III.

Descriptions

of

some new species of Scarabaeidae

from tropical Asia and Malasia.

By D. Sharp.

Part III (Melolonthini).

Hoplia diana (n. sp.): Squamulis grossis, argenteo-aureis densissime vestita, sat nitida, antennis tarsisque rufis; setis tenuibus, erectis parcius adspersa; tibiis anterioribus gracilibus, tridentatis, dente superiore obsoleto.

— Long. 7 mill.

Var. Elytris pone medium macula brunnea.

A narrow species; antennae red; head densely squamose except the front of the clypeus, which is of a pitchy colour. Thorax distinctly narrower than the elytra, its sides only a little curved, the hind angles obtuse not rounded. Elytra leaving no part of the penultimate dorsal segment exposed; their hind edge being accurately adapted to the base of pygidium. Under surface and legs densely squamose; tarsi red, the hind ones bearing a good many scales.

Penang, two specimens; I believe they are male and female; the female has a brown spot just beyond the middle of each elytron.

This species is very beautiful in its colour, and remarkable by reason of the very coarse scales with which it is clothed, and by the fact that only the pygidium is left exposed by the elytra; the claws

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of the four front tarsi differ but little in size, and are divided at their apex; the antennae are nine-jointed.

Hoplia sobrina (n. sp.): Rufa, squamulis margaritaceo-brunneoque variegatis vestita; setis tenuibus parcius adspersa; tibiis anterioribus tridentatis. — Long. 6 mill.

Celebes (Wallace!).

Clothed with pearly scales which shade gradually into greyish-brown scales, a patch down each side of the middle of the thorax, and a large oblique patch on each elytron browner than the other parts; the scales on the underside are entirely pearly; the scales are large and nearly circular in shape; the front part of the clypeus is free from them. The hind angles of the thorax are very obtuse. The elytra leave only the pygidium exposed. The upper tooth of the front tibiae is small but distinct, the inner claws of the tarsi are almost equal to the outer ones in length. The antenuae are 9-jointed.

This species seems closely allied to *H. diana*, it is like it a small, narrow, and oblong species, but it differs by the much less brilliant colour, and by the size of the scales, which though coarse are hardly half the size of those of *H. diana*: besides this there appears to be an important structural character to distinguish the two species, inasmuch as the penultimate dorsal segment in *H. sobrina* bears a fine groove on its middle (such as exists in the *Anthribidae*) for the reception of the sutural angle of the elytra, and of this there is no trace, so far as I can see, in *H. diana*.

Hoplia simplex (n. sp.): Elongata, angustula, rufopicea, squamulis supra griseis vix variegatis, subtus albidis vestita; setis erectis adspersa; tibiis anterioribus tridentatis. — Long. 6½ mill., lat. elytror. 3 mill. Philippine Islands.

Of an elongate, narrrow and rather depressed form, clothed with whitish and dark grey scales above (which appear to be very easily removed) and below with whitish scales: and also bearing distinct, white, erect setae: the ground colour is dark reddish. The antennae are 9-jointed. The sides of the thorax are not much narrowed behind the middle, and the hind angles are obtuse, but not rounded. The elytra leave only the pygidium exposed. The front tibiae are distinctly tridentate, the upper tooth being small and near to the

middle one; the claws of the front tarsi are rather large, and the shorter one is about four-fifths of the length of the larger one: the claws on the middle tarsi are also large, and the inner one is about three-fourths of the length of the outer one, the legs besides bearing white scales, are also supplied with very marked white setae. The penultimate dorsal segment is grooved in the middle for the apex of the elytra.

Serica guttula (n. sp.): Lata et brevis, subconvexa, opaca, rufa, elytris apice nigromaculatis; prothorace impunetato, elytris obsolete sulcatis. — Long. 6 mill., lat. 4 1/4 mill.

Sumatra (Wallace!).

A very short and broad, but yet not convex species. Antennae red, 10-jointed, but with the joints 3-5 closely connected so that the sutures between them are indistinct, the club elongate, longer than the rest of the antennae. Head red, broad and short, the clypeus truncate in front with the angles rounded, the clypeus shining and coarsely punctured, the vertex very dull and quite without punctuation. Thorax strongly transverse, the sides a little rounded, the base broadly rounded in the middle and sinuate on each side, the hind angles obtuse; it is of a dull brick red colour, with very faint indications of distant punctures, the lateral margins furnished with pale setae. Elytra similar in colour to the thorax, but each shewing at the apex a black spot; they are furrowed by broad, very indistinct but somewhat coarse punctures, which though not very regularly placed leave the interstices along their middle impunctate. Pygidium very broad, slightly shining and coarsely punctured. The front tibiae are short and broad, bidentate. The middle coxae are very widely separated; the hind coxae are very broad, being at their outer margin twice as broad as the metasternum; each bears near its outside a tuft of two or three setae, and there are a few short setae along their outer and hind margin. The claws are toothed.

Serica duplex (n. sp.): Antennarum clava 4-articulata. Ovata convexa, rufescens, capite elytrisque fuscis, his olivacco-opalescentibus, prothorace punctato, margine anteriore et lateribus setis erectis, conspicuis; elytris striatis, striis punctatis, interstitiis fere impunctatis. — Long. 842 mill.

Java.

Antennae reddish with the club rather darker, 10-jointed, the club moderately elongate, consisting of four joints, the first of which is nearly as long as the others. Head rather coarsely but sparingly and not deeply punctured with a transverse arched line of outstanding setae across the middle. Thorax strongly transverse, the sides gently curved, the base a little sinuate on each side, the hind angles obtuse and somewhat rounded; it is of a reddish colour and is a little shining, and moderately coarsely, quite distinctly punctured, the front margin, front angles and sides with long, robust, erect setae which are most numerous about the front angles. Elytra of a fuscous colour, slightly shining and with a marked iridescent reflection, with rows of coarse punctures, the interstices between which are somewhat convex, and are not altogether free from punctures, but these are nearly confined to the proximity of the rows of punctures; the lateral setae are long and distinct. Pygidium moderately finely punctured. Underside and legs reddish, tibiae and tarsi rather darker, the setae of the ventral segments long; the upper border of the hind coxae very oblique. Front tibiae bidentate.

Apogonia dux (n. sp.): Fusco-aenea, supra parce breviterque setosa, fortiter punctata, sericeo-nitida, subtus cum pygidio densius setosa.

— Long. 18, lat. 11 mill.

Batchian (Wallace!).

Antennae red. Clypeus very densely and coarsely punctured, head densely and coarsely punctured and bearing short, erect, pale setae. Thorax with the sides near the front a little sinuate, the sides at the front a good deal reflexed upwards, the hind angles depressed and very obtuse, it is of a brassy colour, coarsely and closely punctured, the punctures bearing short, suberect, pale setae, the front part bears an indistinct channel on the middle. Scutellum coarsely punctured, except along the middle. Elytra of a brassy colour, coarsely and rather irregularly punctured, the interstices between the punctures being unequal and somewhat raised, so as to give a kind of blistered appearance, they bear also short, pale setae. Pygidium coarsely and densely punctured, and bearing erect setae, which are short at the base but longer so as to be rigid hairs at the apex. Undersurface densely punctured and furnished with dense setae, the central part

of the metasternum more sparingly punctured and with a broad impression. Legs pitchy.

Apogonia farinosa (n. sp.): Rufescens, squamulis furfuraceis vestita setisque tenuibus erectis (praesertim in capite et thorace) munita.

— Long. 7 mill.

Celebes (Wallace!).

Clypeus extremely short. Surface covered with broad light scales which conceal the sculpture, and on the head and thorax with a dense, fine erect pubescence. Elytra rather coarsely punctured, their setae much more scanty than on the head and thorax, the scales leaving two not very distinct bare lines down the middle of each. Pygidium clothed with scales and hairs. Undersurface clothed with light scales similar to those of the upper surface but much smaller, and with a scattered pubescence between them. Legs with pale setae, but free from scales, except a few on the hind femora. Claws of tarsi deeply bifid.

This species is easily recognized by the large scales with which it is covered.

Apogonia vestita (n. sp.): Fusco-rufa, squamulis angustis albidis dense vestita; pygidio apice setoso; elytris fortiter punctatis. — Long. 10 mill.

Celebes (Wallace!).

Antennae yellow. Head coarsely punctured and clothed with pale scale-like setae, which are finest at the front of the clypeus. Thorax rather coarsely punctured, a good deal rounded at the sides, the surface with a very faint metallic reflection and clothed with narrow white scales, which are sufficiently distant from one another to allow the surface between them to appear shining. Elytra reddish, rather paler in colour than the head and thorax, very coarsely punctured and shining, but the sculpture much obscured by the pale scales which are sprinkled over it; these leave two indistinct lines along the middle of each elytron bare. Pygidium sparingly clothed with scales, which at the apex are replaced by fine, elongate, erect, white hairs. Undersurface more densely clothed with scales than the upper, the apical segment with a smooth, shining space in its middle. Legs pitchy, much clothed with setae.

Lepidiota florens (n. sp.): Olivaceo-grisea, sericea, subopaca, supra nuda, elytrorum apice macula parva squamosa, subtus lateribus albido-squamosa; elytris punctatis, lineis tribus laevibus. — Long. 37—43 mill.

Penang.

This very peculiar insect looks somewhat as if covered with paint. The antennae are dark reddish, with the basal joint however coloured like the body, they are 10-jointed, the last 3 joints forming a small club. Maxillary palpi with the last joint elongate and rather slender. Head rather broad and short, the clypeus slightly emarginate in front, it is short and rather coarsely and closely punctured, the rest of the head more sparingly but quite distinctly punctured. Thorax very transverse, with the anterior angles acute and distinctly projecting forwards, the hind ones obtuse and rounded, the base distinctly produced in front of the scutellum, the surface somewhat sparingly sprinkled with fine but distinct punctures. Elytra somewhat sparingly and finely punctured, with however three lines along each impunctate, in the neighbourhood of these lines are a very few small white scales, which however are so few in number that they are scarcely seen till looked for, near the apex of each is a small patch of scales. Undersurface similar in colour to the upper, but clothed at the sides with fine white scales, which are most dense on the sides of the thorax and on the side-pieces of the mesosternum. The legs are concolorous with the body, the hind tibiae are a good deal dilated at the extremity and their tarsi are short.

I am not sure but that the smaller of the two specimens before me may be a distinct species from the one described: it has the upper surface coarsely and closely punctured and the tarsi are a little longer; I do not know the locality of this individual. This very peculiar species I judge has some points in common with *Eucirrus Mellyi*, a species I have not seen.

Lepidiota guttata (n. sp.): Nigra, elytris rufescentibus, opaca, capite thoraceque dense brevissime albido-setosis; elytris squamulis albidis parvis adspersis, apice macula parva albida, subtus dense griseo-vestita.

— Long. 45 mill.

Laos (Mouhot!).

Antennae pitchy. Head blackish, dull, moderately closely punctured, but the punctures concealed by a white scale placed in each puncture, the scales on the vertex finer than those on the clypens. Thorax blackish, rather closely, but quite indistinctly punctured, with a very fine seta-like scale in each puncture; the sides are a good deal narrowed towards the front, the base not sinuate near the hind angles, the lateral margin crenulate. Elytra of a dull reddish colour, quite opaque, with sparing, fine punctures, which are concealed by a white scale placed in each, near the apex of each is a very small patch of white scales Pygidium closely and finely punctured and with a very fine greyish pubescence. Undersurface densely covered with a fine short greyish pubescence, which is absent from the middle of the metasternum, and more scanty along the middle of the abdominal segments. Legs rather short and stout.

This species is closely allied to *L. bimaculata* Saunders, but is smaller and has the white scales of the upper surface larger and more numerous, and differs when the two are compared in other numerous details. *L. albistigma* Burm. is probably another closely allied species, but Burmeisters description though short does not satisfactorily apply to this species. The individual I have described is no doubt a female.

Lepidiota munda (n. sp.): Ovalis, fusca, nitida, supra squamulis minutis (in capite majoribus) vestita, subtus griseo-squamosa, metasterno pube depressa vestito; elytris sat crebre punctatis interstitiis crebre punctulatis. — Long. 34 mill.

Sarawak.

Rather narrow and regularly oval in outline. Antennae dark pitchy. Head blackish, bearing rather narrow pale scales, distinctly but not coarsely nor densely punctured, a little shining, clypeus rather long, slightly emarginate, very rounded on each side, finely margined. Thorax much narrowed towards the front, the front angles not prominent, the lateral margins crenulate, the base sinuate on each side near the hind angles, which are obtuse and not rounded; the surface is shining being moderately closely and not finely punctured, and bearing very numerous, small, pointed pale scales, the scales along the middle are much coarser than at the sides. Scutellum rather coarsely punctured and bearing rather coarse scales. Elytra with a dark reddish or purplish tinge, which is most conspicuous at the sides where it forms an obscure band close to the margin which

is black, each has a slight prominence before the extremity, and protected by this there is an indistinct patch of scales, they are rather coarsely and not deeply punctured, and besides the coarse punctuation they are finely punctured, and bear numerous but very small pale scales. Pygidium moderately closely punctured, but regularly clothed with pale scales, each of which fills and so hides a puncture. Metasternum with a depressed pubescence at the sides, impunctate and with a sagittate mark on the middle, at the apex with scales; hindbody rather closely clothed with pale greyish scales. Front tibiae slender and with only two teeth. Middle tibiae also slender and without prominences; hind tibiae only a little broader at the extremity and with one obscure carina on the middle; tarsi bearing white scales, the first joint rather longer than the second. Mesosternum with a minute process between the legs.

This puzzling species appears to be very intermediate between *Leucopholis* and *Lepidiota*; I have seen but a single individual, whose sex I have not ascertained.

Lepidiota rufipennis (n. sp.): Nigro-picea, elytris rufis, capite thoraceque dense sat fortiter punctatis, squamulis minutissimis munitis; elytris parcius sed fortiter punctatis, squamulis minutis adspersis, basi lineis elevatis duabus sat distinctis; metasterno villoso, abdomine dense aequaliter albido-squamoso. — Long. 28 mill.

India bor.

Antennae and palpi pitchy, last joint of the latter rather stout. Head blackish, covered densely with deep punctures, in each of which is a small, pale, seta-like scale: clypeus not at all emarginate. Thorax with the base a good deal produced in the middle, but not at all sinuate on each side, the sides a good deal dilated in the middle, the lateral margins obsoletely crenulate; it is of a pitchy colour and very densely covered with moderately fine punctures, in each of which is a very minute scale. Elytra reddish, a little shining, rugulose, rather coarsely but not densely punctured and with very small scattered white scales which are not evenly distributed but placed together in two and threes, the suture is distinctly elevated, and on the basal part of each are two not very distinct elevations, the lateral margin is black. Pygidium closely punctured, each puncture filled by a minute scale. Metasternum pubescent. Hind femora thickened, their

tibiae a good deal dilated towards the extremity. The ventral segments densely and evenly covered with fine white scales.

I obtained my specimen of this species from Lafertés collection, in which it was labelled *Lepidiota rufipennis* Reiche.

Lepidiota discedens (n. sp.): Rufescens, capite thoraceque nigricantibus, fortiter punctatis, squamulis parvis, pallidis adspersis; elytris parcius punctatis squamulisque parvis sparsim adspersis lineisque tribus obsoletis vix elevatis; subtus pallidosquamosa, metasterno dense villoso. — Long. 38 mill.

Siam (Mouhot!).

Antennae reddish. Last joint of maxillary palpi elongate and linear (parallel-sided). Head short, clypeus not emarginate, coarsely and deeply punctured, the punctures bearing pale scales. Thorax broad and very transverse, its colour between red and black, the base near the hind angles not at all sinuate, the sides rounded in the middle and a good deal narrowed towards the front, the lateral margins indistinctly crenulate, the surface moderately closely covered with deep, rather coarse purctures in each of which is a round, whitish scale. Elytra dull reddish, with the suture and 3 or 4 indistinct lines on each slightly elevated, they are covered with rather sparing and distinct, but not coarse punctures, in each of which is an extremely small white scale. Pygidium shining, sparingly punctured towards the extremity, at the base rather closely covered with scale bearing punctures. Metasternum densely covered with a long fine erect pubescence: the ventral segments rather coarsely and closely punctured, the punctures bearing white scales, but the three basal segments in the middle shining and very sparingly punctured. Hind legs with the femora incrassate and the apex of the tibiae much dilated; the transverse carinae or prominences on the tibiae very distinct.

I believe the only specimen I have seen of this very distinct species is a female.

Lepidiota rugosa (n. sp.): Nigra, supra fere nuda, subtus villosa, abdomine albido-squamoso; thorace dense fortiterque rugoso-punctato; elytris fortiter punctatis, lineis tribus sat elevatis. — Long. 37 mill.

Sylhet, Himalaya.

Antennae pitchy. Head black, densely and very coarsely punctured, clypeus broad and short, much reflexed in front, and distinctly emarginate in the middle. Thorax rather broad, a good deal more narrowed at the front than at the base, the front angles acute, the hind ones obtuse but scarcely rounded, it is black in colour, densely and coarsely punctured, some of the interstices about the middle rather larger so as to be smooth and shining; the surface appears to be quite free from scales, but when much magnified it is seen that there is a pale scale at the bottom of each puncture. Scutellum coarsely and closely punctured except at the apex which is smooth. Elytra quite black, rather coarsely and moderately closely punctured, with three rather distinct lines down each. Pygidium rather closely punctured and bearing white scales, which are not very conspicuous, and also some fine hairs. Undersurface and legs much pubescent, the hindbody densely clothed with white scales, except at the base of each segment, so that it has the appearance of being white with transverse black lines; the front tibiae are very strongly tridentate; the tarsi are rather elongate; the hind femora are only moderately stout.

An individual of this very distinct species was labelled in Lafertés collection "Lepidiota rugosicollis Reiche, Himalaya"; I have a second specimen entirely agreeing with it from Sylhet.

Lepidiota tridens (n. sp.): Opaca, olivaceo-fusca, elytris olivaceorufescentibus; scutello utrinque macula alba; thorace sat crebre minus fortiter punctato, punctis squamulis minutissimis; elytris fere impunctatis; metasterno breviter pubescente; abdomine parcius albido-squamoso. — Long. 37 mill.

Laos (Mouhot!).

Antennae pitchy, with the club pitchy red. Last joint of maxillary palpi moderately stout. Clypeus a good deal emarginate in the middle. Head greyish, coarsely and moderately closely punctured, each puncture filled with a rather large white scale. Thorax much narrower than the elytra, the sides much narrowed behind, the hind angles obtuse, the base not sinuate at the sides, the lateral margin strongly crenulate, it is of a dark greyish olivaceous colour, quite dull, with evenly distributed rather fine but deep punctures, at the bottom of each of which is a minute, pale scale. Scutellum impunctate, with a conspicuous patch of white scales at the base on each

side. Elytra very dull, of a faint reddish colour with an olivaceous tinge, with sparing, scarcely visible punctures, each of which bears an excessively minute pale scale. Pygidium with sparing small scales. Metasternum and hind coxae with a short but rather dense pale pubescence. Hind body olivaceous-grey, quite dull, with rather scanty white scales, which are most dense down the middle of the segments, so as to cause a spotted appearance there. Front tibiae with the three teeth very large; the legs rather slender; the two projections on the middle tibiae distinct.

The individual described is a male and has the club of the antennae rather longer than joints 2-7 together.

Lepidiota pedator (n. sp.): Opaca, griseo-olivacea, elytris rufescentibus; thorace sat crebre punctato, punctis squamulis minutissimis; etytris parce punctatis, lineis tribus obsoletis; metasterno femoribusque pubescentibus, abdomine parce albido-squamoso. — Long. 30 mill.

India bor.

Head rather small, coarsely punctured, each puncture bearing a white scale, clypeus distinctly emarginate; thorax narrow, a good deal narrowed in front of and behind the middle, the lateral margins crenulate; it is of a greyish olivaceous colour, covered moderately closely with somewhat fine but deep punctures, each of which bears a small white scale. Scutellum impunctate. Elytra reddish, with an olivaceous tinge, the lateral margins and suture narrowly infuscate; sparingly and finely punctured, each puncture with a very minute pale scale; each elytron with three indistinct lines, along the edges of which are a very few, slightly larger scales. Pygidium with scanty narrow white scales. Metasternum and hind coxae very densely pubescent, the femora also with much pubescence; the hindbody dull, not very densely sprinkled with distinct white scales. Front tibiae tridentate, the upper tooth rather large. Hind femora rather stout.

The individual described is I believe a male; it has the club of the antennae about as long as the other joints together; I obtained it from Lafertés collection in which it was labelled "Lepidiota olivacea Burm.?", but on comparing it with Burmeisters description I feel pretty sure it is an allied but distinct species. It is allied to L. tridens but is not half the size, it has the legs shorter and stouter, the

upper tooth on the front tibiae less developed and the undersurface more pubescent.

Lepidiota pumila (n. sp.): Brunnea, supra fortiter punctata et parcius setoso-squamosa, subtus densissime albido-squamosa, metasterno abdomineque medio laevigatis, tibiis anterioribus tridentatis, dente superiore minus prominulo. — Long. 17 mill.

India.

Head coarsely and closely punctured, bearing pale scale-like setae, which stand up out of the punctures, margin of the clypeus rather strongly reflexed, but scarcely at all emarginate in the middle. Thorax broad and short, the sides a good deal narrowed towards the front, but scarcely at all behind, the base only slightly sinuate near the hind angles, which are rather obtuse but not at all rounded, closely and coarsely punctured, but the punctures more distant in the middle of the basal part, the surface a little shining and clothed with suberect pale scalelike setae. Scutellum rather coarsely punctured. except at the base. Elytra rather coarsely and closely and somewhat rugosely punctured, but still distinctly shining, bearing rather numerous but not conspicuous narrow scales or setae, and each with two indistinct raised lines. Pygidium dull, densely and coarsely punctured, and bearing rather numerous subdepressed setae. Beneath the sides of the thorax clothed moderately closely with white setae: the hind coxae, the sides of the breast, and the hindbody very densely clothed with white scales, the middle of the metasternum and of the hindbody bare, and of a shining chocolate colour, the metasterunm (except the middle) is clothed with white scales and a few hairs. The anterior tibiae are rather stout and bear three teeth, the upper one however is very slightly prominent; the middle and hind tibiae are cylindrical and without teeth or carinae; the mesosternum without projecting process.

This species bears a great resemblance to *Leucopholis philippinica* Burm., but is readily distinguished by the dentate front tibiae as well as by its shorter thorax, and numerous minor points.

Lepidiota nana (n. sp.): Fusco-nigra, subopaca, antennis pedibusque rufis, supra crebre fortiter punctata et breviter setosa; metasterno

coxisque posterioribus villosis, abdomine dense albido-setoso. — Long. 14^{1} /2 mill.

China.

Head densely and coarsely, rugosely punctured, black with the front of the clypeus reddish, this not emarginate. Thorax short, greatly narrowed towards the front, much less towards the base which is not sinuate near the hind angles, it is blackish in colour, closely and rather coarsely punctured and bearing pale setae. Scutellum short and broad, coarsely punctured and bearing pale hairs. Elytra blackish, but little shining, densely and coarsely rugosely punctured and bearing pale setae which are dense at the extremity, with three indistinct raised lines on the middle, and another more distinct one near the side margin. Pygidium with its sculpture concealed by white long scale-like setae, these setae are mixed with hairs especially towards the apex which is conically prominent. Metasternum coarsely punctured and clothed with a long pubescence. Hindbody densely clothed with white scale-like setae. Legs red, anterior tibiae with three teeth, which are but little prominent.

This species seems to be closely allied to *L. pumila*, but shews numerous small points of difference besides the colour.

Lepidiota gracilipes (n. sp.): Angustala, sordide rufescens, opaca, squamis pallidis sat dense adspersa; prothorace lateribus rotundatis, sat fortiter punctato; pedibus posterioribus elongatis, tarsis gracilibus. — Long. 25 mill.

Penang.

Antennae 10-jointed, the club rather small, about equal in length to the five preceding joints. Maxillary palpi rather long, the apical joint rather long and slender, and with its inner margin sinuate. Labrum a little depressed in the middle but scarcely bilobed. Mandibles with their apices thin, and projecting a little outwards between the labrum and ligula. Head rather broad and short, clypeus rather strongly reflexed and not at all emarginate, it is of an obscure reddish or fuscous colour with the clypeal margin nearly black, it is rather coarsely punctured and bears some rather fine pale scales. Thorax with the sides a good deal curved and somewhat narrowed towards the front, the base not sinuate, the hind angles obtuse and somewhat rounded, it is of an obscure reddish colour, somewhat coarsely punc-

tured and bears rather fine pale scales. Scutellum rather closely punctured except along the middle. Elytra of a dull reddish colour, quite dull, rather coarsely but not densely punctured, each puncture bearing a pale scale, there is no trace of elevated lines, but there are a very few larger scales scattered here and there (apparently only about twelve on each elytron). Pygidium narrow and elongate, moderately closely punctured and bearing pale scales, but with a bare space down the middle. Undersurface similar in colour to the upper and clothed with pale scales in a similar manner, the scales being replaced on the metasternum by fine hairs, and on the sides of the prosternum by setae. Front tibiae bidentate, with a very large indistinct upper tooth. Hind legs slender and elongate, the tibiae without transverse carinae; the hind tarsi are slender and elongate so that the three basal joints are 6 1/2 mill. in length (the other joints are wanting in my specimen), the second joint longer than the basal one.

This species is a very peculiar one and I should have made it a distinct genus, were it not for the fact that the genera of *Melolon-thini* are at present in such a chaotic state, that I think it is no advisable to make fresh names for new genera at present. The *Lepidiota bicolor* is apparently pretty closely allied in structure to this species, but the peculiarities are not in it so strongly marked. The hind legs are formed much as in *Rhizotrogus*, while the prosternal process approaches that of *Lepidiota*.

Lepidiota bicolor (n. sp.): Opaca, capite thoraceque nigris, elytris rufis, abdomine rufo, ventre nigricante, pygidio utrinque nigro-lineato; metasterno fusco parcius breviterque pubescente. — Long. 21 mill.

India.

Antennae red, club moderately long. Head rather small, black, rather coarsely punctured, finely and sparingly on the vertex, clypeus completely rounded. Thorax with the sides rounded and a good deal narrowed towards the front, the base somewhat sinuate on each side, the hind angles obtuse and a little rounded, they are not at all depressed; it is of a peculiar dull black colour, having a somewhat velvety appearance, it is distinctly punctured with moderately fine, round, widely separated punctures. Scutellum large, infuscate red, the sides with somewhat coarse but indistinct punctures. Elytra dark

red, with the snture very finely black, the punctures with which they are evenly and regularly covered are rather widely separate and moderately coarse. Pygidium very narrow and elongate, red with a black stripe on each side, sparingly punctured. Legs infuscate red, the posterior ones being nearly black. Anterior tibiae tridentate. Hind tibiae slender but distinctly thicker towards the extremity. Hind tarsi long and slender. Ventral segments red at the sides but blackish on the middle, the dark colour extends on the basal part of each segment quite to the sides. Metasternum blackish, finely and sparingly pubescent.

Obs. The two specimens in my possession of this curions species are I believe male and female, as the apical segments of the hind body are rather more elongate in one of the individuals than in the other. It is possible that when quite fresh the insect may have a few scales sprinkled on the upper surface.

Leucopholis armata (n. sp.): Picea, nitida, supra squamulis angustis fusco-griseis vestita, subtus lateribus dense griseo-squamosis; tibiis anterioribus bidentatis; mesosterno processu valido, elongato. — Long. 40 mill.

Sarawak.

Antennae pitchy, the club about as long as the six preceding joints. Head rather coarsely and regularly punctured, clothed with narrow scales of an ochreons or dark colour, the clypens slightly emarginate in the middle. Thorax with the lateral margins crenulated on the anterior half, the hind angles acute, the sides coarsely and very densely punctured, the middle part much more sparingly and finely punctured, the punctures bearing scales similar to those of the head. Elytra rather finely punctured, except near the sides where the punctures are a good deal coarser, the scales they bear are rather broader than those of the thorax. Pygidium clothed very regularly with dark clay-coloured or tawny seta-like scales so that it is opaque. Hindbody densely clothed with griseous scales, which are more sparing along the middle, the scales are rather fine, and they are not smooth but grooved or fluted. The mesosternal process is very stont and reaches over the front coxae. The hind tibiae are slender and scarcely at all dilated at the apex, their carinae are very obsolete and their spurs rather slender.

The individual I have described of this fine species is I believe a male.

Leucopholis pollens (n. sp.): Picea, minus nitida, supra squamulis parvis, pallide griseis vestita; subtus pallide griseo-squamosa; tibiis anterioribus bidentatis; mesosterni processu valido, elongato. — Long. 36 mill.

Borneo.

Head rather short, rather closely and coarsely punctured and bearing narrow pale grey scales, clypens slightly emarginate in the middle. Thorax at the sides densely and rather coarsely punctured, along the middle more sparingly and finely, the punctures bearing pale grey, almost white scales, the hind angles acute. Elytra closely but not very distinctly punctured and rather densely clothed with pale grey scales. Pygidium rather closely punctured and clothed with pale scales. Undersurface clothed very densely at the sides with fine scales which are nearly white; metasternum clothed except on the middle with fine pale scales and hairs, on the middle with scanty coarse scales; hind coxae densely squamose; abdominal segments clothed not very closely with coarse scales, at the sides with denser finer scales. Mesosternum with a stout elongate process. Front tibiae short and rather stout, bidentate. Hind tibiae dilated at the extremity and with the spurs stout.

This species is very closely allied to *L. armata*, but the scales are much paler and the elytra in the neighbourhood of the suture are more densely punctured; the structural differences of the legs indicated by my description depend probably on the sex of the individual described, which I suspect to be a female.

Leucopholis diffinis (n. sp.): Picea, elytris rufescentibus, supra fortiter punctata, subopaca et squamis albidis adspersa, subtus lateribus dense albido-squamosis; tibiis anterioribus tridentatis, mesosterno processu brevi. — Long. 30 mill.

Penang (Wallace!), Malacca (Castelnau!).

Head coarsely punctured, clypeus broad, not emarginate, rather strongly reflexed in front. Antennae dark red, the club short. Apical joint of maxillary palpi rather short and stout, its inner edge a little sinuate. Mentum with a large quadrate impression. Thorax about

7 mill. long in the middle, the sides a good deal narrowed towards the front, the base sinuate on each side near the hind angles which are not at all rounded and nearly rectangular, the lateral margins fine and indistinctly crenulated, the surface somewhat shining, coarsely and somewhat closely punctured, the punctures not very evenly distributed and bearing some rather scanty white scales. Elytra reddish, dull, coarsely and densely but not deeply punctured and bearing some coarse white scales, they are without any trace of elevated lines. Pygidium densely clothed with coarse white scales. Undersurface densely clothed at the sides with white scales, the middle of the hind body only sparingly clothed with scales, metasternum bearing some fine white scales mixed with a scanty pubescence but its middle part shining and bare: hind coxae densely clothed with white scales. Front tibiae tridentate. Mesosternal process distinct, but short and not reaching further forwards than the insertion of the legs. Hind tibiae rather strongly dilated at the extremity.

Obs. This is a very distinct species from any other *Leucopholis* I have seen; I have not described in detail the distribution of the scales of the upper surface, as I fancy my two specimens must be much rubbed above, though they are quite fresh beneath.

Leucopholis aberrans (n. sp.): Supra squamulis minutis fuscis dense vestita; subtus nigra, obscura, metasterno tenuiter pubescente, abdomine dense subtiliter punctato, minutissime squamoso; pygidio basi ab elytris tecto, mesosterni processu brevi. — Long, 32 mill.

India.

Antennae black, with the club rather longer than the six preceding joints; apical joint of maxillary palpi moderately long and stout. Head very densely punctured and densely clothed with fuscous suberect setae, the clypeus rather strongly emarginate in the middle. Thorax with the lateral margins much crenulated, the base a little sinuate on each side, but the hind angles not projecting backwards and not at all rounded but a little obtuse, the surface is finely and densely punctured and clothed with very fine fuscous setae. Scutellum finely but more sparingly punctured. Elytra densely and finely punctured and besides these fine punctures with other moderately numerous coarser punctures, also with three indistinct raised lines, of which

the outer one is very obsolete; they are densely clothed with very fine fuscous setae. Pygidium densely and rather finely but rugosely punctured, quite dull and clothed with fine fuscous setae. Undersurface densely and finely punctured, the metasternum clothed rather scantily with fine depressed hairs, the hind coxae with minute scales. Anterior tibiae tridentate; hind tibiae slender; mesosternal process short, spurs of the hind tibiae slender and pointed.

This interesting species is intermediate between Leucopholis und Ancylonycha puberina Blanch. (Tricholepis grandis, Munich Cat.). The form of the front parts and the mesosternal process are similar to Leucopholis, while the clothing, and the form and position of the pygidium are rather those of Ancylonycha puberina. My three specimens shew no sexual distinctions and are perhaps all males.

Cyphochilus vestitus (n. sp.): Piceus, subtus cum pedibus antennisque rufus, supra squamis magnis, albidis densissime vestitus, subtus parcius pallide squamosus; palporum maxillarium articulo ultimo gracili; mesosterni processu brevi. — Long 19 mill.

Cambodia (Mouhot!).

Head and clypeus quite covered with very large scales, which are pure white except on the front of the clypeus where they are pale yellow. Thorax very transverse, the lateral margins a little incrassate in front, slightly sinuate just at the front angles, which are therefore acute and a little projecting, only slightly narrowed behind the middle so that the hind angles are a little obtuse, it is densely covered with coarse, pure white scales. Elytra clothed densely with scales similar to those of the thorax. Pygidium extremely closely (entirely) covered with coarse white scales, which however are distinctly smaller than those of the elytra. Undersurface moderately closely covered with pale scales which are coarse but not so large as those of the upper surface. Palpi yellowish, the last joint of the maxillary ones elongate, slender and scarcely at all thickened in the middle: the labrum very unsymmetrical. Front tibiae rather slender, the upper one of their three teeth only slightly developed, the hind tibiae short and rather stout; the process of the mesosternum short, its termination obtuse.

The only individual I have seen I believe to be a male.

Cyphochilus obscurus (n. sp.): Piceus, antennis palpisque rufis, supra squamis magnis albidis densissime vestitus, subtus parcius pallide squamosus; mesosterni processu brevi, acuminato. — Long. 19 mill.

Laos (Mouhot!).

Extremely closely allied to *C. vestitus*, but the scales of the upper surface not quite so large, and with some slight differences in structural details. The sides of the thorax do not possess any sinuation near the front angles, so that these are less acute and prominent. The maxillary palpi are stouter and their apical joint is a good deal broader in the middle. The mesosternal process is not quite so short and is more acuminate at the apex, and the front tibiae are rather stout.

The only individual I have seen of this species is I believe a female.

Cyphochilus proximus (n. sp.): Piceus, supra squamis magnis albidis densissime vestitus; subtus parcius pallide squamosus; mesosterni processu brevi, rotundato; palporum maxillarium articulo ultimo acuminato-ovato. — Long. 17 mill.

Burmah.

Anterior angles of the thorax subobtuse, sides a good deal contracted behind the middle; maxillary palpi with the last joint slender at its base, a good deal thickened in the middle and quite acuminate at the apex. Mesosternal process short and rounded at the apex; front tibiae moderately stout.

Except in the above respects this species is closely similar to *C. vestitus*. The only individual I have seen is I believe a female.

Lachnosterna princeps (n. sp.): Antennae 8-articulatae; rufescens, elytris dilutioribus; prothoraee rugoso-punctato, lateribus crebre serratis; elytris fere opacis, sat fortiter punctatis, lineis tribus elevatis.

— Long. 32 mill.

Sarawak,

Antennae pale red, the joints very distinctly separated from one another, the third rather longer than the 2nd, 4th about equal to the second, 5th short, 6—8 forming a small club. Labrum with the

lobes prominent and a very deep notch between them; apical joint of maxillary palpi elongate and truncate at the apex, inner edge of mandibles thin and recurved, mentum with the sides longitudinally elevated, so that it appears to be broadly and deeply depressed along the middle. Clypeus rather strongly emarginate, head coarsely and densely punctured except the vertex, which is nearly smooth. lateral margins much serrated, the hind angles very obtuse, the surface rugose. Scutellum closely punctured. Elytra of a dull, reddish colour, with a somewhat silky reflection, each with three elevated lines of which the internal ones are broad, there is also a fourth line parallel with the lateral margin, the spaces between these lines are rather coarsely punctured. Pygidium rather closely and coarsely Metasternum and hind coxae with a fine yellowish pubepunctured. scence: hindbody smooth and shining, rather finely and sparingly punctured. Prosternal process erect and very distinct, dilated towards the apex, front femora with an acute angular projection close to the prosternal process.

Lachnosterna lineata (n. sp.): Rufescens, elytris dilutioribus; antennis 8-articulatis; capite thoraceque fortiter crebre punctatis, hoc lateribus crenulatis; elytris sat nitidis, minus fortiter punctatis, lineis tribus elevatis. — Long. 31 mill.

Sarawak.

Clypeus very short, rounded, only slightly emarginate in the middle. Head rather coarsely and distinctly but not at all rugosely punctured. Thorax not serrate at the sides, but the lateral margins with numerous interruptions so as to be crenulate, the surface unevenly covered with rather coarse punctures, the intervals between which in many places are very wide. Pygidium moderately coarsely but not deeply punctured. Prosternal process slender and erect, acuminate at the apex.

This species is structurally closely allied to *L. princeps*, but is readily distinguished by the sculpture of the head and thorax; and when the two species are examined other minor differences are seen which cannot easily be conveyed by description. These two very remarkable species form a distinct group in the genus, characterized by the 8-jointed antennae.

Lachnosterna vidua (n. sp.): Supra nitida, picea, elytris dilute piceis vel rufescentibus, subtus rufescens; capite inaequali, rugoso-punctato, clypeo leviter emarginato; prothorace basi constricto; elytris costatis, dense fortiter punctatis, longitudinaliter impressis; abdomine inflato. — Long. 24 mill.

Borneo.

Antennae 10-jointed, club minute. Head broad and short, the surface with some large indistinct impressions, and also coarsely and densely rugose-punctate, the clypeus slightly emarginate in the Thorax very short, the sides dilated, the base appearing constricted on account of the hind angles being pushed inwards. hence there are no hind angles, the fine lateral margin disappears before reaching the base, the surface is moderately closely and rather sparingly punctured. Scutellum coarsely and sparingly punctured. Elytra of a shining reddish colour rather darker at the base, they are rendered uneven by some broad longitudinal depressions, and are densely and coarsely punctured. Hindbody greatly inflated so that the pygidinm and the whole of the broad dorsal segment preceding it are exposed, this latter is dull and rather finely punctured, the pygidium shining and rather coarsely punctured. The metasternum is dull and bears a short, scanty pubescence, the middle however is more shining, rather coarsely punctured and with a very short scanty pubescence; hindbody quite dull at the sides, but more shining about the middle, sparingly punctured. Prosternum without elevated process; hind tibiae robust.

Ancylonycha constricta Burm. appears to resemble this species in the peculiar form of the thorax.

Cyphonotus zemindar (n. sp.): Rufo-fuscus, fere opacus, dense minus fortiter punctatus, supra parcius albido-setosus, subtus villosus, abdomine albido-setoso; clypeo emarginato-truncato, angulis anterioribus acutis.

— Long. 20 – 23 mill.

India.

Of a uniform, dull, obscure reddish colour. The hollow clypeus has the lateral and front margins raised and blackish in colour, it is a little emarginate in front and the lateral margins are sinuate on each side near the angles so that these are quite acute; the

part of the head behind the suture is less in area than the clypeus, it is rather coarsely punctured and bears fine white scales or setae. Thorax rather long, the sides curved and narrower in front than behind, the front angles quite obtuse, the hind ones about rectangular, but not in the least rounded; the surface is evenly convex, densely and moderately coarsely punctured, it is sprinkled with white scales or setae, which become more distinct at the sides. Scutellum densely and finely punctured. Elytra densely but not coarsely rugosely punctured and bearing extremely fine and short inconspicuous white setae. Pygidium closely clothed with white setae. Undersurface clothed with a pale dense pubescence, except the hind body which bears white setae.

A specimen of this species was labelled in Lafertés collection, Cyphonotus zemindar Reiche. India bor." and I have also two other individuals agreeing with it from India; they are probably all males.

Obs. The genus *Cyphonotus* has been much discussed and is still apparently very little known, and is generally merged in *Anoxia*. It seems however to be a very distinct genus, not only on account of the structure of the legs of the male but also by reason of the more atrophied trophi; the labial palpi in *C. zemindar* are excessively abbreviated, the ligula is extremely small and I suppose that the mandibles and maxillae are also much reduced in size.

Melolontha (Oplosternus) flabellata (n. sp.): Nigricans, supra rufescens, pallide fusco-tomentosa, abdominis lateribus pallido-maculatis: antennis maris flabello elongato (7½ mill. long.). — Long. 31 mill.

India.

About as long as *Oplosternus chinensis*, but not so broad: like *Melolontha nepalensis* Hope much clothed with tomentum, which however is darker in colour than in that species. Compared with the male of the former species it differs by the elongate flabellum, by the narrower form, by the denser tomentum and by the absence of any impression on the ventral plate of the apical segment of the hindbody. Compared with the male of *M. nepalensis* it differs by its larger size, by the more elongate flabellum, the darker tomentum, and pubescence of lower surface, also by the more elongate apex of the pygidium.

Though I have only seen a single specimen I have no doubt it is a distinct species.

Melolontha guttigera (n. sp.): Fusco-nigra, elytris magis castaneis; thorace cinereo-squamoso; elytris guttis basalibus aliaque pone humerum albido-squamosis, apice cinereo-tomentosis; subtus cinereo-tomentosa, pectore pubescente. — Long. 26—28 mill.

Mas: Flabello elongato, heptaphyllo; mesosterni processu brevissimo. Fem.: Flabello brevi, hexaphyllo; processu valido, elongato. India.

About the size of Melolontha vulgaris. Clypeus a little emarginate in front. Thorax rounded at the sides, with the middle basal lobe very large and the hind angles very acute, it is of a reddish colour deeply dyed with black, very densely punctured at the sides, more sparingly but yet closely on the middle, and is clothed with a grevish pubescence or tomentum, which is most conspicuous on each side of the middle. Elytra of a brown-leather colour, with some irregular marks at the extreme base and an elongate patch behind the shoulder of dense white scales, they shew two or three elevated lines and are rather coarsely punctured between these; the deflexed apex is closely clothed with very fine greyish pubescence, which is continued forwards for some distance at the sides. Pygidium not prolonged at the apex, clothed with a fine pubescence like that of the extremity of the elytra. The abdominal segments are also clothed in a similar manner to the pygidium, but are nearly bare along the middle; the metasternum and hind coxae with a fine ashy pubescence. The front tibiae are tridentate.

I have a male of this species from Lafertés collection, in which it was labelled "Melolontha guttigera Reiche. India or."; and I have a female, also from India.

Obs. Though the mesosternal process in the two individuals I have above described is so dissimilar that the male would be placed in *Melolontha*, while the female would be considered an *Oplosternus*, I have no doubt from the extreme general resemblance, that they are the sexes of one and the same species.

Melolontha mandarina (n. sp.): Opaca, fusca, elytris rufescentibus, lineis elevatis angustis bene discretis; capite, thorace scutelloque pubescentia elongata vestitis; pectore longius pubescente. — Long. 23 mill.

China.

Head blackish, densely rugosely punctured and bearing a tawny, elongate fine pubescence, front of the clypeus quite rounded. Thorax short, the lateral margins much crenulate, the sides a good deal narrowed (but not sinuate) in front of the middle, the hind angles obtuse and the base on each side only very little sinuate, it is blackish in colour, very densely punctured and bears a long tawny pubescence, which becomes at the sides however quite short. Scutellum densely clothed with a dark upright pubescence. Elytra obscure reddish, quite dull, each with four fine but distinct elevated lines, very densely punctured, and clothed with a fine, regular, short, depressed pubescence. Pygidium moderately long, truncate at the apex, clothed with fine setae. Breast densely clothed with a long, ashy pubescence; the abdominal segments rather sparingly clothed at the sides with longish, fine hairs, which are replaced in the middle by very fine, scanty, short setae. Legs nearly black.

This species was labelled in Lafertés collection "Melolontha mandarina Reiche".

Obs. This is one of a group of closely allied species which are much mixed in collections under the names of *M. serrulata* Schh. and *umbraculata* Burm. The present species may be identified by the pubescence of the front parts. The individual described is a male and has the front tibiae slender and only bidentate, and the abdomen impressed in the middle. A closely allied species, or variety, proves on dissection to have the labrum rather strongly asymmetrical (after the manner of *Cyphochilus*), and this is also evident in the individual I have described, although it is not very conspicuous until dissected.

Melolontha pennata (n. sp.): Fusco-nigra, fere opaca; prothorace dense fortiterque punctato, aequali; elytris sulcatis, sulcis pubescentibus, interstitiis omnibus angustis; subtus pubescens, abdominis lateribus immaculatis. — Long. 22 mill.

Laos (Mouhot!).

Head densely and rather coarsely punctured, bearing a fine but rather long, ashy pubescence. Thorax rather long (somewhat more

than 5 mill.), the sides but little dilated in the middle and moderately narrowed to the front, the anterior angles obtuse, the hind ones rectangular, the surface is densely and evenly punctured and bears a fine but rather close ashy pubescence. Scutellum large, coarsely punctured. Elytra with nine or ten broad furrows, filled with fine hairs, the interstices between them being narrow, raised lines. Pygidium elongate, rounded at the extremity. Breast clothed with a long fine pale pubescence. Sides of hind body bearing fine short hairs, which leave the middle of the ventral segments almost bare. Front tibiae bidentate. Mesosternum without process.

Obs. This species appears intermediate between *M. sulcipennis* and *M. mandarina*. The unchannelled thorax, with evenly distributed punctuation readily distinguish it from the former, and the sulcate elytra from the latter species. The individual described is a male and has the ventral segments flattened along the middle.

Melolontha vervex (n. sp.): Picea, supra sat nitida; prothorace medio fortiter punctato et sulcato; elytris sulcatis, sulcis breviter sctosis; subtus minus longe pubescens. — Long. 23 mill.

Penang.

Head blackish, coarsely and densely punctured, bearing fine, ashy, upright setae or hairs, very finely carinate along the middle, the clypeus rather long and quite rounded. Thorax formed as in M. sulcipennis, coarsely punctured about the middle, more densely and finely at the sides, with a distinct channel on the middle, the lateral portions with very short, fine hairs, the middle part very scantily clothed with such hairs. Scutellum large, rather coarsely but not closely punctured, the apical portion free from punctures. Elytra with ten or eleven broad grooves, the grooves bear fine short setae, the interstices between them are impunctate, sharply elevated and narrow, except that the two internal ones become broader at the base, where however they are quite distinct, shining and impunctate; the most external of the interstices is sharply defined in its apical portion, but does not reach the shoulders. Pygidium broad, its setae short. Breast clothed with a fine and moderately long and dense pubescence, except that the hind part of the metasternum is bare in the middle: ventral segments bearing rather scanty, fine, short hairs or setae, the basal segments in the middle shining and almost destitute

of setae, the 4th segment at the side with a narrow patch of white pubescence, and the 8th segment with a small and indistinct patch, the others unspotted. The legs are slender, the front tibiae tridentate; the mesosternum with a short process.

Obs. This species is allied both to *M. sulcipennis* and *M. hispida* but it has the clypeus more rounded and longer than these species have. The pubescence of the upper surface is shorter and more scanty than in *M. sulcipennis*, and their interstices are not quite similar (as will be seen from my description). The pubescence of the upper surface is less conspicuous than in *M. hispida* and there are no white scales mixed with it on the elytra, and the sculpture of the upper surface is more regular and less rugose.

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