

## H. Sauter's Formosa-Ausbeute: Geometridae (Lep.).

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(Schluss.)

\*86. *Chiasmia abraxides* Prout, nov. sp. — ♂, 21 mm. Shape, structure and coloration of *strigata*, *maculata*, *radiata* and *connexa* Warr. (all from N. India), *lutearia* Leech (from Japan; as *Boarmia* — *Fidonia* olim), *pygmaearia* Leech (from Chang Yang; as *Tephrosia*), *coalescens* Bastelberger (as *Ectropis*) = *flaripicta* Wileman (as *Hirasa*), *conuncta* Wileman (as *Aleis*?) and *virgata* Wileman (as *Aleis*?) (all the last 3 from Formosa); all these certainly form a compact group and conform to the structural characters of the superficially rather different *clathrata* L., the type of *Chiasmia*. Antennal ciliation not more than one-half the diameter of the shaft (in all the other species of the group long<sup>1</sup>). Abdomen straw yellow, dark belted. The straw yellow vertex and wings almost entirely free from fuscous irroration or strigulation, the dark markings therefore sharply defined; the scaling forms, under the lens, very manifest transverse lines or ridges, which is also observable in *radiata*. Forewing with costal margin fuscous to first band; first fuscous band subbasal, bounding the fovea distally and confluent with a spot which stands between fovea and cell; cell-spot large, nearly spherical; 2<sup>nd</sup> band arising from a costal patch opposite to and confluent with the cell-spot, very strongly excurved round the cell-spot distally; 3<sup>rd</sup> band broken into a curved row of vein-spots, those on the medians confluent with the 2<sup>nd</sup> band; subterminal band composed of a quadrate costal spot, a streak between radials and a broad curved streak (patch) from M<sup>1</sup> to hindmargin; a narrow terminal band from SC<sup>5</sup> to tornus, partly interrupted between R<sup>3</sup> and M<sup>1</sup>; fringe dark chequered. Hindwing with broad subbasal band, not reaching costa; large roundish cell-spot; curved postmedian band of partly confluent spots, not reaching costa; interrupted subterminal and terminal bands. Under surface the same. Alikang, 7 October 1909, the type unique. *abraxides* has very nearly the markings of *lutearia* Leech, but that is larger, has relatively more elongate wings than the rest of the group and has the vertex and dorsum mostly fuscous, the ground-colour of the wings largely obscured by fuscous strigulation. Bastelberger (Iris XXII, p. 180) records *strigata* Warr. from Formosa; it is just possible he had a specimen of the present species or of the following before him.

<sup>1</sup>) I cannot at present study *strigata*, *maculata* and *connexa*, but as Hampson unites these with *radiata* in one species, there is probably no very wide structural divergence.

87. **Chiasmia virgata** Wileman. — 1 ♂, Shisha, May-June 1912.
- \*88. **Parasynechia gopterana** Swinh. — 1 ♂, Alikang, November 1909; 1 ♂, Kosempo, October 1911. Described from the Khasis; probably not differentiable from *suffusa* Warr., published a year earlier from the Naga Hills. Hampson treats both as a local race of the S. Indian *erythra* Hmpsn.
- \*89. **Syntaraeta hadassa** Butl. — 1 ♀, Kosempo, October 1911. A well-known Japanese species.
- \*90. **Pseudopanthera corearia** Leech (= *disparata* Stdgr.). — 1 ♂, Kosempo, July 1911. Rather strongly dark-dusted, especially the head and dorsum of abdomen; the lines nearer together than in the type form, the antemedian being rather further from the base, the postmedian from the termen, the latter very weakly expressed and scarcely accompanied by a dark band proximally; a rather straight median line, which on both wings crosses the posterior extremity of the cell and the point of origin of  $M^1$ , distinct especially on the under surface, where there are no other lines; subterminal series of dark spots better expressed, both above and beneath. Although I have only one specimen before me, I believe this will prove a local race — *taiwanensis*, nov. subsp.
91. **Opisthograptis möllerii** Warr. — 1 ♂, Shisha, May-June 1912. Described from Sikkim, since taken in the Khasi Hills. Bastelberger has recorded a small specimen from Formosa and I am inclined to regard *punctilinata* Wileman as merely a striking aberration of the same species.
- \*92. **Corymica armearia** Walk. — 3 ♂, Alikang, October-November 1909; 2 ♀, Kosempo, August 1909. A widely distributed species.
- \*93. **Corymica specularia** Moore. — 1 ♀, Kosempo, October 1911. Another widely distributed species.
94. **Luxiaria contigaria** Walk. — 1 ♂, 1 ♀, Alikang, November 1909, the latter belonging to ab. *melanops* Bastelberger (who records the species (Iris XXII, p. 176) under its synonym *amasa* Butl.).
- \*95. **Luxiaria exclusa** Walk. — 1 ♀, Polisha, April 1910.
- \*96. **Luxiaria postvittata** Walk. — 1 ♀, Lake Candidius, 25 September — 10 October 1907. Rather dark. Previously recorded from Sylhet and Ceylon.
- \*97. **Calletaera subexpressa** Walk. — 1 ♀, Alikang, November 1909.

\*98. **Krananda oliveomarginata** Swinh. — 1 ♀, Shisha, May-June 1902. Hitherto known from Sikkim, Assam and Omeishan.

\*99. **Zanclopera calidata** Warr. — 2 ♂, 1 ♀, Kosempo, July and October 1911, January 1910; 1 ♂, Anping, April 1912; 1 ♂, Alikang, 7 October 1909. The last-named is a lighter, yellower aberration recalling the colour of *falcata* Warr., but typical in shape and markings. Described from Hainan, no other locality hitherto recorded.

\*100. **Macaria nora** Walk. — 3 ♂, Kosempo, July and October 1911.

\*101. **Macaria elvirata** Guen. — 1 ♂, strongly marked, Alikang, 1911; 2 ♂, more greyish and more weakly marked, Shisha, May-June 1912.

\*102. **Macaria emersaria** Walk. — 1 ♂, Alikang, October 1909.

\*103. **Macaria perfusaria** Walk. — 1 ♂, Suisharyo, February 1912; 1 ♀, Alikang, November 1909. All these *Macaria* are widely distributed Indian species.

\*104. **Tephritis (?) inchoata** Prout, nov. sp. — ♀, 29 mm. Head and palpus purplish fuscous; the face without projecting cone of scales. Thorax pale ochreous. Abdomen and legs very pale ochreous, more or less spotted or irrorated with purplish fuscous. Forewing with apex pointed, termen rather longer and more oblique than in typical *Tephritis*, almost straight anteriorly and only slightly curved posteriorly, tornus rather well marked;  $SC^1 - ^2$  coincident, anastomosing shortly with C; pale ochreous, with rather sparse but rather coarse purplish-fuscous irroration; antemedian and postmedian lines indicated by purplish-fuscous spots on the veins, mixed with a few blackish scales; antemedian at about one-fourth; postmedian commencing at  $R^1$ , 3.5 mm from termen, only a minute dot on  $R^2$ , the next 3 spots again large, the last still larger, extending from  $SM^2$  to hindmargin, placed 4 mm from tornus; a very vague, diffuse cell-mark on  $D^{1,2}$  indicated in darker ochreous, a faint fuscous shade running from this to hindmargin near the postmedian; distal area rather darker ochreous, fuscous-cloured except at apex and at termen behind  $R^3$ ; terminal dark line rather widely interrupted at the vein-ends. Hindwing with dark cell-mark, the median dark shade stronger than on forewing, placed proximally to the cell-mark; postmedian row of spots curved, indefinite, chiefly noticeable from  $R^3$  onwards; terminal dark shade weak and subterminal, chiefly noticeable anteriorly. Underside rather paler, the fuscous markings duller but ampler, more strigiform, both

wings with dark cell-mark, median shade and border, the border of the forewing enclosing nearly the same pale areas as above, that of the hindwing rather pronounced in anterior half, without pale apex, narrow in posterior half, here leaving the terminal region broadly pale. Kosempo, October 1911, only the type known. I am acquainted with no species with which to compare this; its coloration recalls that of the African *Epigynopteryx deformis* Warr. Can it be an African species erroneously labelled?

\*105. *Tephritis catalaunaria* Guen. — 1 ♀, Kosempo, August 1911. Worn and somewhat broken, but seems clearly a dark example of this very widely distributed species.

\*106. *Tephritis parallelaria* Walk. — 1 ♂, Alikang, October 1911.

107. *Orsonoba clelia* Cram. — 4 ♂, Kosempo, October 1911, all belonging to the form *pallida* Butl. The species is distributed nearly throughout the Indo-Australian Region.

\*108. *Hyposidra talaca* Walk. — 5 ♂, Kosempo, October and November 1911. Another very widely distributed species.

109. *Hyposidra infixaria* Walk. (= *virgata* Wileman, nov. syn.). 5 ♂, Kosempo, October 1911. Variable in depth of ground-colour, expression or suppression of dark subcostal streak from base to apex of forewing and of dark blotch on inner margin distally to the postmedian line. The palest examples are referable to ab. *pallida* Wileman. Distributed from Assam to the Sunda Islands.

110. *Psyra cuneata* Walk. (? ab. *matsumurai* Bastelberger). — 1 ♀, Punkiko (Japan), August 1911. I doubt whether *matsumurai* is more than an ab. of this variable species.

111. *Zethenia contiguaria* Leech (= *obscura* Warr.). — 16 ♂, 15 ♀, Kankau, Suisharyo, Shisha, Kosempo, Sokutsu, Chip-Chip, Alikang and Polisha. Very variable, 9 (all ♂) do not even show the white patch which is generally so characteristic.

\*112. *Hygrochroa discolor* Warr. — 1 ♂, Kosempo, January 1910, small, rather worn.

\*113. *Fascellina chromataria* Walk. — 2 ♂, Kosempo, July and October 1911.

\*114. *Fascellina plagiata* Walk. — 1 ♂, Shisha, May-June 1912; 1 ♂, Karapin (Japan), August 1911.

115. *Oecolophora* (?) *lentiginosaria* festa Bastelberger. — 1 ♀, Suisharyo October 1911. Formosan specimens seem to be of a more violet-grey tone than typical *lentiginosaria* Leech from Japan; certainly conspecific.

\*116 **Ennomos aenigma** Prout, nov. spec. — ♀, 62 mm. Palpus short, tongue slight. Forewing with  $SC^1$  and  $SC^2$  coincident, separate from C; termen with deep, semicircular excision between  $SC^4$  and  $SC^5$  (which are widely separated), a sharp tooth at  $SC^5$ , a smaller excision before  $R^1$ , termen after  $R^1$  very oblique, with very slight teeth at veins; light brown (brighter brown beneath), finely irrorated with sparse blackish dusting; first line from costa at less than 3 mm, oblique distad, strongly bent in cell, becoming very indistinct; a large oval, pale-centred black cell-spot; second line rather thick, dark brown, from costa 6 mm before apex, slightly excurved in its anterior part; round the subapical excision a narrow dark shade, vague pale-edged proximally. Hindwing with apex rather prominent, slight excisions between the veins in anterior half, mere minute teeth at the vein-ends in posterior half; concolorous with forewing, no cell-spot, an antemedian line, curved near costa, then straight, a very slightly curved, very indistinct postmedian. Underside more darkly marked, forewing in addition with a median line proximally to the cell-spot, postmedian thickened and blackened anteriorly; hindwing with a small cell-spot as well as the two (here conspicuous) lines; both wings with indistinct, irregular pale line quite near the termen. Head and body concolorous with wings, only with a dark grey band on vertex between the antennae; base of antenna and parts of legs rather strongly dark-marked. Suisharyo December 1911, only the type ♀ known. A somewhat anomalous species, which I at first supposed to be an aberrant *Hypoidra*. Probably intermediate between *Ennomos* and *Gonodontis*, with nearly the facies of the latter but longer-winged, distal excisions deeper; median spurs wanting. Antenna with projecting teeth of scales. Tibiae and tarsi not hairy nor strongly spinose.

\*117. **Garaeus apicata** Moore (var.?). — 6 ♂, Shisha, May-June 1912. Very constant, all of a violet tint, the forewing strongly suffused with reddish or red-brown in the entire basal area, costal half of central and, more or less, of distal area and proximal half of distal area, the subapical mark pale violet or violet-whitish; hindwing with two small diaphanous spots, one on each side of vein  $M^2$  close to its base, equidistant from termen, a rather distinct olivaceous shade between these spots and the postmedian line and continuing to the inner margin. It is remarkable that Bastelberger describes (Ent. Rundschau XXVIII, p. 22) another equally constant but evidently quite different form from another part of Formosa (smaller, less red, more variegated, the lines white, etc.) as *G. formosanus*. It may be a separate species, but the wing-form of Sauter's specimens appears slightly intermediate and I

have seen in the Wileman collection yet another form, probably similar to *formosanus* in colour, or more olivaceous, but of the size and shape of Sauter's specimens. I do not understand Bastelberger's remarks on the position of the diaphanous spots; they are variable in size and shape in *apicata*, but are often placed quite as in the Formosan examples before me and are certainly not „before one-another”, if that signifies one proximally to the other between the same two veins. For the rest, *apicata* is in India decidedly variable, but I am not sure whether it there splits up into distinct races.

\*118. *Heteromiza obliquaria* Leech. — 1 ♂, Shisha, May-June 1912. Hitherto only known from Chang Yang. Leech described it as an *Auzca*, a Uraniid genus with which it has certainly no connection. It should apparently be referred to *Heteromiza* as understood by Hampson, although it does not exactly agree with either of the three sections which he recognized. Perhaps related to *flava* Moore, but the antenna with ciliation at least as long as diameter of shaft, SC<sup>1</sup> and SC<sup>2</sup> arising separate, the former anastomosing with C, the latter free; hindtibia not dilated; forewing with well-developed fovea.

119. *Amblychia angeronaria* Guen. — 1 ♂, 1 ♀, Kosempo. The ♂ is rather dark, the ♀ brightly coloured and with the white spots rather large. The few other Formosan examples which I have seen, collected by Elwes and Wileman, agree very exactly with this ♀ form. Widely distributed in the Indo-Australian Region.

\*120. *Chorodna ochreimacula* Prout, nov. spec. — ♂, 76 mm. Very closely related to *testacea* Moore from N. India. Smaller. Forewing with the excision behind the apex still slighter, the termen from R<sup>1</sup> to tornus slightly convex, not (as in *testacea* ♂) slightly concave, thus appearing less prominent at R<sup>1</sup> and tornus; ground-colour rather more rufescent; antemedian line arising midway between base and cell-spot, thus more proximally than in *testacea*, angled in cell, not on SC; median line strong; subterminal ochreous spot between R<sup>3</sup> and M<sup>1</sup> not surrounded with black. Hindwing with apex more squared, the tooth at SC<sup>2</sup> smaller, the termen from R<sup>1</sup> to tornus rather more convex; an ochreous subterminal spot corresponding to that of forewing. Underside of both wings with the ochreous subterminal spot more conspicuous. Alikang, October 1909, only the type known.

121. *Amraica recursaria* Walk. — 1 ♂, Kagoshima (Japan), September 1911. Already recorded from India to Java and to Japan.

122. *Biston (Blepharocenia) perclara* Warr. (= *cerea* Bastelberger, nov. syn., = *bilineata* Matsumura, nov. syn.). — 2 ♂, 1 ♀, Kosempo, April-May 1911; 1 ♂, 1 ♀, Shisha May-June 1912. Not variable. Only

known from Formosa. Bastelberger regarded this as a subspecies of the North Indian *bengaliaria* Guen. (quoted in error as *bengalaria*), but I feel satisfied that it is, as indicated by Warren and Matsumura, a good species, distinguished by the mid-costal black mark of the forewing, less deep angulation in the postmedian line of both wings and other characters. Matsumura quotes it under *Epamraica*, a new generic name but apparently (though I cannot read his Japanese) uncharacterized; in any case, if it needs generic separation, Warren's name of *Blepharoctenia* (type *bengaliaria* Guen.) is older.

\*123. *Cusiala boarmioides* Moore. — 1 ♀, Sokutsu, Banshoryo district, 7 May 1912. Widely distributed in India.

\*124. *Elphos sauteri* Prout, nov. spec. — ♂, 71—72 mm. Shape and structure normal; 2<sup>nd</sup> subcostal vein of forewing shortly stalked, as in *hymenaria* Guen. Pattern similar to that of *pardicelata* Walk., etc., but very confused, the coloration less fuscous, quite agreeing with that of *Bronchelia scolopaeia* Drury; both wings with oval, pale-centred discal mark; the pale shading distally to the postmedian line only distinct in the posterior part of the forewing; subterminal line indistinct and interrupted; on the forewing a large diffuse dark spot between R<sup>3</sup> and M<sup>1</sup> connects the anterior part of the postmedian line with the dark proximal filling-in of the subterminal, so that a continuous oblique shade from the costa to the latter is suggested. Under surface with the ground-colour pale, but much more brownish (less white) than in the allies, the fuscous irroration comparatively slight but more uniformly distributed, though denser in the apical region of both wings; forewing with dark costal spots and oblique postmedian band from costa to beyond M<sup>1</sup>, both wings with small pale-centred cell-mark. Polisha, April 1910 (type) Shisha, May-June 1912 (ecotype). Another indigenous species of the genus has been described, *Elphos moltrechi* Bastelberger, Iris XXII, p. 179. It is larger (Bastelberger's measurement is from tip to tip in set specimens and does not show the real expanse; in *sauteri*, similarly measured, the expanse is 62—63 mm). termen of forewing rather more oblique, of hindwing more deeply crenulate, the upper surface more heavily marked with blackish and bearing conspicuous white bands and spots, the under surface white, black bordered; I have seen it in coll. Wileman.

\*125. *Xandrames latiferaria* Walk. — 1 ♂, Kosempo, August 1910. As Leech has already pointed out (Ann. Mag. Nat. Hist. (6) XIX, p. 326), this is not the species figured by Hampson (Fig. 133) under this name; Hampson's figure represents *dholaria* Moore (overlooked by Leech) of which *sericea* Butl. seems quite an unimportant modification.

126. *Gnophos caenosa* Bastelberger. — 2 ♂, Suisharyo, December 1911 and February 1912; 1 ♀, Shisha, May-June 1912. I am almost inclined to treat this as a rather large, rather uniform green form of *muscosaria* Walk., but as the distal margins are rather less deeply crenulate, especially towards the anal angle of the hindwing, it is perhaps better for the present to leave it as distinct. At least it is a good local race. On the underside the costa of the forewing is not or scarcely dotted with black and a dark submarginal shade is indicated on the hind- as well as on the forewing.

127. *Gnophos (Hyposcotis) delitescens* Bastelberger (= *rusticaria* Wileman, nov. syn.). — 9 ♂, 7 ♀, Kankau, Sokutsu, Kosempo, Chip-Chip, Alikang, Suisharyo, Shisha; also at Karapin (Japan). I have not seen Bastelberger's type (described as *Scopopteryx*) but have little doubt it is the same species which Wileman later described as *Ectropis* (?) *rusticaria*. *Hyposcotis* is the correct name for Lederer's subgenus B of *Gnophos*. In the present species, as in many of this group, the ♂ antenna is almost simple, only extremely minutely eliated; as in *perspersata*,  $SC^1$  of the forewing is long-stalked with  $SC^2$  and anastomoses briefly (or is shortly connected) with C; the distal margin of the forewing is even less oblique than in most of the European species and very slightly undulate. Evidently a common Formosan species and not variable.

128. *Ectropis boarmiaria* Guen. — 1 ♂, 1 ♀, Punkiko (Japan), August 1911. Distributed throughout the greater part of the Indo-Australian Region. Recorded from Formosa by Butler in 1880.

\*129. *Ectropis bhurmitra* Walk. — 2 ♂, Kosempo, May and October 1911; 1 ♀, Sokutsu, Banshoryo district, June 1912. This may probably be the form recorded by Bastelberger (Iris XXII, p. 177) as *dentilineata* Moore. In this exceedingly difficult group it seems at present impossible to judge of the status of some of the forms, at least without larger material and probably supplemented by biological and anatomical investigations. In their warm brown tone, Sauter's examples equal, if they do not surpass, the brownest forms of *bistortata laricaria* H. Doubl. though they vary inter se, the May ♂ being deepest brown, the ♀ palest in ground-colour but with the densest dark dusting. The venation is that of most of the Asiatic representatives of the group,  $SC^{1-2}$  in both sexes arising apart from  $SC^{3-5}$ . Hampson separates *bhurmitra* from *crepuscularia* and *dentilineata* solely by its much browner colour.

130. *Ectropis duplicata* Wileman. — 1 ♀, Shisha, May-June 1912. Doubtfully more than a local form of *ignobilis* Butl., from Japan; rather greyer, median shade of forewing undeveloped; the ♂ antenna may possibly have rather more projecting joints and stronger ciliation.

\*131. **Ectropis leucosema** Prout, nov. spec. — ♂, 36–40 mm. Shape and structure quite as in *extersaria* Hb., which it further resembles in the presence of a white distal spot between R<sup>2</sup> and M<sup>1</sup> of the forewing, though this varies greatly in size, being in the ♀ almost as in *extersaria*, in the ♂ reduced to a very small spot midway between R<sup>3</sup> and M<sup>1</sup>. Much darker than *extersaria*, the pale ground-colour rather more yellowish, median area of forewing narrower (generally about 5 mm at costal margin), postmedian line with a strong inward curve in its posterior part. Hindwing with postmedian line also much more sinuous. Forewing beneath still more distinctive; postmedian line not starting from an enlarged spot at costa; distal area from costa almost to inner margin occupied by a fuscous band, about 4.5 mm wide at costa but narrowing slightly and containing a whitish spot corresponding to that of the upper surface. Hindwing beneath often continuing this dark marginal band, but rarely in such intensity. In at least one example the marginal darkening is also clearly traceable above. Kankau (Koshun), May 1912 (type ♂ and another); Shisha, May-June 1912, 1 ♂, 2 ♀; Pilam, July 1912, 1 ♀. *E. subflava* Bastelberger (if, as I believe, it has been correctly identified by Wileman; the description is very slight) is very nearly related to *leucosema* and with the same structure but lacks the dark marginal band beneath, which will also distinguish the new species from *conspurcata* Walk., which it somewhat approaches on the upperside. Bastelberger records *extersaria obscurior* Stdgr. from Formosa; this may probably refer to the present species; *obscurior* is merely a dark Eastern Palaearctic form of *extersaria*, with normal postmedian line, underside, etc.

\*132. **Ectropis nigriflexa** Prout, nov. spec. — ♂, 31–32 mm. Belongs, like the preceding species, to the section which Hampson calls *Pro-rhinia*, ♂ hindtibia dilated, with hair-pencil; SC<sup>1–2</sup>, however, in both sexes coincident. Face light brown with a blackish spot at each side. Palpus shortish, stout, fuscous on the outside, 3<sup>rd</sup> joint very small, triangular. Antennal fascicles of cilia rather long. Ground-colour very pale brown, irrorated and clouded with darker fuscous, leaving only the median and part of the basal area of the forewing clearer. Forewing with large black discal spot: lines blackish, especially on the veins, slightly enlarged at costal margin; antemedian at about one-fourth, rather strongly and regularly excurved, accompanied proximally by an ill-defined brown shade; median line vague, bending round the cell-spot but often more or less obsolete except at costa; postmedian from before two-thirds costa, strongly bending outwards after crossing SC<sup>5</sup>, forming a rounded projection at R<sup>1–2</sup>, then strongly oblique inwards,

ending as a thick black curve (its convexity directed baswards) from  $M^2$  to hindmargin, at the same distance from base as the cell-spot; subterminal line rather thick but very indistinct and interrupted, accompanied proximally by rather strong dark shading at costa, between the radials and from  $M^1$  posteriorly; some dark longitudinal streaks between the veins distally to the subterminal; a terminal black line, almost interrupted at the vein-ends but strongly thickened midway between; fringe dark-chequered at the vein-ends. Hindwing with cell-mark considerably smaller, an antemedian line, a sinuous postmedian and an interrupted subterminal, the latter on an average less broadly dark-shaded proximally and not followed by dark internervular marks distally; terminal line and fringe as on forewing. Underside similarly but rather less definitely marked, both wings with broad fuscous marginal band, reaching from the postmedian; on the forewing this band occupies the entire area except a small spot at apex; on the hindwing it is less strongly developed, more variable, commonly leaving the subterminal line and the space between this and the termen pale. Alikang, 4 ♂, 3 ♀, October-November 1909 and May 1911 (the type ♂ October 1909); Kosempo, 1 ♂, October 1911; Sokutsu, Banshoryo district, 1 ♀, 7 May 1912. Closely related to *bisinuata* Hampson, from North India, perhaps even a local race, differing in the relatively slightly shorter forewing, darker colouring, postmedian of forewing rather less acutely produced at the radials, that of hindwing with the curves less deep, the dark border of the underside broader. Superficially resembles also *inceptaria* Walk., but lacks the abdominal hair-tufts, has the postmedian line rather more proximally placed, the border beneath broader, darker and more solid, etc.

133. *Ectropis rautaizana* Wileman. — 1 ♂, Kosempo, October 1911; 1 ♀, Polish, April 1910. Described as a *Prorhinia*, but belongs to the section *Psilalecis*, structurally indistinguishable from the Indian *inceptaria* Walk., of which it may possibly be a local form; differs in its greyer, less brown colour, less sharp markings, more strongly developed dark border on the underside, etc.

\*134. *Ascotis selenaria* Schiff. — 1 ♀, Pilam, July 1912.

135. *Aleis acaciaria* Bsd. — This extremely widely distributed species (or group), which is greatly in need of revision, is represented by 6 examples, coming from 4 different localities. 3 ♂ (Shisha and Suisharyo) belong to the handsome, sharply-marked form *fraterna* Moore (though one is weakly marked beneath), a ♂ from Kosempo is similar, but with the white areas strongly clouded and dusted, so as to appear

scarcely differentiated. A ♂ from Alikang and a ♀ from Kosempo are less sharply marked and have a rather broad median area.

\*136. *Aleis (Carecomotis) repulsaria* Walk. — 1 ♂, 1 ♀, Anping, May-June 1912; 1 ♀, Sokutsu, 7 June 1912. Hampson cites this species in the synonymy of the preceding but as the ♀ has pectinated antenna this is incorrect. It is closely related to *parfumosa* Warr., from New Guinea and N. Australia. I only know it from Hong Kong and Formosa.

\*137. *Aleis propulsaria* Walk. — 5 ♂, Kosempo, July and October 1911; 1 ♂, Anping, May 1912.

\*138. *Aleis variegata* Moore. — 3 ♂, Suisharyo, October 1911, Shisha, May-June 1912, Pilam, July 1912. Slightly darker and duller than the Indian form.

139. *Aleis admissaria undularia* Wileman. — 1 ♂, Kanikau (Koshum), May 1912; 1 ♀, Punkiko (Japan), August 1911. Described as a separate species, but appears to me nothing more than a local race of the common and variable *admissaria* Guen. of N. India. Formosan examples are perhaps less variable.

140. *Aleis nubeculosa* Bastelberger (?). — 1 ♂, Punkiko (Japan), August 1911. Rather small, somewhat worn. It seems to be a good species, nearest to *jubata* Thunb. and *polysticta* Hampson.

\*141. *Catoria sublavaria* Guen. — 1 ♂, Alikang, October 1909; 1 ♀, Taihorinsho, 7 September 1909; 1 ♀, Hoozan, September 1910. Widely distributed in the Indo-Australasian Region.

142. *Boarmia griseoviridata* Wileman. — 1 ♂, Suisharyo, February 1912. As explained elsewhere (Ann. Transv. Mus. III, p. 222), I retain provisionally in *Boarmia* those species of *Boarmia* Hampson which fall in Meyrick's genus *Diastictis*, assigning to *Aleis* those which belong to *Selidosema* by Meyrick's scheme.

\*143. *Boarmia glos* nov. spec. — ♂, 46—48 mm. Scarcely distinguishable from *conferenda* Butl. except as follows. Both wings slightly narrower, the termen of the forewing being somewhat more oblique, that of the hindwing somewhat less convex; the latter on an average more weakly crenulate. Median line (shade) of both wings on an average more strongly expressed, sometimes showing also on the underside; that of the hindwing more distally placed, touching or crossing the cell-mark instead of well proximal to it; the cell-mark itself rather larger. The antennal pectinations appear less coarse and less disposed to curl. 4 ♂, October 1911, the type and 2 others from Kosempo, 1 from Suisharyo. Whether the 3 forms *punctinalis* Scop. = *consortaria* F. (Europe), *conferenda* (Japan and E. Siberia) and *glos* (Formosa) are anything

more than local races of a single species is at present doubtful. They agree in venation and other points of structure, including the presence of a patch of longish hair on the underside of the hindwing between the fold and  $SM^2$ , becoming densest at beyond one-half of the wing-length and then ceasing. They thus approach the group *Serraca*, in which the tuft is still more strongly developed and is differentiated in colouring.

144. *Boarmia* (?) *dentilinea* Warr. — 1 ♂, Karapin (Japan), August 1911. On account of the smoother face, smoother scaling, and even the coloration, I am inclined to think this species may be related to the *Chiasmia strigata* group in spite of its strongly pectinate antenna; as in them,  $SC^1$  and  $SC^2$  of the forewing are generally coincident throughout. Previously known from N. India.

\*145. *Hemerophila subplagiata* Walk. — 1 ♀, Anping, April 1912.

146. *Hemerophila* (*Phthonandria*) *cuneilinearia* Wileman. — 1 ♂, 1 ♀, Kosempo, October and November 1911. Wileman omits to mention that the antenna in the ♀ is bipectinate (i. e. subgenus or genus *Phthonandria* Warr.) and considers it allied to *subplagiata*, in which that is not the case. In my opinion it is quite nearly related to *atrilineata* Butl., the type of *Phthonandria*; as in that species,  $SC^1$  arises from  $SC^2$ ; in both Sauter's examples it anastomoses strongly with C.

147. *Gasterocome pannosaria sinicaria* Leech (= *orta* Bastelberger).

2 ♂, 1 ♀, Shisha, May-June 1912. It is strange that neither Leech nor Bastelberger even alluded to the similarity of their supposed species to the very easily recognizable Indian *Gasterocome pannosaria* Moore nor mentioned the glossy scaling and subdiaphanous median area. Leech's type and Bastelberger's description both agree well with the Formosan examples before me and they are quite certainly conspecific with *pannosaria*; I am even doubtful whether I am not conceding too much in allowing subspecific rank to the Chinese and Formosan form, but it seems to be slightly more strongly marked, more dark-cladened, the dark distal margin on an average broader, etc.

\*148. *Gasterocome euryzona* Hampson (= ? *latifasciata* Warr.). — 1 ♂, Fuhosho, May 1903. Described from N. India.

149. *Medasina parisnattei* Walk. — 2 ♂, Shisha, May-June 1912; 1 ♀, Karapin (Japan), August 1911.

\*150. *Medasina* (?) *combustaria* *infanta* Prout, nov. subspc. — ♀, 43–44 mm. As the remarkable structural characters agree entirely with name-typical *combustaria* Walk. (List Lep. Ins. XXXV, p. 1597), I erect this as a subspecies, though its aspect almost warrants the

belief that it is a good species. Less bright brown than the name-type and *ito ab. (?) albidentata* Moore, more strongly and evenly irrorated with fuscous; lines of forewing finer, less distinct, placed further apart and marked with less strong teeth on the veins; subterminal line fine, tending to obsolescence, the tooth between the median veins less deep, a whitish spot between  $R^3$  and  $M^1$  almost as in *albidentata*. Hindwing as dark as forewing, discal dot small, a rather straight median (ante-median) line proximally to it; a pale subterminal mark behind 3<sup>rd</sup> radial. Under surface rather paler than in the name-type, less irrorated and more weakly marked; forewing with a rather broad dark border, containing the whitish blotch. — Shisha, May-June 1912, 2 ♂. Hampson creates for this species a section of *Boarmia* but by his „Key“ it would rather fall into *Medasina* as  $SC^1$  arises from C. The palpus is somewhat intermediate between typical *Medasina* and *Hemerophila*.

\*151. *Arichanna marginata* Warr. — 1 ♂, Shisha, May-June 1912; 1 ♀, Polisha, April 1910; 1 ♀, Punkiko (Japan), August 1911.

152. *Icterodes fumigata* Bastelberger. — 1 ♀, Kankau (Koshun), May 1912. This and some other kindred species which are at present placed under *Arichanna* and *Icterodes* do not conform in subcostal venation to Hampson's diagnosis;  $SC^1$  arises from  $SC^2$  and anastomoses strongly with C. Bastelberger later removed *fumigata* to *Poccilalcis* Warr., almost certainly an untenable genus, founded on *Cleora nigridorsaria* Guen.

153. *Erebomorpha (Mesastraße) fulguraria* Walk. — 2 ♂, Suisharyo, February 1912, Kosempo, June 1912. On account of the peetinate antenna of the ♀, Warren and Thierry-Mieg have separated from *Erebomorpha* this well-known Indian species and its Japanese representative *consors* Butl. Warren's name of *Mesastraße* has 5 years' priority over Thierry-Mieg's of *Stygomorpha*, but I do not regard it as more than a subgenus.

154. *Abraxas leopardina* Koll. — 2 ♂, Kosempo, October 1911; 4 ♂, Shisha, May-June 1912; 2 ♀, Karapin (Japan), August 1911.

155. *Dilophodes elegans khasiana* Swinh. — 2 ♂, Kankau (Koshun), May 1912, agreeing closely with the Khasi race, not with the Palaearctic *elegans elegans* Butl.; another of the abounding indications of the Indo-Australian character of the Formosan fauna.

156. *Dilophodes pavida* Bastelberger. — A long series (20) of this fine species, all ♂ except one, mostly from Suisharyo, February 1912; 2 from the same locality, December 1911; 1 Alikang, November 1909; 1 Shisha, May-June 1912; 2 Kankau (Koshun), May 1912. Bastelberger

in his description (Soc. Ent. XXV, p. 89) has not mentioned the enormously dilated hindtibia. The tufts of hair on the coxae are yellowish brown, not black as in *degans*, but of course their colour ought not to have been included in Hampson's generic diagnosis.

\*157. *Perenia luridaria nominoneura* Prout, nov. subspec. — Differs little from the name-typical form from W. China except in venation. In *luridaria luridaria* Leech SC<sup>1</sup> arises from C, in the new subspecies it arises from the cell and is connected by a bar with C, in 5 of the 7 examples also by a bar with SC<sup>2</sup>. Further differs in that the hindwing shows a complete submarginal row of large spots while in the name-type they are small, the one between R<sup>3</sup> and M<sup>1</sup> altogether wanting. Alikang, 1 ♂ (type), 5 ♀, October and November 1911; Shisha, 1 ♀, May-June 1912. Leech (Ann. Mag. Nat. Hist. (6) XIX, p. 451) described this species as a *Metabraxas*, though noticing the ciliated, not pectinated, ♂ antenna; it further differs from that genus in the venation, SC<sup>2</sup> being there stalked with SC<sup>3-5</sup>.

\*158. *Perenia longitermen* Prout, nov. spec. — ♂, 64–69 mm. Superficially very similar to the preceding, but narrower-winged, especially the ♂; in this sex the forewing is fully as long from the apex to the extremity of SM<sup>2</sup> as the length of SM<sup>2</sup>, in the ♀ nearly as long; in the allied species considerably shorter. Further differs in having the black costal margin of the forewing uninterrupted by white spots (only in the ♀ partly strigulated with white); the central of the 3 subbasal spots (bounding the ochreous basal area) small and placed far proximally to the other 2, forming almost an equilateral triangle with the 2 basal spots; a large blotch about the middle of the hindmargin (distally to and confluent with the antemedian row of spots), not (as in *luridaria*) much beyond the middle (distally to and confluent with the postmedian row); hindwing marked with black at extreme base, cell-spot larger, inclining to be cut with white on the discocellular itself, postmedian row of spots much more distally placed. Face black, with a very narrow ochreous stripe at upper edge (in *luridaria* ochreous). ♂ structure similar, but the fovea is not quite so large, more rounded (in *luridaria* elongate, oval). Alikang, 2 ♂ (type and cotype), November 1911; Shisha, 1 ♀, May-June 1912. I have also seen 2 ♀ in the Wileman collection. In the ♂ SC<sup>1</sup> and SC<sup>2</sup> arise separate, in the ♀ they are shortly stalked; in either case SC<sup>1</sup> is connected by a bar with C.

\*159. *Perenia fumidaria* Leech. — 5 ♂, 6 ♀, Alikang, October and November 1909; 2 ♂, 9 ♀, Kosempo, mostly January 1910; 1 ♂, Shisha, May-June 1912. Formosan specimens seem in general to differ from those of Central and West China in having the spots rather larger,

the brown shade distally to the postmedian row often more sharply defined. They perhaps deserve a separate racial name.

160. *Obeidia tigrata* Guen. — 2 ♂, Shisha, May-June 1912. Both belong approximately to the form *leopardaria* Oberth., with hindwing white as far as the postmedian and forewing white in its hindmarginal part except distally. One, however, is considerably larger than the other, with much larger spots and with the white of the forewing so extended that it should perhaps be called ab. *decipliens* Th.-Mieg. How many species or subspecies may be mixed up under the name of *tigrata* I am not yet prepared to say.

\*161. *Obeidia gigantearia marginifascia* Prout, nov. subspec. — Differs from typical *gigantearia* Leech in having the black submarginal fascia on both wings and in both sexes more solid, broadened so as almost to reach the termen, especially on the undersurface; a black patch (usually large) on vertex of head (small or even wanting in *gigantearia*), abdomen, base and hindmargin of forewing and base of hindwing in general more heavily marked with black; black marks in fringe longer; postmedian rows of spots on the other hand smaller, on the hindwing generally much smaller; under surface with less yellow; ♀ perhaps rather narrower winged. Kosempo, August 1911, 8 ♂♂ and 8 ♀♀. Leech happens to have selected as his type (♂) the example in which the submarginal bands are best developed, hence they are mentioned in his description; but even from that example the Formosan specimens are well distinguishable and they certainly constitute a good local race.

\*162. *Milionia pryeri* Druce. — 1 ♀, Taihorinsho, October 1909. Druce described this species from the Liu-Kiu Islands. Rothschild (Nov. Zool. I, p. 493, 494) treats it as a subspecies of *basalis* Walk., which may well be correct, though the position, as well as the width, of the transverse band seems to me to differ.

### Borer saccharellus Gn. und drei neue orientalische Pyralididenformen (Lepid.)

Von Embrik Strand (Berlin).

In einem unter Entomologen offenbar wenig bekannten, aber doch, insbesondere für Lepidopterologen wichtigen Werk: L. Maillard, Notes sur l'ile de la Réunion (Bourbon), 2<sup>ème</sup> edit., 2<sup>ème</sup> vol., Paris 1863 (Lepidoptera, 72 pp., von A. Guenée bearbeitet) wird eine neue Schoenobiiden-Gattung *Borer* Gn. beschrieben mit der einzigen Art

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