

IX. *On some aquatic Coleoptera from Ceylon.* By DAVID
SHARP, M.B., F.L.S., F.Z.S., &c.

[Read March 5th, 1890.]

DURING a visit of a few months to Ceylon, in 1882, Mr. George Lewis obtained an interesting collection of Coleoptera, and placed the water-beetles in my hands for determination. As the collection was a very fragmentary one and can include but a small proportion of the aquatic Coleoptera that exist in the island, neither Mr. Lewis nor myself anticipated that it would add much to our knowledge of the fauna of the island. I have however found on working through it, that the collection includes a considerable proportion of novelties, and that of the remainder a large part are species that have been either very imperfectly described by Motschoulsky and Walker, or that have not previously been known to occur in the island. I have therefore drawn up a complete list of the *Dytiscidæ* and *Hydrophilidæ* obtained by Mr. Lewis, omitting only two or three specimens that are representative of species requiring further materials for their elucidation. I may mention that Mr. Lewis also brought back a series of nine species of *Gyrinidæ*, but as all are described in Dr. Régimbart's recent monograph of the family, I have not thought it worth while to include a list of them.

In dealing with the species that were so imperfectly described by Walker in the Ann. & Mag. Nat. Hist., 1858 and 1859, I have followed the course advocated by Mr. H. W. Bates, Ann. & Mag. Nat. Hist., January, 1886, that is to say, when the species have not in the interim been described under other names I have given a description, making use of Walker's proposed name. But when the species has already been described under another name, I have adopted this latter, as Walker's descriptions are so brief, imperfect, and erroneous that they can have no claim to priority.

Mr. Lewis has given some particulars about the localities where he collected these insects in the 'Transactions' of the Society, 1882, pp. 475, *et seq.* His remarks contain, however, no special references to the water-beetles.

DYTISCIDÆ.

Hydrocoptus subvittulus.

Hydrocoptus subvittulus, Motsch., Etudes Ent., viii., 1859, p. 43.

Oblongo-ovalis, transversim convexus, testaceus, elytris castaneis, lateribus vittaque obsoleta singuli in medio testaceis, seriebus regularibus numerose punctatis. Long. 2 mm.

Allied by the punctuation of the elytra to *H. distinctus*, Wehncke (*rubescens*, Shp., Dyt., No. 9), but differing by the colour of the elytra, and by the presence of some punctures along the base of the thorax.

I think this is probably the *H. subvittulus* of Motschoulsky, a species which is apparently not included in the Munich Catalogue, and is not referred to in my systematic work on the family.

About fifteen specimens were procured in February, 1882, at Dikoya and Kandy, exhibiting very little variation.

Hydrocoptus bivittis.

Hydrocoptus bivittis, Motsch., *op. cit.*, p. 44.

Two specimens at Kandy in February.

Canthydrus luctuosus.

Hydrocanthus luctuosus, Aubé, Spec. Gen. Hydroc., p. 408.

Dikoya; a good series. Most of the specimens are *C. sexpunctatus*, Shp., which must be reduced to a synonym, as it is no doubt either a variety, or the other sex, of *C. luctuosus*. A single specimen found at Bogawantalawa is to some extent intermediate between *C. luctuosus* and *C. lætabilis*, but may probably prove to be a distinct species.

Canthydrus lætabilis.

Hydroporus lætabilis, Walk., Ann. & Mag. Nat. Hist. (3), ii., p. 205 ; Sharp, Dyt., No. 62, p. 277.

Colombo, in April. About twenty specimens, varying greatly. Only three or four belong to the typical form in which there are two spots at the base of each wing-case ; the others have the two basal yellow spots confluent so as to form a band, and in most of them the black colour is replaced by a fuscous colour.

Laccophilus parvulus.

Laccophilus parvulus, Aubé, Spec. Gen. Hydroc., p. 429. Colombo. One specimen.

Laccophilus inefficiens.

Hydroporus inefficiens, Walk., Ann. & Mag. Nat. Hist., 1859, p. 51.

Ovalis, parum convexus, nitidus, testaceus ; prothorace marginibus anterioribus (hoc obsolete) et posterioribus in medio fusco-maculatis ; elytris fusco-vermiculosis, pone basin fascia flammulata arguta pallide testacea. Long. $3\frac{1}{2}$, lat. vix 2 mm.

On the front of the thorax there are two obsolete fuscous marks, nearly or quite confluent, and at the base of the thorax two larger marks. The dark marks on the elytra are coarse and cover the larger part of the surface ; they do not appear as undulatory or zigzag parallel lines, but leave isolated irregular pallid irrorations between them ; the fascia behind the base is very definite though irregular, and the dark colour in front of it is interrupted by about six radiating pallid dashes ; behind the middle there is a trace of a pallid fascia, the outer dark marks being absent there and the pallid marks between this and the suture larger.

This species has not been intelligibly described previously. So far as is known, it is peculiar to Ceylon, where it appears to be no rarity. It may be placed next *L. clarki*.

Laccophilus anticatus, sp. nov.

Ovalis, subdepressus, nitidus, rufo-testaceus, subtus infuscatus ; elytris nigris, fascia arguta subbasali, signaturis post medium et ad apicem, margineque externo testaceis. Long. $3\frac{1}{8}$, lat. $1\frac{3}{4}$ mm.

Head and thorax yellow, the latter with only trace of fuscescence at the base. Elytra blackish, with a very definite pallid fascia near the base, the front margin of this fascia only slightly, the posterior more strongly, irregular; just behind the middle there is a large pale mark, not so definitely limited as the anterior fascia and not extending to the suture, and at the extremity there is another similar but smaller and still less definite pale mark. Under surface more or less infusate.

This species has no trace of zigzag longitudinal marks on the elytra, and comes near to *L. siamensis*, Shp., from which it differs, however, in being considerably smaller, and in having the pallid marks smaller, the basal fascia especially being smaller and more definite.

Colombo, in April. Fifteen examples.

Laccophilus flexuosus.

Laccophilus flexuosus, Aubé, Spec. Gen. Hydroc., p. 430; Régimbart, Ann. Soc. Ent. Fr. (6), ix., p. 151.

Colombo. One specimen.

According to Dr. Régimbart the insect considered by me (Tr. Dubl. Soc. (2), ii., p. 310) to be *L. flexuosus*, Aubé, is really distinct therefrom, and he has proposed the name of *L. sharpi* for it. The specimen found by Mr. Lewis as above certainly agrees better with Aubé's description than those I previously identified therewith.

Laccophilus rufulus.

Laccophilus rufulus, Régimbart, Ann. Mus. Genov. (2), vi., p. 611.

Colombo. One specimen.

Neptosternus taprobanicus, sp. nov.

Ovalis, subdepressus, rufo-testaceus, nitidus; elytris nigricantibus, flavo-maculatis. Long. 3, lat. $1\frac{3}{4}$ mm.

This is closely allied to the Madagascar species, *N. ornatus*, but is a rather smaller insect, and has much difference in the spots of the elytra; these are as follows, on each wing-case: two near the base, the outer of them at the shoulder and not elongate; a transverse one just behind the middle, extending from the outer margin more than half-way to the suture; and a large apical mark not extending

to the suture. The hind angles of the thorax are prolonged backwards in a spiniform manner.

Mr. Lewis obtained about a dozen examples of this species in a rapid stream at Kitulgalle.

Hydrovatus castaneus.

Hydrovatus castaneus, Motsch., Et. Ent., 1855, p. 82.
Colombo.

Hydrovatus fuscus.

Hydrovatus fuscus, Sharp, Dyt., No. 193, p. 326.
Kandy and Colombo.

Hydrovatus elevatus.

Hydrovatus elevatus, Sharp, Dyt., No. 199, p. 328.

Kitulgalle. Only one specimen was obtained; it is a variety of very small size.

Hydrovatus sinister, sp. nov.

Subrotundatus, testaceus; elytris fusco-testaceis, fortiter punctatis, ad apicem profunde sinuatis. Long. $2\frac{1}{2}$ mm.

Head broad and short, very indistinctly impressed on each side, obscurely margined in front, very densely and finely reticulate. Thorax rather sparingly and finely punctured, densely and finely reticulate. Elytra rather coarsely and regularly punctate, shining, very indistinctly reticulate; the acumen at the extremity remarkably definite. Under surface shining, coxæ coarsely punctate. Prosternal process triangular, not sinuate at the sides. There is only a very slight difference in the structure of the antennæ of the two sexes, but in the male they are distinctly a little longer, and very slightly broader than they are in the female, and joints 4—7 of the antennæ are just perceptibly broader.

This species should be placed near *H. fractus*, Shp.; it is more sparingly punctate and more shining, and has the acumen at the extremity of the elytra remarkably definite and distinct.

Colombo, in April. About a dozen specimens.

Hydrovatus subtilis, var.

Hydrovatus subtilis, Sharp, Dyt., No. 203, p. 329.

Six specimens procured by Mr. Lewis at Colombo in April agree with the types from Siam, except that the antennæ of the male have the intermediate joints more dilated.

Bidessus bufo, sp. nov.

Oblongo-ovalis, latiusculus, testaceus, parum nitidus, crebre punctatus; elytris fusco-submaculatis. Long. 2 mm.

Antennæ short. Head short and broad, with fine distinct elevated margin in front. Thorax very strongly transverse, indistinctly punctate, at the base with a curved plicate impression, which on the elytra is continued as a straight line appearing externally as an elevation; the punctuation of the elytra is dense and distinct, there is no pubescence, they are of a pallid sordid testaceous colour, with numerous very indistinct small black spots; the plica at the base of each extends about one-sixth of the length. The under surface is coarsely punctate.

This is a very distinct species from any other known, and should be placed at the end of Group 1 of the genus. The thorax is peculiar, being impressed along each side parallel with the margin.

Kandy, in February. Five specimens.

Bidessus intermixtus.

Hydroporus intermixtus, Walker, Ann. & Mag. Nat. Hist. (3), ii., p. 204; Sharp, Dyt., No. 289, p. 358.

This appears to be rather variable in colour; some of the individuals possess fuscous marks on the elytra, while in other specimens these can scarcely be detected.

Dikoya, in February; on the Hadley Estate. Six specimens.

Bidessus gentilis, sp. nov.

Ovalis, angustulus, parum nitidus, testaceus; elytris abdomine-que fusciscentibus, illis vage testaceo-signatis; stria basali elytrorum nulla, stria suturali obsoleta, tantum ad apicem bene impressa. Long. 2 mm.

This species should be placed after *B. flammulatus*, Shp., with which it agrees in not having a continuation of the thoracic stria

on the elytra, but from which it differs in having the sutural stria obsolete. The antennæ are short, yellow. Thorax sparingly and obsoletely punctured, yellow fuscous at the base, on each side with a fine but elongate stria. Elytra rather closely and finely punctured and pubescent, dull; fuscous, with yellow marks externally, sutural stria distinct at the extremity only. Under surface only very sparingly and obsoletely punctured.

Kitulgalle. Nine specimens. The yellow marks on the elytra are variable.

Hyphydrus indicus.

Hyphydrus indicus, Sharp, Dyt., No. 353, p. 382.

Dikoya, in January and February. Twenty specimens.

This species was previously known only by a single individual of the male sex. Mr. Lewis obtained the female as well as the male. The individuals of the former sex are a good deal smaller, more dull and more finely punctured, the front and middle tarsi are quite small; there is no impression on the elytra. The maculation of the tarsi exists in each sex. There is apparently very little variation.

Hyphoporus pugnator, sp. nov.

Ovalis, convexus, fortiter punctatus parum nitidus, pectore abdomineque nigris, supra testaceus, vertice summo, prothorace basi in medio elytrorumque signaturis nigris; antennis pedibusque rufis; tarsis anterioribus et intermediis nigris. Long. 5 mm.

Head with broad but only very slightly elevated margin in front, the vertex behind the eyes blackish. Thorax very densely punctured. Elytra with remarkably coarse and deep, rather close punctuation, and with a few fine punctures on the interstices.

Dikoya, January 26th, 1882.

Walker's type of *H. interpulsus* is an insect similar to *H. pugnator*, but with much more scanty punctuation on the elytra. Mr. Lewis obtained one specimen at Hadley that is probably referable to Walker's species.

Copelatus pusillus.

Copelatus pusillus, Sharp, Dyt., No. 854, p. 580.

Colombo. One specimen.

Rhantus taprobanicus, sp. nov.

Anguste ovalis, nitidus, niger, supra testaceus; elytris crebrius nigro-irroratis vertice inter oculos prothoraceque disco nigro-signatis; elytris punctis seriatis conspicuis; antennis pedibusque quatuor anterioribus testaceis. Long. 12 mm.

Very similar to the widely distributed *R. pulverosus*, but of narrower and more parallel form, and with the serial punctures on the elytra very different, they being comparatively large and distant, and much more conspicuous than the very numerous minute punctures of which the series are composed in the well-known *R. pulverosus*. The structure of the front feet of the male is almost similar to that found in *R. pulverosus*, and there is scarcely any difference in the sculpture of the sexes.

Hadley and Bogawantalawa. Six specimens.

Rhantus interclusus.

Colymbetes interclusus, Walker, Ann. & Mag. Nat. Hist. (3), ii., p. 204.

Ovatus, parum convexus, nitidus, nigricans; supra testaceus, capitis signaturis, prothorace late in medio elytrorumque irrorationibus nigris; pedibus piceo-testaceis, posterioribus piceis. Long. 12 mm.

Distinguished from *R. taprobanicus* by the whole of the middle of the pronotum, from front to hind margin, being black; the serial punctures on the elytra are not so large, and the female has a much more distinct reticulation—the meshes being larger as well as more distinct—on the thorax and elytra.

Hadley. One female example. This and Walker's type in the British Museum are the only specimens of the species I have seen.

Hydaticus rhantoides.

Hydaticus rhantoides, Sharp, Dyt., No. 1036, p. 664.

Colombo; three specimens of unusually small size and narrow form.

Hydaticus bihamatus.

Hydaticus bihamatus, Aubé, Spec. Gen. Hydroc., p. 174.

H. discindens and *H. fractifer*, Walk., Ann. & Mag. Nat. Hist. (3), ii., p. 204.

About twenty specimens, obtained most of them at Bogawantalawa in March, represent three well-marked varieties or races previously unknown to me. The difficulties connected with the specific discrimination of *H. bihamatus* and its allies have already been noticed by myself, and more recently by Dr. Régimbart (Ann. Soc. Ent. Fr., 1889, p. 154). If all the forms mentioned by this *savant* be really one species the variation is extreme; but I think myself it is more probable that there will prove to be several good species, each variable in colour. At present sufficient materials for deciding this question do not exist in our collections. *H. fractifer*, Walker, is a variety not obtained by Mr. Lewis; *H. discindens*, Walker, is one of the varieties mentioned above.

Hydaticus vittatus.

Dytiscus vittatus, Fab., Syst. Ent., App., p. 825.

Hadley. The specimens are of small size and narrow form, with a greater development than usual of the yellow colour on the thorax and elytra. Two specimens from Lynford are a remarkable new variety, in which the yellow colour occupies about one-half of the area of the wing-cases.

Sandracottus festivus.

Dytiscus festivus, Ill. Mag., i., p. 166.

Bogawantalawa, in March. Two specimens.

Cybister ventralis.

Cybister ventralis, Sharp, Dyt., No. 1161, p. 742.

This species is only known by one example of the male sex from Madras. I refer to it with considerable doubt three specimens from Ceylon in the collection of Mr. Lewis, the form being more elongate than in the typical example. These specimens were obtained from different sources, and there is a great sexual disparity between them; but as there is not, under the circumstances, sufficient evidence that they belong to the same species, I shall not remark farther on them.

Cybister sugillatus.

Cybister sugillatus, Er., Nov. Act. Ac. Cæs. Leop., xvi., p. 227.

Dikoya and Bogawantalawa. Seven specimens—all similar—of a small narrow variety of this widely distributed species.

Cybister wehnckianus.

Cybister wehnckianus, Sharp, Dyt., No. 1152, p. 737.
Dytiscus extenuans, Walker, Ann. Nat. Hist. (3), ii., p. 204.

This species has been previously known only by one female example, the locality of which was given as "East India?". Mr. Lewis has now procured three examples representing both sexes, and I think it probable the species may prove peculiar to Ceylon. The male has very small anterior tarsi; sexual sculpture in the female is absent, but the peculiar impressions on the metasternal laciniae are quite as strongly marked as in the other sex. One of the three specimens is from Kandy; the other two are not labelled.

HYDROPHILIDÆ.

Sternolophus rufipes.

Hydrophilus rufipes, Fab., Syst. El., i., p. 251.

Peradenya, 20th February, 1882. Four specimens.

Hydrobius minimus, sp. nov.

Ovalis, convexus, nitidus, fuscus; antennis basi palpisque flavis capite thoraceque nigricantibus illo utrinque flavo-maculato, hoc ad latera late testaceo; elytris parce punctatis, ad apicem colore dilutius. Long. vix 2 mm.

Palpi short and stout, terminal joint longer than the penultimate, fuscous at the apex. Head almost impunctate, blackish, with a yellow mark over the insertion of each antenna. Thorax very short, polished, impunctate. Elytra with a deep sutural stria reaching nearly to the scutellum, finely and sparingly punctate. Legs slender, rufous; tarsi very slender.

This obscure little insect will not enter into any of the divisions that have recently been made for the

smaller species of the old genus *Hydrobius*, but the characters of these divisions are of somewhat doubtful importance, being variable from species to species. *H. minimus* has a small curvate transverse elevation on the mesosternum, and the front and middle femora pubescent beneath, while the hind femora are pubescent merely along their anterior margin.

Dikoya, in January. A small series of examples.

Hydrobius evanescens, sp. nov.

Ovalis, angustus, fuscus, supra æneus; elytris apice flavescente, antennarum basi palpis pedibusque testaceis; supra crebre punctatus. Long. 2 mm.

This is very similar to *H. minimus*, but is somewhat brassy in colour above, and is more distinctly punctulate. On the under surface the hind femora have no pubescence, and the mesosternal crest is more marked, the transverse elevation being rather more raised, while from the middle of it there extends backwards a slight longitudinal carina.

Kitulgalle and Kandy. Two specimens.

Hydrobius (Anacæna) advena, sp. nov.

Ovalis, convexus, nitidus, testaceus, supra piceus, limbo dilutiore; elytris parce punctatis. Long. $2\frac{1}{8}$ mm.

Palpi pale yellow, quite short, terminal joint twice as long as the preceding one. Head shining, impunctate. Thorax also impunctate. Elytra with elongate sutural stria, sparingly but not finely punctured.

This species has the mesosternum unarmed, and the hind femora covered with pubescence beneath, except at the tip, so that it may be placed in *Anacæna*. Looking at the upper surface only it may be distinguished from *H. minimus* by being rather larger, and having the elytra considerably more coarsely punctate.

Bogawantalawa, in April. Three specimens.

Philydrus iteratus, sp. nov.

Ovalis, niger, nitidus; prothorace lateribus piceis, antennarum basi, tarsis, palpisque rufis, his articulo basali nigricante, antennarum clava fusca; dense minus fortiter punctatus. Long. 7 mm.

Palpi elongate, penultimate joint much longer than the terminal one, which is about half as long as the true second joint. Antennæ with the terminal joint rather long, twice as long as the penultimate one. Thorax densely punctate, the sides narrowly piceous, the hind angles rounded. Elytra densely punctate, the three series of larger punctures distinct but very irregular, each series having additional punctures near it. Mesosternal lamina very large, forming an acute angle in front, although the front margin is somewhat rounded; this angle projects considerably below the breast. Claws very small.

Colombo, in April. Five specimens.

This species is similar to many others in size and form, but does not appear to be very closely allied to any other I know.

Philydrus fragilis, sp. nov.

Anguste ovalis, convexus, politus, obsolete punctatus, testaceus, vertice nigricante; subtus fuscus. Long. 4 mm.

Palpi clear yellow, clypeus yellow, slightly more obscure in the middle, vertex blackish. Elytra with deep sutural stria, which, however, does not extend to the base, the sutural interval behind darker in colour; the punctuation very obsolete and the serial punctures fine; the punctuation of the thorax is scarcely so obsolete as that of the elytra, and on the head it is still less obsolete. The tarsi are very slender, the claws quite small. The mesosternum bears a very large lamina, the lower margin of which is continuous with the plane of the breast, while the front angle is distinctly more prominent downwards.

Dikoya, in January. Three specimens.

Philydrus escuriens.

Philydrus escuriens, Walk., Ann. & Mag. Nat. Hist. (3), ii., p. 209.

Pylophilus nigriceps, Motsch., Etudes Ent., 1859, p. 46.

Testaceus, capite nigro, utrinque flavo-maculato; obsolete punctatus, tenuissime pubescens, subnitidus. Long. $2\frac{1}{2}$ mm.

P. escuriens is one of the smallest insects of the genus; the apex of the maxillary palpus is infusate, the mesosternal lamina is very peculiar; it appears extremely short on its lower face, but in fact extends as an elongate carina traversing the whole length of the obliquely ascending mesosternum.

I have examined Walker's type, and possess also a type of Motschoulsky's; so that the nomenclature is certain, although Motschoulsky states that his insect has no mesosternal carina.

Philydrus abnormalis, sp. nov.

Niger, supra piceus, limbo dilutior; antennis palpisque testaceis, pedibus sordide rufis; obsolete punctatus; palpis elongatis ut in genere *Helocharidi* constructis. Long. 3—4 mm.

Palpi very long, the pseudobasal joint slightly curved, as in *Helochares*, and the terminal joint also articulated as in *Helochares*, to bend inwards, not outwards, as is the case in the normal *Philydri*. Antennæ yellow, the club slightly more obscure, not setose, the intermediate joints are consolidated, though the position of the sutures may still be detected. Head narrow, black, rather closely and finely punctate. Thorax closely and subobsoletely punctate. Elytra still more obsoletely punctured, with very distinct sutural striæ, not quite attaining the base. Legs quite slender, pitchy-red; tarsi yellowish. Mesosternum with a lamina which is scarcely more than a strongly raised longitudinal keel.

The structure of the palpi will no doubt justify this insect being separated from *Philydrus*, but I do not think it necessary to propose a new genus for it at present.

Colombo, 17th April, 1882. Three specimens.

Helochares taprobanicus, sp. nov.

Nigerrimus, nitidus, dense punctatus, antennarum basi tarsis palpisque rufis, his elongatis, articulo basali fuscescente. Long. 7 mm.

Palpi quite $2\frac{1}{2}$ mm. long, the second true joint infusate before the extremity, the third joint also a little darker in the middle, terminal joint much shorter than the third joint. Antennæ with the club fuscescent, the terminal joint quite twice as long as the preceding one. The upper surface is moderately closely, rather finely punctate, very shining, the two series of punctures on the elytra rather fine and not very distinct. Mentum deeply curvately rugose, in front with a deep emargination. Mesosternum with a small elevation on the middle. Claws moderately large.

Colombo, in April. Five specimens.

There is a group of species of *Helochares* occurring in the tropics of Old and New Worlds with very long palpi,

the middle breast feebly armed, and with the mentum excised in front; they should, no doubt, form a distinct genus. *H. taprobanicus* is the smallest insect of this group in my collection.

Helochares anchoralis, sp. nov.

Anguste ovalis, subdepressus, subtus, fuscus, supra testaceus, dense punctatus; elytris subtiliter striatis; pedibus elongatis, sat robustis, tarsis cum unguiculis magnis. Long. 6 mm.

Maxillary palpi rather elongate and stout, pale yellow. Antennæ yellow, the club more dusky; nine-jointed, 2nd joint elongate, equal to the following three together, 6th joint elongate in front, and receiving and covering the base of the club, this is elongate, very pubescent, terminal joint longer than usual. Head densely punctured. Thorax rather strongly transverse, but little rounded at the sides, densely punctate. Elytra very densely and evenly punctured, finely striate, the striæ very nearly obliterated at the base, deeper at the deflexed extremity. Mesosternum unarmed. Claws at the extreme base beneath with a slight swelling, and also with a short onychium, which bears two elongate setæ. Sides of the head beneath with long setæ behind the eyes.

Colombo, in April. Four specimens.

Helochares lentus, sp. nov.

Ovalis, sat convexus, testaceus, subtus fuscus; dense punctatus, et in elytris seriatim fortiter punctatus. Long. $4\frac{1}{4}$ mm.

Palpi clear yellow, moderately long. Head narrow; labrum large. Thorax closely and rather coarsely punctured, a little narrowed in front, hind angles rounded. Elytra with moderately distant rather fine punctuation, and also with very distinct series of much larger punctures; both serial and diffuse punctuation are diminished behind. Mesosternum with a feeble swelling at its apex. Legs rather feeble, claws small.

Dikoya, in January. Four specimens.

Helochares densus, sp. nov.

Ovalis, subdepressus, testaceus, subtus fuscus, dense punctatus, et in elytris seriatim minus fortiter punctatus. Long. $4\frac{1}{4}$ mm.

This is closely allied to *H. lentus*, but may be easily enough distinguished by the serial punctuation on the elytra being less coarse and less deep, while the diffuse punctuation is rather more

coarse and close, so that the surface is less shining. *H. densus* is also a less convex insect, and the serial punctuation is quite obsolete at the extremity of the elytra.

Kandy and Dikoya, in February; Bogawantalawa, in March. Half-a-dozen examples.

Laccobius rectus, sp. nov.

Ovalis, subdepressus, fuscus, nitidus, fere lævigatus, capite thoraceque nigricantibus, illo antè utrinque, hoc ad latera flavis; antennis, palpis, pedibus elytrisq. pallide flavis, his lineis multis nigris ornatis. Long. $2\frac{1}{4}$ mm.

Head yellow beneath, dark above, marked rather indistinctly with yellow on each side, obsoletely punctate. Thorax dark in colour, with the sides broadly yellow, almost impunctate. Elytra yellow, with elongate uninterrupted lines of dark colour; these lines are very numerous, and each one is about as wide as the interval separating it from the next; there is some extremely minute punctuation serially arranged. The mesosternum is armed with a conspicuous lamina.

Kitulgalle. Six specimens.

I do not know any other *Laccobius* in which the alternate yellow and black lines are arranged as definitely as in this species.

Berosus decrescens.

Berosus decrescens, Walker, Ann. & Mag. Nat. Hist., 1859, p. 258.

Parvus, testaceus; abdomine fusco, capite metallescente; thorace in medio metallico-bivittato; elytris fusco-irroratis; crebre minus subtiliter punctatus, elytris pube depressa vestitis, subtilissime striatis. Long. 3 mm.

In this insect the mesosternum has a fine carina extending over all its length, but scarcely raised from the surface, so that it might be overlooked, except that it is black in colour, while the breast is yellow. The club of the antennæ is clear yellow. The punctuation of the upper surface is rather coarse, and the striæ of the elytra are so fine that they are only conspicuous because of their course being indicated by a line of black colour. Each puncture on the wing-cases is also marked with black, and there are a few distant small black spots.

Kitulgalle. A series of specimens.

Volvulus æneus.

Volvulus æneus, Br., Hist. Nat., v., p. 282.

Dikoya, in January. One specimen.

This species is said by Erichson to be the *Hydrophilus attenuatus*, Fab., but I am not at all sure this synonymy is correct, as Erichson was not aware that there are numerous closely allied species of *Volvulus*.

Globaria leachi.

Globaria leachi, Latr., Règn. An., iv., p. 521.

Kandy, 20th February, 1882. Four specimens.

The Ceylon examples of this insect have the serial punctures on the sides of the elytra less distinct than examples from other localities in Asia, and may possibly be another species.

Amphiops simplex, sp. nov.

Rotundatus, nitidus, piceo-testaceus, dense punctatis; elytris punctatura suturam versus obsolescente, ad latera absque punctis seriatis. Long. $3\frac{1}{4}$ mm.

Palpi and base of antennæ clear yellow. Head without concentration of punctures on the front; canthus dividing the eyes very slight. Thorax shining. Elytra with dense punctuation, which is coarse at the sides, obsolete at the suture.

This is more dilute in colour than the other species of the genus, and is the only one yet known in which there is no trace of larger serial punctures at the sides of the elytra. *A. pisiformis*, Fairm., comes nearest to it.

A. simplex was procured in some numbers by Mr. Lewis at Colombo in April.

Amphiops pedestris, sp. nov.

Subrotundatus, nitidus, piceus, palpis antennis tarsisque testaceis; elytris fortiter seriatim punctatis. Long. 3 mm.

Head with very numerous punctures, the punctuation uneven, consisting of small punctures with which some larger punctures are mixed. Thorax with the punctuation quite obsolete on the disc, but moderately distinct at the sides. Elytra shining, with series of coarse punctures, and on the interstices with a few rather large distant punctures, the series near the suture very indistinct.

Colombo, in April. This is apparently not an uncommon insect, as Mr. Lewis brought back about twenty examples.

Amphiops mirabilis, sp. nov.

Subrotundatus, niger, nitidus, subtus piceus, tibiis dilutioribus; antennis, palpis tarsisque testaceis; elytris fortiter seriatim punctatis, interstitiis crebre fortiterque punctatis. Long. $3\frac{1}{2}$ mm.

This is closely allied to *A. pedestris*, but is no doubt distinct, the large punctures of the upper surface being larger and more numerous. Head not very shining, the numerous large punctures being mixed with others much smaller, and which render the surface rather dull; at the sides of the thorax there are also rather numerous large punctures, and others much smaller. At the sides of the elytra the interstitial punctuation is so numerous and coarse that, being similar to the serial punctuation, this last can scarcely be discriminated from it; the series of punctures near the suture are subobsolete, and the interstitial punctuation there is almost wanting.

Kandy, 20th February, 1882. One specimen.

Hydrochus lacustris.

Hydrochus lacustris, Nietner, Ann. Nat. Hist. (2), xix., p. 386.

Colombo. Two specimens.

Epimetopus flavidulus, sp. nov.

Sordide testaceus, pectore capiteque nigris; prothorace fusco; hoc inæquali; elytris tuberculis elongatis metallescentibus munitis. Long. 3 mm.

Palpi short, with elongate aciculate terminal joint; sordid yellow. Thorax greatly produced in the middle in front, at the sides much narrowed behind, so that the base is only about half the width of the wing-cases, the surface, rather rough and uneven, with a peculiar marginate elevation on the middle near the front of the produced part. Elytra yellow, with three or four rows of metallescent elongate tubercular elevations, which do not extend on to the declivous apical portion, or rather are there much smaller and more distant; between the tubercles there is some indistinct seriate sculpture. Metasternum short. Ventral segments yellow, polished.

One example of this interesting little insect was found

at Kandy, 18th February, 1882. It is abundantly distinct from *E. bullatus*, Shp.

PROTOSTERNUM, gen. nov.

Corpus oblongo-ovale, subdepressum. Prosternum, mesosternum et abdominis segmentum basale carinata. Tarsi perbreves, posteriores articulis tribus basalibus longitudine subæqualibus.

This genus is established for a single species—a very minute insect—having the form of the species of *Dactylosternum*, but differing therefrom by the mesosternum possessing merely a slightly elevated carina along the middle. By this character, and by its general facies, it approaches the Central American genus *Heteryon*, but in that genus the first ventral segment is not carinate. The palpi are quite short, the antennæ have a very elongate club; the mentum is deeply and broadly impressed on the middle in front; the carina on the prosternum is very minute; the mesosternal carina is fine and is divided into two parts, the anterior of which emits a small branch on either side; the metasternum is also feebly carinate in its anterior part. The carina on the first ventral segment is fine but very definite and elongate. The whole of the under surface is covered by a minute sculpture making it quite dull.

Protosternum atomarium, sp. nov.

Rufopiceum, subdepressum, oblongo-ovale; antennis palpisque flavis; subtiliter punctatum, elytris striato-punctatis, striis postice magis profundis. Long. $1\frac{3}{4}$ mm.

Antennæ with the club clear, pale yellow. Head broad and short, not visibly margined, very finely punctate, eyes not visible from above. Thorax very short, very little emarginate in front, rather closely and finely punctate, with a large foveiform puncture on each side at the base. Elytra continuous in outline with the thorax, the outer margins very slightly reflexed; with very regular series of coarse punctures, which are finer and appear more like striæ near the suture, and with a very feeble interstitial punctuation.

Dikoya and Kandy. Four specimens.

Cyclonotum simplex.

Cyclonotum simplex, Sharp, Trans. Ent. Soc. Lond., 1874, p. 419.

Hydrobius stultus, Walker, Ann. Nat. Hist. (3), ii., p. 209.

Colombo. Several specimens.

Sphæridium quinquemaculatum.

Sphæridium quinquemaculatum, Fab., Ent. Syst., Suppl., p. 39.

S. tricolor, Walker, Ann. Nat. Hist. (3), ii., p. 209.

S. quinquemaculatum is a very abundant insect in Hindostan and China, and, like some others of the genus, varies greatly in the coloured markings of the upper surface. Walker's type of *S. tricolor* is, however, only a very slight departure from the definitely five-spotted form described by Fabricius.

Cercyon lineolatus.

Trichopoda lineolata, Motsch., Bull. Mosc., 1863, i., p. 444.

Galle, in December, 1881. Half-a-dozen specimens.

Cercyon vicinalis.

Cercyon vicinale, Walker, Ann. & Mag. Nat. Hist., 1859, p. 258.

C. nigriceps, Motsch., Bull. Mosc., 1863, i., p. 445.

C. atriceps, Har. & Gemm., Cat. Col., ii., p. 496.

Motschoulsky's description agrees with specimens that I have compared with Walker's type of *C. vicinale* in the British Museum. The name *C. atriceps*, proposed by Gemminger and Harold as a substitute for Motschoulsky's trivial appellation, becomes therefore superfluous, as it will be the simplest course to adopt Walker's specific appellation for the species.

Galle and Hadley.

Cercyon uniformis, sp. nov.

Rotundato-ovalis, sat convexus, ferrugineus, nitidus, antennarum clava fusca; sat crebre punctatus, elytris striatis, striis postice vix magis profundis. Long. $2\frac{1}{2}$ mm.

Palpi clear yellow. Head truncate in front, rather closely punctate, shining. Thorax very short. Elytra with well-marked, though fine, striæ, extending from the base to the extremity, and rather deeper on the declivous part; the outer striæ are more like rows of punctures, but those near the suture are almost impunctate. The punctuation of the interstices is like that of the

head and thorax, but not quite so close. The mesosternal lamina is largely developed but very slender, and the polished space on the metasternum is sparingly and obsoletely punctate.

This species has in appearance a good deal of resemblance to the genus *Pelosoma*, but the very slender mesosternal lamina quite removes it from the genus in question, and it may be placed near the Japanese *C. olibrus*.

Dikoya, Bogawantalawa, Kandy.

Megasternum nigrovittatum.

Pachysternum nigrovittatum, Motsch., Bull. Mosc., 1863, i., p. 447.

The genus *Pachysternum*, founded by Motschoulsky for this insect, *op. cit.*, p. 446, must fall as a synonym of *Megasternum*; Motschoulsky compared his genus only with *Cryptopleurum*, from which it is, of course, abundantly distinct, and says nothing about its relations to *Megasternum*, from which I see nothing to distinguish it.

Mr. Lewis found one specimen of *M. nigrovittatum* at Kitulgalle.

ARMOSTUS, gen. nov.

Corpus rotundato-ovale, convexum. Prothorax utrinque ad marginem anteriorem profunde excavatus. Mesosternum processu maxime elevato, facie inferiore polito fortiterque punctato, ovali, instructum. Metasternum in medio elevatum, politum fortiterque punctatum. Tarsi breves, posteriores articulo basali sequentibus tribus conjunctis æquali.

Mentum with deep punctures, emarginate in front; projecting from its front margin there is a very dense ciliation; maxillary palpi slender and rather elongate, terminal joint aciculate. Prosternum with a sharp carina along the middle of the transverse process in front of the coxæ, and on either side of this process with a large deep excavation for the reception of the club of the antennæ. Basal ventral segment carinate along the middle. Hind tarsi rather short, the basal joint thicker than the others.

This genus is established for a single species allied to *Oosternum*, but differing by the large unimpressed mentum, by the large antennal cavities, and the very remarkable development of the mesosternal and metasternal elevations, as well as by the compressed and

rigid tarsi, much thicker at the base than at the apex. The position should be between *Oosternum* and *Peratogonus*, to which latter peculiar genus it makes a considerable approach.

Armostus optatus, sp. nov.

Rotundato-ovalis, convexus, rufus, supra piceus, palpis antennarumque basi flavis; fortiter punctatus, elytris profunde striatopunctatis, interstitiis convexis. Long. $1\frac{3}{4}$ mm.

Head finely margined in front, closely and rather coarsely punctured. Thorax rather coarsely and closely punctured at the sides, more sparingly on the disc. Elytra with very deep striæ, which bear rather large punctures, the interstices are broad in front, and become narrower and more elevated behind; there is no pubescence; the apex is flavescent. The under surface is finely unctate and dull, except the remarkable mesosternal and metasternal elevations.

Dikoya, in December, 1881. Two specimens.



Sharp, David. 1890. "IX. On some aquatic Coleoptera from Ceylon."
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