

EXPLANATION OF DIAGRAMS.

- Fig. 1.—*Acocephalus trifasciatus*: *a*, aedeagus, lateral aspect; *b*, ditto, cephalad aspect.
- „ 2.—*Limotettix striola*: apical part of genital style.
- „ 3.— „ *atricapilla*: ditto.
- „ 4.—*Deltocephalus normani*: *a*, aedeagus, cephalad aspect; *b*, ditto, lateral aspect.
- „ 5.—*Deltocephalus multinotatus*: *a*, aedeagus, cephalad aspect; *b*, ditto, obliquely lateral aspect.
- „ 6.—*Deltocephalus thenii*: aedeagus, *a*, cephalad aspect; *b*, ditto lateral aspect.
- „ 7.—*Deltocephalus sursumflexus*: aedeagus, *a*, cephalad aspect; *b*, ditto, lateral aspect; *c*, ditto, dorsal aspect of the apex.
- „ 8.—*Megophthalmus scanicus*: genital style.
- „ 9.— „ *scabripennis*: ditto.
- „ 10.—*Limotettix* 5-notata: aedeagus, lateral aspect.
- „ 11.— „ 4-notata: „ „ „
- „ 12.— „ saturata: „ „ „
- „ 13.—*Deltocephalus striatus*: aedeagus, *a*, cephalad aspect; *b*, ditto, lateral aspect.
- „ 14.—*Zygina mali*: pygofer, *a*, dorsal aspect; *b*, ditto, lateral aspect.
- „ 15.—*Psylla nigrita*: forceps, obliquely lateral aspect.
- „ 16.—*Psyllopsis discrepans*: forceps, lateral aspect.
- „ 17.—*Psylla subferruginea*: „ „ „
- „ 18.— „ *melanoneura*: „ „ „

NEW SPECIES OF PSELAPHIDAE, SUB-FAM. CLAVIGERINAE.

BY G. E. BRYANT, F.E.S.

(PLATE XIX).

This short paper deals with four new species of *Clavigerinae* collected by myself in Ceylon, Borneo, and Brazil. These curious and interesting insects are not easy to obtain in the tropics, as in thick jungle country ants' nests are difficult to investigate owing to the vast accumulation of dead leaves, and all the likely looking places, as a rule, swarming with ants and leeches, not to mention an occasional snake. Termites' nests, both under bark and when made of mud, also produced some very interesting forms. During my stay in Borneo I collected

about one hundred species of *Pselaphidae*, but only two of them belong to the *Clavigerinae*, which shows how rare they apparently are. No species of this sub-family has up till now been recorded from Borneo or Ceylon. Without the aid of the many fine works by Raffray on *Pselaphidae*, which I have consulted, this paper would never have been published. I am indebted to Mr. Donisthorpe for the names of the ants mentioned below, which have been determined by M. Forel. The types of these insects were from Sumatra.

Disarthricerus moultoni sp. n. (Plate XIX, figs. 1, 1a, b).

♂. Dark reddish brown, oval, rather convex, attenuated in front. Head longer than broad, sub-cylindrical, rounded anteriorly, convex, the underside dilated in an obtuse angle, with sides oblique; above, between eyes to apex, rugosely punctured, and with short golden setae; behind eyes to base smoother; eyes very large and prominent, placed a little behind middle. Antennae with two joints, about as long as head; 1st joint hidden, 2nd large, cylindrical, gradually widening from base to apex, with apex rounded, and with long pale pubescence. Prothorax widest at base, rather strongly punctured, angled at base. Elytra large, about as broad as long, rounded, and reticulate. Abdomen with first dorsal segment very large, the only one visible when viewed from above, narrower at base and shorter than the elytra, with the sides margined, oblique and rounded at apex, slightly depressed on each side at base, punctate, setose. Meso- and metasternum strongly punctured at sides. Ventral segment 1 short; 2 much longer; 3, 4, and 5 each shorter than 2, and about equal to each other; 6 a little longer. Legs short and broad; intermediate femora (see fig. 1b) dilated and armed on the under-side with a process bearing two spurs branching in opposite directions; tibiae narrowed at base, the intermediate pair with a small tooth near apex; tarsi three-jointed: 1 and 2 very short, 3 long and with single claw. Length 1.20 mm.

♀. Differs in having the intermediate femora less dilated and unarmed, the abdomen more rounded, and the sixth ventral segment more transverse.

Hab.: SARAWAK, Mt. Matang, alt. 1,000 ft. (1 ♂, 30.i.14; 1 ♀, 5.xii.13). In the nest of a small blue-black ant, *Prenolepis* (*Nylanderia*) *butteli* Forel, var., on the ground under dead leaves.

I have great pleasure in naming this species after Mr. J. C. Moulton, to whom I am greatly indebted for all the trouble he took to make my collecting expedition to Sarawak such a great success. *D. moultoni* differs from *D. integer* Raffr. (of which Mons. Raffray took a single ♀ at Singapore, on which he founded the genus) by the very different shape of the second joint of the antennae, the form of the thorax, and the less rounded abdomen. I have taken two specimens at Penang of another species very like *D. integer*, but with a somewhat differently shaped thorax; it is not advisable, however, to describe it without seeing Raffray's type.

Eustiger nitidus sp.n. (Plate XIX, figs. 2, 2a).

♀. Moderately wide, dark reddish brown, very shining and polished. Head twice as long as wide, quadrate in front, slightly attenuated behind, finely and thickly punctured. Antennae very little longer than head, with very short setae; 1st joint hidden, 2nd short and transverse, 3rd long and almost straight, widened towards apex, truncate at tip. Prothorax about as broad as long, rounded in front, very finely and thickly punctured, angled behind, and in middle near base with a deep fovea. Elytra lightly punctured, more thickly so near posterior angles, with short pubescence; sub-quadrate, with the sides slightly rounded at shoulders; suture depressed, and with a rather conspicuous stria; on the apical margin near posterior angles a tuft of hairs. Abdomen much longer and a little wider than the elytra, very smooth and shining, with the sides well rounded anteriorly, depressed at base, with golden pubescence at basal angles, very convex to apex. Legs rather long, with tibiae narrower at base; tarsi three-jointed, 1 and 2 very short, 3 long, and with a single claw. Ventral segment 1 short, 2 and 3 large and about equal, 4 and 5 very short, 6 larger. Length $2\frac{1}{2}$ mm.

Hab.: BRAZIL, Alto da Serra, São Paulo, alt. 2,500 ft. (9.iii.12, by beating in forest).

This species is allied to *F. gounellei* Raffr. and *F. brasiliensis* Westw. It differs from *F. gounellei* in its larger size, the deeper prothoracic fovea, and the lightly punctured elytra, which are not tri-impressed at the base, and have the apical margins tufted, *F. brasiliensis* has three foveae on the prothorax and two impressions on the head, the sides of abdomen rounded further from the base, and is also a larger insect.

Articerodes borneensis sp.n. (Plate XIX, figs. 3, 3a, b).

♂. Castaneous, shining, sub-parallel-sided. Head sub-cylindrical, short, a little longer than broad, with scattered golden setae, rounded in front, and a little broader than apex of prothorax; eyes rather large, placed a little behind middle. Antennae four-jointed, shorter than head; 1st joint hidden, 2nd and 3rd about equal, short and transverse, 4th large, cylindrical, narrow at base, truncate at apex, with short pubescence. Prothorax about as broad as long, widest at base, slightly rounded, narrowing to apex, sides margined and with three setae, angled at base, covered with small, shallow punctures. Elytra slightly broader than long, broader than base of thorax, with rather dense golden pubescence, shoulders well marked, with a distinct fold; apical margin with a pointed projection in middle of each elytron. Abdomen: first dorsal segment very large, convex posteriorly, smooth, and shining, about as long as elytra, with sides a little rounded to apex, truncate behind, sides well margined, each with three tufts of golden hairs; base divided into three rather deep excavations by two tufts beneath the elytral projections. Legs short and stout; the intermediate femora much dilated, and having below a long curved spur (see fig. 3b), the intermediate tibiae armed with a small spur towards apex, and the posterior trochanters armed with a spine, and the tibiae with a

rather long spur about middle; tarsi three-jointed, 1 and 2 very short, 3 long, and with a single claw. Ventral segment 1 short, 2 large, 3 shorter, 4 and 5 still shorter, 6 larger. Length, 1.20 mm.

Hab.: SARAWAK, Mt. Matang, alt. 1000 ft. (16.i.14).

Found in the nest of a small yellow ant, *Rhoptromyrmex rothneyi* Forel, var. *intermedia* Forel. I have placed this species in the genus *Articerodes* as it agrees with *A. syriacus* Saulcy, from Syria, and *A. quadriscopulatus* Sch., from Sumatra, in having four-jointed antennae, a projection on the apical margin of the elytra, and the first dorsal segment of the abdomen divided at base into three compartments. *A. punctipennis* Raffr., from India, is a much larger insect, and has the apical margin of the elytra entire. *A. borneensis* can be at once distinguished by the margins of the first dorsal segment of the abdomen bearing three tufts of hairs. There are now four Oriental and one S. African species included in this genus. Raffray (Ann. Soc. Ent. Fr., 1911, p. 450) says: "I think there is no advantage in splitting this genus, which as yet contains few species, and of which the slightly incongruous forms are related one to the other by the important common characters."

Articeropsis cingalensis sp. n. (Plate XIX, figs. 4, 4a).

♀? Deep reddish-brown, clothed with long golden pubescence; rather broad and slightly convex, attenuated in front. Head longer than broad, cylindrical, rugosely punctured; eyes rather large, not very prominent, placed about middle of head. Antennae four-jointed, as long as head and thorax combined; joint 1 hidden, 2 a little longer than broad, 3 about twice as long as broad, narrowed towards base, 4 very long, sub-cylindrical, with four longitudinal grooves, almost from base to apex, with rows of long golden pubescence, a little narrower to base, 2 rounded at apex. Prothorax rugosely punctured, about as broad as long, widest about middle, rounded to apex. Elytra a little broader than long, shoulders rounded, more shining and lighter in colour than head and thorax, with long golden pubescence, apical margin clothed with a broad band of denser pubescence, with a tuft of long hairs near posterior angles. Abdomen longer than elytra, slightly convex to apex; 1st dorsal segment very large, punctured and pubescent, depressed at base, 2nd segment visible from behind; lateral margins broad and well marked, with an oval palette at base fringed with golden pubescence on the inner margin. Meso- and metasternum strongly punctured, and ventral segments with scattered punctures; 1st segment short, 2nd long, almost equal to 3rd and 4th combined, 3rd much shorter, 4th and 5th about equal, each shorter than 3rd, 6th a little larger. Legs long and rather broad, with long golden pubescence; femora with very large scattered punctures; tibiae narrowed at base, and grooved longitudinally; tarsi three-jointed, 1 and 2 very short, 3 long, and with a single claw. Length, $2\frac{1}{2}$ mm.

Hab.: CEYLON, Kandy; alt. 1900 ft. (25.v.08, by beating in jungle in evening).

The genus *Articeropsis* Wasm. has hitherto contained a single species, *A. sikorae* Wasm., from Madagascar. This one from Ceylon now added agrees well with *A. sikorae* in many points, but can be at once distinguished from it by the form of the fourth joint of the antennae. Probably when we have more knowledge of the Oriental species, it will require to be separated.

EXPLANATION OF PLATE XIX.

Fig. 1.—*Disarthricerus moultoni* sp. n., ♂; 1^a, ventral surface; 1^b, intermediate leg.

„ 2.—*Fustiger nitidus* sp. n., ♀; 2^a, ventral surface.

„ 3.—*Articerodes borneensis* sp. n., ♂; 3^a, ventral surface; 3^b, intermediate leg.

„ 4.—*Articeropsis cingalensis* sp. n.; 4^a, ventral surface.

Esher:

May, 1915.

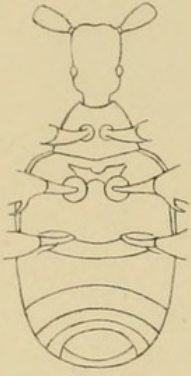
ANDRENA FALSIFICA N.N. FOR A. MORICELLA ♀, NEC ♂.

BY R. C. L. PERKINS, D.Sc., M.A., F.E.S.

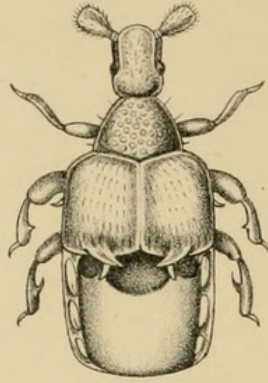
In my paper on the *Andrena minutula* group published in this Magazine (April and May, 1914), I distinguished a new form, which I named *moricella*, specially selecting the ♂ as type, since I felt uncertain whether the ♀ described under the same name really belonged to the same species.

This ♀, as I have now discovered, was not the other sex of *A. moricella*, and so I have named it *A. falsifica*, and the specific characters of its true ♂, previously unknown to me, are given below.

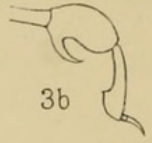
The ♀ which, as I now believe, should have been assigned to ♂ *moricella* is excessively like that of *A. alfkenella*, so much so as to suggest to my mind that, in spite of the extreme dissimilarity of their ♂ ♂, these two forms may be spring and summer generations of a single species. As some of the characters given for ♀ *alfkenella* are not always distinct in *moricella*, my table (*op. cit.*, p. 74) may be thus modified:—



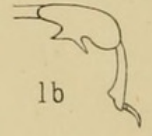
3a.



3

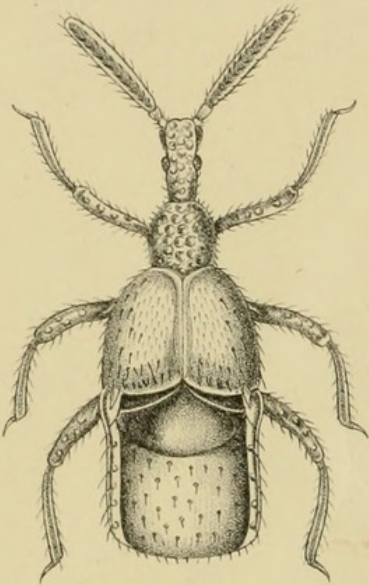


3b



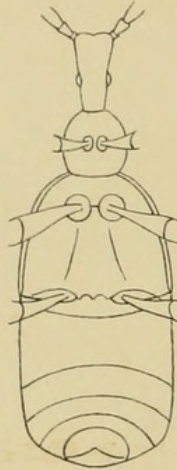
1b

I

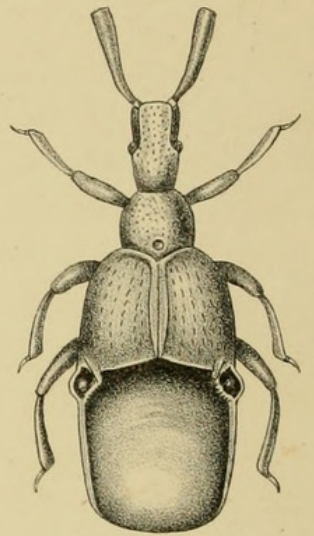


4

I

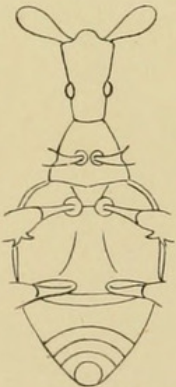


4a

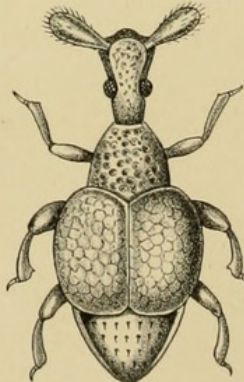


2

I

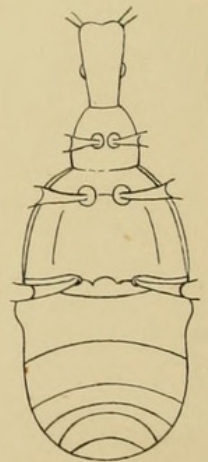


1a



1

I



2a

G.E. Bryant del.

West, Newman lith.

NEW CLAVIGERINAE.



Bryant, G. E. 1915. "New species of Pselaphidae, sub-fam. Clavigerinae." *The Entomologist's monthly magazine* 51, 211–215.

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