

In general the European and American specimens of *Meyenia fluviatilis* have very short birotules, and although the shaft expands into the rotule on either side, still, from want of length, it does not present the hourglass shape of the Calumet variety, which, and the *smooth* skeletal spicule, constitute the chief distinguishing features of the latter.

XLIII.—*New Species of Histeridæ, with Synonymical Notes.*
By GEORGE LEWIS, F.L.S.

THE part of the 'Munich Catalogue' containing the Histeridæ was issued in 1868, and gave 1151 species; and in 1884 Herr Joh. Schmidt published a supplementary list of 334 species in the 'Berliner ent. Zeitschrift.' Synonymists have corrected our records from time to time, but not to the extent of materially reducing the total of 1485 species; and lately I have carefully examined the types of the species in the national collection, and the results I have obtained, which relate chiefly to synonymy, are given in this paper.

The family has not attracted the attention of many entomologists, although the monograph of De Marseul, to which too high praise cannot be given, is an excellent introduction to the study of the group, and the clear and well-defined exo-skeleton presented to the student in all the genera offers characters easily tabulated or retained in the memory. Some of the neglect at home doubtless rests on the collectors abroad, who rarely send to Europe even the most abundant species; and yet many of the most curious species may be easily obtained by searching under loosened bark.

In the United States the species have been studied as members of a "limited fauna," and it is difficult at once by the aid of the descriptive literature alone to arrange all the American species in their right order in a general catalogue, as the descriptions do not refer to the allied species existing elsewhere. But I hope before long to compile a systematic catalogue, to replace those in alphabetical order now in use. One of the results of limiting the study to local forms in America is manifested by curious irregularities in the estimated value of genera on the part of students and authors. Dr. Horn lowers *Phelister* and *Platysoma* to subgenera, and gives full generic value to others, as *Echinodes* and *Teretriosa*. In

Teretriosoma the chief generic character is the double pygidium, and *virens*, *chalybæum*, *facetum*, *festivum*, are species which clearly belong to it; but *Teretrius somerseti* is an insect that comes between Horn's genus and a typical *Teretrius*, and if Horn had known *T. somerseti* he could not, on the principles he has laid down, have given higher, if as high, rank to *Teretriosoma* than he accords to *Phelister* in his synopsis of 1873.

I am willing to recognize *Teretriosoma*, but while doing so I think it consistent to accept also such genera as *Pachylopus*, considered synonymous with *Saprinus* by Horn, especially as by accepting it the genus *Saprinus* is somewhat reduced; and this last genus even now, when collections contain many novelties, comprises 330 species.

I have a collection containing over 1000 species of Histeridæ, and this enables me to give comparative notes of the differences between most of the new species and old ones, and these memoranda are to my mind, in a group like the present, the more valuable part of a description.

List of Species, arranged generically.

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| Hololepta pilipes. | Hister femoralis, <i>Motsch.</i> |
| — flagellata, <i>Kirby.</i> | — castaneus. |
| Placodes ebeninus. | — pusio, <i>Erichson.</i> |
| Apobletes esurialis. | — præcox, <i>Erichson.</i> |
| — cavatus. | Paromalus locellus. |
| Platysoma novum. | — oblisus. |
| — Robestorfi. | — commeatus. |
| — planisternum. | Cœlocræra nitida. |
| — restoratum, <i>Walker.</i> | Renia meticulosa. |
| — desinens, <i>Walker.</i> | Dendrophilus sulcatus, <i>Motsch.</i> |
| — abyssinicum. | — finitimus, <i>Walker.</i> |
| — cinnamomeum, <i>White.</i> | Saprinus æqualis, <i>Walker.</i> |
| — elingue. | — rubripes, <i>Walker.</i> |
| — dufali, <i>Marseul.</i> | Styphrus corpulentus, <i>Motsch.</i> |
| — directum. | Xenonychus altus. |
| Pachycrærus nigro-cæruleus. | Pachylopus ripæ. |
| Baconia loricata. | Tryponæus torpedo. |
| — patula. | — bombacis. |
| Hister mundissimus, <i>Walker.</i> | — veda. |
| — luciscus. | Teretrius æstivus. |
| — somali. | — pulex, <i>Fairm.</i> |
| — decollatus, <i>Roth.</i> | Homalopygus commensalis. |
| — glabratus, <i>Roth.</i> | Teratosoma longipes. |
| — regularis, <i>Leconte.</i> | Chlamydopsis inquilina. |
| — metallicus. | Onthophilus foveipennis. |
| — castus. | — hova. |

Hololepta pilipes, n. sp.

Ovato-lata, depressa, nigra, nitida; fronte plana subconvexa; pronoto lateribus punctulato et ante basin inæqualiter impresso, stria marginali valida antice late interrupta; elytris, margine inflexo, lævi, striis 1 et 3 brevissimis, 2 integra; propygidio punctis sparsis cincto, utrinque bifoveolato; pygidio dense et fortiter punctato; tarsi subtus (anticis exceptis) rufo-pilosis. L. 9 mill., lat. 6.

Broadly ovate, depressed; forehead smooth and very slightly concave between the eyes; tubercle in front of each eye prominent, with a cluster of large punctures behind them. Mandibles simple. Thorax widest in the middle, with a large irregular impression before base on each side; lateral stria well defined, interrupted behind the head; a fine line in front of the scutellum reaches nearly to the middle; base bisinuate before the scutellum. Elytra with deep inflexed margin, first and third stria very short, second complete. Propygidium with scattered punctures at sides, with four shallow foveæ, two at the apex and two above them nearer the lateral margin; there is also a faint smooth median line. Pygidium very densely and strongly punctured. Prosternum broad, widening out to the base, and without a margin; mesosternum slightly sinuate, the sinuosity being as broad as the base of the prosternum; tibiæ bidentate at apex, with a large tooth above; tarsi very short, middle and hind pairs pilose beneath.

Hab. Borneo (*Wallace*).

There is no other known species of *Hololepta* to which this can be compared; the shape of the thorax and pilose tarsi are very remarkable.

The type of *Hololepta flagellata*, Kirby, in the Museum is an example of *Lioderma 4-dentatum*, F. The locality given by Kirby is doubtless an error.

Placodes ebeninus, n. sp.

Oblongo-ovatus, convexiusculus, niger, nitidus; fronte stria integra antice biarcuata; pronoto lævi stria interna laterali valide impressa obliqua, interstitio ante medium multo latiore; elytris striis punctiformibus, 1-3 integris, 4 basi abbreviata, 5 obsoleta; pygidio grosse punctato. L. 12½ mill.

Hab. Zanzibar (*Raffray*).

This species is intermediate between *caffer* and *senegalensis*, and possesses some of the characters of each. The frontal stria is more distinctly biarcuate than in *caffer*, the

species it most resembles in size and outline. The thorax is a little more transverse than in *senegalensis* and less so than in *caffer*, and the thoracic line behind the eye is angulated more distinctly than in either. The interstice between the margin and the lateral stria widens out before the middle, and at its widest part is double the width of that in *senegalensis*. The striæ of the elytra resemble those of *caffer* in their disposition; but they are even more punctiform than in *senegalensis*.

Apobletes esurialis, n. sp.

Oblongus parallelus, depressus, planatus, rufo-brunneus, nitidus; fronte transversa tenuissime punctulata, stria inter oculos recta, leviter impressa; pronoto lævi, marginato, stria pone oculos interrupta; elytris striis dorsalibus 1-2 integris, 3 interrupta; propygidio tenuissime punctulato; pygidio æqualiter sat dense punctato; prosterno plano, lato, basi sinuato, lateribus arcuatis; mesosterno bisinuatim inciso, basi emarginato; tibiis, mediis 4-denticulatis, posticis apice spinosis. L. $3\frac{1}{4}$ mill.

Hab. New Guinea.

The flat and parallel form, colour, and general sculpture will distinguish this species from others in the list. I had the opportunity to compare it with those in Marseul's collection in January 1884; it is rather larger than *mysolicus*; the middle tibiæ are armed with four teeth, the posterior pair are smooth at the sides.

Apobletes cavatus, n. sp.

A. foveipygo proxime affinis, sed multo latior: brunneus, nitidus; elytris striis 1-3 integris, 4 apicali, cæteris nullis. L. $2\frac{3}{4}$ mill.

Hab. Java (*Raffray*).

This species is allied to *diopsipygus* and *foveipygus*, and has similar fossettes in a smooth pygidium. It is broader than these species, and may be separated from them by its three complete and one short apical striæ. Beneath the prosternum and mesosternum are broader, and the sinuosity of the latter is wider in proportion than in *diopsipygus*, and in this respect agrees best with *foveipygus*.

Platysoma novum, n. sp.

Oblongo-ovatum, subdepressum, nigrum, nitidum; fronte concava dense ocellato-punctata et minute punctulata, stria antice sub-interrupta, clypeo dense strigoso-punctato vel rugoso; pronoto lateribus grosse et late punctato, stria integra sed antice punctiformi, ante scutellum foveolato; elytris striis 1-3 integris, 4

valde abbreviata, 5 obsoleta; mesosterno stria marginali integra; pygidio grosse ocellato-punctato, basi utrinque foveolato. L. 6 mill.

Hab. Malabar.

This insect may be placed in the first division of the genus, although the sculpture of the head and clypeus and the thoracic punctures do not allow a comparison with any of the described species. The frontal punctures apparently stamp out and obliterate the frontal stria.

Platysoma Robestorfi, n. sp.

Oblongum, subparallellum, nigro-piceum, nitidum; fronte concava, stria integra; elytris striis 3 primis dorsalibus integris, 4-5 dimidiatis, suturali ultra medium abbreviata; pygidio margine elevato, æqualiter punctato. L. 3½ mill.

Hab. Andaman Islands.

This species is closely allied to *P. striale* from Celebes; it is, however, smaller, with head less transverse, the fourth and fifth striæ run to the middle of the elytra, and the margin of the pygidium is less elevated. It is named after our late Resident at Port Blow, by whom it was taken abundantly on several occasions.

Platysoma planisternum, n. sp.

Oblongo-ovatum, complanatum, piceum, nitidum; antennis pedibusque rufis; fronte leviter concava, subtiliter punctulata; stria transversa tenuiter impressa, recta; pronoto stria antice late interrupta; elytris striis 1-2 integris, validis, 3 in medio interrupta; propygidio parce punctato; pygidio ocellato-punctato, margine æqualiter elevato. L. 5½ mill.

Hab. Mysol (*Wallace*).

The species composing the genus *Apobletes* are, as Marseul admits, somewhat heterogeneous; and I believe the present insect may be an *Apobletes*. The prosternum is flat, slightly rounded at the base, without sculpture, widely (not deeply) sinuate between the coxæ. The mesosternum is broad and transverse at the apex, widely and slightly sinuate. Superficially it is hardly perceptible that the meso- and metasternum are not of one piece; the latter has, however, a lateral marginal stria, which terminates where the suture is beneath the surface chitin.

Platysoma Dohrnii, Mars. 1864 = *quinquestriatum*, Motsch. 1863 = *restoratum*, Walker, 1858. I have determined that

Dohrnii=*restoratum* by seeing the type of the latter in the British Museum; and an example of *quinquestriatum* which I possess from the collection of the late Mr. Andrew Murray, apparently received by him from Motschulsky, is a small individual referable also to *Dohrnii*.

Platysoma Motschulskyi, Mars. 1864=*ceylonicum*, Motsch. 1863=*desinens*, Walker, 1858. Synonymy determined by comparison, as in preceding species.

Platysoma abyssinicum, n. sp.

Ovatum, subdepressum, nigro-piceum; antennis pedibusque piceobrunneis; fronte concava punctata, stria integra; pronoto transverso, lateribus grosse punctato in medio punctulato, marginato, stria pone oculos subangulata; elytris apice parce punctatis, striis 1-3 integris, 4-5 antice abbreviatis, 6 dimidiata; propygidio pygidioque grosse punctatis primo ad hoc subfoveolato; prosterno sparse punctulato; mesosterno sinuato marginatoque. L. $3\frac{1}{2}$ mill.

Hab. Abyssinia (*Raffray*).

This belongs to the same group as *sculptum* and *capense*, but its general outline, more depressed form, and the fourth and fifth elytral striæ of nearly equal length, will separate it. In its upper surface it has the general appearance of *Pachycrærus arabicus*.

Hister cinnamomeus, White, from New Zealand is an immature *Platysoma*. Type in the Museum.

Platysoma elingue, n. sp.

Ovatum, subdepressum, piceum, nitidum; fronte subtilissime punctulata, stria valida transversa integra; pronoto impunctato, stria completa; elytris striis validis, 1-3 integris, 4 ante, 5 ultra medium abbreviatis; propygidio pygidioque grosse punctatis. L. $3\frac{1}{4}$ mill.

Hab. Hadley Estate, Dikoya, Ceylon. December 1881.

In general facies this species agrees with *carolinum*; it differs in having but five dorsal striæ, 1-3 complete, as in *carolinum*, 4 apical and occupying one third of the elytra, 5 much longer and equidistant from the fourth and suture. The forehead and clypeus are not concave, and beneath the insect is more convex than *carolinum*, the prosternum less wide, and the apex of the mesosternum less transverse. Marseul considers *semistriatum*, Motsch.=*birmanum*, and in this case Motschulsky was very wrong in comparing the first to *carolinum*.

Platysoma dufali, Mars.—I obtained a few examples of this at Galle in November 1881, and record its occurrence in Ceylon for the first time.

Platysoma directum.

Cylindricum, nigrum, nitidum, antennis pedibusque rufis, fronte parum concava, punctulata; pronoto punctato, stria laterali integra antice interrupta, pone oculos angulata, ante scutellum foveolato; elytris striis 1–4 integris, 5–6 dimidiatis; mesosterno late sinuato, stria integra; propygidio pygidioque parce et grosse punctatis. L. $4\frac{1}{4}$ mill.

Hab. Para.

The facies and sculpture of this species are close to those of *coarctatum*, but it is as large again; the forehead and clypeus more deeply excavated; the transverse line of thorax interrupted; the punctures throughout are much larger and the apical sinuosity of the mesosternum relatively wider.

Pachycrærus nigro-cæruleus, n. sp.

Oblongus, cylindricus, nigro-cæruleus, nitidus, punctulatus; fronte stria integra, pronoto undique punctulato; elytrorum striis 1–4 dorsalibus integris, 5 dimidiata, 6 ante basin abbreviata; propygidio pygidioque dense punctulatis. L. 3 mill.

Hab. Abyssinia (*Raffray*).

In form and sculpture this species is closely allied to *Raffrayi*. The differences are in size (3 millim. instead of 6) and the colour; the 5th stria only reaches the middle of the elytron and the 6th does not attain to the base.

BACONIA, n. gen.

Corpus depressum. Caput retractile, parvum; mandibulis parvis et æqualibus; fronte subexcavata, stria circulari. Antennæ sub frontis margine insertæ, clava ovali. Pronotum transversum latum, marginatum, elytris 3- vel 4-striatis. Prosternum parum angustatum, bistriatum, basi emarginatum, lobo antico transverso et latissimo. Mesosternum latissimum antice rectum. Tibiæ extus unidentatæ vel inermes.

The antenna has articles 3 to 8 nearly equal, the second is as long again as the third, and the club is composed of three articles equal in size.

The name of this genus, which may be placed before *Phelister*, will associate it with the name of the Elizabethan philosopher.

Baconia loricata, n. sp.

Ovata, depressa, nigra, nitida, supra cærulea; fronte punctata stria circulari; pronoto lateribus parce et tenue punctato, ante medium impresso, stria marginali integra; elytris apice punctatis, striis tenuibus, 1-4 integris, cæteris nullis; mesosterno stria antice interrupta; propygidio parce punctato, pygidio sat dense punctato utrinque subimpresso; tibiis anticis tridentatis et cæteris unispinosulis. L. 6 mill., lat. $4\frac{1}{4}$.

The surface-sculpture of this fine species in some respects agrees with *Phelister violaceus*, and both are from the same country. Amongst the flat Histeridæ it is remarkable for its great breadth.

Hab. Blumenau, Brazil.

Baconia patula, n. sp.

Ovata, depressa, nigro-picea, nitidissima; fronte tenuissime punctulata, stria antice interrupta; pronoto punctis in lateribus aliquot sparsis, angulis antice rufis; elytris apice sparse punctatis, striis 1-2 integris, 3 dimidiata; propygidio pygidioque punctatis; mesosterno stria antice integra; tibiis postice non-denticulatis. L. 3 mill., lat. 2.

This species, when compared with *loricata*, has several characters that are observed also between *Macrosternus Marseuli* and *Lafertei* when compared together. The blue colour is lost in both the smaller species and the surface-sculpture is less obvious. In *Baconia* the great dilatation of the thorax is owing to the widening out of the thoracic margin, and not to the extensive growth of the prosternum, as in *Macrosternus*; but the plate of the mesosternum is much wider in *Baconia* than in Marseul's genus. The widest part of this insect and the last is just below the humeral angle.

Hab. Blumenau, Brazil.

Hister mundissimus, Walker, 1859=*scævola*, Er. 1834. This I have determined by the examination of the type in the national collection. Walker begins his description of his species by comparing it to *scævola* and *chinensis*.

Hister luciscus, n. sp.

Ovatus, subconvexus, niger, subnitidus; fronte stria antice recta; pronoto stria interna integra; elytris striis 1-3 dorsalibus integris, 4 brevissima punctiformi, suturali arcuata abbreviata; propygidio pygidioque punctulatis. L. 9 mill.

Hab. Birmah (ex coll. Monchicourt).

This insect is closely allied to *Baconi*, but it differs as follows:—It is smaller, with the inner thoracic stria complete and without a fovea, the fourth elytral stria short and formed only of punctures, and the sixth faint and visible only before the apex. I compared this with the type of *Baconi* in Marseul's collection when last in Paris.

Hister somali, n. sp.

Oblongo-ovatus, depressus, niger, nitidus; antennis pedibusque brunneis; fronte subtiliter punctulata, stria integra antice recta; pronoto subtilissime punctulato, stria interna integra, pone oculos angulata, externa brevi arcuata; elytris striis 1–4 validis integris, 5–6 dimidiatis, evidenter punctatis; propygidio sparse punctulato; pygidio lævi; prosterno basi subimpresso, punctato, mesosterno antice rotundato emarginato stria integra; tibiis anticis tridentatis, posticis biserialim multispinosis. L. $3\frac{1}{2}$ mill.

Hab. Somali Land.

The system of surface-sculpture here places the species in the *abyssinicus* group. The diminutive size, more depressed form, non-sinuate mesosternum, and smooth pygidium are its most distinctive characters.

Hister decollatus and *glabratus*, Roth, are allied to *abyssinicus* and *subsulcatus*, but cannot be identified by the descriptions published in 1851.

Hister regularis, Leconte, also is of the same section, and the name would probably prove to be a synonym could the type be examined. The locality given by Leconte is "Africa," and species of the *abyssinicus* group occur on both the east and west coasts.

Hister metallicus, n. sp.

Oblongus, convexus, æneus, nitidus; fronte subbifoveolata, stria integra, antice elevata, subtiliter punctulata; pronoto lævi, stria interna integra, externa vix abbreviata; elytris striis 1–3 integris, et cæteris obsoletis; propygidio (utrinque bifoveolato) pygidioque grosse punctatis, in medio lævibus, prosterno basi depresso, mesosterno stria integra. L. 8 mill.

Hab. India; two examples in the British Museum, and one in my own collection.

This species must be placed next to *punctulatus*, and it is a very remarkable species on account of its colour. It differs chiefly from *punctulatus* in the absence of punctures on the head, thorax, and elytra, and in the forehead being more transverse.

Hister castus, n. sp.

Ovalis, convexiusculus, niger, nitidus; antennis pedibusque rufis; fronte punctulata, stria circulari; pronoto stria laterali interna haud interrupta, externa basi vix abbreviata; elytris rubris macula communi angulata nigra, striis 1-6 integris, 5-6 arcuatim junctis; propygidio pygidioque grosse punctatis; prosterno undique strigoso, lobo parce et grosse punctato; mesosterno arcuato, marginato; tibiis anticis tridentatis, posticis biserialim spinosis. L. 3 mill.

Hab. El Hahaz (*Millingen*).

This species comes near to *kurdistanus*, from which it is known by its size and colour, by the simple punctuation of the pygidium and non-sinuate mesosternum. In *kurdistanus*, of which Dr. Millingen also found examples, the pygidium has large ocellated punctures. The strigose sculpture of the prosternum requires a high power to reveal it.

Hister femoralis, Motsch. 1863 = *cælestis*, Mars. 1857. In a long series I took in Ceylon some of the examples have an anterior transverse line on the thorax, in others it is nearly obliterated, and in most absent; the last of these varieties agrees with the type of *cælestis*.

Hister castaneus, n. sp.

Ovalis, subconvexus, castaneus, nitidus; fronte plana, subtilissime punctulata, stria antice recta, ad oculos terminata; pronoto stria interna integra, externa vix abbreviata, ante scutellum subfoveolato; elytris striis 1-4 validis crenatis integris, 5 et suturali abbreviatis; propygidio parce punctulato basi subbifoveolato; pygidio punctulato utrinque subfoveolato; prosterno subtiliter punctato stria integra; mesosterno in medio sinuato, stria valida; tibiis anticis fortiter bidentatis, posticis biserialim, longius multispinosis. L. $4\frac{1}{2}$ ad 5 mill.

Hab. Chontales (*Belt*).

This is a peculiar species as regards colour; the anterior angles of the thorax are very prominent, and the raised margin is continued round them, joining the internal stria behind the eyes, at which point the stria is slightly deflexed. The lobe of the prosternum is large and directed downwards. In one of my examples the foveæ in the pygidium are more distinct than in the other, and there is a third fovea at the apex. The fore tibiæ are somewhat dilated and have very prominent denticulations.

The species described by Erichson as *Hister præcox* and *pusio* from Peru seem to me to be placed by him in a wrong genus.

Paromalus locellus, n. sp.

Ovalis, parum convexus, niger, nitidus, sat dense punctulatus. Antennis pedibusque brunneis, fronte stria ad oculos completa; pronoto stria integra; elytris striis prope obsoletis; prosterno basi parum lato, stria marginali antice et postice interrupta; mesosterno antico emarginato, stria transversa biangulata; propygidio pygidioque subtiliter punctulatis. L. $3\frac{1}{2}$ mill.

Hab. Sarawak (*Wallace*).

The oval form distinguishes this species from the two next, but all belong to a section of the genus which has the metasternum broadly depressed in the middle of the basal half, and which has the first segment of the abdomen with an acutely raised line or linear tubercle, which divides a depression similar to that of the metasternum though wider. The mesosternum has the transverse line much like that in *oblisus*.

Paromalus oblisus, n. sp.

Subellipticus, niger, nitidus, sat dense punctulatus; antennis pedibusque brunneis; fronte marginata, pronoto stria marginali integra; elytris striis subhumeralibus obsoletis; prosterno basi parum lato, stria marginali antice et postice interrupta; mesosterno stria transversa biangulata; propygidio pygidioque subtiliter punctulatis. L. $3\frac{1}{4}$ mill.

Hab. Andaman Islands.

The elliptical form of this species distinguishes it from *locellus*, and beneath the punctuation is much finer and the prosternum is narrower and round at the base. Both species have the facies of the European *complanatus*, but are larger. The mesosternum is limited at its base by a transverse line acutely angulate on either side.

Paromalus commeatus, n. sp.

Oblongo-ovalis, parum convexus, punctulatus, pedibus antennisque brunneis, clava rufa; fronte subtilissime punctulata, stria marginali antice angulata, pone oculos interrupta; pronoto stria integra, antice ad angulum subfoveolato; elytris vix dense punctulatis; propygidio pygidioque subtilissime punctulatis; prosterno lateribus striatis, basi submarginata; mesosterno stria interrupta, dense punctato, metasterno in medio depresso. L. $3\frac{1}{2}$ mill.

Hab. Kandy and Balangoda, Ceylon.

This species is even more like *complanatus* than the two preceding, because of its outline, but it is less depressed. It has, like *oblisus* and *locellus*, the peculiar raised line in the middle of the first abdominal segment, and the mesosternum

has the transverse line less acutely angulated than in the Andaman species.

Cælocræra nitida, n. sp.

Nigra, nitida; antennis pedibusque fuscis; fronte punctulata, stria semicirculari, valida; pronoto circum late punctato, ante scutellum transversim impresso; elytris subtilissime punctulatis, striis validis 1-4 et suturali integris, 2 posterioribus basi arcuatim junctis, 5 in medio abbreviata; propygidio grosse et minute punctato; prosterno lobo grosse punctato, bistriato, basi inciso; mesosterno antice subacuminato et subbisinuato. L. $3\frac{1}{2}$ mill.

Hab. Abyssinia and Zanzibar.

This insect, although differing so much above in surface-sculpture from *C. costifera*, doubtless belongs to the same genus. Beneath the apex of the mesosternum is less acuminate than in *costifera*, on which species alone the genus has hitherto stood, and it is also slightly bisinuate; but in other respects the under surface agrees with the species named. There is no fovea on the forehead in *nitida*.

RENIA, n. gen.

Orbicularis, subconvexa, brunnea, nitida. Caput retractum; fronte et clypeo modice latis, stria carinata basi obsoleta; mandibulis robustis. Antennæ brevissimæ, sub frontis margine insertæ; clava articulo unico cylindrico et cæteris sensim incrassatis. Prosternum lobo antico lato, marginato, basi inciso; mesosternum profunde bisinuatam, marginatum. Pronotum latum, stria unica tenuissime marginali. Propygidium hexagonum parum convexum; pygidium dejectum inferius semiovale. Femora et tibiæ valde dilatata.

The lobe of the mesosternum overlaps the prosternum, which is cut out to receive it.

Renia meticulosa, n. sp.

Orbicularis, subconvexa, piceo-brunnea, fronte stria antice integra; pronoto subtilissime punctulato, cum linea utrinque basi elevata, intus curvata; elytris marginibus angustis elevatis, striis 1-4 tenuissimis elevatis, basi incurvatis, suturali tuberculiformi; prosterno lobo strigoso in medio utrinque bistriato; mesosterno antice arcuatim striato subtilissime et parce punctato; pygidio parce punctulato, apice rugoso. L. $4\frac{1}{2}$ mill.

Hab. Parana.

This genus may be placed near *Eretmotus*; the species is one of the most curious in the family.

Dendrophilus sulcatus, Motsch.

I am indebted to Mr. G. C. Champion for examples of this

species, which has been found in Besika Bay in a rotten tree, in company with the rare *Hister Ariasi*. It is very closely allied to *punctatus*, but is smaller, less oblong, more coarsely and more thickly punctured, and all the dorsal striæ are more deeply impressed. The fifth and sutural striæ are always well defined, and in one example I have they are as deep as the others. Beneath, the plate of the abdominal segment joining the metasternum is more quadrate and the apex of the mesosternum is distinctly less sinuate. It is very different from *Xavieri*, of which, from description, Marseul thought it might be a variety.

Dendrodipnis grandis, Reitter, has been recorded in error by Herr Schmidt as a *Dendrophilus*.

Dendrophilus finitimus, Walker (Ann. & Mag. Nat. Hist. 1859, p. 53), is a species of *Carcinops* with large dorsal punctures.

Saprinus rubripes, Walker, 1871 (nec Erichson, 1834), and *æqualis*, Walker, cannot be made out by the descriptions. I notice them here because Herr Joh. Schmidt includes them in his carefully compiled list of 1884.

The descriptions read as follows:—

Saprinus æqualis.—Black, extremely thickly and minutely punctured. Prothorax with a smooth and shining disk. Each elytron with five oblique and abbreviated striæ; space towards the suture smooth, shining. Legs slightly fringed with gilded bristles. Length of body 3 lines.

Saprinus rubripes.—Black, shining, very thickly and minutely punctured. Antennæ and legs deep red. Each elytron with five slightly oblique striæ, which do not extend beyond half the length from the base; a small smooth space adjoining the fore part of each suture. Length of the body $1\frac{3}{4}$ line.

Motschulsky's genus *Styphrus* has been admitted into Herr Schmidt's list; but Harold did right in refusing to recognize it in the Munich Catalogue. The generic character is simply "*Styphrus corpulentus*, M., Ce genre de Histerides est remarquable par son corps convexe;" and the species is characterized as "Le *St. corpulentus* est noir et bordé d'un poil roussâtre. Il est de la taille du *Saprinus nitidulus*, auquel il ressemble, et provient de Tourcomenie."

Xenonychus altus, n. sp.

Ovatus, brevis, perconvexus, brunneus, subnitidus; fronte lævi inter oculos angulatim striata; pronoto undique transversim vermicu-

lato-striato, lateribus marginato; elytris rugoso-punctatis, striis 1-2 dorsalibus et suturali integris, 3 abbreviata, 1 et 2 basi cum suturali junctis; propygidio pygidioque parum dense strigosis; tibiis anticis latis fortiter bidentatis, posticis dilatis et multispinosis. L. $3\frac{1}{2}$ mill.

Hab. Egypt.

I am indebted to Dr. Sharp for this Histerid, which is allied to *fossor*, but is a far more extraordinary insect; its great convexity gives it a dorsal outline suggestive of *Pulex irritans*. The convexity of the abdominal region is twice as great as that of the dorsal area, which is covered by the elytra. The peculiar sculpture of the thorax, which is clothed at the anterior angle with griseous hairs, although incipiently apparent in *fossor*, is at present unique amongst the Histeridæ.

Xenonychus was misplaced in the Munich Catalogue; the right position for it is between *Saprinus* and *Pachylopus*. I think, as I have said at the beginning of this paper, that *Pachylopus* is worthy of generic rank, and may be known at once from *Saprinus* by the "tibiæ posticæ tumidæ extus dense strigillatæ." It is a genus at present confined to the Cape of Good Hope and the sandy coasts of the Pacific; but the African species is distinct from all the others by a remarkable sexual character displayed in the prolongation of the apices of the elytra in one of the sexes; whether in the male or female is not yet recorded.

Pachylopus ripæ, n. sp.

Niger, nitidus; antennis pedibusque rufo-brunneis; fronte stria transversa recta; pronoto lævi, basi sparse punctato, stria integra; elytris impunctatis, striis validis 1-2 obliquis ante medium abbreviatis, 3 plus quam dimidiata, 4 brevissima vel obsoleta, propygidio punctulato, pygidio lævi. L. $2\frac{1}{2}$ ad $2\frac{3}{4}$ mill.

Hab. Enoshima and Hakodate, in Japan.

This species is about the size of *Saprinus lucidulus*, and is remarkable for the smoothness of its upper surface. Some examples are unicolorous, others have a red band across the middle of the elytra, wide at the outer margin, and gradually lessening towards the suture.

Tryponæus torpedo, n. sp.

T. thoracico proxime affinis. ♀. Ater, nitidus, latus, robustus; fronte leviter excavata, rostro apice obtuso bilobo, pronoto pone oculos subfoveolato; tibiis fortiter denticulatis. L. $11\frac{1}{2}$ mill.

Hab. Chontales.

This species is the largest *Tryponæus* yet discovered; it is very near *thoracicus*, but is in every way more robust. The spine or prolongation of the pygidium, viewed sideways, appears slightly raised, not depressed as in *thoracicus*; the apex of the rostrum is broader, and the tibiæ are armed with stronger and more robust teeth. All the plates of the substructure are also much broader.

I have two examples, both females, taken by Mr. Belt.

Tryponæus bombacis, n. sp.

Cylindricus, niger, nitidus; fronte excavata punctata, inter oculos tenuissime strigoso, rostro apice bituberculato; pronoto dense et grosse punctato, lateribus marginato; elytris parce punctatis; propygidio pygidioque dense punctatis, prosterno parallelo marginato. L. $2\frac{1}{2}$ mill.

Hab. Ceylon.

I took two examples of this species, one at Peradeniya on a *Ficus*, the other at Kitulgala on a *Bombax*; both are, I believe, females. This and the following, like the two Japanese species, fall into *Tryponæus* rather than *Trypeticus*. All four have certain characters in common, and probably represent a section of the genus peculiar to Eastern Asia.

Tryponæus veda, n. sp.

Cylindricus, niger, nitidus; antennis pedibusque rufo-piceis, pronoto stria laterali integra parum dense punctato; elytris sat parce punctatis; propygidio pygidioque dense punctatis. L. $3\frac{1}{4}$ mill.

♂. Fronte leviter impressa lateribus basique margine elevatis, rostro apice obtuso reflexo, pronoto antice retuso, opaco; pygidio obtuso.

♀. Fronte fortiter impressa, apice subbituberculato.

Hab. Dikoya, Ceylon.

The prosternum is quadrate in front, sinuate at the base, and punctured, with a broad, rather deep and wide sulcus on each side, reaching from the base to three fourths of its length. The mesosternum is obtuse, arcuate at the sides, and the broader part has a similar sulcus to the prosternum.

I saw plenty of this species in a stump of iron-wood, with a *Platypus*, which has the apices of the elytra bifurcate, but only succeeded in securing two, which are fortunately one of each sex.

Teretrius æstivus, n. sp.

Cylindricus, subelongatus, niger, nitidus, undique sat dense punctulatus; fronte convexa, stria laterali supra oculos, pronoto stria marginali integra, interstitio lato; prosterno basi profunde inciso,

striis subparallelis; mesosterno in medio acuminato marginato, stria transversa terminato; metasterno punctato, linea in medio; pygidio tenuissime strigoso-rugoso, punctato. L. $3\frac{1}{2}$ mill.

Hab. Abyssinia (*Raffray*).

This is near *parasita*, but is more cylindrical and more elongate. The punctuation is more general, the marginal striæ of the prosternum are more parallel and only slightly divergent in front. A transverse line divides the meso- from the metasternum, and in this and in the wide interstice of the thoracic margin it agrees with *picipes*. The pygidium under the microscope is very finely strigosely rugose between the rather large punctures.

Teretrius brunneus, Lewis, 1879 = *pulex*, Fairm. 1877. I am enabled to determine the synonymy of the above through the kindness of Mons. R. Oberthür, who has sent me a type of *pulex*.

Homalopygus commensalis, n. sp.

Oblongo-ovatus, subconvexus, piceus, nitidus; antennis pedibusque rufo-brunneis; fronte dense subocellato-punctata, stria utrinque sat distincta; pronoto antice subocellato-punctato, postice punctato, stria interna integra, media in angulo cessante; elytris undique punctulatis, striis 2 et 3 dorsalibus integris, 1 et 4 basilibus brevibus, suturali basi et apice interrupta; propygidio pygidioque punctulatis; prosterno lateraliter marginato; mesosterno stria integra. L. $2\frac{1}{2}$ mill.

This species is less wide and more convex than *longipes*, and the thoracic and elytral striæ, which are short or nearly obsolete in the latter, are long and well defined in *commensalis*.

Hab. Blumenau, Brazil, and has been found, Herr E. Reitter informs me, in the galleries made by Termites.

TERATOSOMA, n. gen.

Oblongum, gibbum, setulosum. Caput non-retractum, mandibulis crassibus non-prominulis. Antennæ breves, margine insertæ, scapo grosso, articulis 3-7 sensim incrassatis, clava articulo unico oblongo-ovato. Pronotum bisulcatum, lateribus elevatissimis, fossa antica pro receptione (in totum) antennarum. Scutellum triangulare. Elytra gibbosa, striis punctiformibus, humeris elevatis. Pedes longissimi, flagelliformes, tarsis anticis brevissimis, tibiis apice subcanaliculatis.

Teratosoma longipes. n. sp.

Oblongum, rufo-brunneum, fulvo-setulosum; pronoto parce punctato, in longitudine profunde sulcato, in medio bituberculato, nitido;

elytris striis confusis punctiformibus, sutura elevata, basi utrinque sulcatis; propygidio parce punctato; prosterno dense punctato, lateralibus sinuato, basi valde arcuato; mesosterno depresso antice angustato, postice lato. L. 3 mill.

Hab. Blumenau, Brazil.

This curious insect may be placed near *Onthophilus*. The anterior angle of the thorax, viewed from above, seems angulated, in the same manner as in *Heterius hispanus*, *lioderus*, and others; but when viewed from the front this protuberance is seen to be the superstructure of a large cavity which occupies the greater part of the elevated thoracic ridge. In this cavity the whole of the antennæ can be lodged, having at the same time space for movement, and when the antennæ are thus stored, club first, the large basal joint fits into the orifice and effectually closes it. In *Chlamydopsis*, the basal joint of the antennæ covers the funiculus when in a state of repose, but leaves the club visible. *Teratosoma* is a Myrmecophilous species; but while being able to effectually protect the antennæ when disturbed or enjoying repose, Nature has made no provision for the protection of the long legs, which are often contractible in members of this family. The long legs are doubtless of the greatest value in securing rapid movement, and the fore tarsi are very short and can rest in the tibial grooves; but in the other legs the recesses are too shallow to afford much security. The hind femora are bowed in such a manner as to enable the insect to raise them perpendicularly.

Chlamydopsis inquilina, n. sp.

Castanea, gibba, subnitida; fronte opaca, rugoso-punctata; pronoto transverso, nitido, margine acute elevato, parce *obsoleto-punctato*; elytris subnitidis, fere ut in *C. striatella*, parce setulosis; pedibus elongatis, pube adpressa vestitis; propygidio pygidioque dense griseo-hirsutis. L. $3\frac{1}{4}$ mill.

Hab. Australia (*Duboulay*).

C. inquilina may be known from *duboulayi* (sic) by its larger size and transverse thorax, which is acutely and evenly elevated both in front and at the sides. From *striatella* it differs in its longer and more robust legs, and shining thorax with large, shallow, indistinct punctures, and the elytra are less elevated in the region of the scutellum. The propygidium and the pygidium are clothed with long griseous hairs, and the legs are covered with a short dense pubescence.

The genus *Chlamydopsis* should be placed near *Onthophilus*.

Onthophilus foveipennis, n. sp.

Ovatus, supra depressiusculus, niger, subopacus; fronte inter oculos

sub-bifoveolata; pronoto dense punctato, 6-costulato, margine non-elevato; elytris costis 6 alternatim elevatis, intervallis bivenato-carinulatis, insterstitiis punctulatis; propygidio grosse punctato, in medio subelevato; prosterno lato, basi sinuato; mesosterno bisinuato, metasterno in medio subsulcato. L. $2\frac{1}{3}$ mill.

Hab. Amurland (*Christoph*).

This species has the thoracic margin and costæ as in *exaratus*, but the punctuation of the thorax is after the manner of *sulcatus*, but more dense. The elytra also are sculptured closely to the pattern of *exaratus*, but the punctures are not strigose. Between the second and third costæ at the base of each elytron there is a large and very deep sulcus, as is often the case in *sulcatus*.

Onthophilus hova, n. sp.

Ovalis, subconvexus, niger, nitidus; antennarum clava tarsisque flavis, fronte inæqualiter impressa; pronoto ocellato-punctato, margine magis dilatato, stria interna parallela fortiter elevata; elytris sutura et 4 costis elevatis, intervallis biseriatim punctatis, cum punctulorum linea intermedia; prosterno lateraliter marginato, basi sinuato; mesosterno bisinuato; metasterno profunde bifoveolato, in medio sulcato. L. $1\frac{3}{4}$ mill.

Hab. Madagascar (*Raffray*).

This species is very roughly sculptured and relatively longer than any other known species. It is allied to *costipennis* and *9-costatus*, from which the size, absence of thoracic carinæ, and the deep foveæ and sulcus in the metasternum, thus "I", will distinguish it. It is slightly setose, and is probably a species which resides under bark like *hispidus* and *arboreus*.

XLIV.—Notes on some Fossil Plants collected by Mr. R. Dunlop, Airdrie, from the Lanarkshire Coal-field. By ROBERT KIDSTON, F.G.S.*

THROUGH the kindness of Mr. Dunlop I have had the opportunity of examining the fossil plants collected by him from several localities in the Lanarkshire Coal-field. The annexed list of species, compiled from this collection, though of considerable interest, must not be regarded as a complete representation of the Carboniferous fossil flora of this district; but it contains one or two species which have not been previously

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