costa, excurved between costa and vein 4, then inwards. Hindwings with 2 dark dots at disco-cellular. Median line dentate, postmedian undulate. In ♂ the outer margin of forewings is not indented. 35—40 mm. West Africa.

### 10. Genus: **Bareia** Wkr.

Palpi shorter than hitherto, the 2nd segment densely hairy. Thorax and abdomen without tufts. Only one species.

**B. incidens** Wkr. (33 e). Body and wings reddish brown, the lines dark brown. Antemedian line on *incidens*. forewings forming 3 undulations, straight, somewhat oblique. In cell a large white spot. Reniform stigma black, with a white dot below. Median line anteriorly oblique, intersecting the stigma, then incurved, undulate, to centre of inner margin. Postmedian line outwards to vein 6, forming a point, parallel to margin to vein 4, then inwards, dentate, with yellow dots outwardly on the veins. At margin below apex a black ocellus, with 2 small spots above it. The adjoining submarginal line commences at a white spot. Hindwings paler. Ante-



median line curved, postmedian line boldly dentate, with yellow tips; submarginal line whitish. 35—40 mm. West, South and East Africa, Madagascar.

### 11. Genus: **Lyncestis** Wkr.

Palpi slender, long and erect, the 2nd segment coarsely scaled. Thorax and abdomen with slight tufts. Forewings relatively narrow. Type: *amphix* Cram.

*amphix.* **L. amphix** Cr. (= *lativitta* Mr.) (32 a). Body and forewings grey, the latter with indications of undulate and dentate lines. Reniform stigma scarcely distinguishable by vestiges of a few black edge marks. Below the apex an almost horizontal dark shade. From vein 3 at margin a somewhat more distinct brown streak inwards. Inner margin grey-violet in outer part. Hindwings transparent white, margin widely and distinctly black. 28—32 mm. Described from India, but also occurring in East Africa and Somaliland. However in the British Museum there are only 2 specimens from East Africa, 34—38 mm large. Perhaps these are a separate species.

*unilinea.* **L. unilinea** Swh. (42 b). This is slightly browner than *amphix*. The narrow and short shade inwards from vein 3 is black here and extends to base on submedian fold. Besides there are more distinct spots at margin. Hindwing is only narrowly brown at margin. 40 mm. Only 1 specimen is known from India, but it is reported that one ♂ has been captured at Kedai (East Africa).

*diascota.* **L. diascota** Hmps. (33 c). Body and forewings grey-white. A wide brown shade from costa near apex to beyond centre of inner margin. Below costa near base a fine black streak. Veins in marginal area with short black streaks, also vein 1 is black. An angulated antemedian line is indicated. Hindwings as in *unilinea*. The ♀ has greyer forewings, on hindwings the margin is more widely brown. 28 mm. Somaliland.

*mimica.* **L. mimica** n. sp. (33 c). The species closely resembles a small *L. melanochista* Meyr. (= *macrosticha* Trnr.) from Australia. Forewings brownish grey. From near base below the cell a heavy black streak, curving somewhat downwards to near the outer margin on the submedian fold. Below vein 2 from near its origin an outwardly bifurcated streak almost to margin and above vein 6 a short streak at margin. From costa behind the centre short black horizontal streaks. At anal angle whitish and 2 white spots above the lowest black line and at its termination. Hindwings mother-of-pearl white, widely black at margin to vein 2. ♀ 28 mm. East Africa. Type in the British Museum.

### 12. Genus: **Bamra** Mr.

Differing only slightly from *Polydesma*. The third segment of palpi long and cylindrical. Legs hairy on undersides. Antennae filiform. Type: *acronyctoides* Mr. from India.

*glaucopasta.* **B. glaucopasta** B.-Bak. (33 d). Thorax greenish with brown scales. Forewing grey with pale green spots, forming a nice bluish grey-green mixture of shades. At base pale green with black spots, distally dark grey to antemedian black line, that is twice acutely angulated. Median area greenish. Postmedian line black, dentate, sharply angulated, in grey surround, with pale green spot on costa. Marginal area greenish with a long black streak from anal angle to outer line. Hindwings pure white, narrowly grey at margin. ♀ 40 mm. East Africa.

*cazeli.* **B. cazeli** Mab. (33 d). Body and forewings fairly dark grey, still darker in basal half. Antemedian line black and diffusing before inner margin; anteriorly to it, another line is indicated. Postmedian line is divided forming 3 angles, of which the last is double at inner margin, so that an "M" shaped mark is created thereby. From inner margin a streak proceeds obliquely outwards to the first angle. The submarginal line is a brown shade that approximates to the postmedian line at inner margin, so that it appears to be double. Hindwings white, widely blackish at margins. 50 mm. Described from 1 ♂ Madagascar.

*marmorifera.* **B. marmorifera** Wkr. (33 d). The pale greenish white colour is striking. Forewings with black dentate transverse lines having white edges. Between the antemedian and postmedian lines there are 3 narrow undulate lines. Orbicular stigma obsolete. Reniform stigma with black outline. Abdomen and hindwings white. 40 to 46 mm. Natal.

*delicata.* **B. delicata** Hmps. (33 d). Thorax and forewings pale yellowish green, except at outer margin, that is pure white. Antemedian line double and its outer line black, distinct, with black dot on costa, then undulate and angulated inwards on vein 1. Reniform stigma small with black surround. Median line double, undulate, indistinct, excurved around reniform stigma. Postmedian line black, undulate, dentate, outwards to vein 5, then to lower angle of cell and then again outwards. Distally of it an indistinct dentate blackish line. The submarginal line indistinct, white with dark edge. Hindwings white, dusky in marginal area, more widely so at apex. 36—40 mm. Niger regions.

### 13. Genus: **Syneda** Gn.

This is the same as the Genus: *Aleucanitis* created by WARREN, that comprised quite a number of palaearctic species. We are now describing a representative of this group found in Africa. For further particulars in regard to the Genus compare Vol. 3, p. 389.



Type: *S. flexuosa* Mén. from Central Asia.

**S. albifasciata** n. sp. (13 e). Closely resembling *Aleuc. philippina* Aust. (Vol. 3, p. 391, pl. 70 i). Ante-*albifasciata*. median line bold, black, somewhat outwards to subcostal vein, then straight, oblique, somewhat angulated inwards at vein 1. Proximally pale ochreous brown, dusted with blackish. Median line approximately parallel to antemedian, somewhat excurved in centre, vertical downwards from submedian fold. The band proximally thereof pure white, narrowly brownish at costa. Behind the white band lilac fuscous to submarginal line. Reniform stigma diffusing to costa, white, still less dentate than in *philippina*, in its centre on costa a black dot, its surround anteriorly parallel on both sides, then uniformly narrower and terminating rounded off at vein 3. Anteriorly the ground colour is somewhat darker, outwardly it is sharply edged by black to vein 3. The submarginal line with a white spot on costa, incurved behind cell and on submedian fold, outwards to anal angle. On costa before and behind it blackish. Margin lilac-grey. Hindwings white, margins dusky brown, the inner edge straighter than in *philippina* and *cailino*. The lower edge of cell dark to marginal band. ♂ 38 mm. Somaliland. Type in the British Museum.

#### 14. Genus: **Belciana** Wkr.

Similar to the Genus: *Bamra* Mr. The palpi are long, but hind legs of ♂ are without the long hairs. Type: *biformis* Wkr.

**B. biformis** Wkr. (= hemodi Fld.) (42 b). Thorax green and brown, abdomen pale brown. Forewings *biformis*. very pale green. On costa near base a large brown spot with a black streak below. Median line indistinct commencing at a spot on costa. Postmedian line consists of small white lunules. At apex a large fuscous spot with a smaller one at anal angle, edged on its inner side by a continuous black line. Hindwings yellowish, tinged with brown at margin. 44 mm. India, but also occurring in East Africa.

**B. euchlora** Hmps. Thorax blue-green and chocolate-brown. Abdomen ochreous brown. Forewings *euchlora*. blue-green with white scales. The chocolate-brown spot at base extends to vein 1. A dark antemedian line is indicated, with a small spot on costa, edged by white on both sides. At disco-cellular two fuscous dots, with a triangular mark above on costa. A dark postmedian line indicated by an oblique streak on costa, dented inwards behind the cell, angulated outwards at vein 6, 4 and 3, then inwards. Submarginal line black-brown, undulate to vein 5, then interrupted to vein 2. The margin distally is fuscous, darker at apex. Hindwings brown, paler at base. 40 mm. One ♀ from the Gold Coast.

#### 15. Genus: **Halochroa** Hmps.

The second segment of palpi widely scaled, the third segment short and obese. Antennae of ♂ with short bipectinations to  $\frac{2}{3}$  of length. Thorax with wide tufts anteriorly and posteriorly. Abdomen without tufts. Tibiae with fairly long hairs. Only 1 species.

**H. equatoria** Mab. (33 e). Described as a *Moma* owing to its green colour. Thorax anteriorly greenish, *equatoria*. the rest of the body white. Forewings pale green with dark brownish markings. The antemedian band does not extend to inner margin, it is interrupted by pale green in centre. Then follow 2 spots on costa and a lunule at disco-cellular. From the second spot the double postmedian line proceeds; there is a black spot distally of it on costa. Hindwings white, iridescent, pale brownish at margin. 42 mm. Described from 1 ♀ from the Congo, but also occurring on the Gold Coast and in Rhodesia.

#### 16. Genus: **Eutelephia** Hmps.

Antennae of ♂ fasciculate. Frons with rounded projecting process. Thorax and tibiae as in *Halochroa*. A striking tuft on second segment of abdomen, smaller tufts on the other segments. Wing contour similar to that of *Eutelia* (p. 354). Only 1 species.

**Eu. aureopicta** Kenr. (42 b). Thorax bronze-coppery, abdomen roseate grey. Forewings coppery, with *aureopicta*. grey lines and brown spots. Antemedian line whitish, angulated, proximally 3 brown spots. Orbicular stigma dark with white surround. Reniform stigma large, oblique, with white outline. At inner margin 3 indistinct brown spots. Submarginal line double, white, faintly indicated. Hindwings whitish, margin widely dusky brown. 30 mm. Madagascar.

#### 17. Genus: **Catephia** Ochs.

The Genus *Catephia* is dealt with fully in Vol. 3, p. 376. There the Genera *Anophia* Gn. and *Aedia* Hbn. were separated from *Catephia*. Unfortunately HAMPSON subsequently assembled these 3 Genera under one head and thereby the number of species in this one Genus has become very great. Added to this, in Vol. 3, that was written by WARREN, the name *Catephia* (with the typical species *alchymista*) denotes something different to that of HAMPSON, who deemed *A. leucomelas* to be the type and placed *alchymista* in the new Genus *Mageutica*.



*xanthophaes*.

**C. xanthophaes** B.-Bak. (32 b). Forewings yellowish creamy in the type, but otherwise darker; a blackish spot at base. Median line black, undulate, narrow; distally a second less distinct line close to reniform stigma, which is pale and indistinguishable. Postmedian line dark grey, double, somewhat undulate, excurved anteriorly and in centre. Distally greenish grey with submarginal delicate sagittate marks and a black streak between vein 3 and 4. 30 mm. Portuguese West Africa, Sierra Leone, Cameroons.

*sciras*.

**C. sciras** Fawc. (42 b). Body and forewings pale grey. Very variable and often indistinctly marked. It is best recognised by the blue-grey large reniform stigma with a dark claviform stigma below. Antemedian line at  $\frac{1}{3}$ rd length of wing, dark, undulate, vertical, proximally dark below the cell. Orbicular and reniform stigmata with narrow black surrounds, the patch between them being darker. Postmedian line black, proceeding widely inwards at costa, with paler inner edge. Submarginal line somewhat undulate, dark, with a yellowish spot at anal angle and with a proximal dark band near postmedian line. Hindwings hyaline white in ♂. In ♀ ground colour of forewings is grey-brown, submarginal band somewhat darker, otherwise markings as in ♂. Hindwings with brownish margin. 30–35 mm. East Africa.

*corticea*.

**C. corticea** Le Cerf. Somewhat resembling *sciras*. Thorax and forewings reddish grey, paler in centre of wings. Below the cell and behind the postmedian line slate-grey. Antemedian line black, projecting in 2 points. Orbicular stigma pale, edged by black scales. Reniform stigma indistinct. Postmedian line narrow, black, rather indistinct at costa, with points outwards on the veins, projecting only slightly on vein 4 and in the submedian fold, not extending so far inwards as in *sciras*; there it is conjoined by a streak with the grey claviform stigma that is open towards the base. Submarginal line is parallel, with points inwards in the interstices. Distally of the claviform stigma and at the anal angle somewhat yellowish. Hindwings hyaline white. 30–35 mm. Two ♂♂ are known from Lake Rudolph. — **diffusa** Le Cerf. On forewings the 3 transverse lines are missing, ground colour is more reddish, the yellow patches are absent. Centre of wings appears to be paler. Described from 1 ♂ from the same district.

*poliochroa*.

**C. poliochroa** Hmps. (42 b). Body and forewings pale grey-brown. Antemedian line black, distinct, angulated inwards on submedian fold. Orbicular and claviform stigma long, narrow, confluent, prolonged to postmedian line. Reniform stigma indistinct, edged with black proximally, pale inwardly. Postmedian line narrow, black, projecting equally widely forwards at vein 7 and 3, indented in between, sharply angulated inwards on submedian fold, then vertically. Submarginal line delicate, white, undulate. Hindwings also slightly brownish at inner margin. 35 mm. Somaliland, East Africa.

*barrettiae*.

**C. barrettiae** Hmps. (33 e). Thorax and forewings dark fuscous, paler at margin. Antemedian line indistinct, undulate. Claviform stigma as a diffuse black patch, a similar often darker patch at  $\frac{1}{3}$ rd of inner margin. Orbicular and reniform stigmata grey with white surrounds. Postmedian line brown, inwardly grey, outwards below costa, then vertically to vein 4. At costa before the apex a striking small black triangle with 2 dots below. Marginal area somewhat paler. Hindwings white, costal and outer marginal halves varying widely black. 35 mm. The Cape.

*pallididisca*.

**C. pallididisca** Hmps. (33 e). Body brownish white. Forewings grey and dark brown, in median area to below the cell a yellowish white patch. Antemedian line black, double, outwards to centre of wing, with a dark streak anteriorly at inner margin. Claviform stigma delicate, with black edge, pointed, extended obliquely to postmedian line. Orbicular stigma white, reniform stigma brown and large with heavy white edge. Postmedian line black, double, with pale interfilling, outwards to vein 4. Submarginal line whitish, indistinct. Apex is dark. Hindwings white, dark brown at margin, more narrowly so towards the apex. 26 mm. Transvaal, Natal.

*serapis*.

**C. serapis** Fawc. This resembles *oligomelas* Mab. (32 b) by the deep excuvation of postmedian line. Body and forewings reddish brown, somewhat darker to postmedian line. Orbicular stigma black with white circumscription. Reniform stigma indistinct, pale, distally a larger reddish yellow spot on costa. Outer margin with rosy brown scales. Submarginal line consists of brown spots. Hindwings white, darker at margin. ♀ 32 mm. East Africa.

*albirena*.

**C. albirena** Hmps. In this species the dark margin of hindwings is uniformly widely dark brown. Thorax and forewings dark brown. Both transverse lines are simple, black. Antemedian curved, angulated inwards on vein 1. Claviform stigma with black edge only at tip. Orbicular and reniform stigmata with black surrounds, projecting at the tips. Postmedian line dented inwards behind the cell and also under vein 4. Submarginal line indistinct, dark, with white scales outwardly. The entire markings are very indistinct, but the species is recognisable by the sharply angulated white outer edge of the reniform stigma. 26 mm. One ♂ from Abyssinia.

*pyramidalis*.

**C. pyramidalis** Hmps. (42 c). Thorax and forewings dark grey-brown. Antemedian line black, undulate, vertical, incurved at costa. The 3 stigmata with black edges. Reniform stigma with black line towards the base, with outer white edge and whitish above it on costa. Postmedian line double, black, formed as in *squamosa* (p. 272). Posteriorly a parallel dark line. Hindwings whitish, widely brownish at margin. Above reniform stigma there is sometimes a more distinct white triangular mark. On the other hand there is occasionally a blackish band between the antemedian and postmedian lines on the submedian fold, similar to that of *pericyma* (p. 272) and *poliochroa* (p. 270). 24–28 mm. Somaliland, East Africa.



**C. bipuncta** *Hmps.* (33 e). Body and forewings dark reddish brown, no orbicular or reniform stigmata. *bipuncta*. Antemedian line pale, faintly angulated inwards in centre and more boldly on vein 1. Postmedian line undulate, widely inwards at costa with a white spot distally above and below vein 3. Black lunules at margin, of which the 2 below the apex are larger and situate further proximally. The row of dots is intersected by an oblique black shade. Hindwings black, with a fairly long white spot near the base. 32 mm. Natal, Rhodesia.

**C. costimacula** *Holl.* Thorax brown, abdomen blackish. Forewings dark grey-brown with intensely dark brown lines and spots. At costa near base an approximately triangular dark brown spot, with a smaller one in centre of costa. An annulate mark indicated in cell. A dark antemedian line at inner margin with pale grey inner edge. Postmedian line double, heavily brown at inner margin. Distally thereof a fainter dark line, obsolete at costa, extending to vein 3. A black spot near anal angle and close below apex 2 sagittate marks. Hindwings with small white spot at base, margin white below apex. 30 mm. West Africa.

**C. apicata** *Holl.* This varies somewhat. Forewings uniformly grey-brown. Below base of cell a black dot. A wide brown shade proceeds from inner margin near base to apex. Close before it the band stands off somewhat from the margin and there is a prominent black spot. The white spot in hindwings is larger, somewhat quadrate. 26 mm. West Africa.

**C. eremita** *Holl.* In this species the patagia are not dark brown with pale edges, as in the preceding species, but light brown like the forewings. The wings are almost devoid of markings, except for indistinct dark transverse lines over the centre and before the apex. On hindwings the white basal spot is round, somewhat separated from the base. 24 mm. West Africa.

**C. endoplaga** *Hmps.* Body and forewings fuscous, the latter admixed with ochreous yellow. In centre of inner margin a striking large semi-circular black-brown spot with coppery gloss. Antemedian line indiscernible. Orbicular and reniform stigmata with narrow white surrounds, the edge of the latter is heavier outwardly and projects at lower end. Postmedian line indistinct, dark, whitish outwardly, dentate, excurved to vein 4. An undulate white submarginal line is indicated. Hindwings whitish, suffused with brown in basal area and with a narrow dark lunule. Margins coppery and brown. ♂ 28 mm. Gold Coast.

**C. scotosa** *Holl.* (31 h, 33 f). Differing by the oblique band. Thorax dark brown, abdomen paler brown. Forewings grey-yellow on costa, below which there is a wide deep black band from base to apex; it is wider outwardly and edged on both sides by white lines. At anal angle this band is incised by a large white spot and behind the cell by a smaller one. Hindwings deep black with white basal spot. 28 mm. West Africa.

**C. discophora** *Hmps.* (32 b). This species and *scotaea* *Hmps.* have a white central spot on hindwings. Body is brown and grey. Forewings grey with brown patches. In central area darker brown except at costa and in marginal area. Antemedian line black, oblique, angulated inwards at vein 1. Orbicular stigma as a white dot with dark surround. Reniform stigma pale, spotted, laterally with black edges, hollow towards base. Median line indistinct, undulate. Postmedian line double, projecting somewhat at vein 6 and 4, the outer line indistinct. Submarginal line whitish, dentate, with dark brown edge. Hindwings with white central spot. 24 mm. Transvaal, Uganda.

**C. oligomelas** *Mab.* (32 b). Similar to *leucomelas* from Europe. Forewings reddish black, especially dark in centre of outer margin, terminating abruptly upwards by a line from costa to somewhat above centre of outer margin. The apex area is ashen grey with a black spot at apex and it is divided by a dentate blackish shade. Costa narrowly grey-red. Postmedian and submarginal lines are faintly darker than the ground colour. Hindwings black with a small white basal spot, that may occasionally be absent. In well-marked specimens an antemedian line can be observed, that is incurved in centre, also pale scales outwardly of reniform stigma, an outer undulate line and submarginal spots. 26—34 mm. Cameroons.

**C. dipterygia** *Hmps.* Body paler fuscous. Forewings glossy fuscous with suffusion of dark brown. Marginal area pale yellow-brown from below apex to vein 4. Antemedian line blackish, boldly excurved. Claviform stigma dark brown, extending to median nervure. Orbicular and reniform stigmata with black surrounds, the latter with white dots distally. Postmedian line black, very oblique to vein 6, then excurved to vein 3 and very obliquely inwards. Submarginal line as a dark brown shade. The entire markings very indistinct. Hindwings brownish white at base. In ♀ body and forewings are dark brown, the space below the apex ochreous brown. 26—30 mm. Gold Coast.

**C. scotaea** *Hmps.* Thorax fuscous, abdomen black-brown. Forewings red-brown with grey scales, darker to antemedian line. The latter black, oblique, straight. Orbicular stigma with black edge, oblique, elliptical. Reniform stigma with somewhat whitish edge. Median line brown and diffuse. Postmedian line black, excurved to vein 4. Submarginal line pale, with dark spots inwardly. Hindwings black-brown, the white central spot situate widely outwardly. 28—30 mm. Gold Coast.

**C. holophaea** *Hmps.* This is very similar to an indistinctly marked *dipterygia* with a similar pale marginal spot. Body and forewings fuscous and dark brown. Hindwings brown, with coppery gloss and without white



spot. The inner line indistinguishable on forewings. Orbicular and reniform stigmata with narrow fuscous surrounds. Postmedian line blackish, with red-brown edge on both sides at costa, obliquely to vein 4, then incurved. Submarginal line indistinct, dark, dentate, with white edge outwardly to vein 4. 35 mm. One ♂ from Nigeria is known.

*metaleuca.* **C. metaleuca** Hmps. (33 f). On this (♂) the hindwing is almost completely white, only apex is tinged with brownish. Thorax dark grey-brown. Forewings olive-green, suffused with dark brown and with white scales. Antemedian line indistinct. Orbicular stigma small, grey, with dark outline. Reniform stigma with 4 white dots outwardly and another below. Postmedian line blackish, with white edge outwardly at costa, angulated outwards at vein 4 and again at vein 3, then inwards, with a narrow black line posteriorly. Submarginal line white, interrupted. 36 mm. One ♂ from East Africa.

*sospita.* **C. sospita** Fawc. (42 c). This resembles a pale *metaleuca* on forewings by the large white spot before postmedian line. Here also hindwings are white. Thorax and forewings brown. Antemedian line black, undulate, vertical. Anteriorly in centre of basal area an ochreous white spot. Claviform stigma as a small brown spot with black surround. Orbicular and reniform stigmata white, similarly the patch above to postmedian line. The latter black, double, similar to that of *squamosa*. Submarginal line consists of pale grey spots. Hindwings hyaline white. Described from 1 ♂ from East Africa.

*pericyma.* **C. pericyma** Hmps. (33 f). Body and forewings pale grey-blue. Antemedian line black with 2 large angulations outwardly, somewhat oblique, blackish anteriorly at inner margin, scarcely discernible. On submedian fold a dark band to margin, straight or sinuate. Orbicular and reniform stigmata large with black outlines and dark centres. Postmedian line narrowly black, oblique to vein 4, then very obliquely inwards to vein 1, posteriorly with brown streaks on vein 3 and 2. Hindwings white, somewhat reddish brown at inner margin, outer margin widely coppery brown. In ♀ the dark radial band is more diffuse over inner margin. Diffuse brown proximally to postmedian line. 34—38 mm. Somaliland, Mombassa.

*abrostolica.* **C. abrostolica** Hmps. Body and forewings grey-brown. On hindwings only the inner margin is still brownish, otherwise basal area is white. Antemedian line of forewings black, widely angulated outwards on submedian fold. Claviform stigma with black surround, large, extending to cell. Orbicular and reniform stigmata large with black outlines and centres. The latter with short black striations distally. Postmedian line black, somewhat angulated outwards at vein 7, more boldly outwards under vein 4, then curved far inwards, angulated inwards on submedian fold. A black streak proceeds from it to margin under vein 4, a black band containing white dots below vein 2. Submarginal line diffuse, brown. Hindwings black-brown at margin. The species can also be described as a small *pericyma* in which the radial band and the band there-above only commence behind postmedian line. 32 mm. East Africa.

*mesonephele.* **C. mesonephele** Hmps. (42 c). This and the following species are considerably smaller. Body and forewings pale grey-brown. Antemedian line black with white inner edge, projecting below cell, then sharply inwards. A wide black band below vein 2 to outer line, widely white above it. Orbicular and reniform stigmata with incomplete brown edge and with dark centres. Postmedian line excurved to vein 4, then inclined inwards. Posteriorly a further line to vein 4. An oblique fuscous shade from apex. Submarginal line barely indicated. Hindwings white, brownish at margin. 24 mm. Described from 1 ♂ from Somaliland, 2 ♂♂ from East Africa are yellow in centre of forewings and much darker below.

*eurymelas.* **C. eurymelas** Hmps. (42 c). In colouration and smallness of size, like the preceding. Forewings pale grey-brown, obliquely whitish from apex to end of cell. Antemedian line black, double, vertical, the inner line barely distinguishable. Claviform stigma narrow, black. Orbicular and reniform stigmata with black outline, the latter filled with dark scales at lower end. Postmedian line close to reniform stigma, beneath more boldly inwards. Submarginal line reddish brown, straight with diffuse inner edge. Hindwings like those of *mesonephele*, more widely black at anal angle. Also base of forewings can be dusky and marginal half whiter with more distinct dark markings. 22—25 mm. Somaliland.

*thomae.* **C. leucomelas** L. A pair of this species was captured at San Thomé, but they vary somewhat and are named — **thomae** E. Prout. Forewings are narrower, especially in ♀, margin of hindwings is blacker. Also forewings are blacker, but appear more variegated by the presence of brownish and grey patches. The pale spot below vein 3 is bold in ♂, less pronounced in ♀. On hindwings the white apical spot is somewhat shorter. On underside of hindwings of ♂ the yellow androconia patches are less strongly developed.

*squamosa.* **C. squamosa** Wllgrn. (= *inconclusa* Wkr., *discistriga* Wlk.) (31 g, 33 f). Colouration of forewings and formation of the transverse lines does not differ much from *leucomelas*. The pale spot below the reniform stigma is almost always large. Reniform generally diffuse white. This white colouration can extend to postmedian line and almost to costa. On hindwings the white basal area is often shorter than in *leucomelas*. 28—35 mm. West, South and East Africa. The indo-australian *olivescens* Gu. is very similar. I have before me a worn specimen from Madagascar, that could just as well be *olivescens*.

*scylla.* **C. scylla** Fawc. This is perhaps only a *squamosa* form. The dark margin of hindwings is much narrower, the pale submarginal line of forewings is more distinct. It has a larger expanse. ♀ 42 mm. East Africa.



**C. iridocosma** B.-Bak. (31 g). Resembles *squamosa*. Thorax ochreous grey, abdomen dark grey. Fore- *iridocosma*, wings grey-red with grey patches. Median line irregular, dark brown. Cell grey to that line. Reniform stigma ochreous grey. Outer line sinuate, oblique, dark brown. Posteriorly lilac-grey with chocolate-brown sagittate marks with olive-grey edges. Brown spots at margin. An olive-brown spot with dark edge proceeds from before the grey area, from dark median line to postmedian line, conjoined with it by a dark streak. ♂ 34 mm. Uganda.

**C. striata** Hmps. Thorax dark brown, abdomen paler. Forewings blackish, except at inner margin; also *striata*, apex; between vein 4 and 1 pale brown at margin. Black streaks below cell, also proximally of centre of inner margin and at outer margin. Antemedian and postmedian lines are absent, and so is the reniform stigma. Orbicular stigma small with black outline. Hindwings ochreous white, margins black. 26 mm. Natal.

**C. thermotis** Hmps. (33 f). Body and forewings chocolate-brown, very indistinctly marked. Median area *thermotis*, at inner margin dark fuscous, also apex. Markings fuscous. Antemedian line double, sinuate, diffuse. Orbicular stigma punctiform. Reniform with lateral white scales, narrower in centre. Postmedian line double, with white interfilling somewhat indented behind cell, oblique under vein 4. Submarginal line indistinct, margin from apex to vein 5 grey. 22–26 mm. Nyassaland, Gold Coast.

**C. virescens** Hmps. (33 g). Body and forewings olive-green, blackish in basal area, in centre of inner *virescens*, margin and below apex. A black streak on submedian fold. Antemedian line black, undulate, oblique, incurved above vein 1. Orbicular stigma small, indistinct. Reniform stigma large, pale with black outline, constricted in centre. Postmedian line black, sinuate, outwards to vein 4, then inwards and with a white dot on submedian fold. Hindwings black with white spot, somewhat removed from base. Fringes below apex white. 28 mm. Natal, Nyassaland.

**C. nigropicta** Saalm. (42 c). A very small species. Thorax and forewings fuscous. The fasciae black. *nigropicta*, Antemedian line from  $\frac{1}{3}$ rd of costa, forming 3 arcs; claviform stigma adjoining. Postmedian line sharply angulated outwards on vein 4, dentate anteriorly, sinuate towards inner margin. Orbicular stigma pale with black surround. Reniform stigma pale with yellow-white dots distally. A black median shade is indicated. Submarginal line pale brown, undulate, only distinct anteriorly, from  $\frac{3}{4}$  of costa conjoined by an oblique band of the same shade of colour. Hindwings black with an approximately triangular white basal spot. 25 mm. Madagascar.

**C. microcelis** Hmps. This and the following species have a white band on hindwings from below costa *microcelis*, to near inner margin. Thorax dark fuscous, abdomen grey-brown. Forewings dark red-brown with grey scales. Antemedian line black, curved. Claviform stigma small, indistinct. Orbicular and reniform stigmata with black edges and white scales inwardly. Postmedian line outwards to vein 4, with an additional narrow sinuate line distally. Submarginal line indicated by black-brown sagittate marks. Hindwings black-brown with copper gloss, the white band near base. 24 mm. One ♂ from Nigeria.

**C. cryptodisca** Hmps. (33 g). In this the white band on hindwings is displaced more in centre of wing. *cryptodisca*, Colouration similar to that of preceding species. Antemedian line on forewings, black, oblique, incurved on vein 1. Reniform stigma whitish, dusted and outlined with brown, oblique, elliptical. Postmedian line double, black, outwards to vein 5. Submarginal line pale, with blackish edge and white dot on vein 1. Hindwings black-brown with oval white band. 22–26 mm. Gold Coast, Nigeria.

**C. dulcistriga** Wkr. (33 g). Body and forewings reddish brown. Antemedian line black, with pale inner *dulcistriga*, edge, somewhat angulated below cell. Postmedian line fairly straight outwards to vein 4, then inwards to submedian fold and somewhat more vertically to inner margin, with pale outer edge. Orbicular and reniform stigmata pale, the latter with white outer edge. Claviform stigma large outlined in black. From it to postmedian line and to inner margin the colour is darker. Submarginal pale, sinuate. Hindwings black-brown with white triangle in inner half. 35 mm. Distributed throughout Africa, also occurring in Madagascar and India.

## 18. Genus: **Nagia** Wkr.

Similar to *Catephia* Ochs., but legs very densely hairy. Type: *gravipes* Wkr. from Africa.

**N. subalbida** Hmps. Body and forewings black-brown. The entire markings are barely discernible. *subalbida*, Antemedian line black, commencing at costa with a yellow spot, oblique, angulated outwards on submedian fold, then inwards. Reniform stigma small, elliptical, below a black annulate mark. Postmedian line black, oblique to vein 6, indented behind the cell, with a black streak to reniform stigma, further widely excurved and inwards from vein 3. Hindwings white, black-brown at margin, with dentate inner edge. 35 mm. One ♂ from Transvaal.

**N. gravipes** Wkr. (33 g). Body brown and ashen grey. Forewings coppery brown, somewhat violaceous *gravipes*, on veins. Transverse lines dentate, postmedian expanded on costa and fairly distinct, very oblique towards inner margin. Orbicular stigma obsolete, reniform with black outline, below an irregular black annulate mark, no white spot. Hindwings coppery brown, only 2 black dots at anal angle. 45 mm. Sierra Leone.



- linicola*. **N. linteola** Gn. (31 h). Thorax dark fuscous, abdomen blackish. Forewings red-brown, occasionally very dark and sometimes also anteriorly in basal area, very pale. Antemedian and median lines dentate, vertical. Postmedian line straightly outwards to vein 4, then dentate inwards, forming a semi-circle on submedian fold to inner margin. Below the "8" shaped reniform stigma a sort of annulate mark. Apex paler, with a pale oblique streak below. Hindwings blackish with wide white median band and a few submarginal spots. 45—60 mm. Throughout Africa, Madagascar, India to the Marshall Islands. — A ♀ from Togo has a continuous dentate white submarginal line on forewings, which normally is only visible just at costa. — **promota** Pagst. is probably only a small form of *linicola*. The specimens vary a good bit among themselves and besides the postmedian line does not form a semi-circle at inner margin, but terminates there vertically and not excurved. 35—38 mm. Madagascar.
- natalensis*. **N. natalensis** Hmps. (31 i). This is probably only a *linicola* form, as the annulate mark below the reniform stigma is distinct and the semi-circle described by the postmedian line is also present. Generally there is a paler patch at apex. Except for the postmedian line the markings are very obscure owing to the darkness of the colouration. There is sometimes a rusty brown patch above inner margin. 40—45 mm. South and East Africa. — From the southern Soudan we have received some very small specimens, 35—40 mm. These are in the British Museum and are denominated — **pseudonatalensis** Strd. (31 i). They differ somewhat by the dentate white submarginal line.
- pseudo-natalensis*. **N. pilipes** Gn. Forewings dark brown with normal black dentate lines. The postmedian line is heavier at costa and proceeds inwards only under the annulate mark as mentioned under *linicola*. Reniform stigma is indistinct. Hindwings do not vary from those of *linicola*. 64 mm. Described from 2 ♂♂ from Mauritius, but also known to occur in Madagascar.
- pilipes*. **N. syra** Gn. Very similar to *pilipes*. There is no annulate mark below the indistinct reniform stigma. Postmedian line more boldly dentate, inwards to inner margin. Orbicular stigma as a black dot in grey-red circumscription. Apex grey-yellow with the commencement of a white submarginal line. Hindwings do not vary. 60 mm. Described from one ♀ from Abyssinia.
- syra*. **N. amplificans** Wkr. Dark brown-grey, inclining to blue-grey. Costa of forewings partially rusty brown. Transverse lines black, dentate, indistinct. A bluish shade at apex, edged by an irregular white submarginal line. Proximally 2 white dots at costa and an oblique white stripe from  $\frac{3}{5}$ ths of costa. The latter conjoins the outer margin distally of the bluish spot and is brownish outwardly. Orbicular and reniform stigmata small, black. Hindwings do not vary. 45—50 mm. Natal.
- amplificans*. **N. dentiscripta** E. Prout. This is also similar to *linicola*. Body pale brown. Forewings whitish, the inner area from base upwards to vein 2 brown. This colour extends along the vein to postmedian line and vein 5. A black spot on costa before the submarginal line, which is much darker than in *linicola*. Transverse lines, so far as these are distinguishable, do not vary. Orbicular stigma is a small brown dot. Reniform stigma is obsolete. The white band on hindwings is narrower, but its width varies in *linicola*. 50 mm. Described from 1 ♀ from the Congo. According to E. PROUT, *dentiscripta* is perhaps only a form of *syra* and *amplificans* a form of *syra* or *linicola*.
- dentiscripta*. **N. megaruna** Joan. Somewhat more stumpy in build than *linicola*. Body blackish brown. Forewings paler brown with whitish yellow patches. Base blue-black at inner margin. Antemedian line black, undulate, almost vertical. Orbicular stigma as an extended black spot. Median line black-brown, double, undulate, vertical, extending between orbicular and reniform stigmata. The latter has a black outline and centre. Postmedian line, so far as it is visible, as in *linicola*. Anteriorly to it blackish to reniform stigma and at costa. The annulate mark below reniform stigma is present. Submarginal line as in *linicola*. Hindwings black, pale median band is narrow, the spot near anal angle fairly large. 55 mm. A few specimens from Mauritius.
- megaruna*. **N. sacerdotis** Hmps. Glossy black. Forewings reddish brown and black-brown at base and on costa. Antemedian line black, double, excurved in centre. Orbicular stigma a black dot, reniform stigma and the annulate mark below as in *subalbida*. Median line double, indistinct. Postmedian line obliquely to vein 5, with dentations outwards on vein 4, 3 and 2 and downwards from vein 3, as in *linicola*. Submarginal line indistinct, black, sinuate; anteriorly on costa an oblique triangular red-brown shade. Hindwings black-brown, the white median band triangular, from costa to vein 1. 52 mm. A few ♀♀ from Central Africa and the Transvaal.
- sacerdotis*. **N. melipotica** Hmps. Thorax and forewings whitish with red-brown and dark brown scales. Antemedian line diffuse, black, indented inwards in cell and at inner margin. Orbicular and reniform stigmata and the lower annulate mark, as usual. Median line double, indistinct, undulate. Postmedian line diffuse, black, oblique to vein 4, then as in *linicola*. Distally on costa to outer margin a white shade at vein 5. Submarginal line with brown shade anteriorly as in *sacerdotis*. Hindwings dark brown with coppery gloss, the white median band diffuse, with a spot below it on vein 1. A short white line at vein 3, as in *sacerdotis*. 44 mm. Natal.
- melipotica*. **N. evanescens** Hmps. Denominated from the almost obsolete bluish white band on hindwings. Differing from *amplificans* by the paler apex and the absent pale oblique band. Thorax and forewings pale red-brown with
- evanescens*.



white scales especially in apical area. Antemedian line obsolescent, black, excurved in centre. A black central spot in cell. Reniform stigma with narrow black surround, elliptical and an elliptical black annulate mark below. A double median line is indicated. Postmedian line excurved at vein 6 and 4, then inwards, vertically to inner margin. Submarginal line white to vein 5, distinct, anteriorly on costa dark brown. On hindwings the pale band is narrow and there are 2 dots at vein 2. Forewings are occasionally much suffused with white in central area with a white spot behind cell spot. Or the entire wing may be leaden grey except at apex and at base of costa. 46—48 mm. West Africa.

**N. microsema** *Hmps.* (33 h). Thorax and forewings reddish brown, with coppery gloss, paler at apex. *microsema*. Antemedian line black, sinuate. Stigmata and median line as in *evanescens*. Postmedian line black, similar to *linteola*. Anteriorly to it an oblique black shade to margin at vein 4. Submarginal line white with brown edge excurved in lower part, proximally a fuscous spot on costa having a white inner edge. A pale oblique line on hindwings, no band. A marginal dot on vein 1 and 2. In ♀ the forewings are more variegated by the addition of leaden grey, brown and white scales. The postmedian line is more heavily black at inner margin. 44—46 mm. West Africa.

**N. monosema** *Hmps.* (33 h). Forewings fuscous with a few dark brown scales. Basal area blackish. Antemedian line as in *microsema*. Median line and stigmata as in *evanescens*. Distally of end of cell blackish from centre of costa to vein 2 to 5 at margin. Postmedian line extends from vein 3 to submedian fold, close to median line. Submarginal line anteriorly white, then indistinct and dark. Hindwings only with vestiges of a pale short median band, at vein 2 a small white streak before margin. On forewings there is at times a whitish oblique band from end of cell to anal angle. A white spot at lower angle of cell is almost always present. 50—52 mm. Gold Coast.

**N. homotoma** *Hmps.* Forewings coloured as in *monosema*. Antemedian line black, excurved below cell and above inner margin. Stigmata and median line as in *evanescens*. Postmedian line diffuse, black, outwards to vein 4, on submedian fold near median line, then again outwards; anteriorly there is a black triangular shade extending to vein 2. Submarginal line pale reddish brown, not white and no dark triangle adjoining. Distally of it costa is black. Hindwings reddish brown. Median line pale, oblique, from centre of cell to anal angle. There are white spots on vein 2 and 1. ♂ 40 mm. Gold Coast.

### 19. Genus: **Chitasida** *Hmps.*

In this Genus proboscis is exceptionally absent. Palpi with long hairs on underside. Frons with small rounded process. Antennae with a large brush of hair at base, shortly pectinate in ♂, serrate at tip. Thorax with wide crest posteriorly, abdomen with only a tuft at base. Neuration normal. Differing only slightly from the palaearctic *Anophia*, the absent proboscis being the main differentiation. Type: *diplogramma* *Hmps.*

**Ch. duplicata** *Grünbg.* Forewings dark violaceous brown. The lines are dark. Antemedian rather indistinct, sinuate, excurved in centre, close distally a vertical streak. Median line from  $\frac{2}{5}$ ths of costa obliquely outwards to submedian fold, double, the inner line being more heavily marked thus far, then incurved and vertically to inner margin. Reniform stigma somewhat oblique outwardly to vein 2. Postmedian line double, undulate, outwards to vein 3, then somewhat inwards, with point inwards on submedian fold. Submarginal line formed anteriorly of white scales, distally ground is somewhat paler. Hindwings white, slightly brown at anal angle. ♂ 32 mm. Bechuanaland.

**Ch. diplogramma** *Hmps.* Differing from the *Nagia* species by the white hindwings. Thorax reddish brown, abdomen grey-brown. Forewings grey and dark brown with violaceous sheen. Antemedian line black, double, undulate, extending outwards to submedian fold. Reniform stigma with black outline. Postmedian line double, slightly angulated outwards on vein 6 and 4, then incurved, undulate, approximating to antemedian line on submedian fold. Submarginal line pale, indistinct, with dark edge, excurved in centre. Hindwings white with black-brown spot at anal angle. The spot contains a pale streak. In ♀ margin of hindwings is dusky. 30 mm. Transvaal. — **albescens** *forma nov.* The dark lines are more distinct. The upper branch of the antemedian line is heavier, dividing off on vein 2 to the postmedian line, then somewhat fainter and inwards to inner margin. Behind the postmedian line the colour is pure white, only narrowly dark at costa. Hindwings white, somewhat blackish at anal angle. Fine dark marginal spots. ♂ 30 mm. Transvaal. Type in the British Museum.

### 20. Genus: **Melanephia** *Hmps.*

Palpi moderately scaled, frons with small projecting process. Antennae of ♂ with short pectinations, the free tip shorter than in *Chitasida*. Crest and tufts as in *Chitasida*. Type: *nigrescens* *Wlgrn.*

**M. metarhabdota** *Hmps.* (33 h). Thorax black-brown, abdomen paler brown. Forewings black with brown and leaden grey scales. A white spot below base of cell in type. Antemedian line black, oblique to sub-



median fold with a short dark streak there, distally angulated inwards on vein 1. Median line arched, indistinct. Reniform stigma edged by a few white scales, a small black oval annulate mark below with ochreous brown centre. Postmedian line black, undulate, oblique to vein 4, incurved below vein 3 to the annulate mark. Submarginal line whitish, proceeding from a white spot on costa, excurved in centre. Hindwings white, brown at apex and vein 1, blackish from vein 2—4. The type is from the Transvaal, but it also occurs on the Gold Coast.

*trista.* **M. trista** Snell. (= melanophaea B.-Bak.) (31 h). Described as an *Acontia*. Thorax and forewings grey-brown. Antemedian line blackish, excurved in centre, with pale edges. Orbicular stigma large, round, somewhat paler; a similar annulate mark below outwardly. Reniform stigma with whitish surround, projecting below outwardly and above inwardly. Postmedian line pale red-brown, excurved behind cell, then obliquely inwards. Posteriorly paler, somewhat violaceous, with irregular pale submarginal line having a rusty brown inner edge. Hindwings white, brownish at margin. 30 mm. Nigeria, Congo basin, Portuguese West Africa.

*nigrescens.* **M. nigrescens** Wllgrn. (= inquieta Wkr., teretiplaga Wllgrn., sofala Fld.). Thorax and forewings grey-brown. Antemedian line dark, double, undulate, outwards at inner margin. Orbicular stigma large, with dark surround and centre. Reniform stigma elliptical, with dark edge. Postmedian line distinct, dentate, excurved from costa to vein 2, then vertically. Distally 2 diffuse dark lines, parallel to margin. Hindwings white, brownish at margin, more narrowly brown towards anal angle. 26—32 mm. The Cape, East Africa.

*endophaea.* **M. endophaea** Hmps. Body and forewings pale red-brown. Antemedian line narrow, dark, projecting widely forward in centre. Below vein 2 anteriorly a black streak to postmedian line. At disco-cellular a triangular spot with black edge. Postmedian line dark brown, outwardly with ochreous white edge, projecting on veins, excurved to vein 4. In marginal area black streaks on the veins. Submarginal line pale, indistinct, arched. Hindwings pure white. 25 mm. East Africa.

*cinereo-variegata.* **M. cinereo-variegata** Le Cerf. Body and forewings ashen grey; costa pale grey and with darker spots. Antemedian line black, inclined somewhat inwards, straight, with projection outwards only at vein 1. Orbicular stigma as a black dot, reniform with black edge, narrow, extending downwards to vein 2, with dark slate-grey centre at top and paler below. Postmedian line double, the inner branch black, gently undulate, from behind the cell to inner margin. Outer branch brown, delicate, only distinct in anterior part. Submarginal line black, straight, bold to vein 5, then grey and indistinct to inner margin. Distally narrowly pale, with dark patches on the veins. Hindwings white. One ♂ from East Africa.

## 21. Genus: **Lipatephia** Hmps.

Palpi obliquely erect. Frons with corneous plate. Antennae of ♂ finely serrate. Thorax posteriorly with wide tuft. Abdomen with basal crest. Neuration normal. Type: *illegitima* Wllgrn. Besides another species occurs on Socotra and in India.

*illegitima.* **L. illegitima** Wllgrn. (33 i). Resembling *Mel. nigrescens*. Thorax dark brown, abdomen yellowish. Forewings dark brown with white and yellow scales. Antemedian and postmedian lines rarely distinct, consisting of black lunules, with rusty brown edges, both approximating at inner margin, the postmedian widely excurved behind the cell. Submarginal line indicated by white scales. There are 4 yellow-white spots on costa, of which the last forms the commencement of the submarginal line. Reniform stigma large, indistinct, with black edge, outwardly yellow. Hindwings yellowish white at base, widely dark at margin. 30—35 mm. Transvaal, East Africa.

*albiluna.* **L. albiluna** Hmps. (42 c). Forewings ochreous brown. An undulate antemedian line is indicated, with dark proximal shade. A dark median shade that is angulated in a rectangle at lower angle of cell. A faint black lunule at disco-cellular with a white lunule distally. Postmedian line double, dark, arched parallel to outer margin, with black dots inwardly, distally diffuse grey. Hindwings brownish, whitish in basal half. 20 mm. Socotra.

## 22. Genus: **Asplenina** Hmps.

Palpi slender, erect. Frons with conical process, below a corneous plate. Antennae of ♂ ciliate. Tibiae and tarsi short, the first tarsus with 3 claws. Neuration normal. Type: *melanodonta* Hmps.

*melanodonta.* **A. melanodonta** Hmps. (42 c). This typical form, described from Aden, is also distributed to Nigeria. It is pale cinnamon brown with poor markings. Much more frequent is the form — **rubrescens** Hmps. from East and West Africa. Body and wings pale red-brown. Antemedian line black, undulate. At end of cell, a small black annulate mark. It has a white centre. There is a narrow black reniform stigma. Postmedian line double, black, with rusty brown interfilling, distally a diffuse parallel line. Submarginal line pale, with black streaks inwardly. Hindwings somewhat darker at margin. Occasionally there are specimens that are rusty brown with black-brown markings. 22—26 mm. Somaliland, Nigeria. Fairly common.



**A. chloridina** *Hmps.* (33 i). Body and wings ochreous and brown. Forewings also dusted with dark *chloridina* brown, creamy white distally of centre to the brown band before the submarginal line. Antemedian line dark brown, undulate. A faint dark lunule at disco-cellular. Postmedian line with 2 black dots at costa, then indistinct, excurved to vein 4, then more distinctly inwards, excurved at vein 1. The submarginal line dark brown, dentate. Hindwings darker at margin. 22—25 mm. Transvaal, also from South West Africa.

### 23. Genus: **Prionofrontia** *Hmps.*

Palpi highly erect. Frons with serrate projecting process. Antennae of ♂ with short bipectinations. Abdomen with large dorsal tufts. Hindwings with short scaly lobe. Type: *erygidia* *Hmps.*

**P. erygidia** *Hmps.* (33 i). Body and forewings grey-brown, dusted with black. Forewings may be almost *erygidia*, devoid of markings and dusky, with a black line on submedian fold or a deep black oval spot below the cell. Numerous indistinct boldly undulate transverse lines. Near base an ochreous brown spot above vein 1, posteriorly a large fuscous patch, projecting outwards. Hindwings ochreous brown, darker at margin. 36 mm. Natal.

**P. strigata** *Hmps.* (33 i). In this and the following species, body and forewings are reddish brown, dusted *strigata*, with black. Antemedian line black, double, the inner branch indistinct, somewhat oblique and sinuate. On submarginal fold anteriorly a black streak. A black dot in centre of cell, a triangular spot at lower angle of cell. A median line is indicated. Postmedian line black, oblique to vein 5, then excurved, from below vein 3 upwards to lower angle of cell, approximating to antemedian line on vein 1, then outwards. From apex 2 oblique black streaks and another below vein 6 through the postmedian line. Hindwings ochreous white, browner at margin. 30 mm. One ♀ is known from the Transvaal.

**P. nyctiscia** *Hmps.* (33 i). Somewhat darker than *strigata*. Antemedian line of forewings also black, *nyctiscia*, double. A black streak from centre of costa. Reniform stigma with narrow black edge. Postmedian line indistinct, black, similarly curved as in *strigata*. The line proceeds from vein 3 to origin on vein 2, then vertically on. Submarginal line consists of black and white streaks. Hindwings pure white, the hairs yellowish at inner margin. 24 mm. One ♂ from East Africa.

**P. ochrosia** *Hmps.* (33 i). Body and forewings pale brown and whitish. Antemedian line double, dark, *ochrosia*, undulate, with a faint dark shade anteriorly. Reniform stigma narrow, with black edge. Median line indistinct. Postmedian line similarly indistinct, double, incurved below vein 4 to under reniform stigma, then obliquely inwards. Submarginal line white with dark edge, incurved at vein 2. Hindwings white, narrowly brown at margin. The ♂, just like the *nyctiscia* ♂, has a black streak before the antemedian line. Hindwings only have a black marginal line. 26 mm. Soudan, Aden.

### 24. Genus: **Crionica** *Hmps.*

Palpi erect. Frons with rounded process. Antennae of ♀ ciliate. Abdomen with 2 basal tufts. Neuration normal. Type: *cervicornis* *Fawc.*

**C. cervicornis** *Fawc.* Body and forewings pale grey, faintly suffused with rose. Antemedian line indicated by a few dark marks. Orbicular stigma with black edge, black central spot. Reniform indistinguishable. Postmedian line as a double row of dots parallel to margin. A wide dark brown band from base of wings below cell to end of cell, there forming a dentation upwardly and continuing to margin at vein 4, incurved in between. Below this band towards base somewhat reddish. Hindwings grey-white, browner at margin. 36 mm. East Africa, Rhodesia.

**C. incurvata** *n. spec.* (34 a). Forewings very pale violaceous brown. Below cell a narrow black line, as *incurvata*, in *cervicornis*, without a hook, only curved more downwards before outer margin. Above this line narrowly paler. In outer area a few black radial lines. Below the line a short black double line in centre to inner margin. Postmedian line as a double row of black dots, anteriorly to it a short double curved streak below the radial line. Hindwings white. ♀ 25 mm. East Africa. Type in the British Museum.

**C. diversipennis** *n. spec.* (34 a). Forewings brownish, widely blackish at costa. Through the cell to the *diversi-* margin at vein 5 there is a black line, heavier in centre. Above it at margin 2 short lines, edged by a short *pennis*, white oblique line from apex. Above inner margin a thicker line, similar to that of *cervicornis*, with angulation upwards, but interrupted by the white submarginal line. This forms a projection inwards just on the heavy black line. Fringes heavily spotted with black. Hindwings white, with fine black marginal dots. ♂ 25 mm. South West Africa. Type in British Museum.

**C. bifurcata** *n. spec.* Both wings grey-brown. Radial line distinct though fine. The one branch of the *bifurcata*, subcostal nervure is faintly furcated at  $\frac{1}{3}$ rd of its length, the other to the origin of vein 3, extending beyond vein 4 and rising in steps to outer margin, just below apex. Hindwings greyer. ♂ 28 mm. Type in the British Museum.



25. Genus: **Proruaca** Hmps.

Frons with large conical process. Palpi short, porrect. Antennae of ♀ ciliate. Thorax with small tufts anteriorly and posteriorly. Neuration normal. Type: *recurrens* Hmps.

*recurrens*.

**P. recurrens** Hmps. (32 b). Thorax dark grey. Abdomen grey-brown. Forewings grey, dark brown in inner and marginal areas. A black dot at base of cell. Antemedian line irregular, with a short line anteriorly, that conjoins with it below costa. Median line indistinct, double at costa, oblique to centre of cell, inwards at median nervure and vein 1 and above it outwards. At disco-cellular a white spot with a dark edged lunule. Postmedian line outwards below costa, angulated inwards at vein 5, bent upwards at vein 3 to lower angle of cell, then undulate to inner margin. Submarginal line almost straight, outwardly pale red-brown. Hindwings white, brownish at margin. ♀ 32 mm. Bechuanaland. — In specimens from South West Africa, in the British Museum, the forewings are much darker.

*harmonica*.

**P. harmonica** Dist. (34 a). Abdomen white-grey. Thorax and forewings grey-brown. Antemedian band dark, at  $\frac{1}{3}$ rd of length of wing, obliquely inwards from costa, its outer edge angulated. Postmedian band similarly coloured, wider, commencing near anal angle, furcated at  $\frac{1}{3}$ rd of its length. The outer branch proceeds to costa near apex, the inner branch is curved inwards and reaches costa near the antemedian band. Outer edge of the furcated band is widely violaceous brown with 2 angulations. Hindwings yellowish white with pale brown submarginal line. 40 mm. Transvaal.

26. Genus: **Proconis** Hmps.

Palpi erect, the third segment long and thin. Frons with a conical process. Antennae of ♂ ciliate. Abdomen with basal tuft. Neuration normal. Only 1 species.

*abrostoloides*.

**P. abrostoloides** Hmps. (32 b). Body and forewings dark brown. Antemedian line black, almost straight, a black streak anteriorly on submedian fold. Reniform stigma large, round, with black edge. Median line distinct, vertical, angulated outwards in centre and below. A straight line proceeds from inner edge of reniform stigma to inner margin. Postmedian line indistinct, outwards to vein 3, then inwards to below end of cell. Submarginal line indistinct. Hindwings hyaline white, brownish at apex. In ♀ the entire margin is narrowly brown. 28 mm. The Cape, Somaliland.

27. Genus: **Hopetounia** Swk.

Antennae almost as long as forewings, finely ciliate in ♂. Palpi somewhat less erect than hitherto. Frons with process. Small tufts posteriorly on thorax. Forewings narrow. Type: *carda* Sw. from Australia. The only african species looks very different from the 3 indo-australian.

*marginata*.

**H. marginata** Hmps. (34 a). Body pale brown. Forewings black-brown with grey scales. Inner margin pale red-brown, similarly in marginal area obliquely to apex. Below cell a dark band to submarginal line. A dark antemedian line is indicated, angulated outwards below cell. Median line undulate, indistinct. Postmedian line very indistinct, dark, incurved behind cell, oblique under vein 4. Submarginal line very indistinct, dark, outwardly with white scales, except at costa. Hindwings whitish, boldly brown at margin. One ♀ 26 mm. East Africa.

28. Genus: **Authadistis** Hmps.

Frons with conical process. Palpi porrect, the 2nd segment widely hairy below. Antennae of ♂ widely bipectinate, serrate at tips. Thorax with only a posterior tuft. On hindwings vein 3 and 4 stalked, vein 8 anastomosing with cell to centre. Type: *metaleuca* Hmps.

*metaleuca*.

**A. metaleuca** Hmps. (42 d). Thorax and forewings dark violaceous brown, dusted with grey. Antemedian line black, somewhat angulated outwards on submedian fold. A double median line is indicated. Orbicular stigma small, grey, with black edge. Postmedian line black, undulate from costa to submedian fold, upwards to lower angle of cell and then again boldly excurved. Submarginal line indistinct, branching off to apex, somewhat angulated inwards on submedian fold. Hindwings white, brownish at margin, in ♀ the entire hindwing is brownish. 22 mm. Mashonaland.

*camptogramma*.

**A. camptogramma** Hmps. (42 d). Antennae of ♂ fasciculate. Body and forewings pale brown. Antemedian line black, vertical, somewhat inwards on costa. Median line double, undulate, vertical, dull black. An arched black streak at disco-cellular. Postmedian line black, boldly excurved to vein 3 and to lower angle of cell, then vertically, undulate. Submarginal line faint, undulate. Hindwings white. Specimens occur in which the postmedian line does not extend from vein 3 to the angle of cell, but obliquely to vein 2. 22 mm. Somaliland.

*nyctichroa*.

**A. nyctichroa** Hmps. (34 a). Body and forewings dark brown, dusted with leaden grey. Median area black-brown, at costa almost to apex. Antemedian line indistinct, blackish, undulate. Median area similarly,



outwards to vein 4, then sharply inwards. Hindwings reddish brown, postmedian line diffuse, dark. Other specimens are much paler. Antemedian line only indicated in a spot on costa. Median line more distinct and occasionally not excurved to vein 4, but straight, vertically to inner margin. 24 mm. Sierra Leone, Gold Coast.

### 29. Genus: **Metoposcopa** Strd.

Resembling the Genera *Proruaca* and *Authadistis* by the conical process on frons. Otherwise wing contour and markings are like the *Pyralid* Genus *Scoparia*. Only 1 species.

**M. sagittalis** Strd. (32 b). Forewings brownish grey. Antemedian line pale, incurved in centre. Post-*sagittalis*. median band grey, indistinct, excurved in centre, enclosing a narrow dentate black line. Posterior to antemedian line an "8" shaped figure with black dot outwardly. From there a brown stripe extends to costa and along it towards the base to antemedian line. From postmedian line below costa a deep black sagittate mark to outer margin. Hindwings white with dark marginal band. 30 mm. East Africa.

### 30. Genus: **Archephia** Hmps.

Palpi extending to frons. Frons with crest of hairs. Antennae of ♂ finely ciliate. Thorax with tuft anteriorly and posteriorly. Abdomen with 2 basal tufts. Neuration normal. Only 1 species.

**A. olivacea** Hmps. (34 a). Thorax olive-brown. Abdomen red-brown. Forewings olive-brown with *olivacea*. black streak on submedian fold to centre, curving downwards at antemedian line. The latter blackish, undulate, double, excurved below cell. Orbicular and reniform stigmata large with black edges, the latter wider below and with dark centre. From it a black streak proceeds to margin on discal fold. Postmedian line double, brown, indistinct, excurved to vein 4. Submarginal line pale with black transverse streaks. 30 mm. Natal, Rhodesia.

### 31. Genus: **Uripao** Hmps.

Palpi long, the third segment elongate. Antennae and thorax as in *Archephia*. Abdomen without tufts. Neuration normal. Legs of ♂ with long hairs. Only 1 very large species.

**U. albizonata** Hmps. (32 c). Quite dissimilar from preceding species. Body and forewings reddish brown. *albizonata*. Antemedian line pale with wide dark outer edge, widely incurved on submedian fold. The space below vein 1 is dark brown, also the distinct inner edge of the white transverse band. The latter encloses also a white undulate line with angulations widely inwards on the veins; it has a delicate dark edge. Distally a straight dark and a pale line. Submarginal line boldly undulate, anteriorly darker. Hindwings with wider bluish white median band. 88—98 mm. From Sierra Leone, but also occurring in the Cameroons, at Ogowe.

### 32. Genus: **Platyscia** Hmps.

The third segment of palpi is not so long. Thorax and abdomen without tufts. Hind tibiae with long hairs, as in *Uripao*. The first segment of tarsi is similarly hairy. Neuration normal. Only 1 species.

**P. mesoscia** Hmps. (32 c). Not quite as large as *albizonata*. Body and wings red-brown. Antemedian *mesoscia*. line on forewings indistinct, vertical, shaped in tiers, anteriorly rusty brown. Median line dark brown, forming 2 large arcs, with point inwards on median nervure. Anteriorly somewhat bluish grey, posteriorly dark brown. Postmedian line dark brown and rusty brown, vertical, edged on both sides with ochreous brown; distally a pale stripe, that may also be absent. Submarginal line not quite so irregular as in *albizonata*. Hindwings with black spots on inner margin near anal angle, with rusty brown edge and white spots. 65—70 mm. Gold Coast, Cameroons.

### 33. Genus: **Leptamma** n. gen.

Resembling the preceding in size and wing contour, but the third segment of palpi somewhat longer, the legs with scarcely any hairs. Only 1 species.

**L. flavalis** n. spec. Thorax and forewings red-brown with lilac sheen. Somewhat rusty brown at base. *flavalis*. Antemedian line dark, double, undulate, vertical, indistinct. A large lunular reniform stigma, edged with white spots, somewhat more distinct than in *mesoscia*. Postmedian line boldly dentate, outwards to vein 4, then indistinctly inwards, only the inner tips of angulations sharply black. Submarginal line similarly dentate as in *mesoscia*, but situate nearer margin. Anteriorly to it very dark fuscous, posteriorly brown and dusted with yellow. Hindwings brown, blackish in marginal area. At margin yellow to vein 4, then yellow dusted with black, similarly as on forewings. On underside a yellow median band on forewings. Margins of both wings anteriorly yellowish white. ♀ 70 mm. Cameroons. Type in the Berlin Museum.



34. Genus: **Ericeia** Wkr.

Resembling *Polydesma* and formerly united under that Genus. The third segment of palpi long. Hind-legs of ♂ to the edge of tarsi with long hairs. Middle tibiae of ♂ with long fascicles of hairs in a groove. Type: *inangulata* Gn.

*inangulata*.

**E. inangulata** Gn. As the species is found in China, it is already dealt with in Vol. 3, p. 363 and illustrated on pl. 66 e. It is distributed over South and East Africa, Madagascar and extends to Australia. No less than 15 names are enumerated by HAMPSON in his Moths of India for this species. *statina* Mschlr., *caffra* Mschlr., *albangula* Saalm., *lituraria* Saalm., all vary only slightly or not at all. Ground colour is ochreous yellow or reddish. Forewings with antemedian, median and postmedian lines, generally consisting of dark dots, but also of single or double fasciae. Orbicular and reniform stigmata generally very faint. Submarginal line is always double, angulated outwards at vein 4, vertically from vein 2, expanding anteriorly and there interfilled with white. On hindwings submarginal line is generally as on forewings, but often without angulations; the other lines vary. 35—45 mm.

35. Genus: **Cycloprosopus** n. g.

Wing contour and markings very similar to *Ericeia*. Antennae of ♂ ciliate. Palpi porrect, the second segment with upturned bundle of hairs on upperside, below almost forming a semi-circle by the long hairs. Third segment short, obese, almost covered by the hairs of the second segment. Legs with appressed scales. Neuration normal. Only 1 species.

*strigifera*.

**C. strigifera** Pagst. (32 d). Forewings ochreous to postmedian line. A dark brown antemedian and also median line indicated, proceeding inwards. Posteriorly a dark streak on disco-cellular. Postmedian line double, undulate, inwards, incurved behind cell and on submedian fold, the inner branch distinct, narrow, the outer one wider and diffuse. Distally darker. From apex a diffuse dark double line, shaped similarly to that of *E. inangulata*, with 2 black dots each above and below vein 5 in rusty red surrounds. Posteriorly somewhat paler at margin. Hindwings pale brown with obsolescent dark median band and a paler line indicated distally. ♂ 30 mm. Madagascar.

36. Genus: **Facidia** Wkr.

The third segment of palpi porrect. Antennae of ♂ pectinate in the african species. Body without tufts. Tibiae of ♂ and ♀ with bold hairs. Hindwings somewhat truncate at inner margin, thereby somewhat angulated at vein 2. Two indian and 5 african species are classified here. Type: *vaccillans* Wkr.

*luteilinea*.

**F. luteilinea** Hmps. Body and wings chocolate-brown. Antemedian line oblique on forewings, ochreous brown. Reniform stigma as a narrow dark brown lunule. Postmedian line ochreous brown, indented behind the cell, then narrow, angulated inwards at vein 5 and proceeding undulate. Hindwings with ochreous grey postmedian line from cell to anal angle. 55 mm. Nigeria.

*vaccillans*.

**F. vaccillans** Wkr. (42 d). Grey reddish brown. Antemedian and postmedian lines brown, narrow, irregular and incomplete. Near outer edge of first line a black discal spot. At costa near apex 3 white dots.

*nigrofusca*.

Frequently below vein 3, there is a blue spot or white spots near apex or an outer row of blue spots. — **nigrofusca** Wkr. is blackish brown. Forewings with white line at the fringes. Transverse lines blackish, dentate,

*fenestrata*.

edged with fuscous. On hindwings the outer of the two lines is indicated near the anal angle. — **fenestrata** Mschlr. (= *horrida* Holl., *phaeophoenica* Hmps.) (32 d) is dark fuscous to blackish, in paler specimens a spotted rusty brown postmedian line is discernible. On hindwings an outer row of white dots. On forewings below apex 1—2 white dots. The ♀ is more of a red-brown. On forewings an antemedian and median line indicated by a few white spots. Postmedian line of white dots, the one on costa being larger. The row of dots is situate in a rusty brown band. Close before it on submarginal fold a green-grey "8" shaped mark. Hindwings with a distinct

*sassana*.

outer row of white dots. — **sassana** Strd. has the white dusting more distinct at margin. — **rivulosum** Saalm.

*rivulosum*.

(42 d) has on forewings an inner line of white double spots or annulate marks with black centres. From vein 2 to centre of inner margin an oblique row of dots with slight rusty brown edge. At disco-cellular 2 white dots. Postmedian line black, dentate, with white inner and rusty brown outer edges. On the points of the angulations white dots. Inwardly thereof on vein 2 a round white spot. On hindwings a double row of dots. All forms from West, South and East Africa and Madagascar.

*stygium*.

**F. stygium** Saalm. (42 d). Probably this should not be classified here, as the apex of hindwings projects more definitely and besides the hindwings are yellowish white and only widely brown at margins. Thorax and forewings black-brown with violet sheen. Transverse lines black. Antemedian line at  $\frac{1}{4}$  length of wing, vertical with projection on vein 1. Reniform stigma indistinct. Median line vertical, angulated inwards on vein 1. Postmedian line somewhat distally of reniform stigma, outwards to vein 6, then parallel to margin to vein 3; displaced inwards and vertically to inner margin. ♂ 46 mm. Madagascar.



37. Genus: **Facidina** Hmps.

The third segment of palpi also as long as in *Facidia*, but flattened out at end. Antennae of ♂ less widely pectinate. Apex of forewings rounded, outer margin somewhat sinuate. Type: *polystigma* Low. from Australia. Besides there is one african species.

**F. semifimbria** Wkr. Forewings grey-brown with 4—5 irregular, interrupted rows of pearly white spots. *semifimbria*. the most outerly row being wider and more distinct than the others. Orbicular stigma as a black dot with white edge. Hindwings brown, greyer at base. Both wings with white marginal dots, that are smaller on hindwings. 45 mm. Sierra Leone.

38. Genus: **Calligraphidia** n. g.

Palpi erect, the second segment with appressed scales, the third pointed, thin, shorter. Abdomen with short wide tufts on the first two segments. Legs with appressed scales. Forewings wide, costa straight, somewhat sinuate before apex. Outermargin excurved. Neuration normal. Both wings not sinuate at outer margin. Antennae of ♀ finely ciliate.

**C. opulenta** Mschlr. (32 c). Wings reddish brown with violaceous sheen. At  $\frac{1}{3}$ rd of costa a short white *opulenta*. double streak, to which is adjoined the arched, fainter, double antemedian line. Reniform stigma almost rectangular with white edge. From  $\frac{3}{4}$  of costa to  $\frac{1}{4}$  of inner margin a white line extends, that is interrupted by the lower corner of the reniform stigma and which forms the outer branch of the antemedian line. Close behind this line on costa a second more boldly white line commences, that turns obliquely inwards, is arched, at vein 4 near outer margin, narrowly on, incurved somewhat at vein 2, then undulate to  $\frac{2}{3}$ rds of inner margin. The interstice between these lines is darker fuscous. Submarginal line narrow, white, dentate, interrupted by a bulge of the dark area. On hindwings a narrow white dentate median line is indicated, that is displaced outwardly between vein 4 and 5. Posteriorly a fine, somewhat paler, dentate submarginal line. 42 mm. Gold Coast, Cameroons.

39. Genus: **Delgamma** Mr.

Palpi attenuate, erect, the third segment short. Forewings with pointed apex. Hindwings of ♂ with veins 3—5 compressed, 6 and 7 somewhat separated. Only 1 species distributed from West Africa to Borneo.

**D. pangonia** Gn. (32 d). Pale reddish brown with violet sheen to near postmedian line. In centre of cell *pangonia*. a black spot and 2 at disco-cellular. Postmedian line whitish, straight, darker inwardly. Marginal area somewhat violaceous inwardly. On costa before apex a large black spot with 2 smaller ones below. Distally of postmedian line whitish spots. On hindwings, that are the same colour, the postmedian line is shorter than in indian specimens. 34 mm. West Africa. — **sanctae** E. Prout. Forewings behind the postmedian line are inclined to *sanctae*. be flesh coloured and less violet. The subapical spot is without a white edge, the 2 small black spots below are absent. On hindwings the postmedian line commences as far posteriorly as in the other west african specimens. ♀ 44 mm. San Thomé.

40. Genus: **Hesperochroa** Hmps.

Palpi erect, the third segment long. Antennae of ♂ simple, with scales at base. Thorax with appressed crest anteriorly. Abdomen long with basal tuft. Forewings elongate. Neuration normal. Only 1 species.

**H. multiscripta** Holl. (32 e). Resembles *Eudr. mollis* (33 a). Thorax olive-green, abdomen dark brown. *multiscripta*. Forewings grey-brown with 3 dark spots on costa, one at base, edged on both sides by grey. The lines at the edges extend to cell. The second spot above the end of the cell, somewhat triangular, outwardly vertically to costa. Distally thereof pale grey merging into pale olive-brown. In this patch the third spot near the apex has 2 white dots. Centre of outer margin is dark brown. Hindwings dark brown, paler at base. ♂ 50 mm. West Africa.

41. Genus: **Tolnaopsis** Hmps.

Third segment of palpi long. Antennae of ♂ long with long pectinations. In ♀ with short bipectinations. Thorax with anterior and posterior crest. Abdomen with large tuft at base, then smaller ones. Forewings narrow, only wide at base, outer margin sinuate. Only 1 species.

**T. eusciasta** Hmps. Forewings dark reddish brown with grey and ochreous white scales. A dark red- *eusciasta*. brown quadrate shade from behind centre of costa to lower angle of cell. Antemedian line double, blackish, dentate, indented in cell. Orbicular stigma as a black annulate mark. Reniform stigma with black edge, indistinct, narrow at top, wide below with ochreous brown spots. Median line indistinct, brown, undulate. Postmedian line black, edged at costa with ochreous brown, outwards to vein 2, then incurved to below angle of cell, and vertically to inner margin. Submarginal line pale, with dark edges on both sides. Hindwings reddish brown. 52 mm. Congo region.



42. Genus: **Pseudotolna** Hmps.

Third segment of palpi long, somewhat enwidened at tip. Antennae of ♂ finely ciliate. Thorax with crests, abdomen without any tufts. Forewings narrow. ♂ with a projection at vein 4 of forewings; with long hair on underside at costa and at outer margin, a fold from costa to vein 5. Type: *eximia* Holl.

*eximia*. **P. eximia** Holl. (32 e). Body black-brown. Forewings dark brown at costa to centre and from base to centre of wing. Outer area paler brown. Before the paler outer area, an irregular narrow silvery line. The dark basal area is intersected by an antemedian and median silvery line. Veins also silvery. A dark triangle on costa near apex is striking, as well as an approximately quadrate patch behind end of cell. Hindwings dark brown. ♂ 50 mm. West Africa.

*marshalli*. **P. marshalli** Hmps. (34 b). Body brown. Forewings with ochreous brown, violaceous brown and black patches. Antemedian line black, with anterior white edge, extending outwards on median nervure and at inner margin. Orbicular stigma as a black dot in a white ring. Reniform stigma as a black streak with white edge, distally a black-brown round spot before the postmedian line. The latter is dentate, outwards to vein 6, white, heavy, then incurved and indistinct almost to the origin of vein 2 and obliquely to inner margin. Distally on costa a triangular black spot with white edge. The white submarginal line is indistinctly dentate. Hindwings yellowish white, darker in marginal third. 48 mm. Mashonaland. — Besides this type, there is in the British Museum a perfect specimen, probably of the same species, that is more boldly marked. The antemedian line is whiter. Between the round black spot and the postmedian line, more widely white. Submarginal line is more distinct. From Rhodesia.

*leucomelas*. **P. leucomelas** sp. n. Thorax and forewings rosy red-brown. Pale bluish white antemedian line only distinct below the cell, above black and dentate. Orbicular stigma as a black dot; reniform stigma white and "8" shaped. Below it an almost vertical bluish white median line that diffuses outwardly widely white, inwardly it is narrowly edged by black. Behind the reniform stigma a large deep black spot, similar to that of *eximia*. Its upper outer edge extending upwardly in a narrow black line, that skirts a large round white spot on costa. Submarginal line extends somewhat inwards, vertically from vein 3, distally dark violaceous brown. Hindwings as in *eximia*. ♀ 38—42 mm. Cameroons, Lake Albert. Type in the Berlin Museum; two other specimens show much more diffuse markings and the black and white patches are much less contrasting.

43. Genus: **Giria** Fawc.

Tibiae with long hairs. Abdomen without tufts. Antennae of ♀ simple. Forewings wide, slightly angulated at vein 4, underneath in the cell with long hairs. Neuration normal. Type: *bubastis* Fawc.

*bubastis*. **G. bubastis** Fawc. (42 e). Thorax and forewings to postmedian line dark brown, distally reddish ochreous brown, veins paler. Behind the postmedian line an equally dark red-brown spot on costa, with outer grey edge. Antemedian line dark brown, with grey edge, undulate to  $\frac{2}{5}$  of inner margin. Orbicular stigma as a black dot. Reniform as a dark lineolet. Postmedian line ochreous white, outwards at vein 6, then inwards and vertically to inner margin. Darker at anal angle. Hindwings grey-brown, blackish at apex. There are, however, specimens that are much more monotonous in markings. Often only the pale postmedian line or the apical spot is visible. 42 mm. East Africa.

*hypographa*. **G. hypographa** Hmps. (34 b). Thorax fuscous. Forewings ochreous whitish, heavily suffused with fuscous to postmedian line. Marginal area greyer. Antemedian line double, undulate, brown, with white inner edge. Distally on costa a white spot, end of cell pale. A red-brown spot in centre of cell, a brown lunule at disco-cellular. Median line brown and diffuse. Postmedian line indistinct, double, brown, somewhat inwards to vein 6, then undulate, somewhat inwards, white anteriorly on costa. Below the white apical spot, margin is widely darker, the quadrate spot before apex is similar to that of *bubastis*. Hindwings pale reddish brown, margin narrowly white to vein 4. The ♀ violaceous grey-brown to behind the cell and at costa almost to apex. 48—50 mm. West Africa.

*angulata*. **G. angulata** B.-Bak. (34 b). Thorax rosy grey. Abdomen dark grey. Both wings pale ochreous grey. Forewings with suffusion of rosy red. Antemedian line pale red, proceeding from a red spot on costa, arched. Reniform stigma reddish. Before the apex a large pale red spot on costa. Costa inclined to grey-red. A submarginal row of grey streaks is indicated. Hindwings widely grey at margin. 52 mm. Congo region.

44. Genus: **Nephelemorpha** Hmps.

Third segment of palpi long, wider at end. Antennae of ♂ fasciculate. Thorax with crest posteriorly. Forewings narrow, costa boldly curved at apex and acutely pointed, outer margin sinuate. Type: *rogator* Bryk.

*rogator*. **N. rogator** Bryk (= *semaphora* Hmps.). Thorax fuscous. Forewings chocolate-brown. Base grey, similarly costa to behind centre and after an interruption with a grey triangle. Antemedian line black, oblique, undulate, with inner white edge. A yellow-white spot in the shape of a "6" at disco-cellular in *semaphora*, whilst in *rogator*, it is shaped more like a "?". In centre of inner margin an oblique red-brown streak, with a similar



one beyond. Submarginal line indistinct, dark. Margin paler, fuscous at anal angle. Hindwings dark grey-brown. In ♀ base, costa and anterior part of outer margin are pale grey, the triangle on costa white. Hindwings paler at margin. 70 mm. Nigeria, Cameroons, Congo.

*Hemeroblemma Hbn.*

*Hen. helima* Cr. should be classified here. A specimen with this denomination is in the collection at the Berlin Museum and said to originate from Sierra Leone. As however all the other species of this Genus are south american, there may possibly be some mistake.

45. Genus: **Sphingomorpha** Gn.

Palpi obliquely erect, the third segment long. Antennae of ♂ fasciculate below. Thorax and abdomen without tufts. Tibiae hairy. Forewings elongate and narrow. Type: *chlorea* Cr. from Africa and India.

**S. chlorea** Cr. (= *sipyla* Gn., *monteironis* Btlr.) (32 f). Body blackish brown with whitish median stripe. *chlorea*. Forewings fuscous, densely covered with dark striations. Antemedian line pale, double, angulated outwards at disco-cellular. Median line white, "S" shaped, darker anteriorly. Reniform stigma as a black lunule with brown centre. Submarginal line black, dentate and irregular. A pale spot anteriorly on costa. In centre and at inner margin a black spot distally of it. Hindwings dark brown with pale median band. 65—75 mm. One of the commonest moths in Africa.

**S. pudens** Holl. (32 e). The apex of this species projects further. Thorax and forewings pale or dark nut- *pudens*. brown. Antemedian line narrowly white, angulated outwards on median nervure, then bolder, curving somewhat inwards to inner margin. Median line narrowly white, somewhat incurved before reniform stigma, then vertically, with a white spot at inner margin. Intermediate space dark, often blackish. Reniform stigma narrow, pointed at top, dark brown, sometimes black. Whitish scales on costa before apex. Marginal area somewhat darker, a submarginal line is barely indicated. Hindwings somewhat paler, a diffuse dark median line and submarginal band. 55—60 mm. West Africa. — **aliena** Holl. (32 e) is compared to *chlorea* in regard to the wing *aliena*. contour, but really closely resembles *pudens*. Antemedian and median lines are the same. Reniform stigma as a black dot in a rusty brown surround. The main difference from *pudens* is the distinct submarginal line from apex to  $\frac{4}{5}$  of inner margin; blackish anteriorly on inner margin. On hindwings the submarginal band is intersected by a pale line. 45—50 mm. Cameroons, Congo, East Africa. In the British Museum there is a fine specimen, that has a large coppery red spot at base, reniform stigma is also coppery red with black central spot. Sierra Leone.

**S. tavetensis** Holl. (= *hesperia* Hmps.) (32 f). When this species was described a single ♂ with poor *tavetensis*. markings was the only specimen known. Thorax and forewings ochreous brown, violaceous brown or fuscous. Antemedian line narrowly black, dentate, angulated outwards on median nervure. A brown oblique median line is rather indistinct. Orbicular stigma as a black dot. Reniform stigma as an inverted comma, rusty brown. Submarginal line dark, with pale edge. Hindwings similarly variable in colouration; yellow in marginal half with a black postmedian line and double submarginal line. In ♀ the space below the cell, between the antemedian and median lines, is interfilled with rusty brown. From apex to reniform stigma, there is a black stripe. 55 mm. East Africa, Cameroons, Gold Coast.

**S. xanthoperas** Hmps. (32 f). Forewings fairly pale fuscous, dusted darkly except at costa. Antemedian *xanthoperas*. line black, shaped as in *pudens*. In centre of cell a black dot. Median line black, oblique to vein 6 up to the postmedian line, then obliquely inwards. A grey semi-circular mark with fuscous edge on costa behind the centre. Postmedian line black, terminating at vein 6. A narrow submarginal shade from the semi-circle to inner margin. Hindwings fuscous, yellow from apex to vein 6. A diffuse dark postmedian line. 60—65 mm. Gold Coast, Cameroons.

46. Genus: **Pandesma** Gn.

Antennae of ♂ finely ciliate, third segment of palpi short. Hindwings of ♂ with normal scales on under-side at base, without long hairs. The 3 species classified here are very variable and closely resemble one another.

**P. quenavadi** Gn. (32 g). Body and forewings grey with a slight violaceous sheen. Outer margin slightly *quenavadi*. brownish. Delicate dentate black lines are more or less distinct. Of these the antemedian is very interrupted, the median more continuous, the postmedian very irregular in formation. Orbicular stigma as a fine black dot. Reniform stigma large, dark and diffuse. At antemedian line below cell, there is generally a black dot. Hindwings white with a wide, sharply outlined dusky brown margin. 40—45 mm. Central and East Africa, also occurring in India and widely distributed. *fugitiva* Wkr., *jubra* Swk., *similata* Mr., *robusta* Wkr. are all the same species.

**P. anysa** Gn. (32 g). This is generally smaller than *quenavadi* and often so poorly marked, that it is *anysa*. difficult to diagnose it. On forewings the submarginal band is distincter, especially its edges. Orbicular stigma is a ring, not a dot. Median line distinct, dentate, double. On hindwings the dark marginal band is intersected by a yellow stripe. At inner margin the commencement of a black postmedian line is indicated. 35—38 mm.



*senna-arensis*. South, South West and East Africa. — *sennaarensis* Fldr. (32 g) from The Cape has a paler central area on forewings, according to the illustration. But specimens are also found at the Cape, which are very dark.

#### 47. Genus: **Calesia** Gn.

The palpi erect, the third segment long, somewhat thicker than in *Rhanidophora* (p. 285). Antennae of ♂ finely ciliate. Body without tufts. Legs sparsely hairy. In the approximately 15 indian species the neur-ation shows some variation; in the african species there is an appendicular cell. Type: *dasyptera* Koll. from India. Generally the species are common.

1. Species with spots on forewings as in *Rhanidophora*. Abdomen red.

*zambesita*. **C. zambesita** Wkr. (32 g). Thorax and wings brown. On forewings a white stripe in cell, a longish spot at disco-cellular. A submarginal row of 8 white spots. On hindwings this row of spots occurs but they are very diffuse. 34—40 mm. South, Central and East Africa.

*nigriannulata*. **C. nigriannulata** Hmps. Thorax and wings pale fuscous. A large white round spot with black edge in centre of cell and a similar one at lower angle of cell. In centre of inner margin white scales. Between vein 8 and 1, there are 7 small white submarginal spots. Hindwings pale grey-brown. 36 mm. Only 1 ♀ is known from East Africa.

*karschi*. **C. karschi** Bartel (32 h). Thorax and wings dark brown. Both spots on forewings yellow with black edges. Hindwings devoid of markings. Fringes of both wings very striking by their yellow colouration. 38 to 40 mm. Numerous specimens from Northern Nyassaland.

*nigriventris*. **C. nigriventris** Auriv. (32 g). Thorax and forewings very dark fuscous, almost black. The 2 white spots on forewings are placed differently. A large one at lower and a small one at upper angles of cell. Fringes of inner margin of hindwings as red as abdomen. 35—40 mm. One pair from Madagascar.

2. The following species have a grey-brown body.

*fulviceps*. **C. fulviceps** Hmps. Forewings pale grey-brown. In centre of cell and at disco-cellular in the type there are each 1 small white spot, otherwise generally the spot in the cell is absent. Hindwings of same colouration as forewings and devoid of markings. 34 mm. Sierra Leone.

*xanthognatha*. **C. xanthognatha** Hmps. (= *othello* Fawc. ♀) (42 e). Body and wings dark grey-brown with white scales. Antemedian line dark, undulate, indistinct. A dot in cell and at disco-cellular are sometimes indicated. Postmedian line grey undulate, incurved below vein 4, absent in the illustration of *othello*. Submarginal line white, undulate. Hindwings somewhat browner. 35—40 mm. South Africa. — According to HAMPSON however *othello* Fawc. ♂ is a separate species. The differences appear to be very insignificant. *othello* ♂ has darker wings. Antemedian and postmedian lines are obsolete. Submarginal line consists of 7 white spots. On the other hand the ♀ (= *xanthognatha*) is browner, postmedian line distinct, sharply inwards on vein 3, then straight to inner margin. Ochreous brown indistinct submarginal spots. 40 mm. Both species (?) common in South Africa.

*marginata*. **C. marginata** Wkr. This can also be described as a small brown *othello*. Both wings behind the postmedian line are distinctly paler. Antemedian line angulated outwards below costa and about vertical at median nervure. Postmedian line obliquely from costa to vein 4, inwards along this to angle of cell, then vertically to inner margin. Disco-cellular whitish. Submarginal line angulated outwards at vein 7 and 4, incurved behind cell and on vein 2. Hindwings with darker, almost straight postmedian line. Submarginal line pale, slightly incurved on submedian fold. 32 mm. Congo.

*phaeosoma* Hmps. Described from India, is said to also occur in South Africa. However there is no specimen of it from that origin in the British Museum.

*arhoda*. **C. arhoda** Hmps. (42 e). Body and wings dark violaceous brown. Antemedian and median lines indistinct on forewings, dark and undulate. A white dot at disco-cellular, but according to the illustration it appears as a black streak. Postmedian line dentate, angulated outwards behind the cell, then straightly inwards. Submarginal line is parallel thereto. Hindwings with traces of dark lines. 32 mm. One ♂ from Rhodesia.

#### 48. Genus: **Tinolius** Wkr.

Palpi short and thick. Antennae of ♂ heavily pectinate, simple in ♀. Abdomen with faint tufts. Neur-ation almost normal, on forewings vein 10 on a stalk with 8 and 9 and not separated from these directly from appendicular cell. Type: *eburneigutta* Wkr. from India.

*aethiops*. **P. aethiops** Grünbg. (32 h). Very similar to *eburneigutta*. Thorax orange-yellow. Wings pale brown, but not both of the same colouration. On forewings a white spot in the cell and 2 at disco-cellular. The basal spot is larger than in *eburneigutta*. Besides there are 2 spots, that are fainter, on inner margin and 2 on submedian fold. Abdomen red, without black bands. Hindwings only red at base and inner margin. 45—55 mm. Spanish Guinea, Congo region. Common. — *lutatus* Grünbg. denominates a specimen where through old age, the red hindwings appear to have turned yellow.



49. Genus: **Melapera** *Hmps.*

Proboscis exceptionally atrophied. The second segment of palpi long and porrect, the third long, erect. Antennae of ♀ ciliate, with a brush at base. Tibiae relatively hairy. Neuration normal, only varying on hindwings, where vein 8 proceeds from centre of cell. In the ♂ antennae heavily pectinate. Vein 8 of hindwings is conjoined by a bar with the cell, as in the *Hypsidæ*. Only 1 species is known.

**M. roastis** *Hmps.* (34 b). The Genus is rather like *Rhanidophora*, but the markings appear different. *roastis*. Body orange-yellow, only the scapulae are rose and abdomen reddish in centre. Forewings of ♀ rosy whitish, yellow at margin. Hindwings more boldly rose, also yellow at margin. The ♂, that was discovered later, varies somewhat. Its forewings are yellow, faintly suffused with rose, deeper rose at base and also at inner margin. Besides there is a round pale rose spot in the cell, a similar one at disco-cellular and a smaller one anteriorly at lower edge of cell. The submarginal row of small spots is 4 mm from margin, the spot above vein 6 is rather further outwards. Hindwings boldly roseate and hairy at inner margin. 52—60 mm. Madagascar.

50. Genus: **Rhanidophora** *Willgrn.*

Antennae of ♂ pectinate, simple in ♀. Palpi long, the third segment only short in the typical specimen. Body without tufts. Legs without hairs. Neuration normal. Type: *phedonia* *Stoll*. Nearly all species are very common and only distributed in Africa.

1. Third segment of palpi short.

**R. phedonia** *Stoll*. (32 h). The species is almost exactly like *cinctigutta* and actually only seems to differ *phedonia*. by the palpi. Thorax and forewings are faintly brown, abdomen and hindwings orange-yellow. On forewing 3 yellowish white spots with deep black edge: one in the cell, 2 at disco-cellular; the upper one smaller, both close together. 38—42 mm. South Africa.

2. Third segment of palpi long.

**R. cinctigutta** *Wkr.* (= *eburneigutta* *Fld.*) (32 h). Generally slightly more fuscous on forewings, not *cinctigutta*. brown. The two outer spots somewhat separated. On forewings occasionally a submarginal line of white spots is discernible. 30—40 mm. Central and East Africa. — The larva is impure white with dark red bands and spots. From 3 to 7th segments the markings form bands; otherwise they are spot-like. On both the 4th and 5th segments there are 6 spatulate long hairs. A few short reddish hairs are distributed over the body. It feeds on *Thunbergia* *alata*.

**R. enucleata** *Mab.* Similar to *phedonia*. Forewings a leathery yellow shade with 3 round spots; these are *enucleata*. larger than in *phedonia* and without the black edge. Hindwings yellow with widely dark margin, narrower at anal angle. 44 mm. West Africa.

**R. ridens** *Hmps.* (= *agrippa* *Drc.*) (32 h). Body dark orange-yellow. Forewings grey-brown with 3 yellow- *ridens*. ish white or yellow spots without black edges; the two on disco-cellular widely separate. Hindwings orange-yellow, brownish to vein 1, sometimes only brownish at apex. 32—45 mm. East Africa, Delagoa Bay.

**R. flavigutta** *Hmps.* Body yellow. Forewings grey-brown. The usual 3 spots yellow, the upper one at *flavigutta*. disco-cellular smaller. Hindwings pale golden yellow, differing thereby from *ridens*. 33—40 mm. Fairly common in Central Africa and Rhodesia.

**R. albigutta** *Fawc.* (42 e). Resembles *phedonia*, but the white spots on forewings have no black edges. *albigutta*. The two outer spots are close together. Forewings pale brown or mouse-grey. Abdomen and hindwings orange-yellow without the dusky margin. On forewings a pale submarginal band is indicated, therefore possibly it is only a form of *cinctigutta*. 35 mm. East Africa.

**R. aurantiaca** *Hmps.* (32 h). Thorax pale brownish or dark orange-yellow. The 3 white spots sometimes *aurantiaca*. have black edges. A pale outer and submarginal line are generally formed of lunules, but in a line. Hindwings orange-yellow at inner and outer margins, the remainder sometimes brownish. 32—45 mm. Described from one ♀ from Natal, but it is common in East Africa.

**R. piguator** *Hmps.* Resembles *cinctigutta* and *aurantiaca*. Thorax and forewings not so exclusively *piguator*. orange-yellow, but inclined to whitish. This especially at inner and outer margins. The 3 spots have heavy black surrounds, the upper one at disco-cellular, being the smaller. An outer row of orange-yellow spots, oblique and arched. In *cinctigutta* this row, when present, is dented inwards behind the cell. Hindwings golden yellow. One can describe the species also as a pale brown *flava*. 35—45 mm. East Africa, Uganda.

**R. flava** *B.-Bak.* This is somewhat similar to *aurantiaca*. The inner white spot is oval instead of being *flava*. round and the lower one is pear-shaped. There are no other differences. The outer margin is pale yellow with radial spots in the ground colour. 43 mm. Uganda.

**R. odontophora** *Hmps.* (34 c). Body golden yellow. Forewings whitish yellow, suffused with reddish *odontophora*. yellow to postmedian line. Antemedian line red-yellow, angulated outwards on submedian fold. The 3 usual



spots with red-yellow edge. Postmedian line red-yellow, dentate, boldly incurved under vein 4. Submarginal line dentate, diffuse. Hindwings golden yellow. 34—40 mm. Central and East Africa.

*septipunctata*. **R. septipunctata** B.-Bak. (34 c). This species, that was described as an *Agaristidae*, varies considerably from the others. Thorax yellow. Abdomen rose. Wings dove-grey. Forewings darker. Besides the 3 spots of the other species, there is a further spot over end of cell, one below centre of cell and two more, one each at  $\frac{1}{4}$  and  $\frac{1}{2}$  of inner margin. Hindwings somewhat roseate at base and inner margin. 50 mm. One ♂ from the Congo.

### 51. Genus: **Lepidopalpia** Hmps.

Differing completely from the preceding Genera. The third segment of palpi is long, scaled anteriorly and posteriorly. Frons without crest. Antennae of ♂ with long pectinations, ciliate in ♀. Apex of forewings round. Neuration normal. Type: *bicolor* Mab. described as an *Arctia*.

*bicolor*. **L. bicolor** Mab. (34 c). Forewings white with 2 black bands. Median band very wide, blue-black and rusty brown, obsolete in centre. The other band before the margin, formed of blue-black dense scales, outer edge very sharp. Hindwings yellow, devoid of markings. Madagascar.

*hypsoides*. **L. hypsoides** Btlr. This is perhaps a poorly marked *bicolor*. The spot at the disco-cellular is black, besides there are a few subapical spots present. Madagascar.

*lambertoni*. **L. lambertoni** Oberth. This was already dealt with in Vol. 14 under the *Thaumetopoeidae* on p. 398 and illustrated on pl. 68 b, where, according to its appearance, it seemed to belong.

### 52. Genus: **Auchenisa** Holl.

Close to *Trisula*. Palpi oblique, fairly short. Antennae of ♂ and ♀ bipectinate, the tips being simple. Thorax with anterior and posterior tufts. Abdomen with tufts on the 3 first segments. Neuration normal, but on hindwings vein 8 anastomoses a little further with the cell.

*schausi*. **A. schausi** Holl. (34 c). Thorax pale olive-green. Abdomen olive-brown. Forewings olive-green with white scales. The antemedian band is wide, black, greenish under the cell, edged by irregular white lines. Reniform stigma green with black edge, blackish distally of its lower end. Postmedian line heavy, black, with white inwardly, obliquely to vein 4, then incurved, deeply dentate, widened at costa and somewhat green. Submarginal line white and indistinct. Hindwings white tinged brownish at margin, with black spots. 80 mm. Sierra Leone.

*callipona*. **A. callipona** B.-Bak. (34 d). Resembles *schausi*, but median area is green. Thorax greenish white, abdomen grey-black. Forewings white with green scales. Antemedian line black, interrupted. Median line black, heavily dentate, with white outer edge, green in between. Postmedian line black, undulate, dentate, with white edge on both sides. Reniform stigma black. Distally of postmedian line greenish, margin widely white, black below vein 2 and at vein 5. Hindwings white, with a grey outer line in ♀, apex grey. 50—55 mm. Angola, Gold Coast, Cameroons.

### 53. Genus: **Trisulana** B.-Bak.

Palpi attenuate. Antennae of ♂ as in *Auchenisa*, fasciculate in ♀. Abdomen with basal tuft. Forewings long and narrow. On hindwings vein 6 and 7 stalked. Type: *senex* B.-Bak.

*senex*. **T. senex** B.-Bak. (34 d). Body and forewings yellowish white. From centre of inner margin an inverted "V" shaped black mark, from the point of which the blackish median line extends. Reniform stigma with black outline, distally of it to postmedian line dark grey. The latter blackish, irregular, dentate. Hindwings whitish at base, margin grey. 46 mm. A pair from Angola.

*ceruroides*. **T. ceruroides** Hmps. (42 f). Body and forewings brownish white. Black streaks at inner margin to centre and on vein 1. Antemedian line as a black spot on costa and as a faint line to submedian fold. At disco-cellular a black spot, widely edged with white. Behind the cell and between vein 6 and 2 black. The postmedian line double, the outer branch black, the inner one brown, with a brown spot on costa, undulate, parallel to margin. Hindwings white with black lunule. 32 mm. Described from 3 ♂♂ from Somaliland.

*berenice*. **T. berenice** Fawc. (42 f). The thorax anteriorly and the posterior tip of abdomen creamy white, the rest fuscous. Forewings creamy white. Dark brown at base to centre of inner margin. Two fuscous spots on costa, from which traces of an antemedian and postmedian line proceed. Hindwings somewhat whiter. A dark streak at disco-cellular, fuscous marking at anal angle. The ♀ is paler. The black postmedian line is distinct on forewings. An indistinct fuscous submarginal line on hindwings. 50 mm. West and East Africa.

### 54. Genus: **Amblyprora** B.-Bak.

The palpi erect, attenuate, the last segment elongate. Antennae of ♂ simple. Abdomen with 5 tufts. The legs densely hairy. Forewings very wide, dented inwards on costa, apex truncate, margin bulging widely outwards. Neuration closely resembles that of *Auchenisa*. Type: *acholi* B.-Bak. The other species were described as *Trisula*.



a



catori ♀



ocellata ♀  
catori



zenkeri

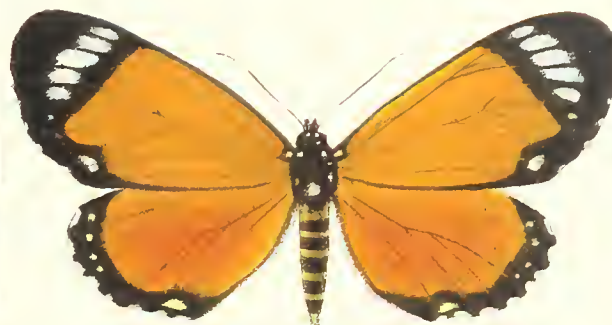
b



zenkeri



poggei ♂



poggei ♀



mozambica ♂

c



perdix ♂



indecisa ♂

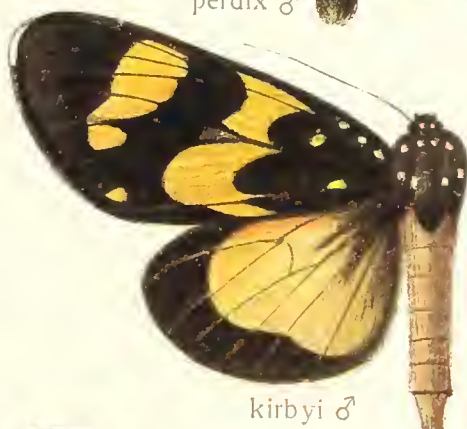


fatima ♂



africana ♀

d



kirbyi ♂



flava ♀

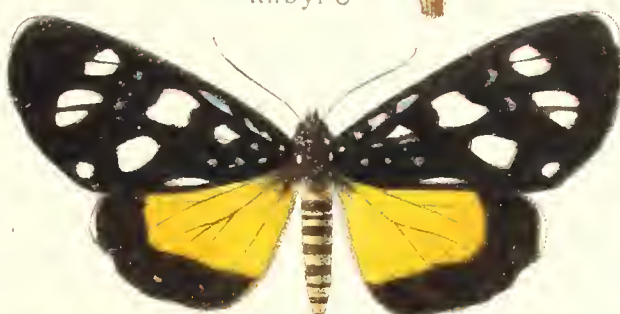


geryon ♂



pardalina ♂

e



terminalis ♀



melanosoma ♀



minerva ♀



niveosparsa ♂

f



longipennis ♂



mabiliei ♀



superba ♀













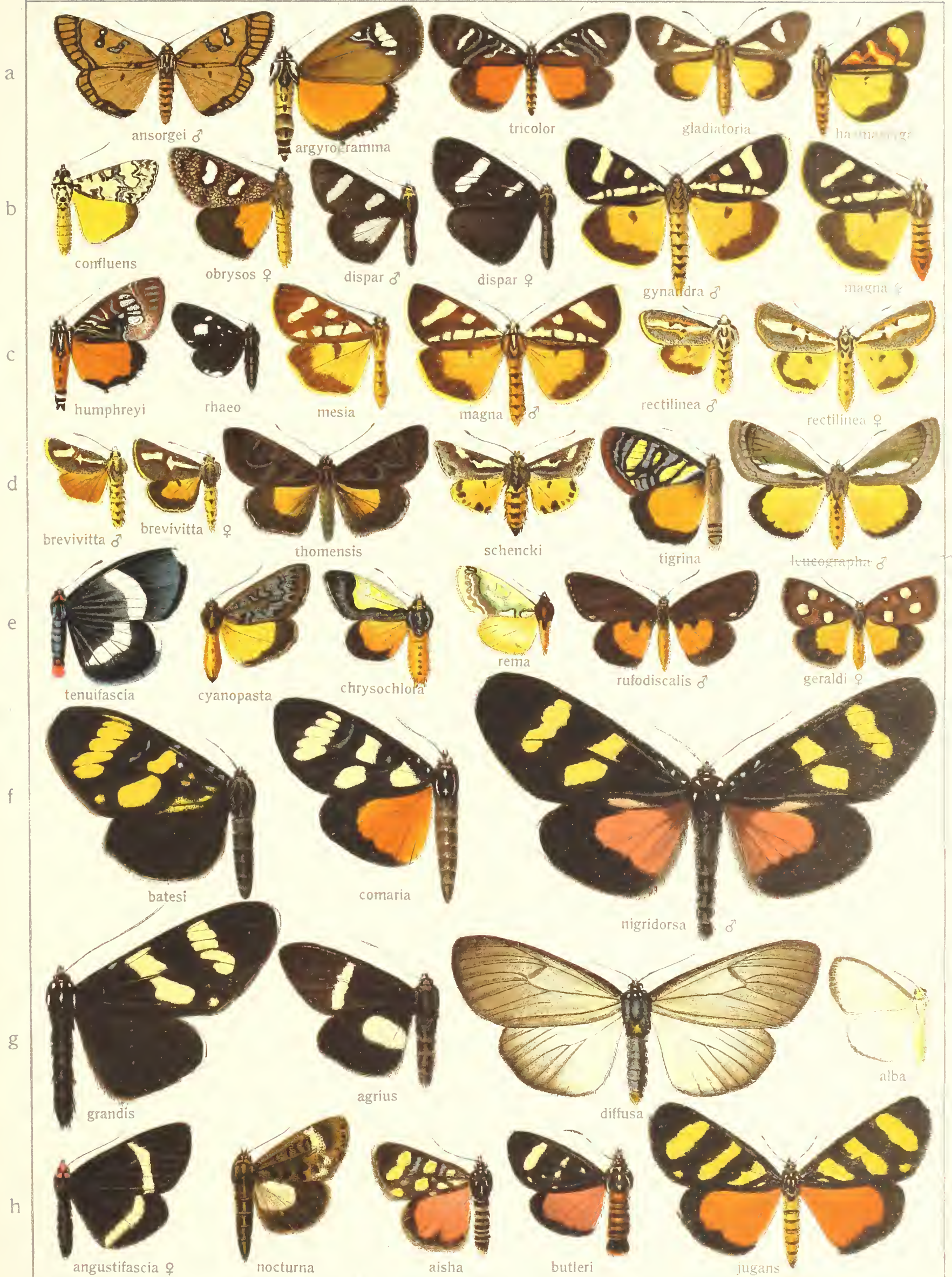








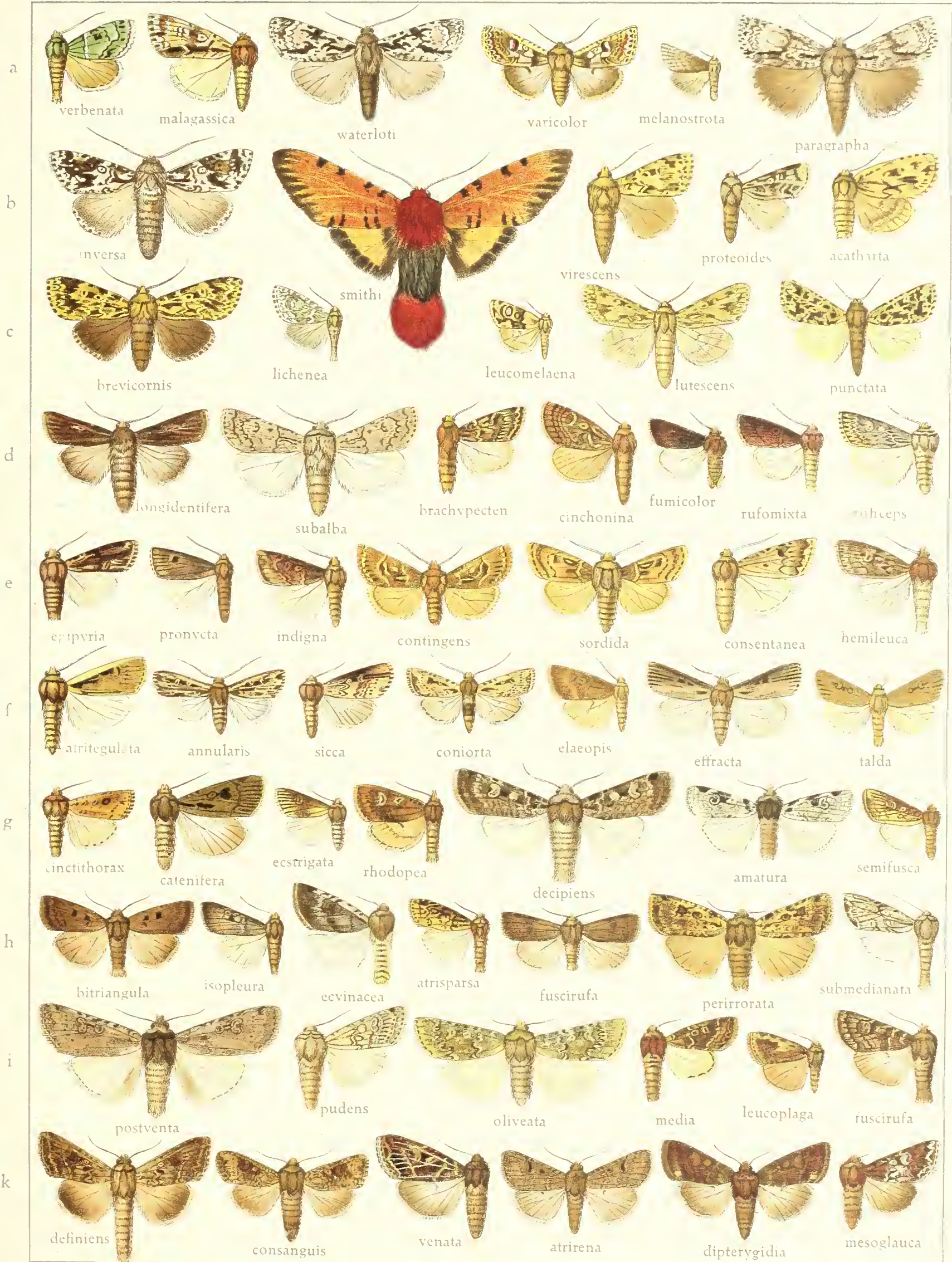












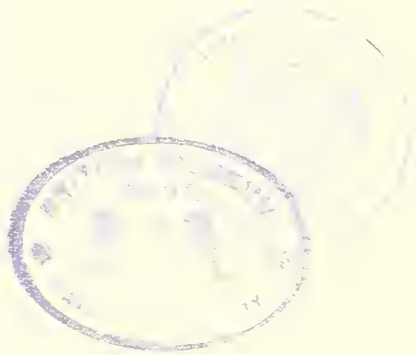














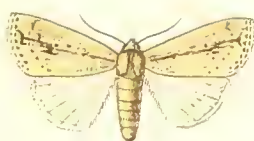
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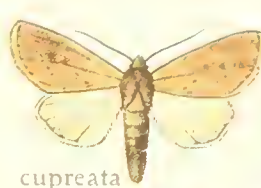
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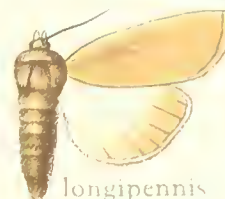
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micropis



cupreata



longipennis



bilineata

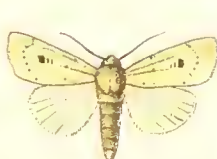
b



lunulata



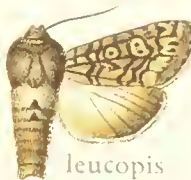
sarca



berthia



tenebra



leucopis

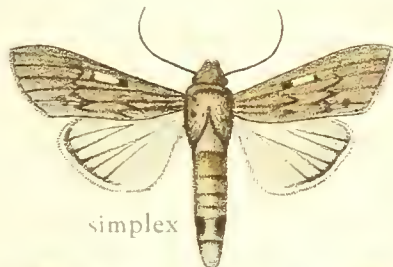


consimilis



brunnea

c



simplex



nocturnalis



clausa



rufescens



perstriata

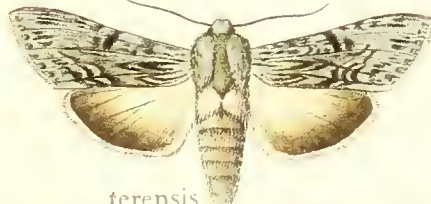


extricata

d



ochribasis



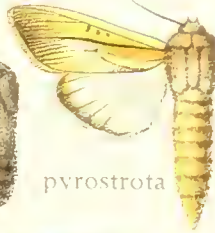
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nubipicta



albilineata

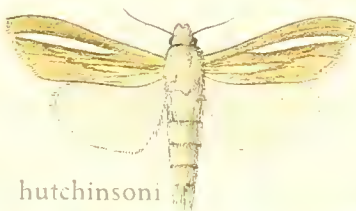


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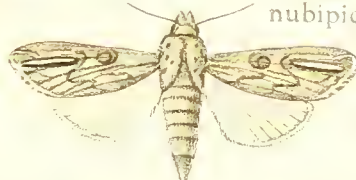
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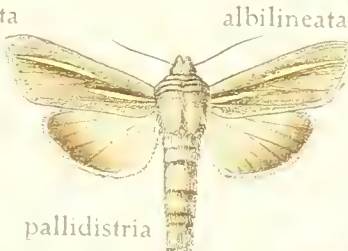
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hutchinsoni



argentilinea



pallidistria



ruficeps

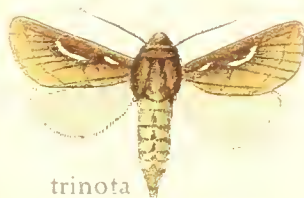
f



chrysota



botonga



trinota



sagittata



schaeferi



fumea

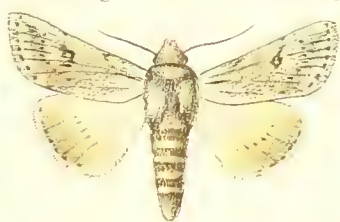


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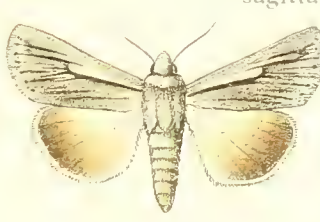
g



elegantissima



canina



nigrilineata



albilunata



flavilunata

h



roseitincta



aberrans



rubrimixta



palliata



nigridentata

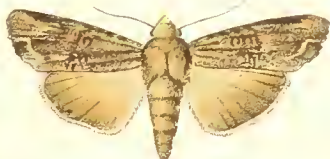


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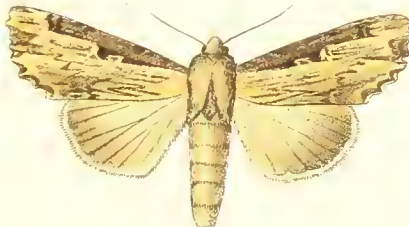
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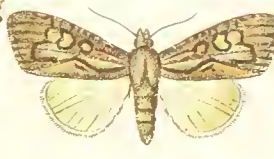
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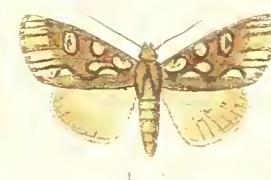
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nigricostata



oxylus



lysis



melanodonta

k



melanoleuca



melanobasis



nigribarbata



leucopicta



versicolora

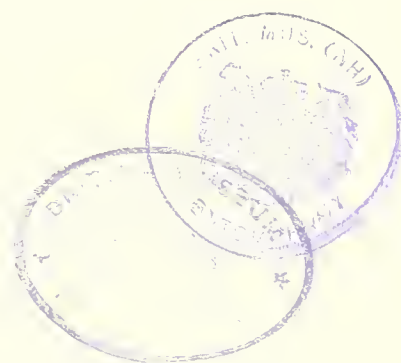


breviscula



consummata







XV

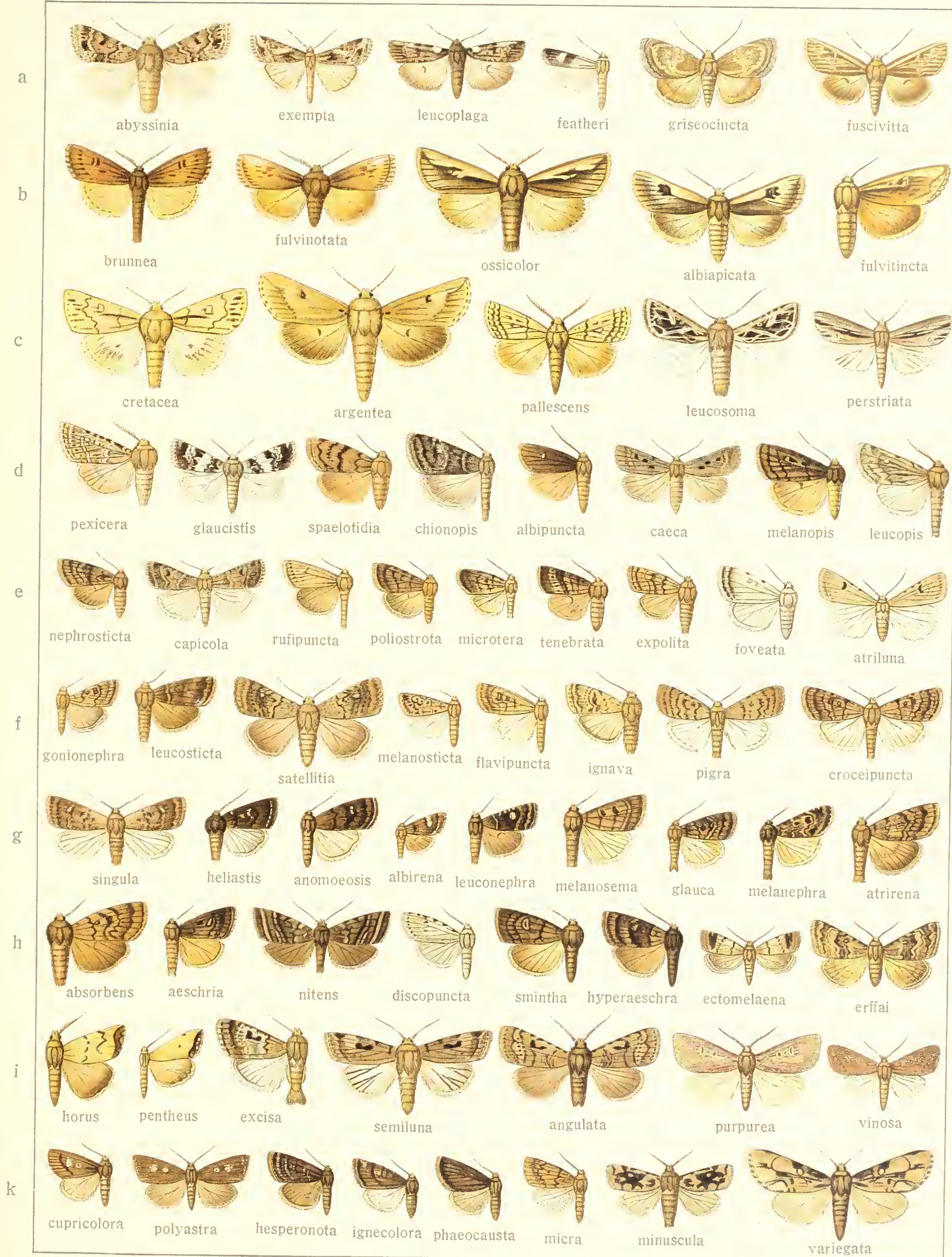
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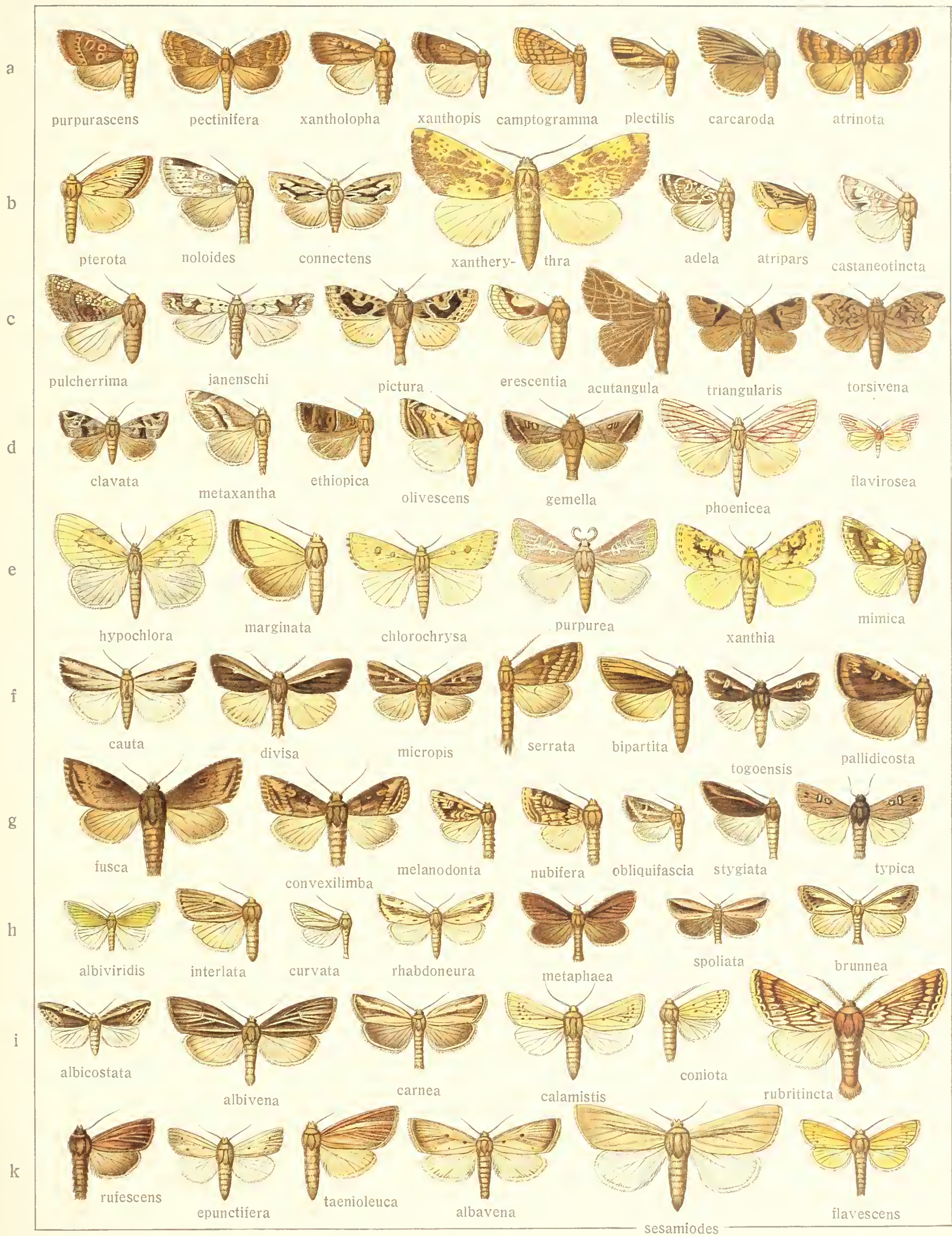








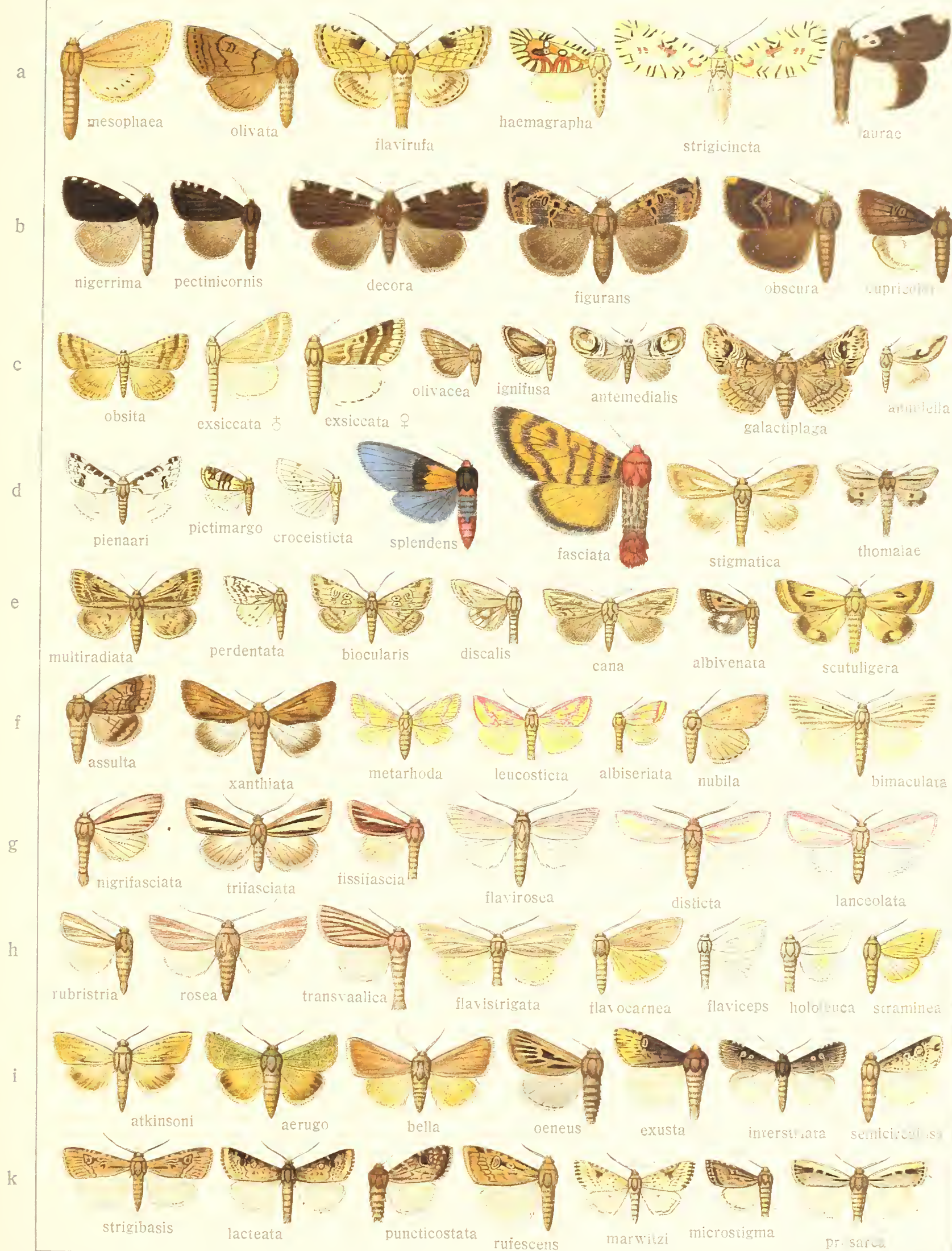








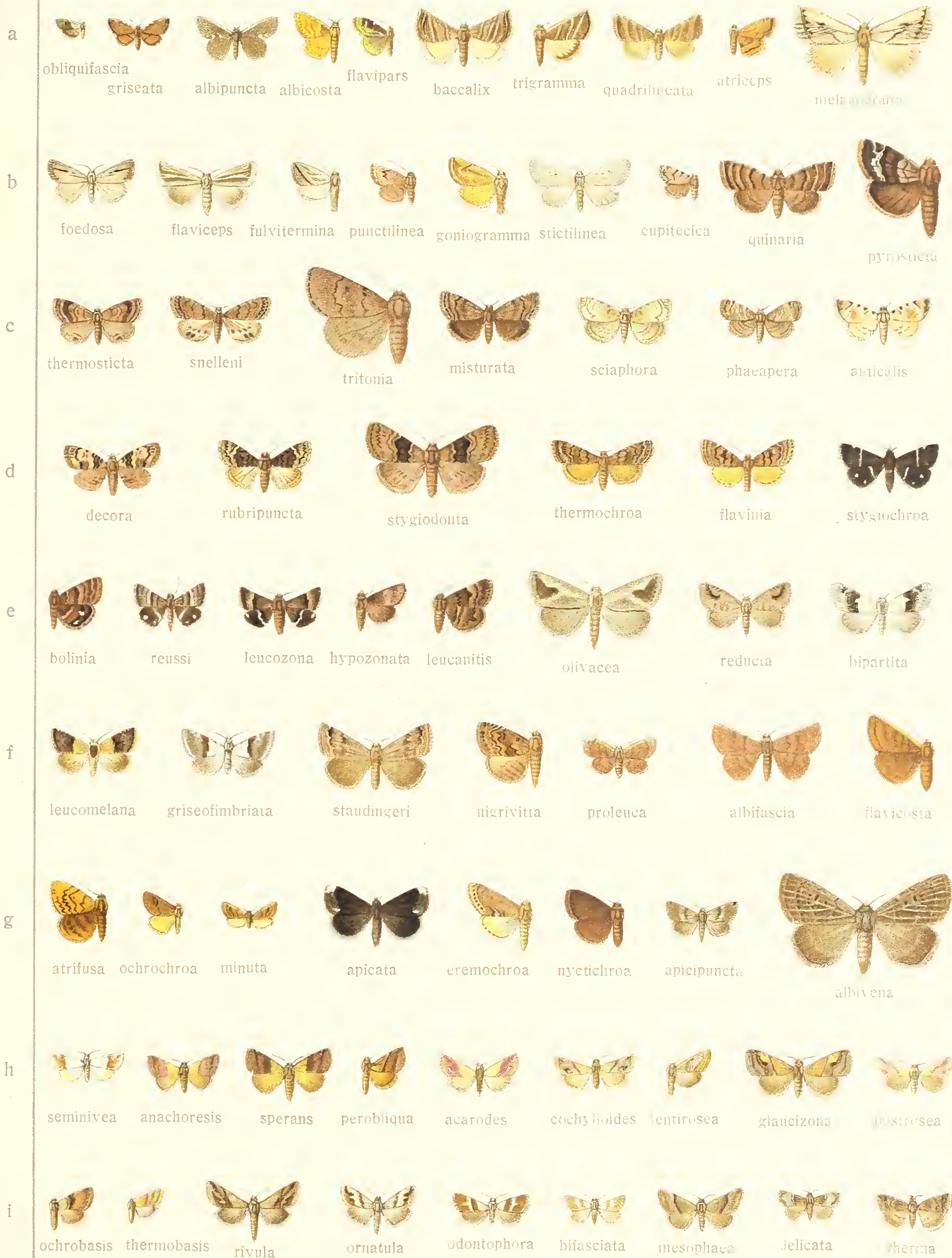






















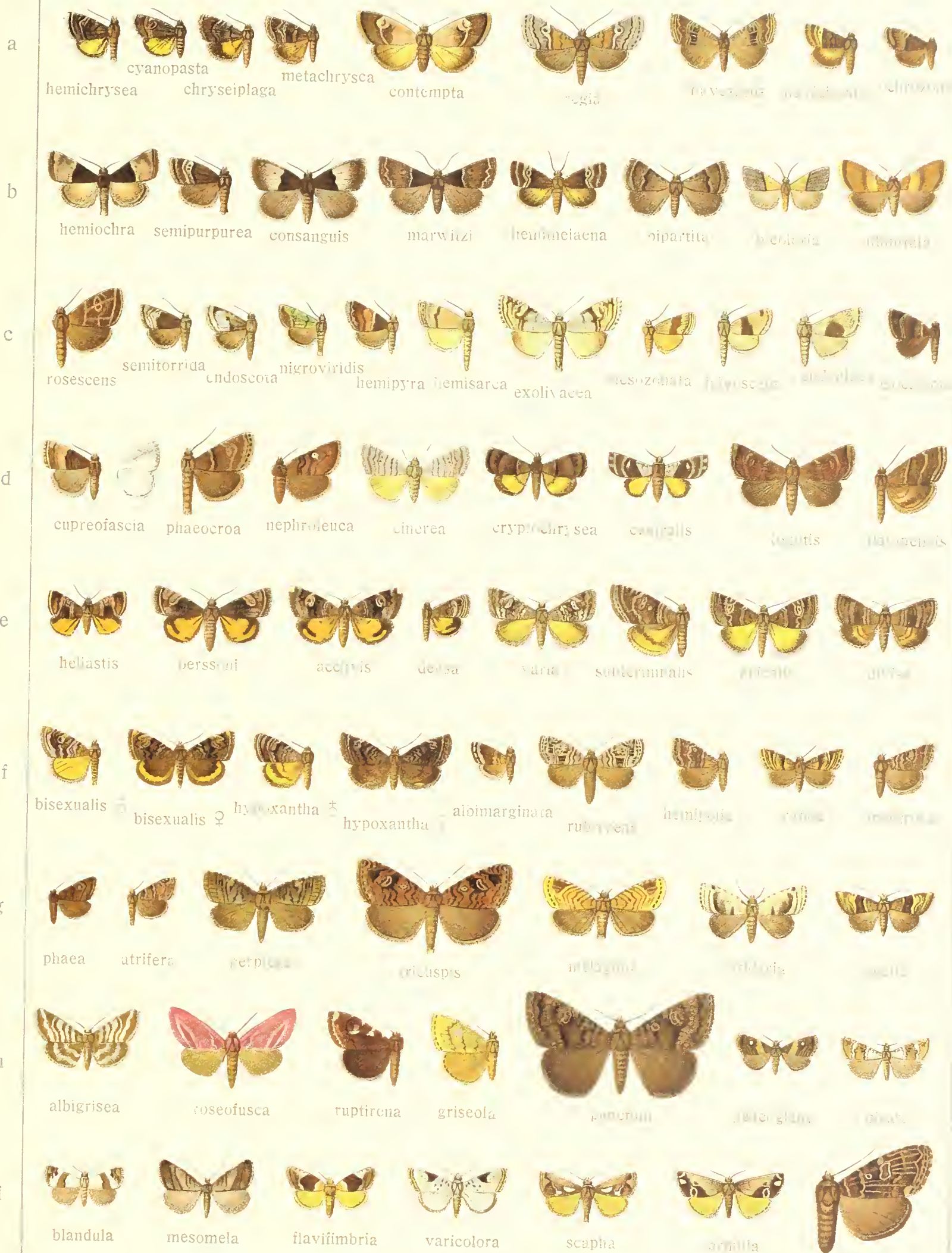




XV.

# OZARBA-LITHACODIA.

11







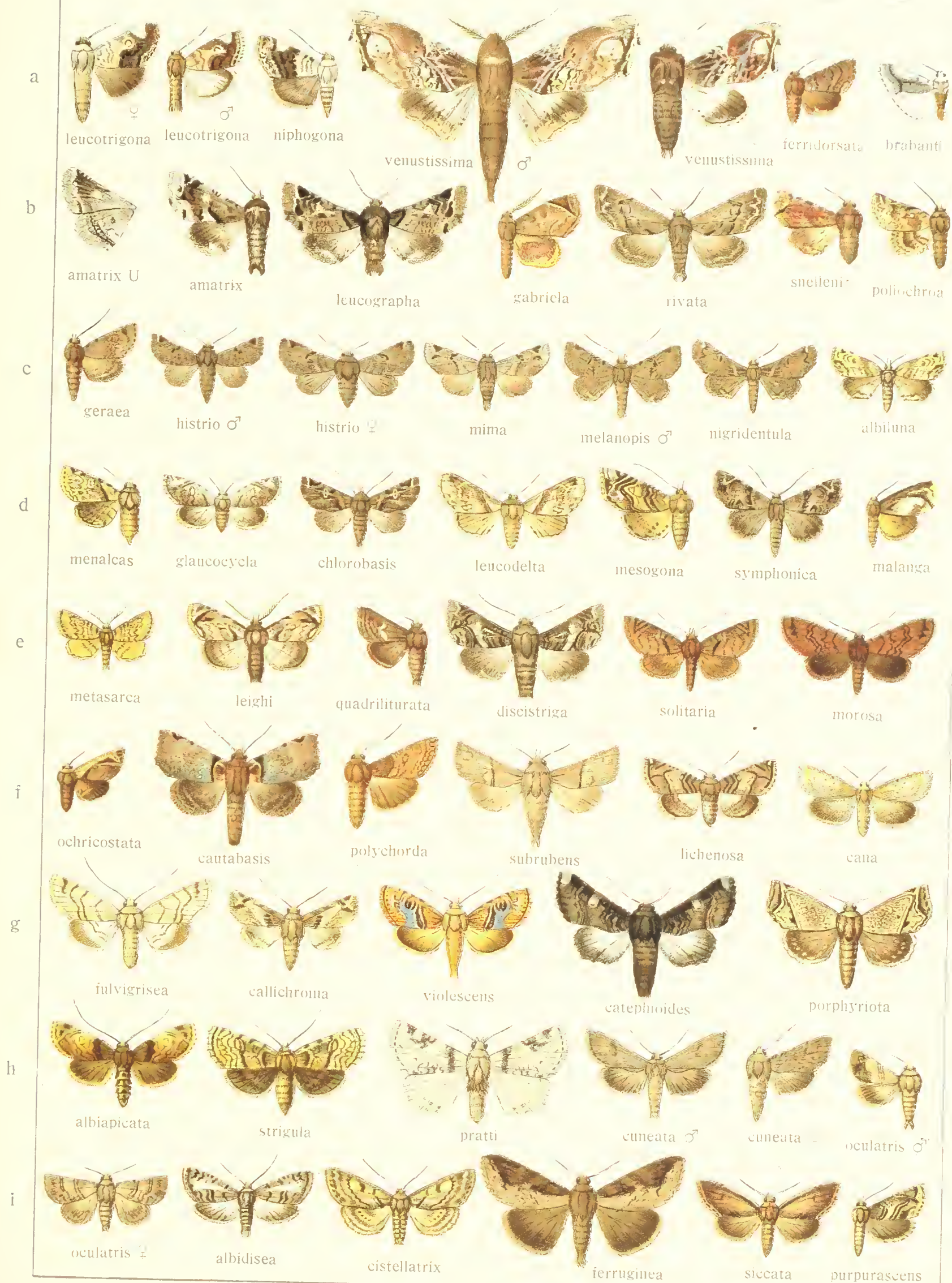


















a



poecilosoma

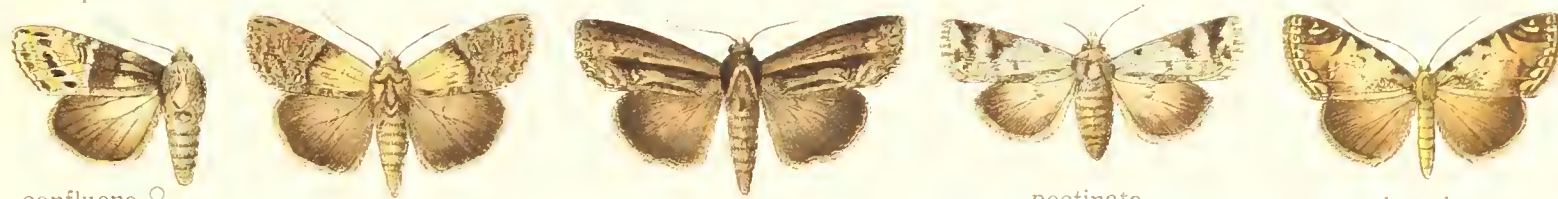
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laetifica

antemarginata

nigrifascia

b



confluens ♀

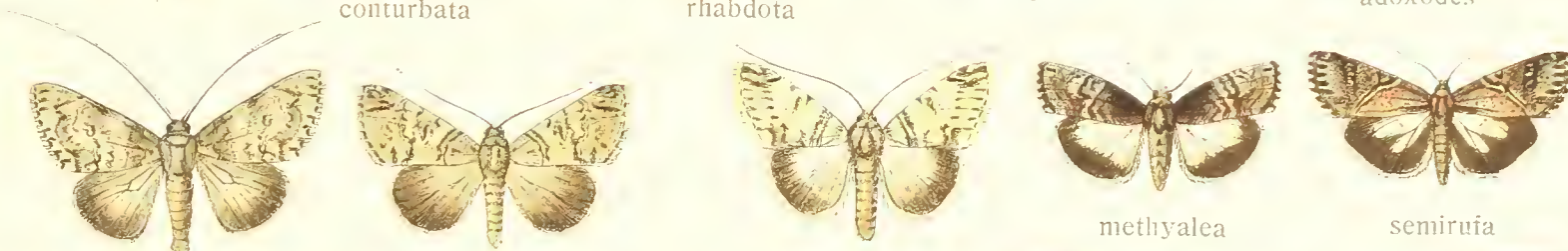
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pectinata

adoxodes

c



geometroptera

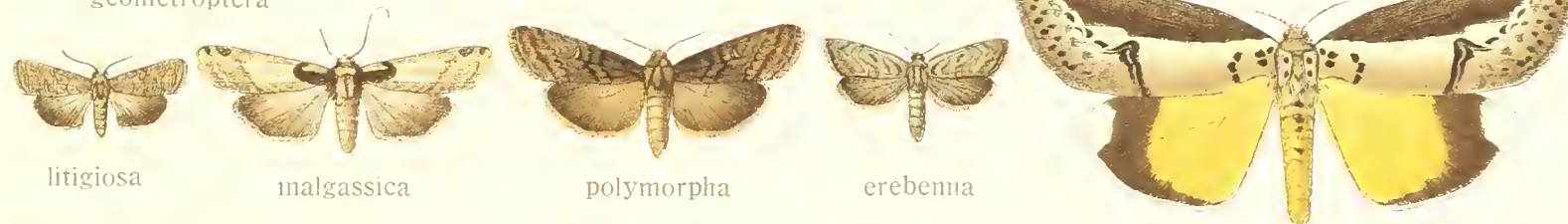
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rectilinea

methyalea

semiruia

d



litigiosa

malgassica

polymorpha

erebenna

duplicata

e



hypsoides

laetepicta

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lativia

mauritica

bostrycodes

astarte

g



arethusa

leucotis

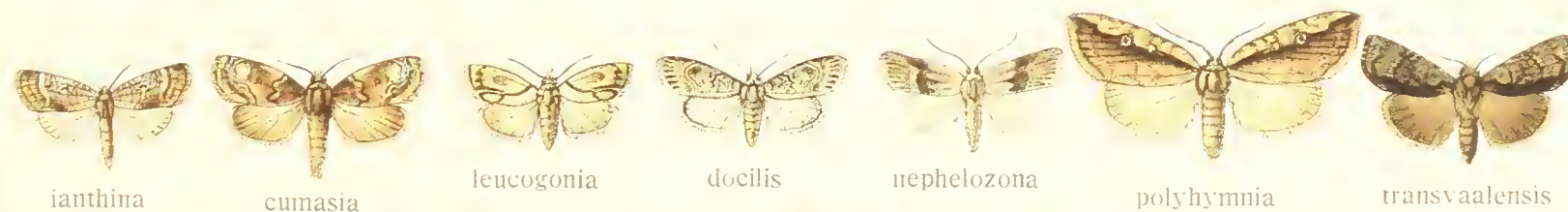
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violescens

ruiescens

transvalica

h



ianthina

cumasia

leucogonia

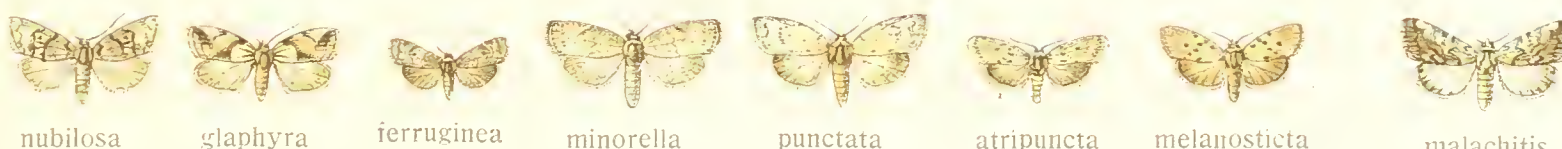
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nephelozona

polyhymnia

transvaalensis

i



nubilosa

glaphyra

ferruginea

minorella

punctata

atripuncta

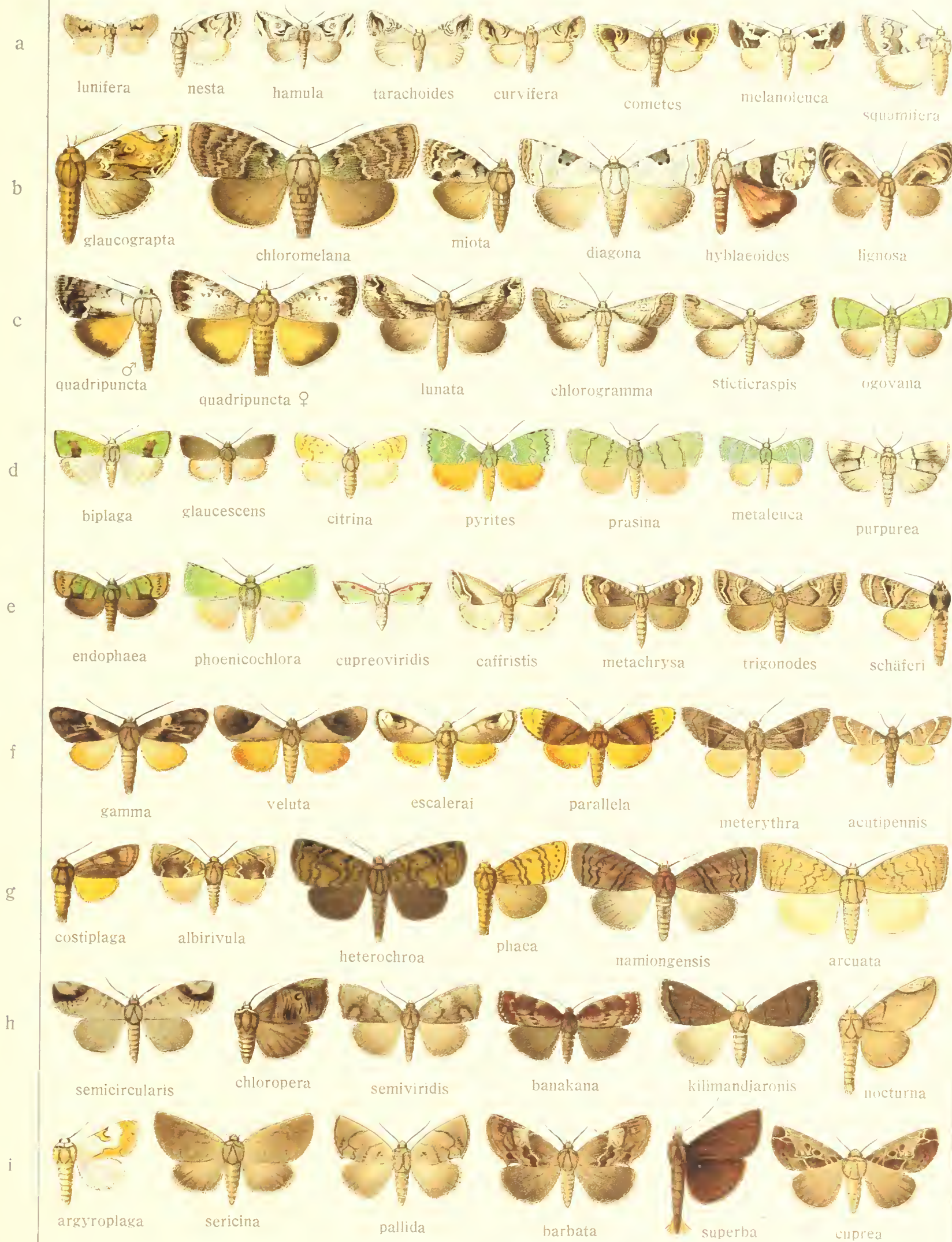
melanosticta

malachitis















a



agrapha ♀



thermistis



subolivacea



anchorita ♀



goodi



aracogramma

b



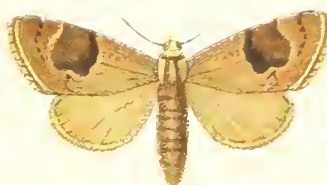
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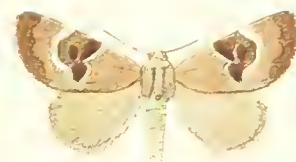
scutularis



convergens



oediopaga



monticola

c



pyridinacula



xanthobasis



strigata ♀



polia ♂



purpurea



trigonica

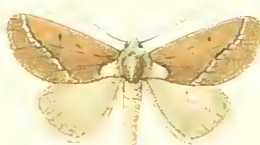


poliusca

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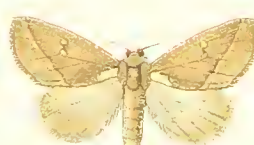
microcynia ♂



serrulilinea



albivasis



oblitterata



nigribasis



albilinea

e



dilemma



geminastrea



molybdone ♂



cretata ♂



incisurata

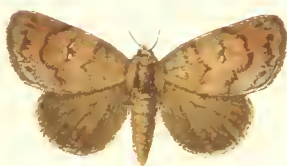


approximans



stalactitis ♀

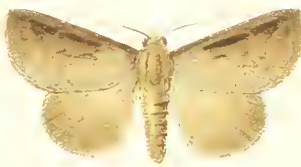
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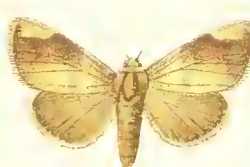
cinerascens



pectus



pubilecosta



phlaeopepla



ochreopaga



secretaria

g



purpurascens



mesoleuca



lunulifera



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ruficeps ♂



lacteata



nivea

h



cyphonota



prosticta



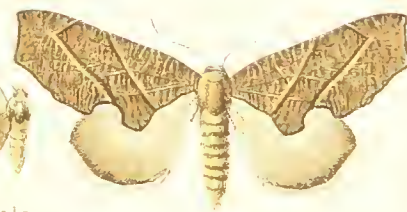
striata



fusciconia



mesonephele



zanderi

i



griseata



mesogoni ♂



irogoria



rhoda



piperita



rufescens

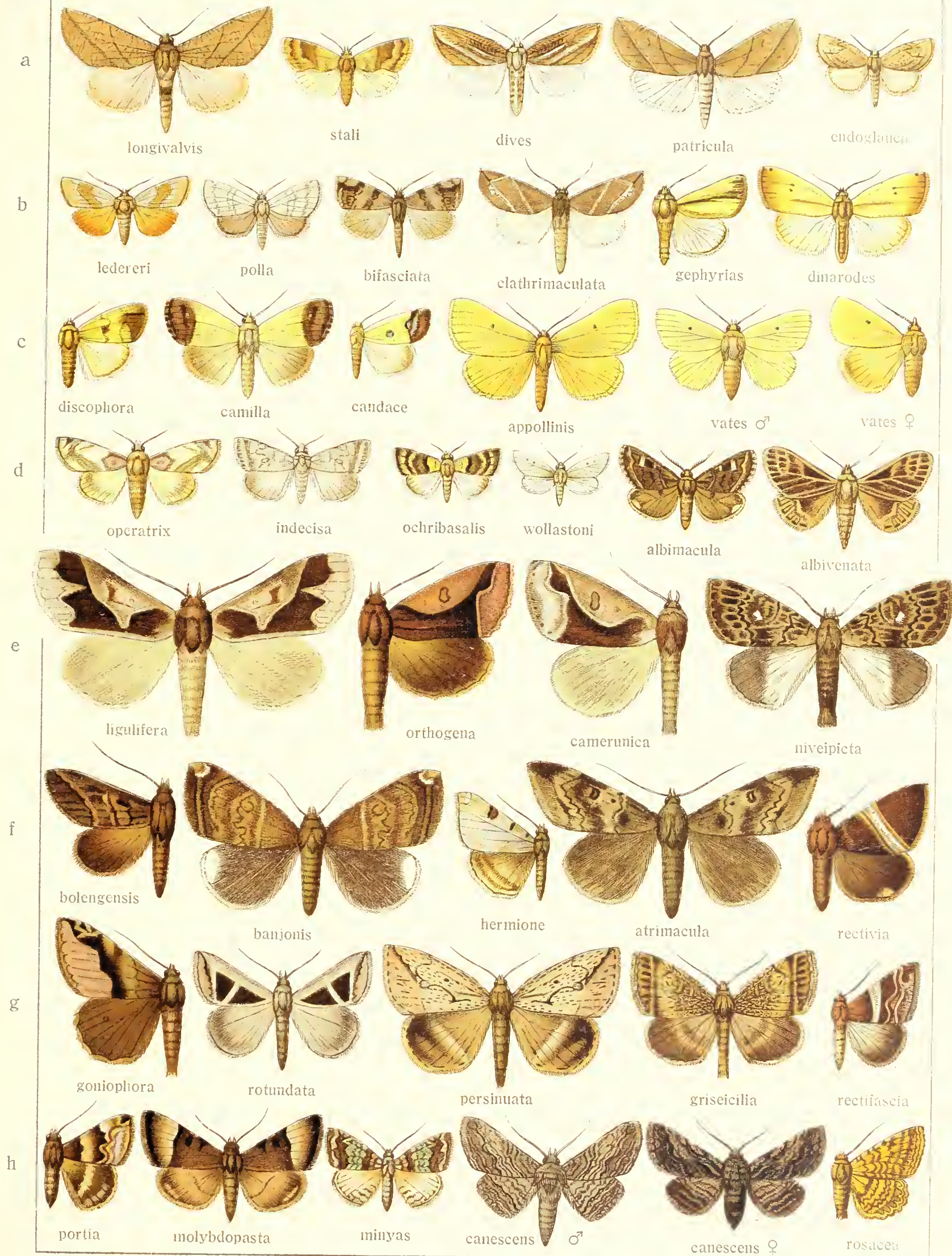


piperitella













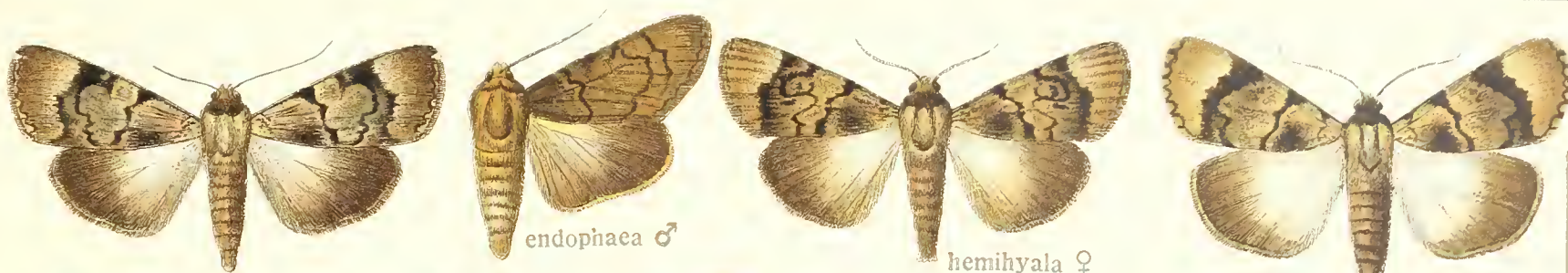


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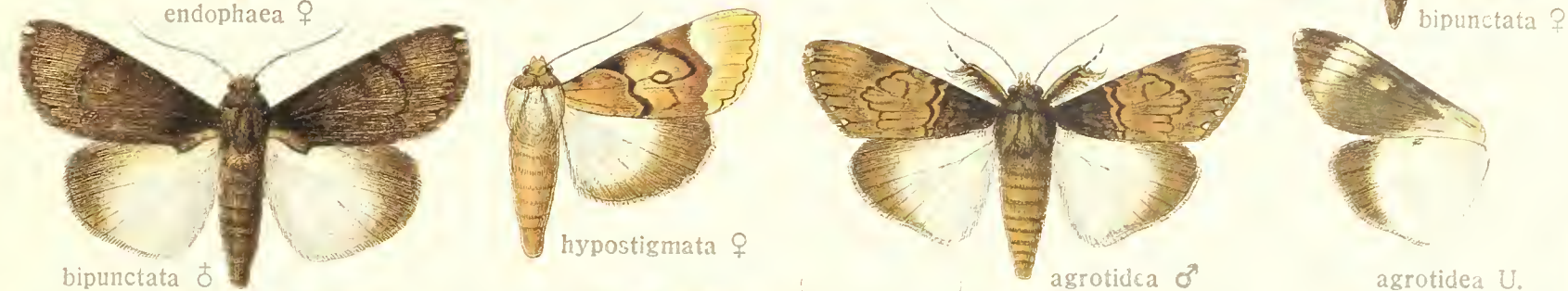
XV.

21.

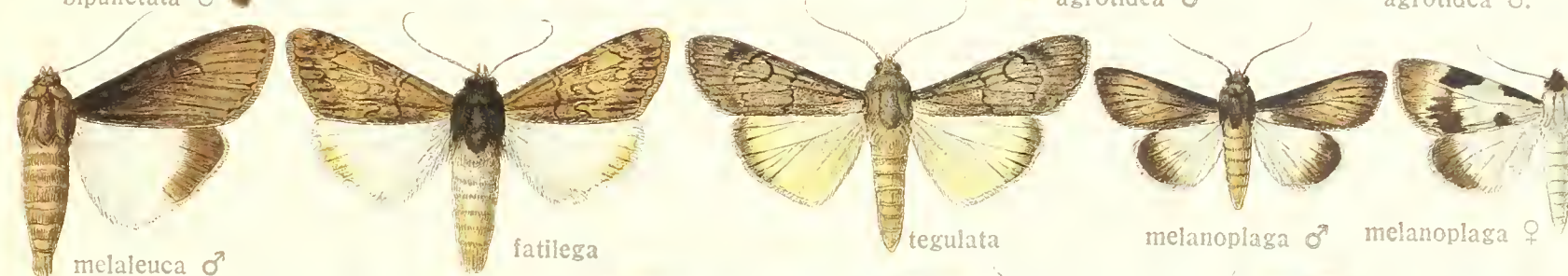
a



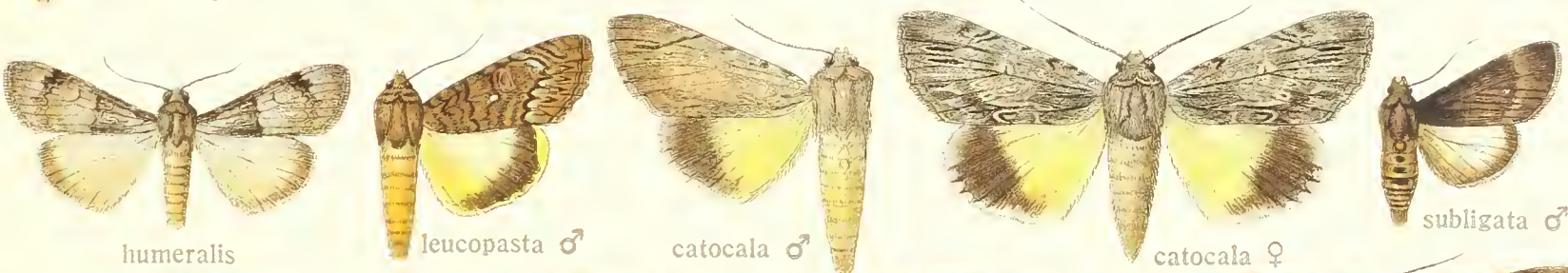
b



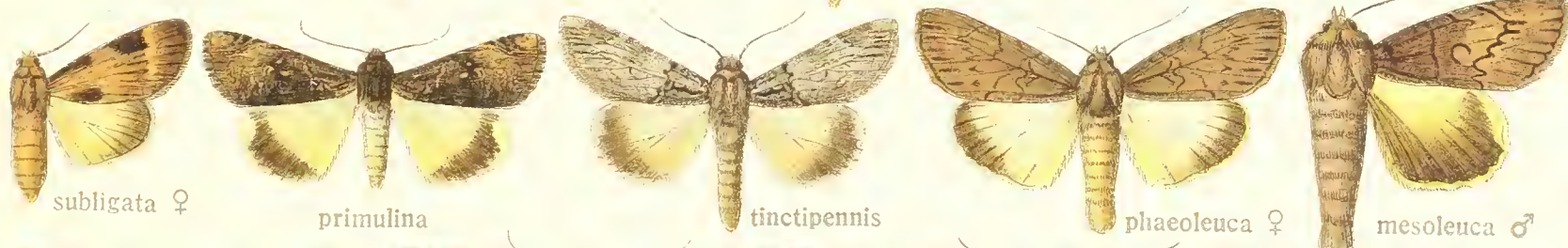
c



d



e



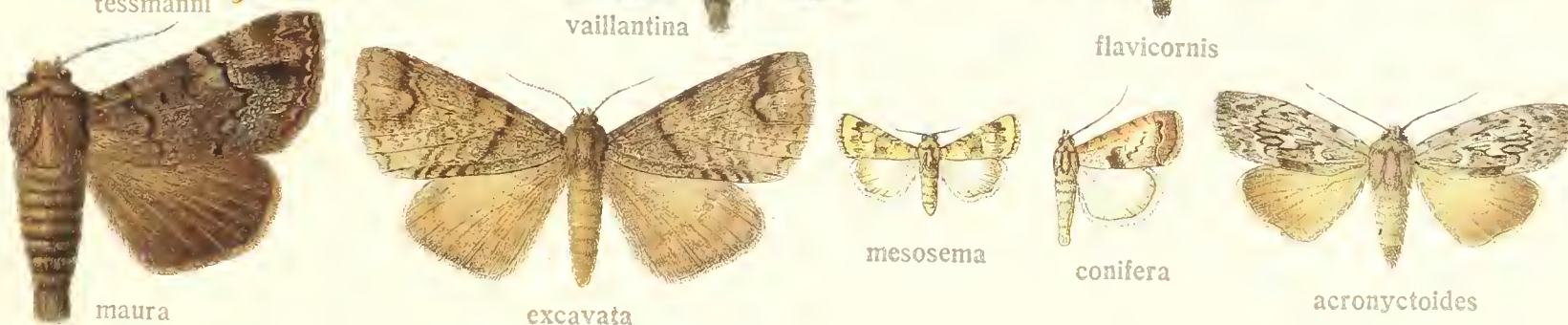
f



g



h













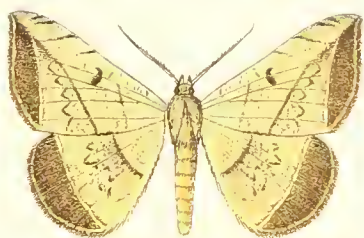




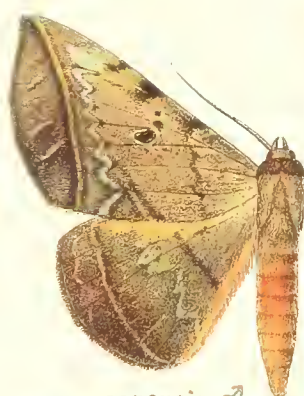
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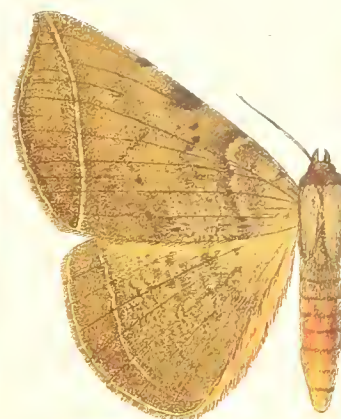
*pardus* U.



*pardus*



*capensis* ♂



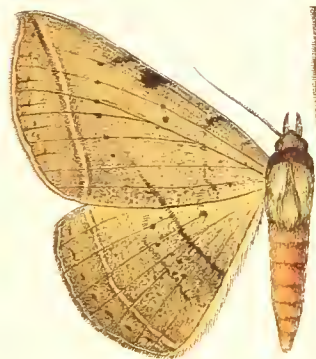
*capensis* ♀



U.

*hampsoni*

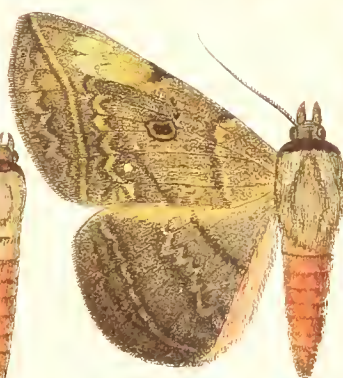
b



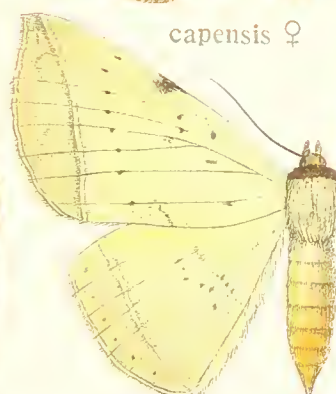
*hampsoni* ♀



*malgassica* ♂



*plumbeofusa* ♂

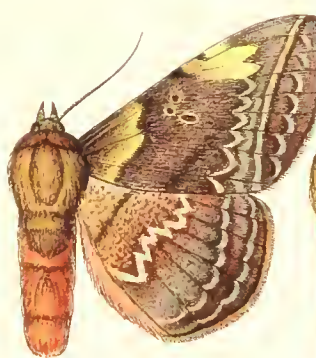


*endoxantha* ♀

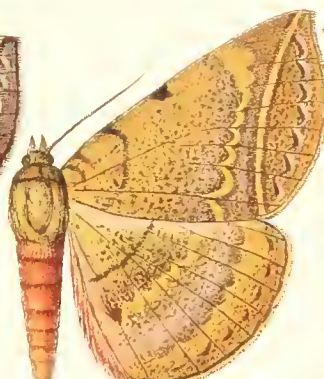


*endoxantha* U.

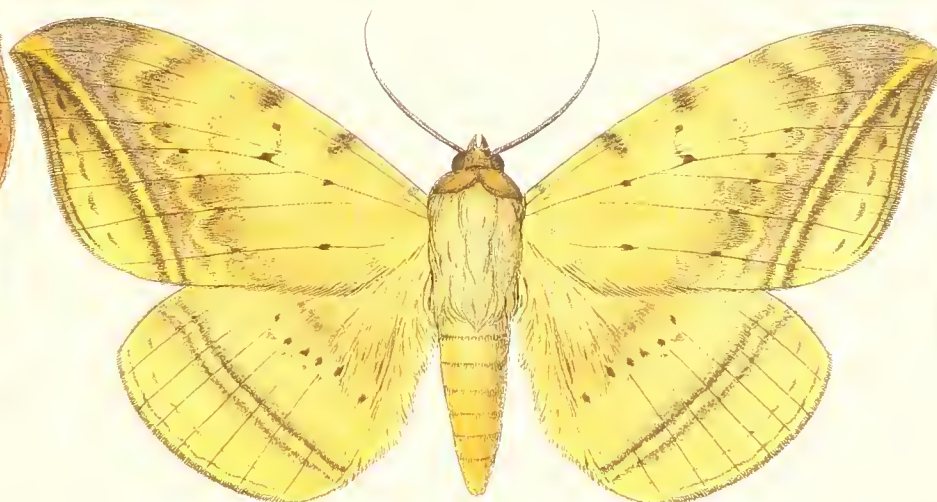
c



*occidentalis* ♂



*occidentalis* ♀

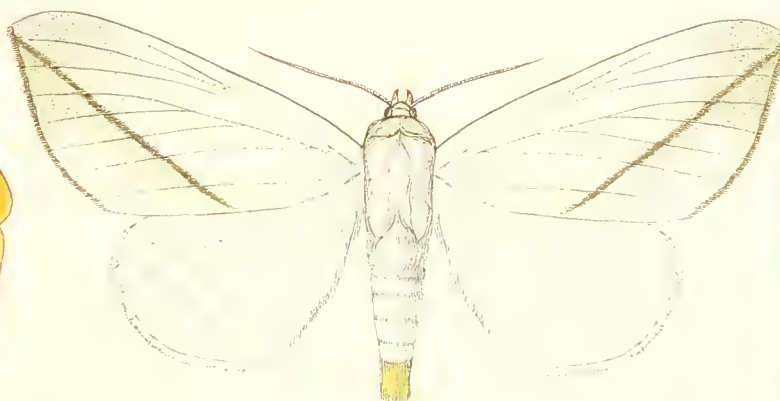


*megalesia*

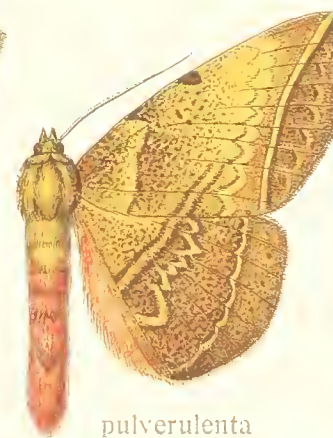
d



*megalesia* U.

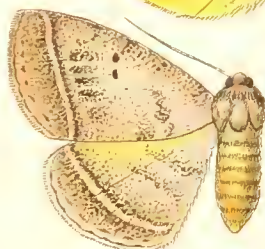


*allardi*



*pulverulenta*

e



*carneotincta* ♀



*appollina* ♂



*appollina* ♀



*pretiosissima*



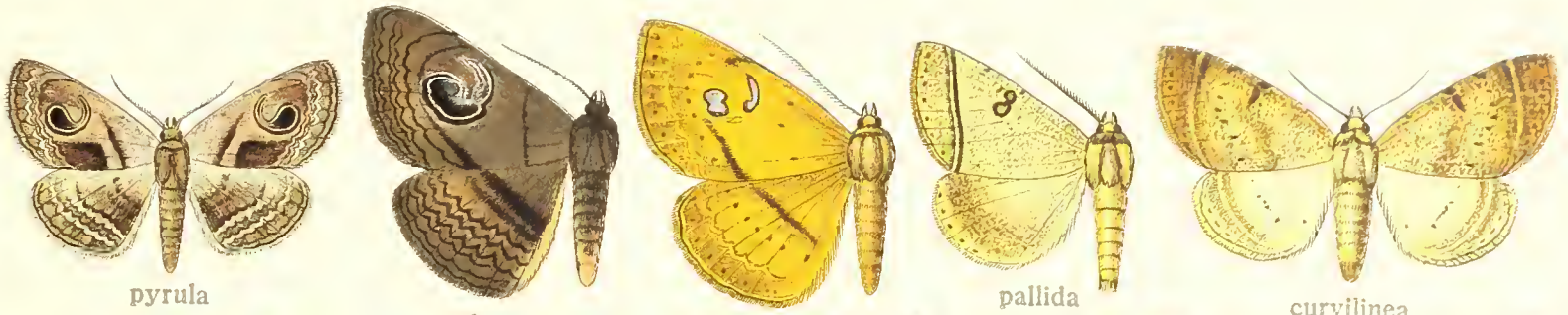
*pretiosissima* U.







a



pyrula

glaucescens

griseisigna

pallida

curvilinea

b



brevipecten

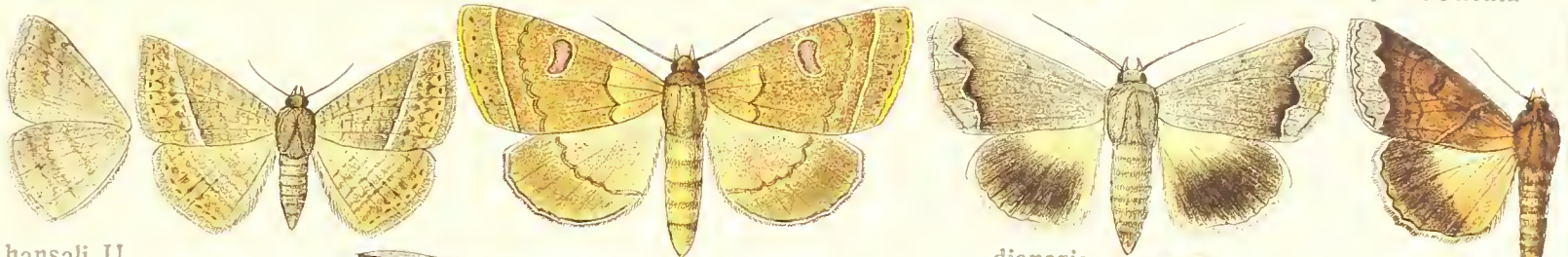
marginalis

seriopuncta

rubricata

quadrilineata

c



hansali U.

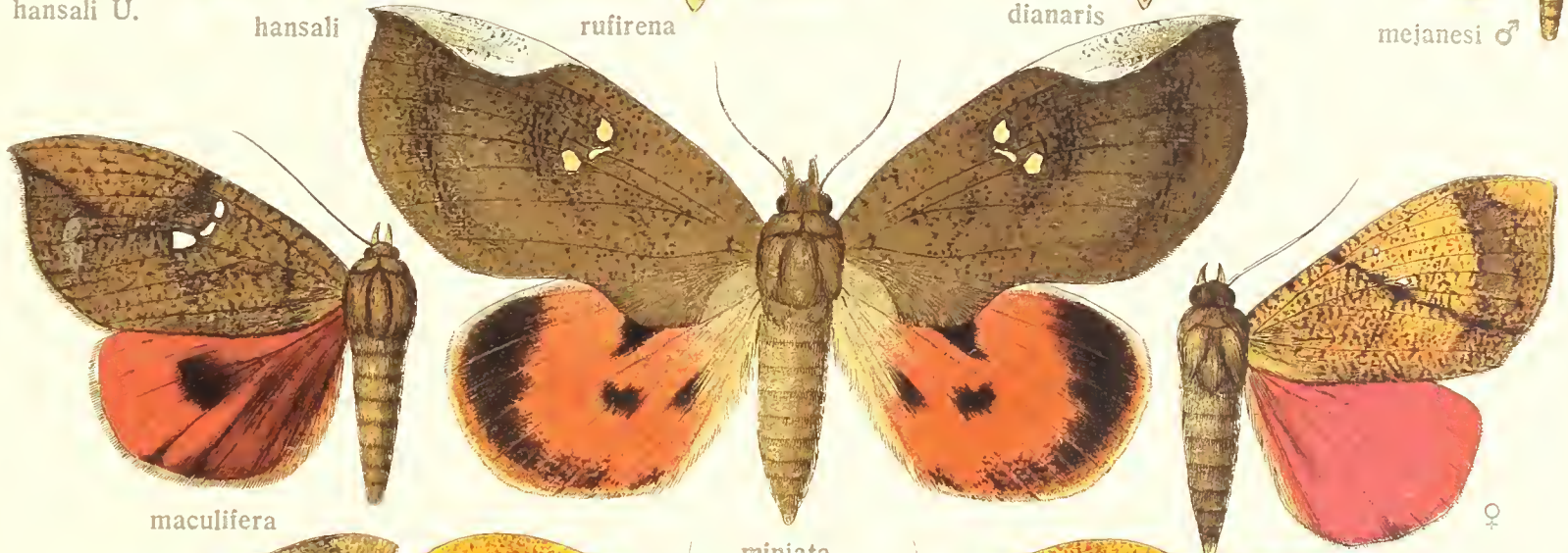
hansali

rufirena

dianaris

mejanesi ♂

d

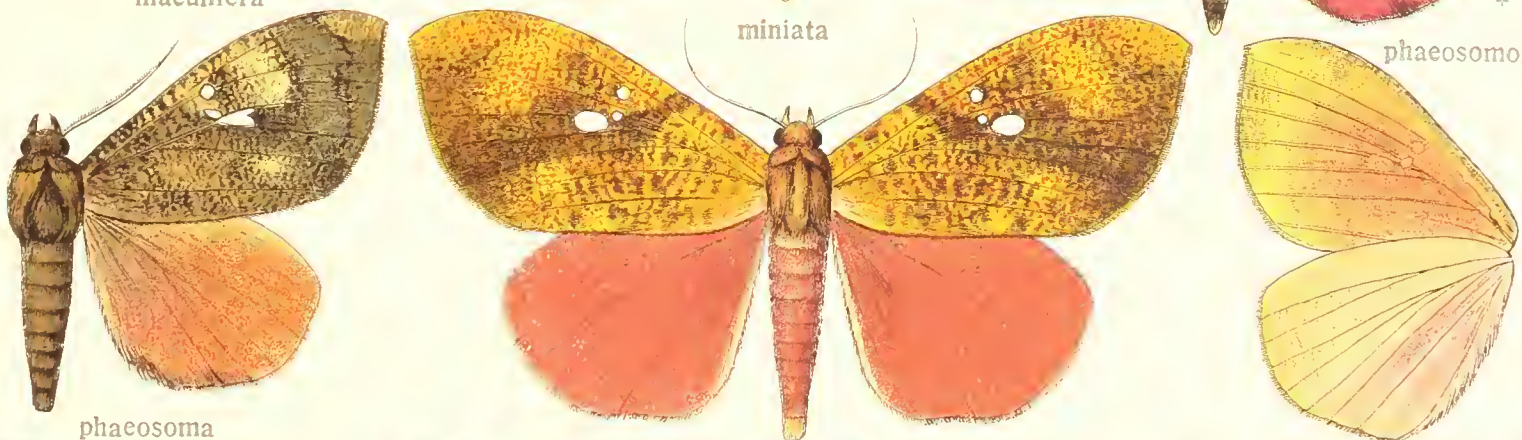


maculifera

miniata

phaeosomoides ♀

e

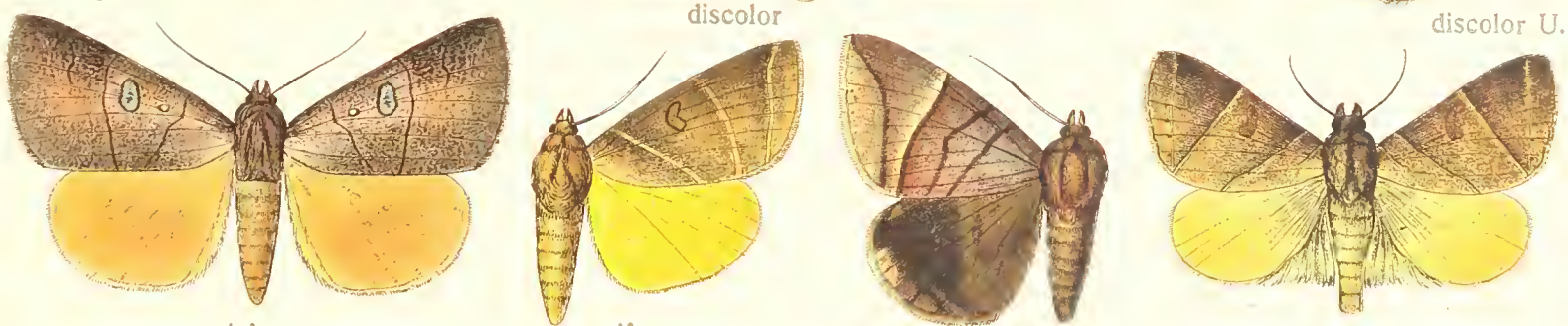


phaeosoma

discolor

discolor U.

f



minians

arcifera

occidens

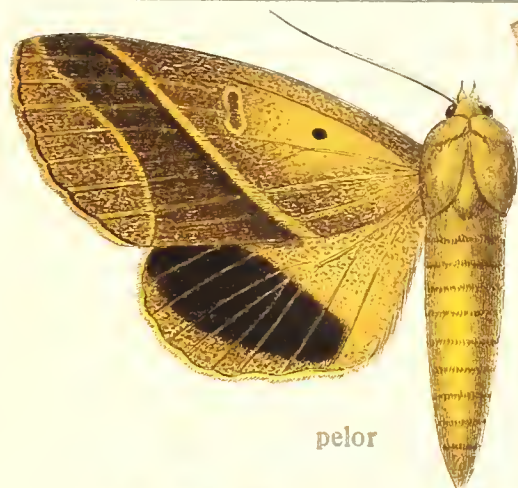
parallelipeda



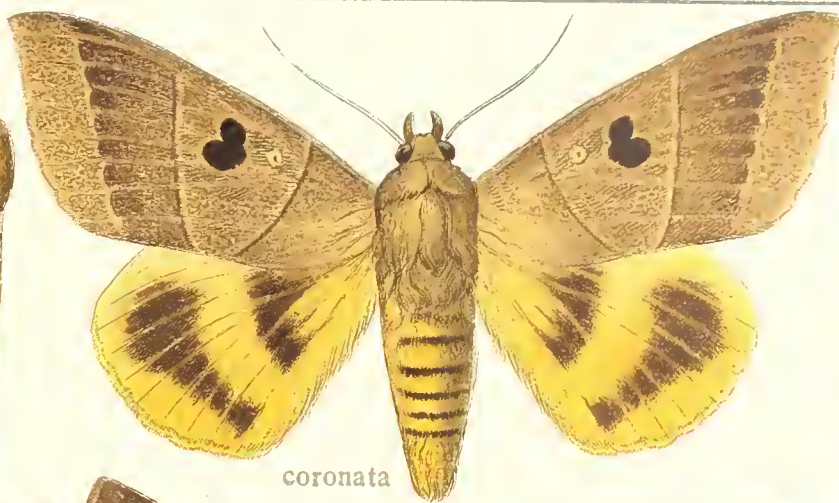




a



pelor

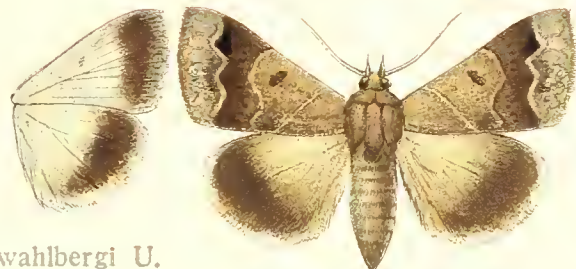


coronata

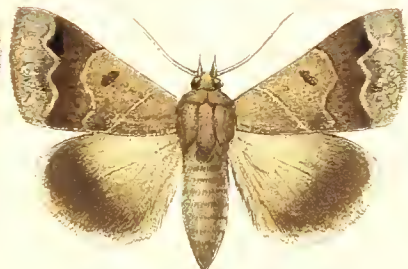


wahlbergi

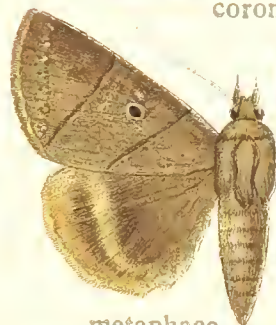
b



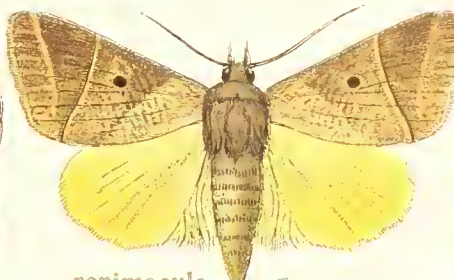
wahlbergi U.



tettensis ♀



metaphaea

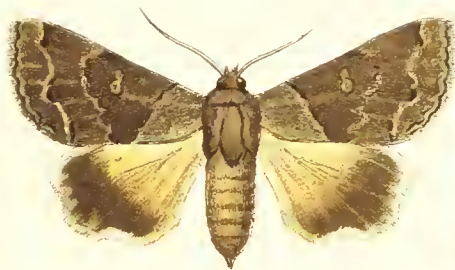


renimacula ♂

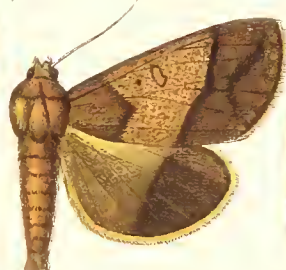


hopei

c



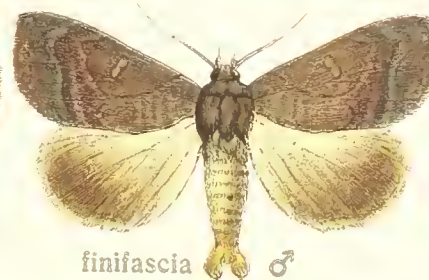
umbrilinea



verecunda



selenaris ♀



finifascia ♂

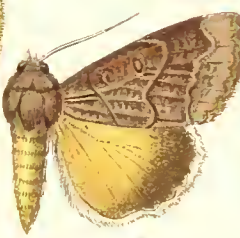


violascens

d



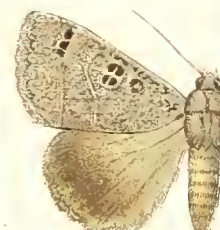
recurvata ♂



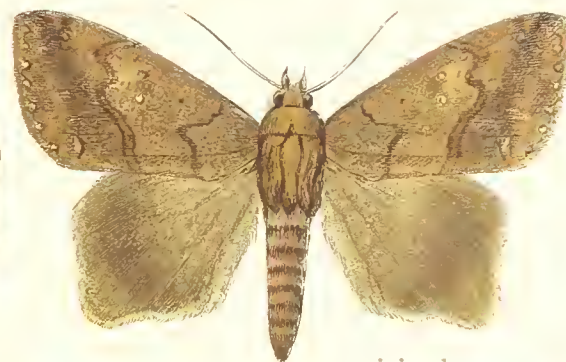
salita ♂



melaconisia ♂

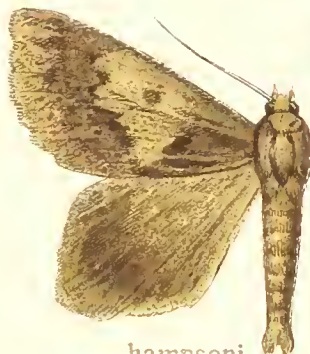


cancellata ♀

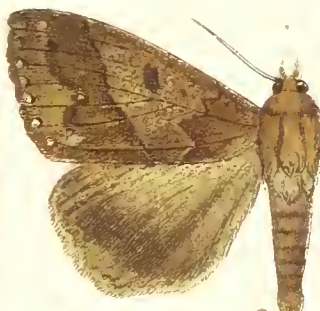


conspicienda

e



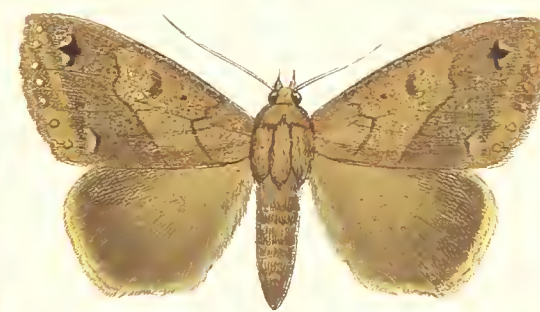
hampsoni



reducta ♀



subdiversa ♂



flavociliata ♀

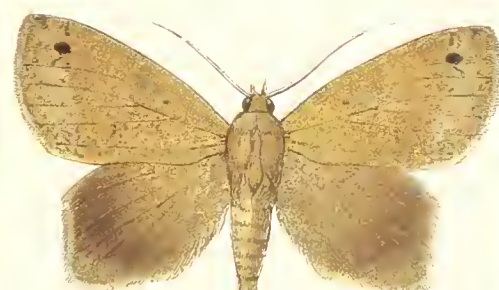
f



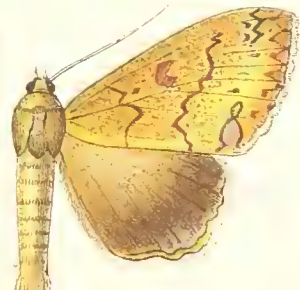
fumida ♂



xylochroa ♂



extincta ♂



tumiditermina





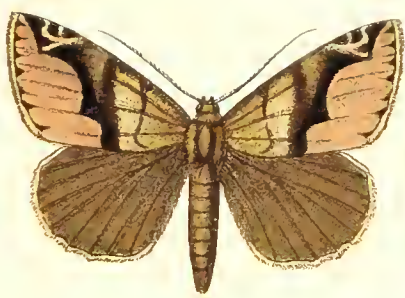


# ANUA-TOLNA.

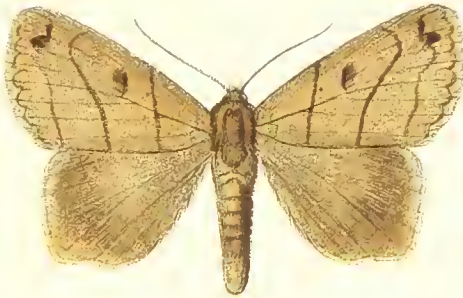
XV.

26.

a



gonoptera



despecta ♂

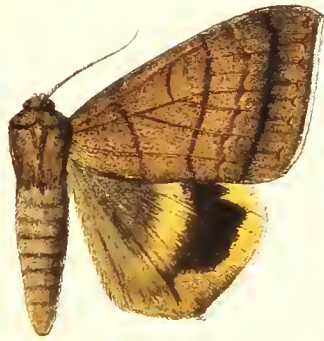


rufescens ♂

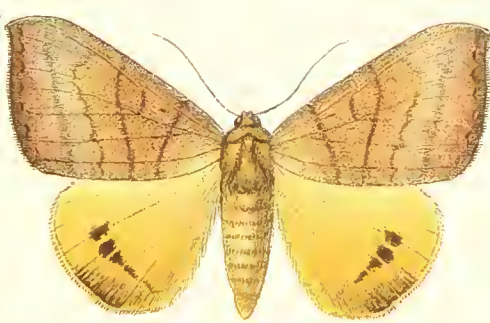


ambigua ♂

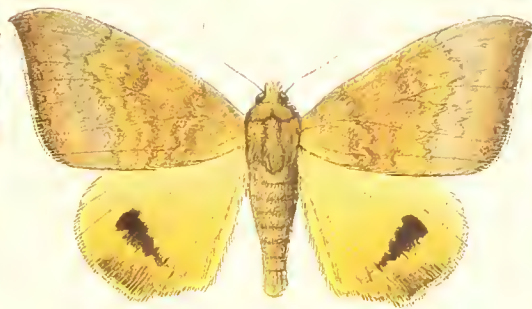
b



catocalina ♂



zanzibarica ♀



klugii ♂

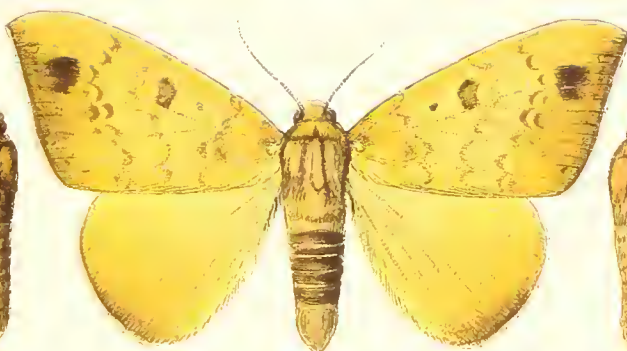


klugii U.

c



maculilinea



xanthoptera



euryplaga ♂

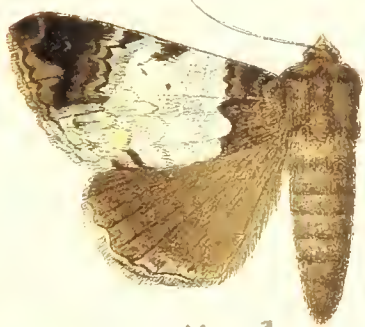


versicolor ♂

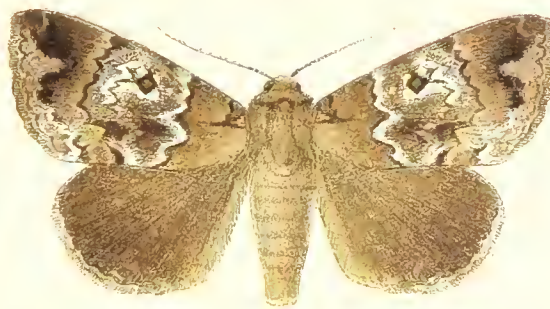
d



complicata



sypnoides ♂

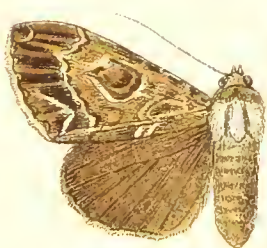


sypnoides ♀

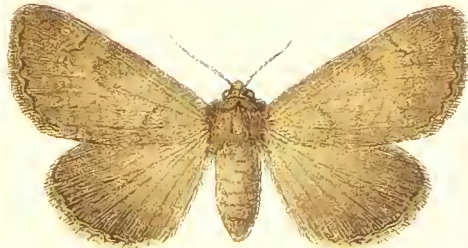


sypnoides U.

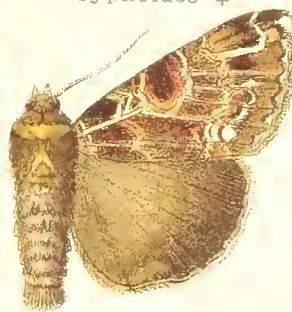
e



sinifera ♀



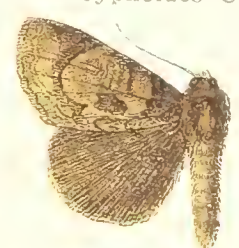
limula ♀



variegata ♂



macrosema ♀



subsignata

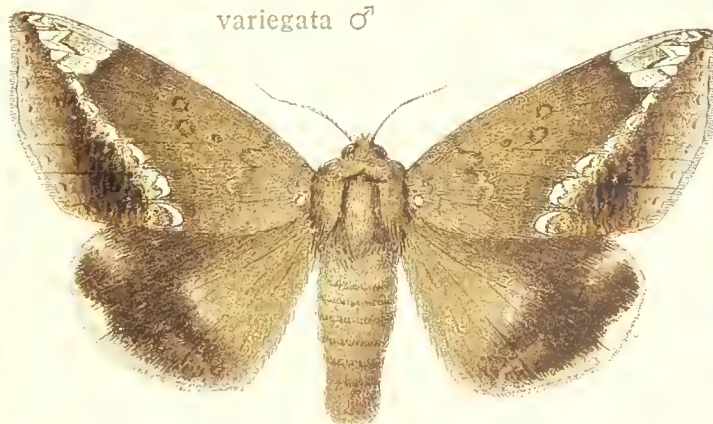
f



U.  
illustrata



illustrata ♂



imperatrix



chionopera







XV.

# ACHAEA.









XV.

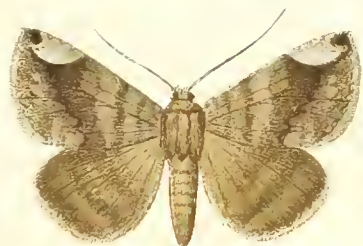
# ACHAEA-OPHISMA











*talica* ♀



*conserta* ♀



*proxima* ♀



*pudica* ♂



*humilis* ♂



*arctifera* ♂



*communetaria* ♀



*properans* ♂



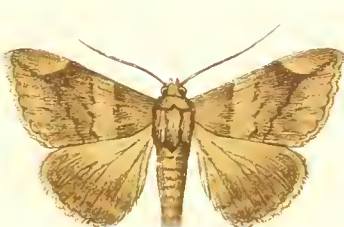
*recitvia*



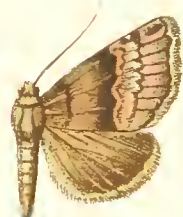
*balteata* ♀



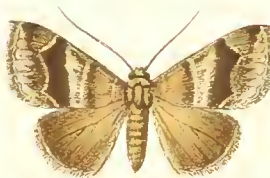
*pectata*



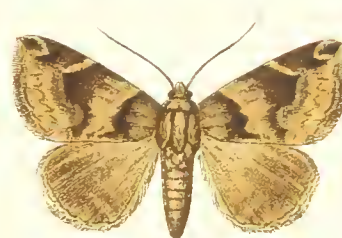
*fumosiflavescens*



*mesochore*



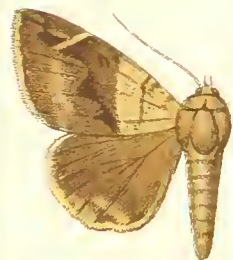
*derogans* ♂



*abnegans*



*prorsigna* ♀



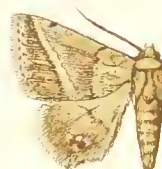
*triplicata* ♂



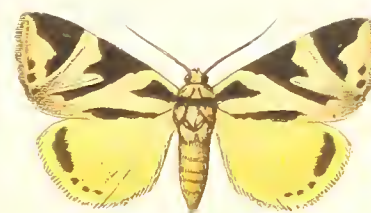
*angularis*



*multilineata* ♀



*palumbiodes* ♀



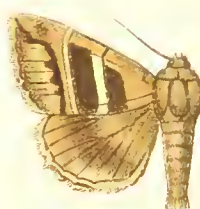
*ethiopica* ♀



*melitensis* ♀



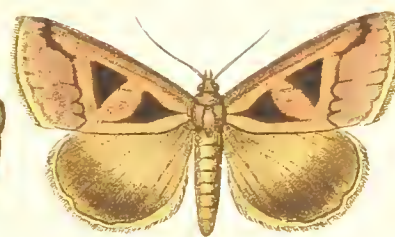
*circalica* ♂



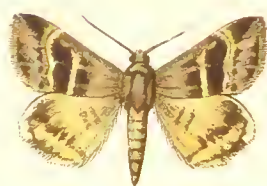
*congenita* ♂



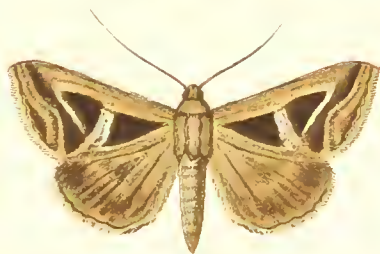
*exclusiva*



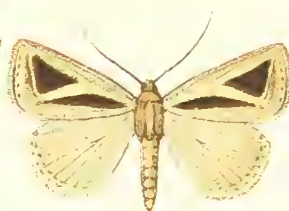
*microgonia* ♂



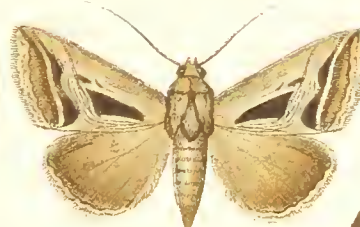
*pallidula*



*hypasia*



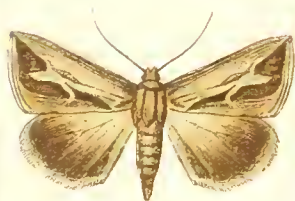
*pusilla*



*obstans* ♀



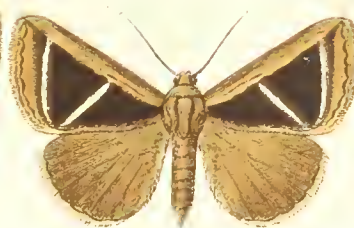
*eumanita* ♂



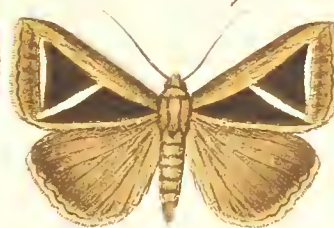
*rivulata*



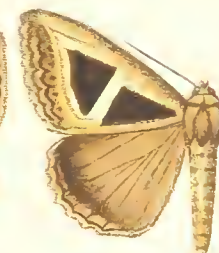
*euclidicola*



*benitensis*



*deltiifera*



*trigonometrica*



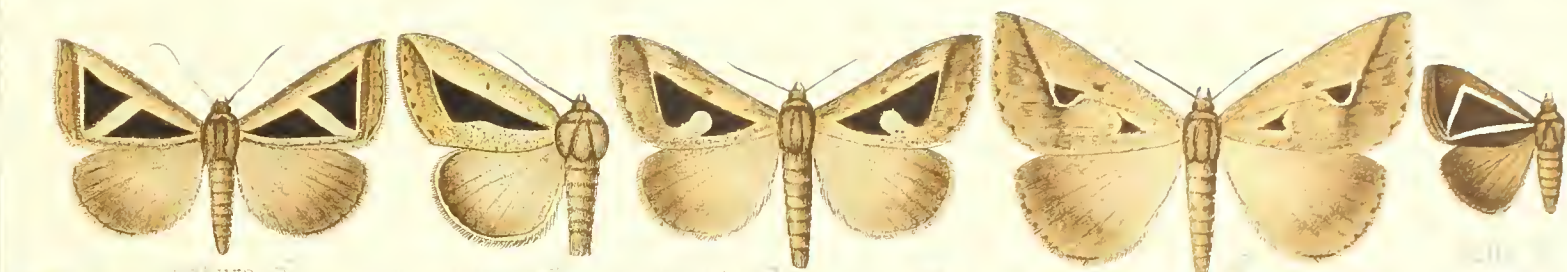




# PARACHALCIOPE-CORTYI

XV.

a



capitata ♀

capitata ♂

capitata ♂

capitata ♂

capitata

b



capitata ♂

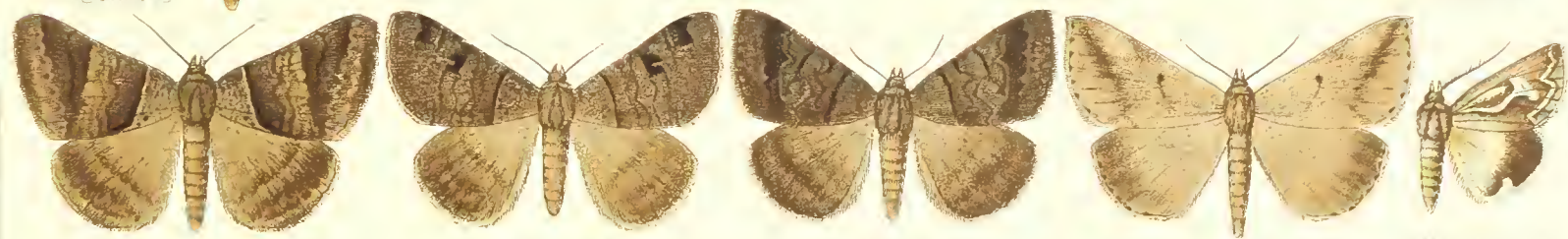
capitata ♀

capitata

capitata ♀

capitata

c



capitata

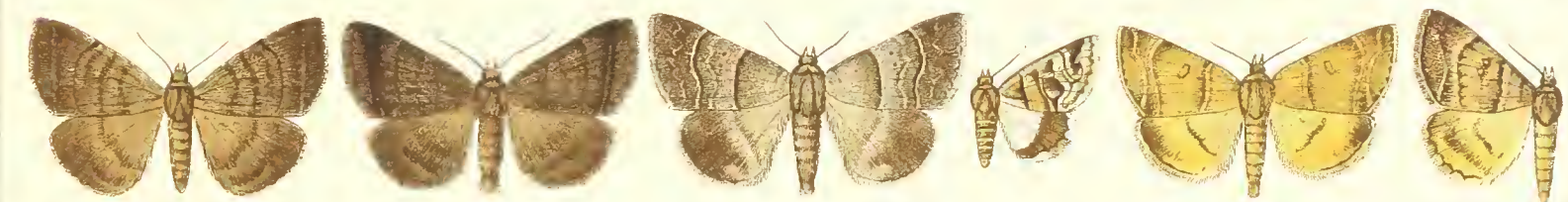
capitata ♀

capitata ♀

capitata ♀

capitata ♀

d



capitata

capitata ♀

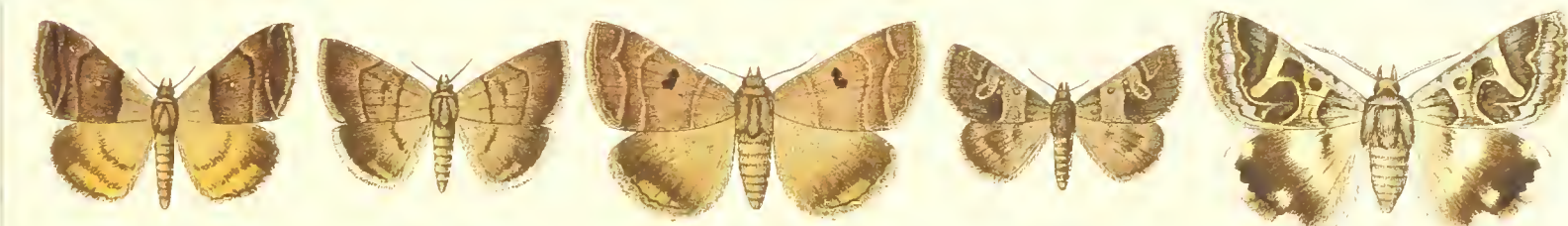
capitata

capitata

capitata

capitata ♀

e



capitata ♀

capitata

capitata

capitata

capitata ♂

f



capitata ♀

capitata ♀

capitata

capitata ♀

capitata

capitata ♀

capitata ♀

g



capitata ♀

capitata

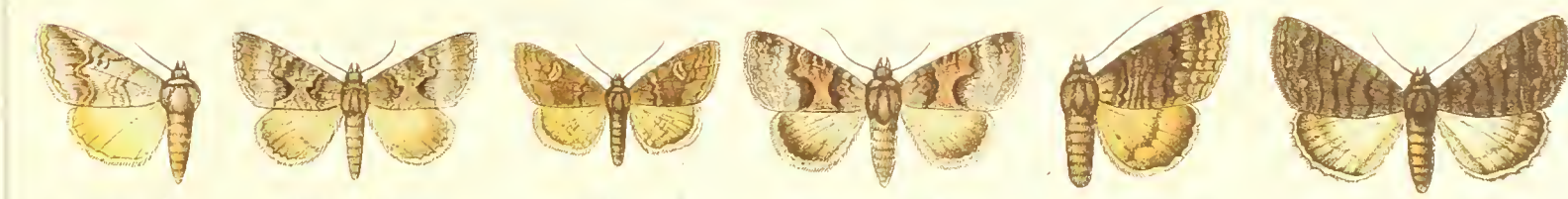
capitata ♀

capitata ♀

capitata ♀

capitata ♀

h



capitata ♀

capitata ♀

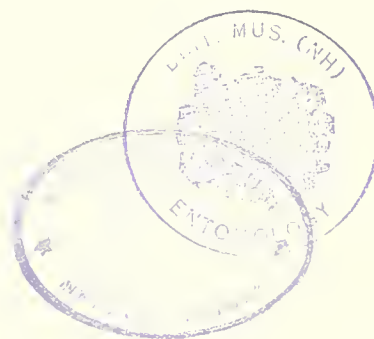
capitata ♀

capitata

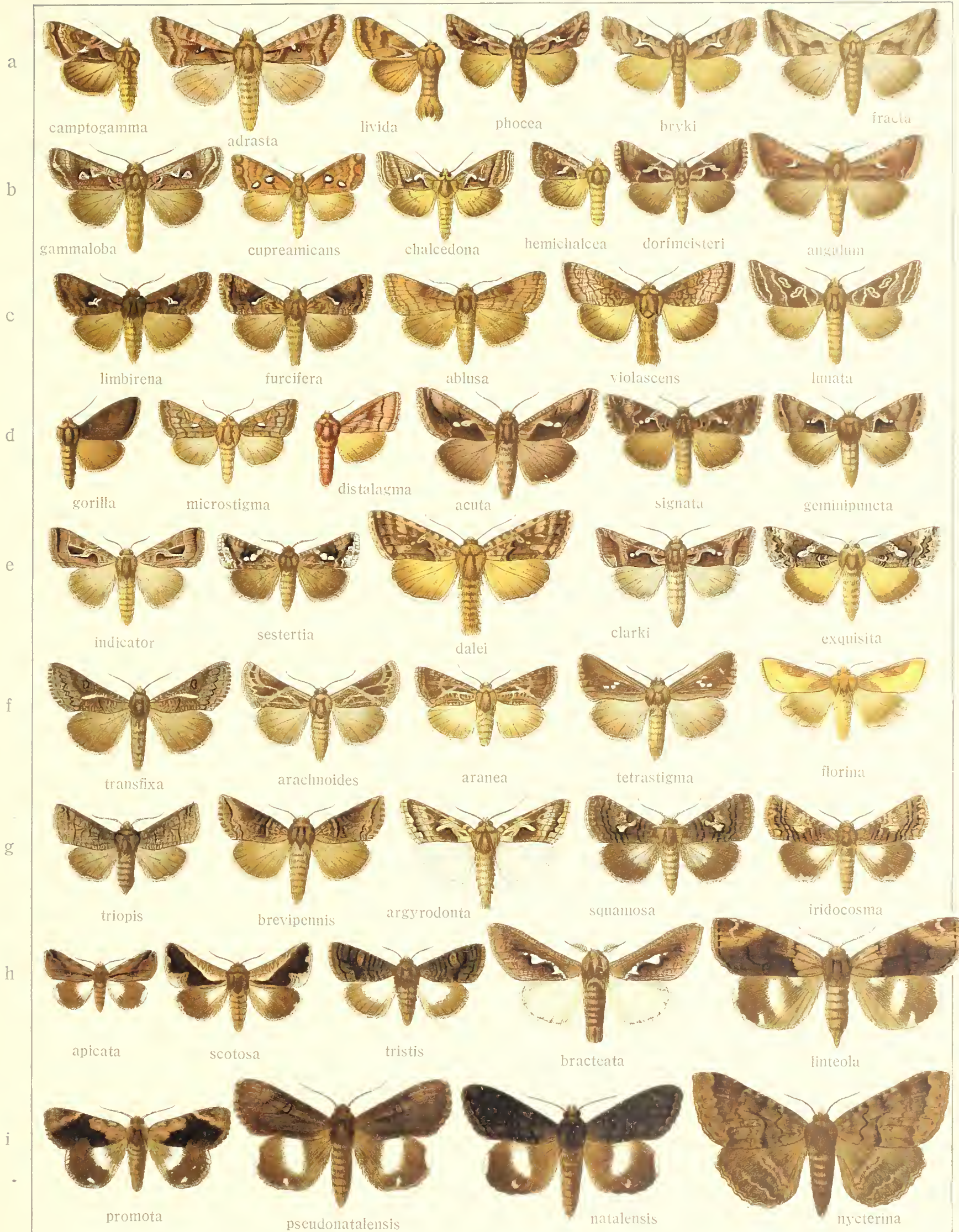
capitata ♀

capitata ♀





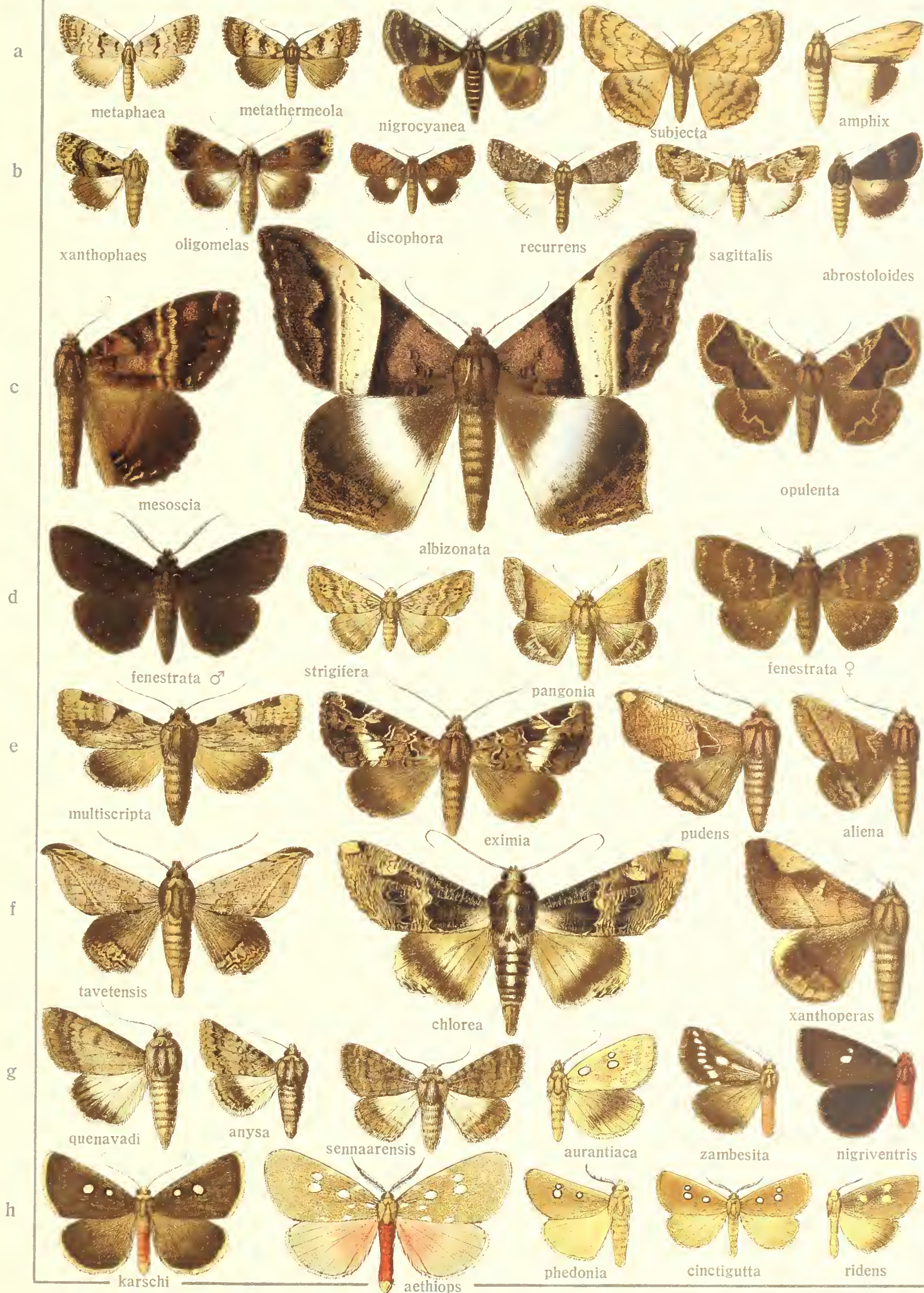








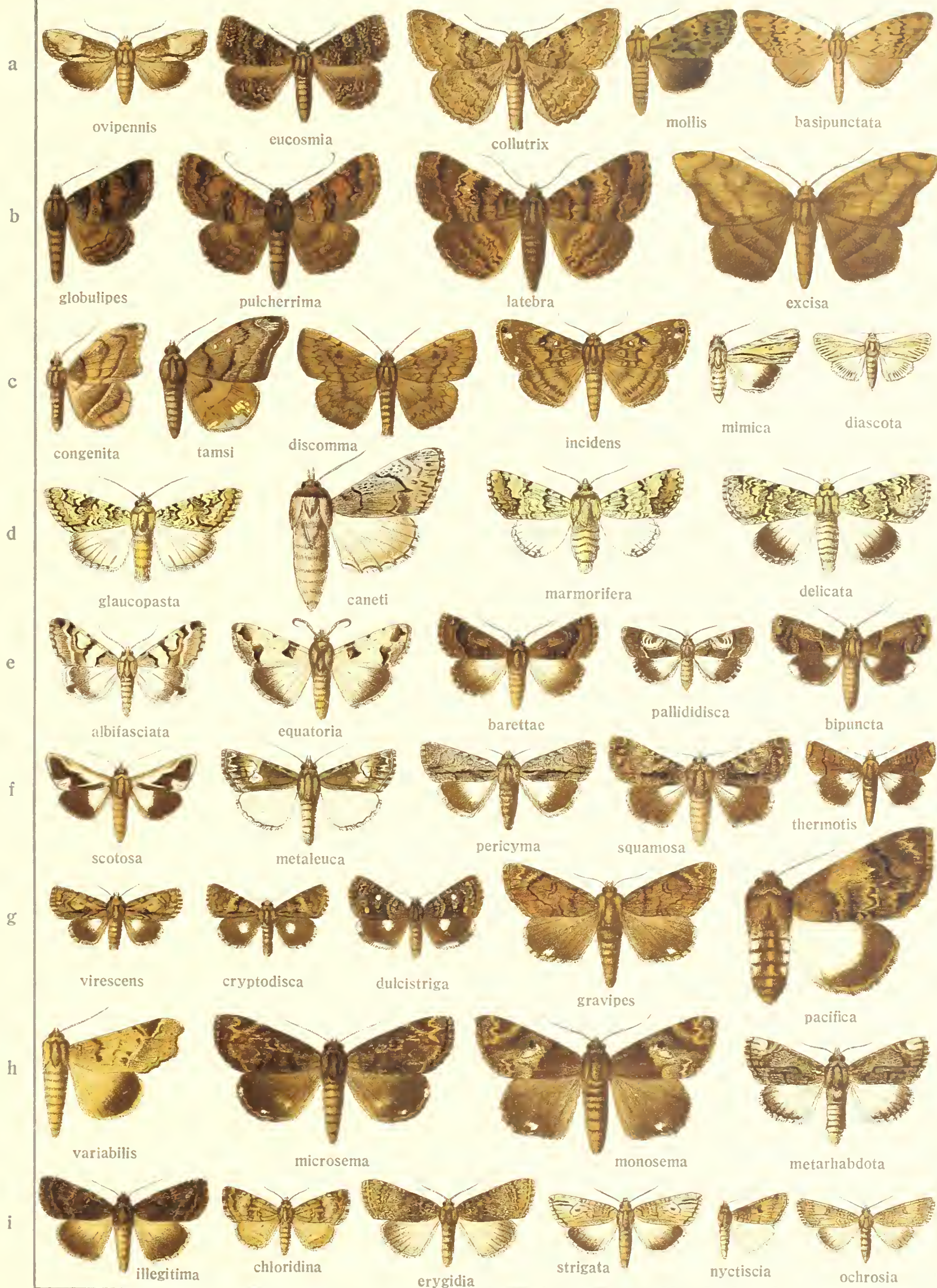
















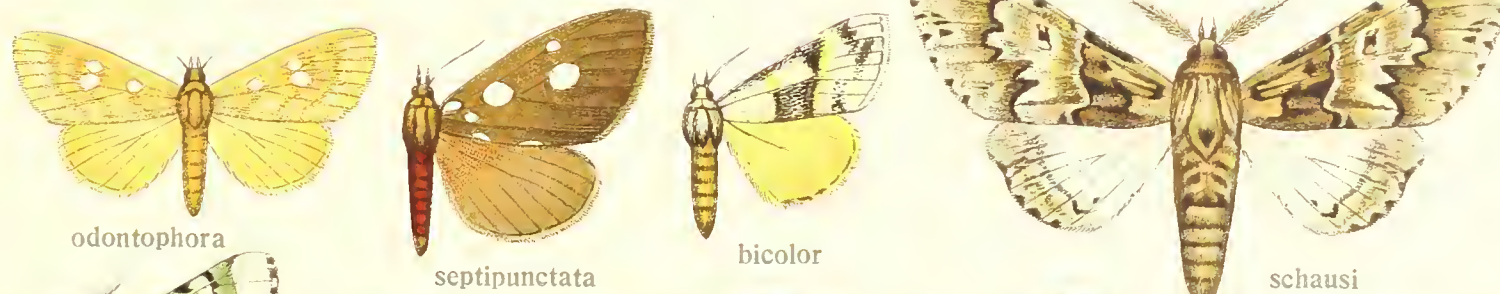
a



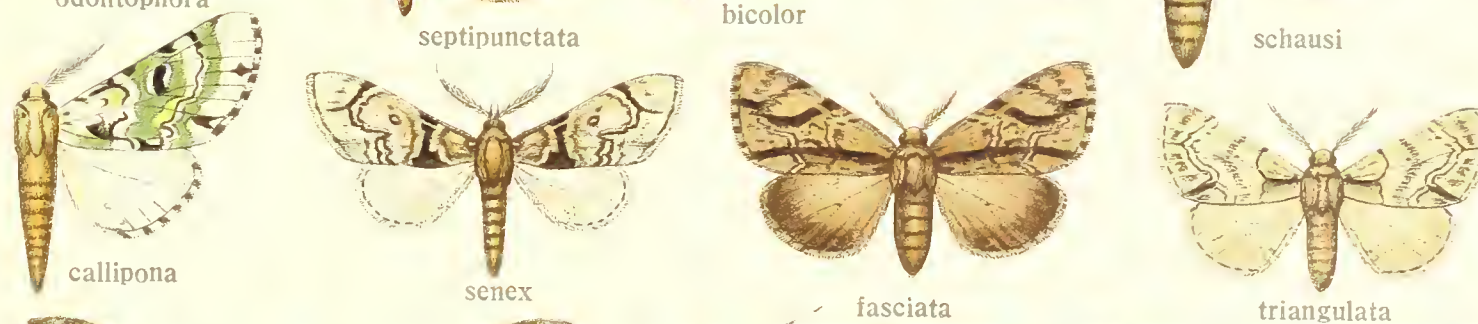
b



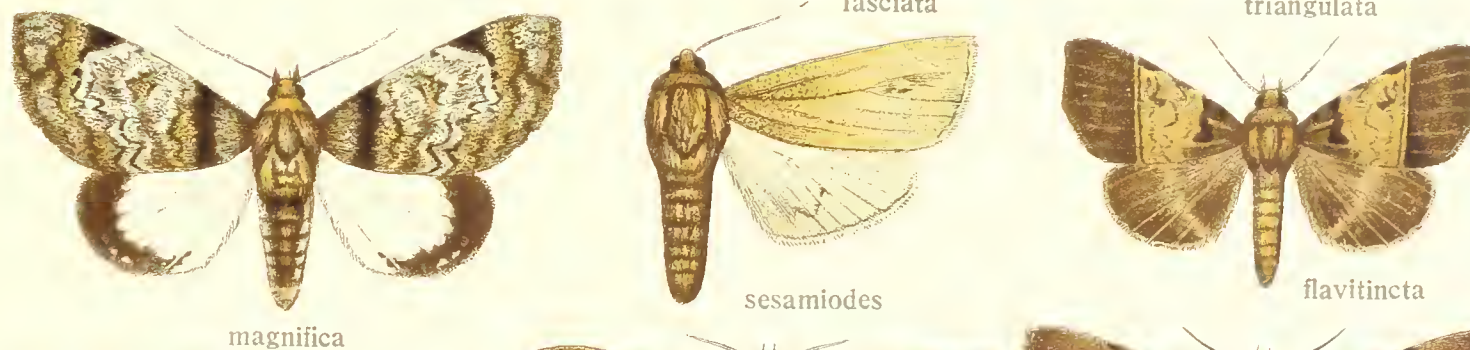
c



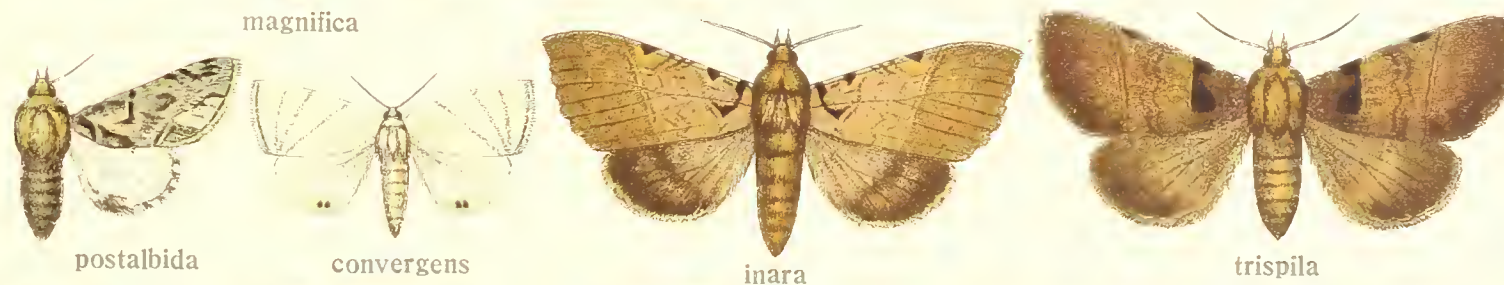
d



e



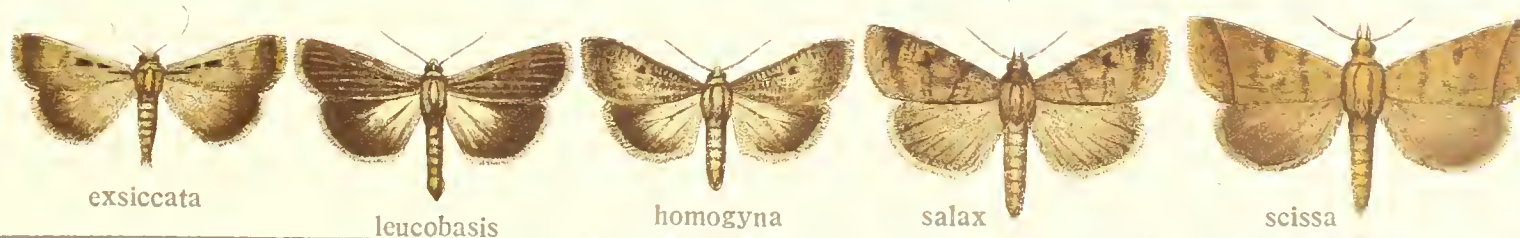
f



g



h









a



odontographa

cara

argyresthia

sarcochroa

finipunctula

mesoscia

b



rectilinea

obliqua

monogona

costisignata

exangulata

c



nigriciliata

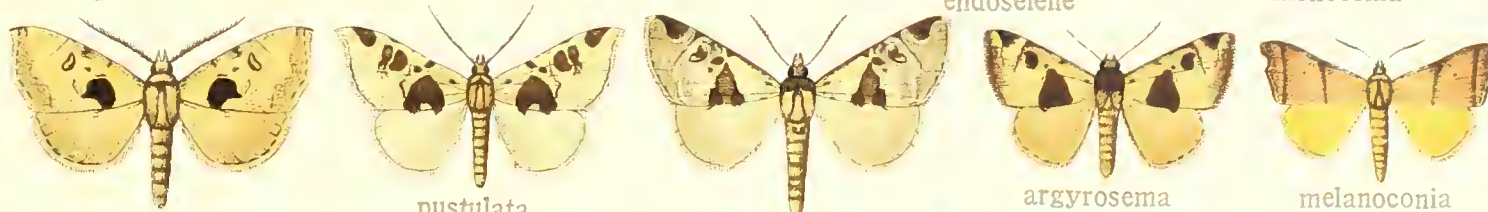
comptocera

euclines

endoselene

monosema

d



rotundiplaga

pustulata

tessmanni

argyrosema

melanoconia

e



alternata

amoeba

ruptisigna

talusina

maculifera

f



confluens

conjuncta

dimera

mediana

submarginalis

g



pammicta

inscripta

apicalis

argillacea

acuta

h



plumipes

hamifera

insulata

excurvata

biangulata

i



glyphica

atriplaga

disjuncta

nigribasis ♂

nigribasis ♀

k



atripuncta

subocellata

reflexa

dimorpha

sarcistis

plumbea



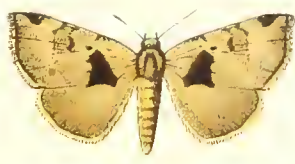




a



catoxantha



triangulifera



anguliplaga



trigonosema



rufitermes

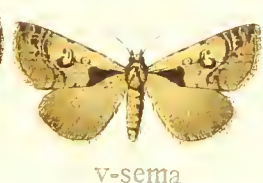


microgyna

b



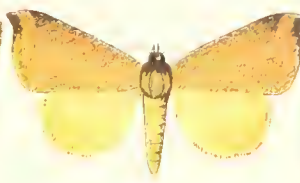
discimacula



v-sema



flavida



dedecora



lilacina



arcilla

c



argyropasta



angulilinea



albipuncta



arvorum



culminifera



bisulca

d



sminthochroa



6-maculata



quadrimaculata



ectrogia



pentagonalis



inscripta

e



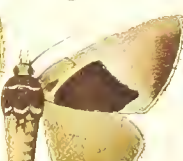
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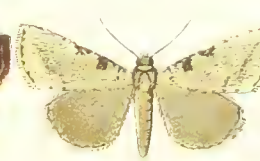
rhodotaenia



albimecta



platti



chlorota

f



atrisignata



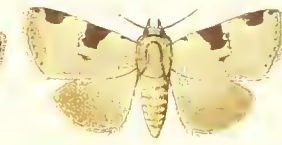
nyasica



trichoptycha



nigrivitta



renilinea



nana

g



aulota



ansorgei



confluens



phaeonephele



diagiata



microsema

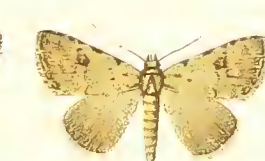
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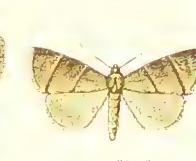
rufimedia



tessellata



annulisigna



parallela



eclipsis



hollandi



ramsi

i



ichthyopsis



sticticrasis



terminata



conifera



breviamia



gabriellae

k



zethesia



conisema



deflorata



rostrata



plumicornis

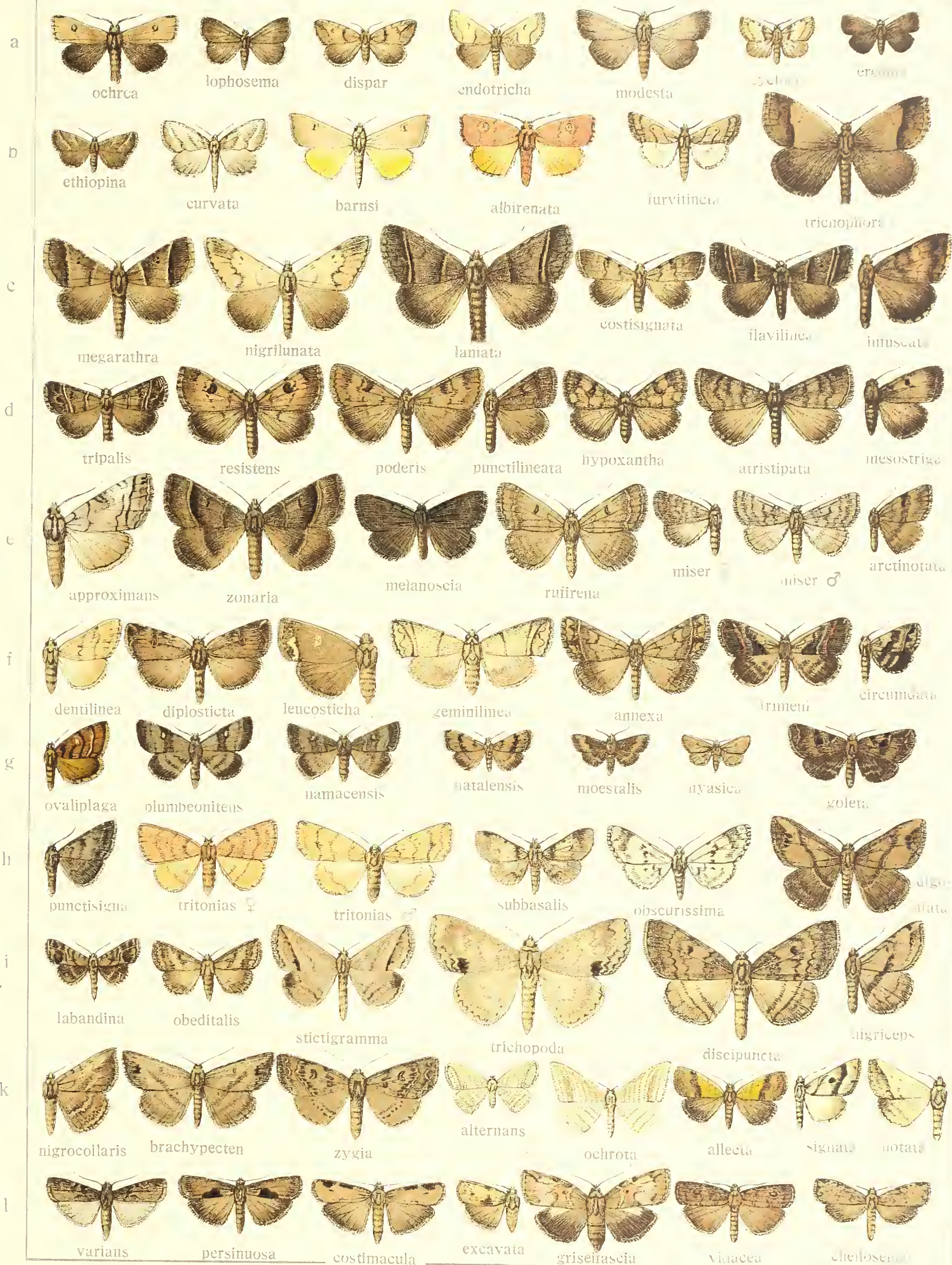


moorei









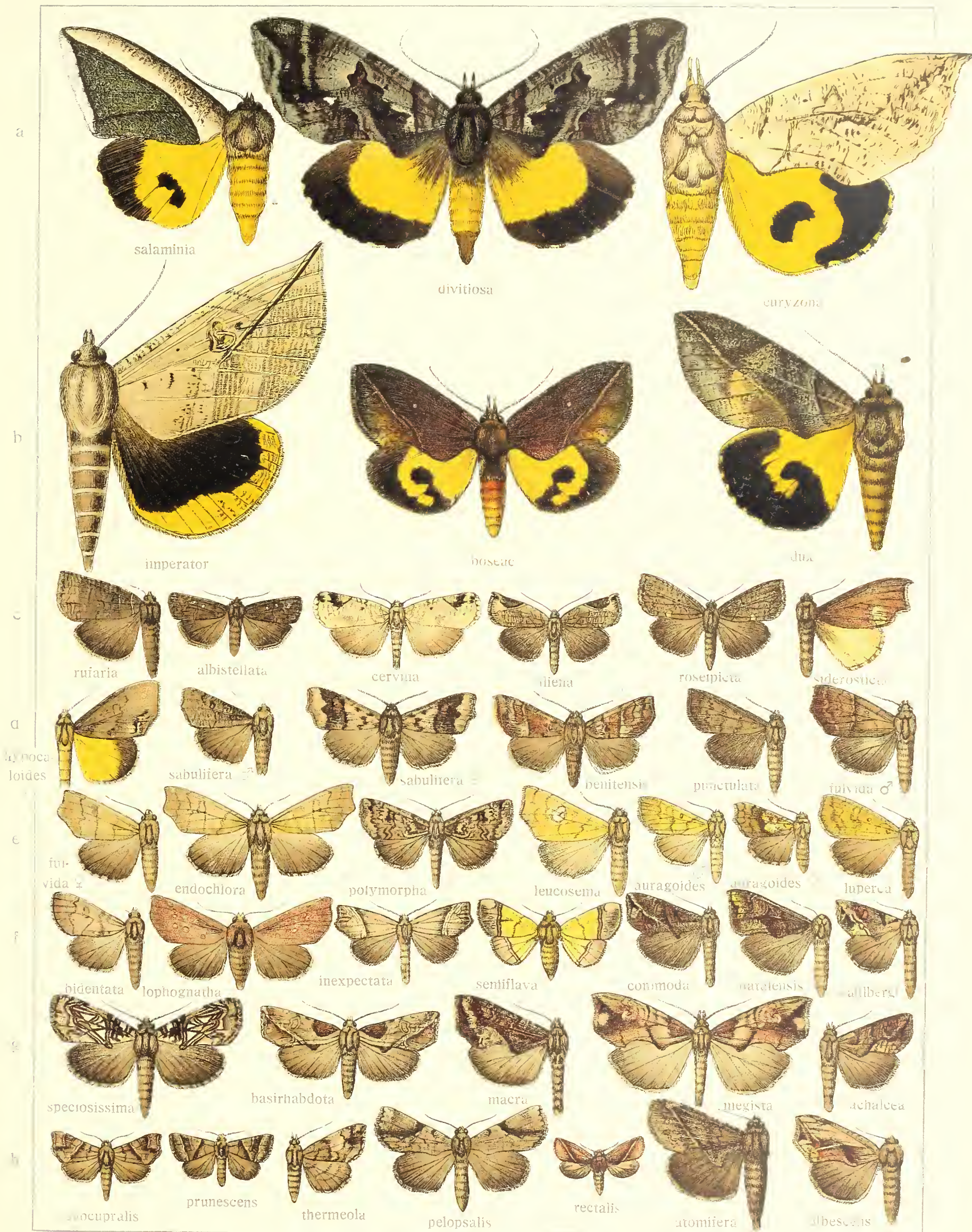






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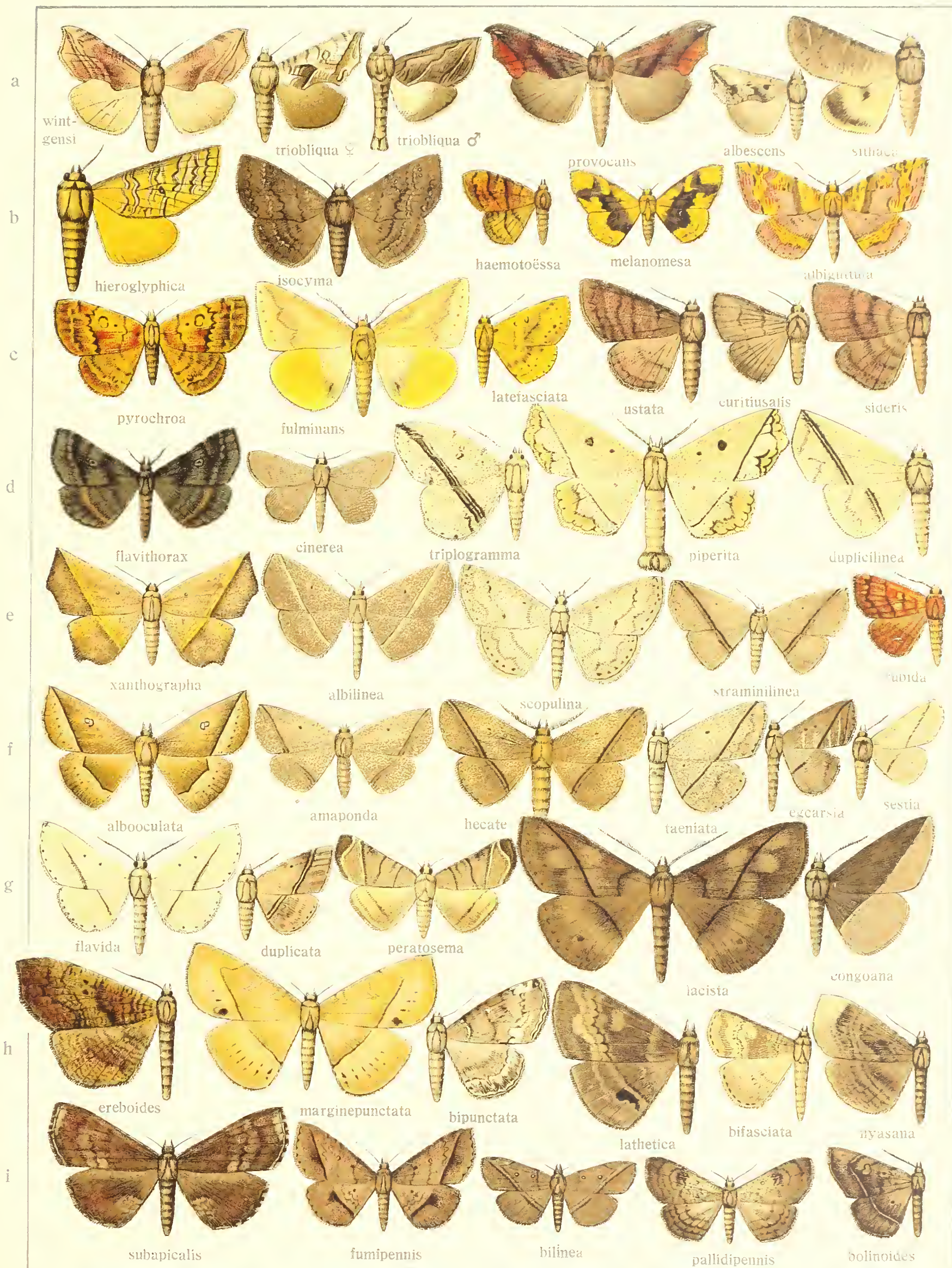
XV



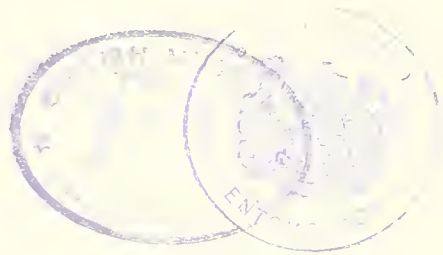










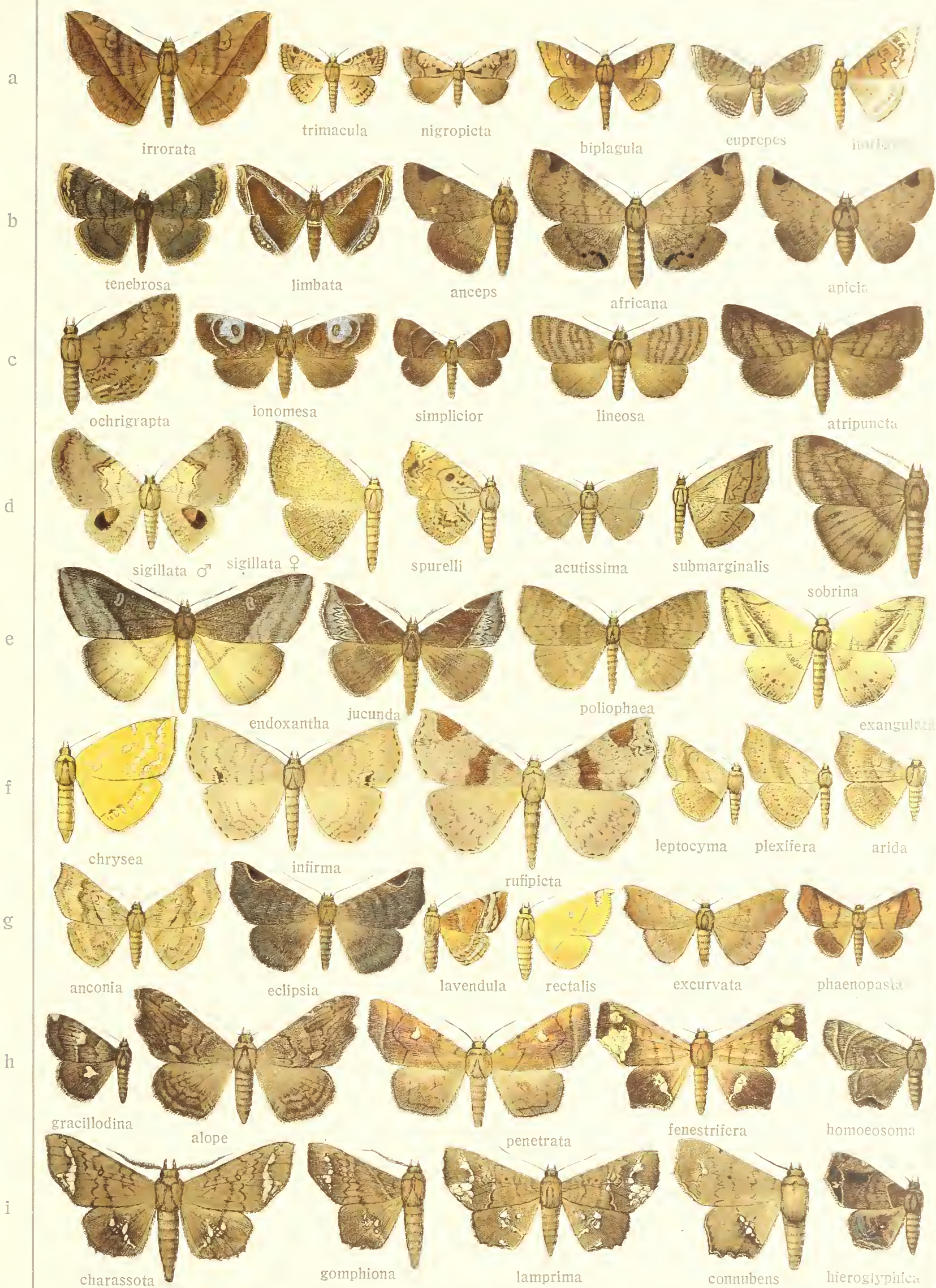




# ANTICARSIA-EPISPARIS

XV

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# EPISPARIS-PARALEPHANA

