

NOTES ON AUSTRALIAN COLEOPTERA, WITH DESCRIPTIONS OF NEW SPECIES. PART I.

By CHARLES OKE.

[Read 28th March, 1928.]

**Staphylinidae.**

**DABRA SULCICOLLIS, n. sp.**

Testaceous; head and elytra dingy-brown; prothorax castaneous; first, second and eleventh joints of antennae and tarsi flavous, intermediate antennal joints infuscated. Clothed with pale ashen pubescence, tips of abdominal segments with a row of moderately long hairs.

Head strongly transverse, narrowed in front, indistinctly punctured. Antennae with first joint large, second about half length of first, thin at base, thickened near apex, third to tenth transverse, increasing in width, eleventh as long as preceding four combined, rounded at apex. Thorax transverse, base bisinuate, with the hind angles produced and having three or four stout setae; a large medio-basal impression continued to apex; fine confluent punctures. Elytra strongly transverse; posterior margin quadri-sinuate with the lateral angles produced; sculpture finer and more indistinct than on pronotum. Abdomen tapering, smooth and shining on basal joints, apical and subapical rather closely punctured. Under surface closely punctured. Length, 3.80 mm.

*Hab.*—Victoria: Gypsum, in nests of *Iridomyrmex nitidus* (C. Oke).

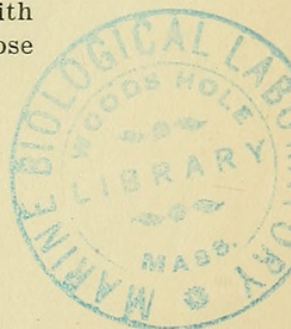
Distinguished from the previously described species by the impression on pronotum. Viewed from some directions this appears to be an isolated round fovea somewhat obliquely impressed on the pronotum, but when viewed obliquely from the sides it appears as a medial sulcus dilated near the base.

Type in author's collection.

**QUEDIUS BELGRAVENSIS, n. sp.**

♂. Dingy reddish-brown, in parts infuscated; legs and tips of abdominal segments paler, head and pronotum black, elytra and mandibles pale testaceous, two basal joints of antennae (the others much infuscated), palpi and tarsi flavous. Elytra, abdomen and sternum rather thickly clothed with pale adpressed pubescence; sides of head, prothorax and abdomen with scattered long black hairs.

Head, excluding neck, transverse, convex, rounded on sides; eyes large, same length as inter-antennary space; two punctures at base of each antenna, a small puncture near eye, and a larger one between eye and neck. Antennae with first joint long, second slightly longer than third, fourth smaller, fifth and sixth quadrate, seventh to tenth transverse, eleventh ovate-acuminate, lightly incurved at apex. Prothorax a little wider than long, widest near base; with two punctures nearer apex than usual. Elytra quadrate, with rather close





distinct punctures. Abdomen more closely punctate than elytra; under surface of apical segment with three V-shaped notches, subapical segment rather deeply emarginate in centre. Front tarsi with four basal joints much dilated; intermediate with basal joint swollen, longer than next three combined, and with a conspicuous V-shaped black comb on the lower surface, composed of 25 teeth. Length, 5 mm.

*Hab.*—Victoria: Belgrave (C. Oke) in July, under rotting leaves.

In many respects close to the description of *Quedius cordatus* Lea, but the elytron is closely punctate and the abdomen very closely so; also the comb of the tarsus is very different. The comb is V-shaped and is placed obliquely on the tarsi with the open end towards the base. The teeth at the closed end are very closely packed and are smaller than the teeth at the other end; as a result they are difficult to count, but I believe there are twelve teeth on either side and one at apex. The apical joint of the palpi is rather short, but is decidedly thicker at base than apex. On the elytra, behind the scutellum there is a vague infuscated blotch.

Type in author's collection.

#### PROCIRRUS FERRUGINEUS Lea.

I have taken twelve specimens of this species at Caulfield, Coburg, Sunshine and Melton; the colours are constant and as described by Lea. The mandibles are much like those figured by Lea for *Pinophilus semiopacus*, except that the tooth is not so deeply notched at its apex. The apex is cut off obliquely and lightly emarginate, the deepest part of the emargination being nearer the outside than the inside.

The male, not previously described, has the front tibiae very slightly wider than the female, and has a V-shaped notch on the under surface of the preapical segment of abdomen, but otherwise agrees with the female.

Allotype in author's collection.

#### SUNIOPSIS CRIBRIPENNIS Lea.

Eight specimens of this species before me show that the type specimen was immature or not of the normal colour. The palest specimen is reddish-castaneous, three are dark castaneous, diluted with red along the sides, three are piceous and one is black. It would appear that the normal colour is almost black, in parts, particularly base of elytra, diluted with red, mandibles, palpi and antennae reddish-castaneous, legs flavous, with base of femora and middle of tibiae infuscated.

The palpi show that *Suniopsis* and *Hyperomma* should be merged, as suggested by Lea, because the apical joint is apparently movable, at least in this species. Four specimens have the apical joint distinctly protruding in both palpi, one has just the extreme tips of both palpi just discernible, two have only one each visible and one has both tips concealed.

♂. With the subapical segment having a fairly wide lunate excision. The front tarsi same width as in ♀.

Allotype ♂ in author's collection.

*Hab.*—Victoria: Fern Tree Gully (in May), Belgrave (in March and May), Evelyn (in June), Emerald (August and November), Warburton (January) (C. Oke), found in tussocks and rotting leaves.



## HYPEROMMA LABRALE Lea.

I have taken a ♀ of this species at Warburton, Vic. It agrees in all respects with the description, but is larger, 12½ mm. as mounted, and has the apical segments telescoped.

## HYPEROMMA ATRA, n. sp.

♂. Black; labrum, mandibles and apex of abdomen reddish, tibiae, palpi, first, second and eleventh joints of antennae testaceous, intermediate joints infuscated, femora watery-flavous. Head, thorax and elytra sparingly, abdomen densely, clothed with long black hairs.

Head subquadrate, suddenly constricted in front of eyes, hind angles rounded off; labrum with a U-shaped excision in middle; mandibles very acuminate to apex, with a small, but distinct, blunt tooth near base; eyes large, invisible from below; with large round sparse punctures on dorsal surface, becoming rather dense on ventral. Antennae with joint one long, three longer than two or four, four-ten decreasing in length, eleven briefly ovate. Prothorax cylindrical, with an irregular semidouble row of punctures on either side of centre and a few scattered small punctures. Elytra slightly longer than wide, with large round close punctures. Abdomen densely covered with large punctures on both surfaces; apical ventral segment with a deep U-shaped excision, preapical depressed near margin and lightly emarginate. Legs rather long, anterior tarsi thin. Length, 7½ mm.

*Hab.*—Victoria: Carrum (C. Oke).

The mandibles are longer and thinner, with the tooth smaller, not so acuminate and nearer base than in following species. The labrum is different and the head and abdomen are more closely punctate.

Type in author's collection.

## HYPEROMMA PALLIPES, n. sp.

♂. Black; mandibles and prothorax red, the latter with an elongate blotch on disc and sides black; two apical segments of abdomen and apex of palpi diluted with red; labrum, two basal joints of antennae and legs testaceous; antennae dingy-brown, apical joint paler. Nitid. Head, thorax and elytra sparsely, abdomen, legs and antennae rather closely clothed with moderately long pubescence; antennae also with fine dense pubescence; sides of head, elytra and abdomen with long straggling hairs.

Head oblong-ovate with a large neck; with large and numerous irregularly distributed punctures; labrum with a V-shaped notch in middle and an oblique lunate excision on either side, leaving a blunt tooth between; mandibles long and acute, with a distinct tooth towards base, the base swollen; eyes large, invisible from below; under surface nitid and almost impunctate on disc, but with large punctures on base and sides. Antennae with first joint large, third about half the length of first, twice length of second, a little shorter than fourth, fourth to sixth decreasing, seventh to tenth equal, eleventh a little longer, rounded at apex. Prothorax oblong, slightly wider at apex than base, angles rounded off, margined on basal half of sides, an irregular double row of moderate punctures on either side of middle and numerous smaller ones distributed about. Elytra short, with fairly dense, large punctures, the surface between finely shagreened; a large bristle at humeral angles. Abdomen gradually tapering, finely shagreened and a few small punctures; subapical segment with a



deep V-shaped notch on under surface. Legs rather long; front tarsi thin. Length, 7.25 mm.

*Hab.*—Victoria: Grampians, from moss in November (C. Oke).

Mr. Lea has kindly compared my specimen with his types and I am indebted to him for the following note: "Differs from *bryophilum* in having shorter and darker antennae, shorter jaws with inner tooth smaller, prothorax less dilated in front, with dark sides, rows of punctures on each side of middle smaller and more numerous, elytra with denser and smaller punctures and abdomen darker. Nearer *pictipes* but head darker, tibiae not bicoloured and punctures of prothorax and elytra denser."

Type (unique) in author's collection.

### Pselaphidae.

#### Faronini.

##### SAGOLA VENTRALIS, n. sp.

♂. Reddish-castaneous; legs and palpi paler. Rather closely clothed with short yellowish pubescence.

Head small, with two distinct interocular foveae; lightly impressed between antennal tubercles. Antennae extending to basal fourth of elytra; joint one thick, as long as two-three combined, three smaller than two, four-eight subequal, nine-ten larger, transverse, eleven same width, shortly ovate. Prothorax slightly longer than wide, widest about middle, much narrowed to apex, less strongly to base; with a transverse prebasal impression, which is dilated forward in middle, and connecting three foveae; sides obliquely impressed; with fine sparse punctures, base with a row of larger punctures. Elytra slightly longer than wide, lightly narrowed to base, humeral angles widely rounded; subsutural striae with four small foveae near base; discal stria represented by two rather large impressions behind base and a groove, which is continuous to apex; two large impressions between sutural and discal striae, a faint groove near margins; fine scattered punctures. Abdomen lightly dilated to fourth segment, apex pointed; strongly margined; under surface lightly flattened along middle, third segment with a longitudinal process on its apical two-thirds. Metasternum excavated posteriorly; lightly carinated across anterior margin of excavation. Middle trochanters with a sharp tooth, hind trochanters compressed and produced into a sub-cuneiform process.

♀. Differs in having under surface of abdomen convex and without process, and the trochanters unarmed. Length 1.60 mm.

*Hab.*—Victoria: Carrum (C. Oke).

The eighth joint of the antennae is irregular and viewed from some directions appears to be the smallest joint. The process on abdomen, when viewed from the side, is seen to start near the base of the third segment and increase in height to the apex of that segment, where it is truncated.

Apparently, from the description, this species is close to *S. australiae*, of which the female only was described, but differs, *inter alia*, in the elytral sculpture. In the present species, the sutural and discal striae are continuous to apex, with two impressions between.

Type in author's collection.

##### SAGOLA FILIXICOLA, n. sp.

♂. Dark reddish-castaneous. Thickly clothed with long reddish-yellow setae. Head with a large oval fovea in middle, open in front and narrowly separating



antennal tubercles, the latter with a narrow sulcate impression on each from base to near apex. Antennae robust, joint 1 thick and long, 2 much smaller, 3 smallest, 4-11 gradually increasing in width, 8-10 strongly transverse, 11 obliquely produced on inner side of apex. Prothorax transverse, strongly rounded on sides; with a large medio-basal fovea and a smaller obliquely impressed one on each side; with a few scattered punctures. Elytra with sutural striae distinct, discal with a round fovea at base and a larger one behind, the striae traceable to beyond middle, a small round fovea on base between the striae; fine sparse punctation. Abdomen increasing in width to fourth segment, strongly margined; punctures as on elytra; under surface with a flattened impression on apex of third and sixth segments. Metasternum impressed posteriorly. Posterior trochanters compressed and produced into a fairly acute cuneiform process. Length, 2.40 mm.

*Hab.*—Victoria: Gembrook (C. Oke), in a fern gully.

A large robust species. It is more robust and with longer and denser clothing than any other species known to me. The medial fovea on the pronotum is unusually large, and, when viewed obliquely from behind, it appears to occupy about one-third of the total area of that segment.

Type in author's collection.

#### SAGOLA TRICOLOR, n. sp.

Piceous; antennae and femora paler, elytra reddish, tibiae (apices infuscated), tarsi, mandibles and palpi flavous. Clothed with fine pale pubescence, with a few scattered long hairs.

Head small, with three foveae, two interocular open in front, and one in frontal impression; antennal tubercles not very prominent; a few small punctures. Mandibles prominent with four minute denticulations near base. Antennae reaching middle coxae; joint one large, as long as next two combined, two same width but shorter, three small, four to eight subequal, nine to eleven forming a light club, eleven slightly pointed. Prothorax slightly longer than wide, with an irregular transverse impression at base, joined with the medio-basal fovea, sides obliquely impressed. Elytra longer than wide; sutural and discal striae interrupted near base by small impressions, discal striae continuous to apex, between sutural and discal striae with three round impressions in a longitudinal line, a groove near margin. Abdomen same length as elytra, lightly dilated to fourth segment, apex somewhat pointed. Length, 1.10 mm.

*Hab.*—Victoria: Warburton (C. Oke).

The colours, if constant, will easily lead to the identification of this species, but otherwise the elytral sculpture is distinctive, as also is the head.

*Sagola misella* Sh. must be regarded as the genotype of *Sagola*, as Sharp described the genus from a dissected specimen of that species. In his formal diagnosis he gives as one of its characters "mandibles without teeth on the inner edge", but, as *S. tricolor* has all the other characters given, I do not think its dentate mandibles should exclude it.

Type (unique) in author's collection.

#### Euplectini.

##### LIMONIATES CRIBRATUS, n. sp.

♂. Dark castaneous-brown; antennae, palpi (tip infuscated) and legs flavous. Moderately clothed with short ashen pubescence. With close distinct punctures becoming a little finer on abdomen.



Head about as long as width at base. Antennal tubercles small but prominent. Antennae with joint 1 large, 2 smaller but larger than 3, 3-8 small, 9-10 larger, transverse, subequal, 11 largest, sharply pointed, length of three preceding combined. Prothorax subquadrate, widest about middle, much narrowed to apex; with a rather deep transverse impression at basal third, a shallow longitudinal impression from apex, not quite reaching transverse impression, foveate near sides. Elytra longer than wide, sides parallel; sutural striae distinct, discal striae short, base with six foveate impressions. Abdomen with a transverse medio-basal impression; under surface lightly flattened, a subapical impression and apex slightly produced. Anterior and intermediate femora rather strongly inflated, posterior lightly inflated. All the tibiae lightly inflated to about apical third, thence obliquely narrowed to apex, where the middle ones are obtusely spurred.

♀. Similar to ♂, though slightly narrower, legs not so inflated and the under surface of abdomen lightly convex. Length, 1 mm.

*Hab.*—Victoria: Frankston (C. Oke) in tussocks.

Type in author's collection.

PLECTOSTENUS ORIENTALIS, n. sp.

♂. Very dark reddish-castaneous. Clothed with minute pale pubescence.

Head small, truncate in front, rounded on sides, constricted behind; with three interocular foveae all opening in front, and an oblique impression near each antennal tubercle; indistinctly punctate. Antennae long, joints 2-9 cylindric, 9 wider at apex than base, 10 a little wider than 9, 11 ovate-acuminate. Thorax convex, with a conspicuous transverse groove, foveate on sides and at centre, the central fovea dilated forward; punctures as on head. Elytra longer than wide, sutural striae foveate at base and continuous to apex, first dorsal stria very faint, second with a large fovea at base, the stria itself well impressed at base, but becoming obsolete near middle; punctures very indistinct and surface rougher than on pronotum. Abdomen with punctures larger and more distinct than on pronotum. Under surface with moderate confluent punctures on parts, larger on head than elsewhere. Ventral surface of head and prosternum longitudinally carinated. Metasternum widely depressed. Fifth and sixth ventral segments with a shallow depression, apex of abdomen bisinuate. Anterior trochanters obtusely armed, tibiae finely spinose at apex. Length, 2 mm.

*Hab.*—Victoria: Bendigo, in nest of *Chalcoponera*; N. S. Wales, in nest of *Euponera lutea* (A. M. Lea).

In appearance very like *P. gracilicornis*, but larger, with the head and sculpture of elytra somewhat different. There are vague traces of a longitudinal impression on disc of pronotum, but these are faint and not visible when looked at from some directions.

Brachyglutini.

BATRAXYS TRIFOVEATA, n. sp.

Pale castaneous. Conspicuously clothed with short pale pubescence. With indistinct punctures.

Head with a strong transverse impression in front and two interocular foveae. Antennae with joint 1 thicker but scarcely longer than 2, 3 longer, 4-8 moniliform, 9 smallest, 10 transverse, 11 largest, truncate-ovate. Prothorax widest in front of middle where sides are strongly rounded, much narrowed to apex,



obliquely cut away towards base; a small medio-basal fovea and one on either side. Elytra transverse, base quadri-foveate, shoulders obliquely raised; sutural striae indistinct, discal wanting. Abdomen with two short carinules at base, widely separated, the space between being half width of abdomen. Meta-sternum rather widely impressed, sides of impression carinate posteriorly. Legs unarmed. Length, 1.90 mm.

*Hab.*—Victoria: Eltham (C. Oke), in nest of *Iridomyrmex*.

The unique specimen of this species is possibly a ♂, the metasternum being widely impressed, but the abdomen is scarcely flattened. The genus has been characterised as having only the medio-basal fovea on the prothorax, but as the present species agrees in all other generic characters, I have not thought it advisable to propose a new genus for it, simply because it has the two lateral foveae. Compared with *B. armitagei*, as identified by Mr. Lea, the present species is paler, duller and wider and with very conspicuous clothing.

Type (unique) in author's collection.

#### RYBAXIS MONSTRABILIS, n. sp.

♂. Pale castaneous; legs and eleventh joint flavous, eighth joint infuscated, ninth and tenth black. Sparsely clothed with short pale pubescence.

Head longer than wide, convex, smooth and shining on vertex, a few punctures in front between antennae; with two small interocular foveae. Antennae long, joint 1 large, 2 smaller, 3-4 subequal, 5 longer and wider, as long as 3-4 combined, 6-7 subequal, 8 smallest, 9-10 large, increasing, 11 largest, strongly curved, excavate on lower surface. Prothorax lightly transverse, widest at apical third, suddenly narrowed to apex; each side with a fovea, the two connected by a strong impression, which is bent backwards, but scarcely foveate, in centre; strongly strigose in front of impression. Elytra about as wide at apex as length down suture, much attenuated to base, apical margin strongly produced nearer suture than margin; sutural striae distinct, discal striae abruptly ending near margin; with a fine scattered punctation, becoming coarser posteriorly. Abdomen with a small medio-basal node and two short diverging striae; under surface with first segment raised between hind coxae and then strongly impressed, margin of second recurved cephalad in middle, thence to apex with a deep impression, apex lightly produced. Meso- and meta-sternum strongly sulcate. Anterior trochanters at base and anterior femora at base with a minute sharp tooth. All the femora inflated in middle, the anterior slightly more so than the intermediate, the posterior much less; the intermediate impressed (scarcely notched) near base on lower surface. Anterior tibiae strongly dentate at apical third, thence emarginate to apex; intermediate thickened to apical third, thence obliquely narrowed to apex, the apex notched, leaving an obtuse tooth; posterior lightly curved.

♀. Slightly smaller than the ♂, with the ventral surface of abdomen convex and without the recurved plate on second segment; the margin of elytra not produced and legs simple. Length, 2.50-2.70 mm.

*Hab.*—Victoria: Fern Tree Gully (C. Oke), in July and October.

A fine large species with strigose pronotum, differing in several respects from the other described species having that character. The antennae are peculiar, with joints 9-11 cut away underneath, where they are highly polished. The apical joint is much as figured by Lea for his *acanthosterna* (= *atriceps* Macl.), but is more curved. When viewed from the sides the ninth and tenth joints are



seen to be very thin. The males are very pale and appear to be somewhat immature, but the ninth-tenth joint is absolutely black in all examples, so this may be the mature colour.

Type in author's collection.

*RYBAXIS MELANOCEPHALA*, n. sp.

♀. Reddish-castaneous; head and 9th and 10th joints black, legs and palpi almost flavous. Moderately clothed with short pale pubescence.

Head widely but shallowly impressed between antennae and with two round interocular foveae; moderate sparse punctures, becoming much closer in front. Antennae reaching middle coxae, joint 1 longer than next two combined, 2 stout, 3-4 subequal, 5 longer, 6 shorter, 5, 7 same length as 3, 8 smallest, 9-10 increasing, 11 largest, ovate-acuminate, longer than 9-10 combined. Prothorax transverse, sides evenly rounded; three prebasal foveae connected by a distinct arcuate impression; striolate in front of groove, behind with a few fine punctures. Elytra scarcely as long as width at apex, narrowed to base; humeral region slightly raised; subsutural striae interrupted near base by a foveate impression, discal striae arcuate and distinct to near apex, foveate at base; very finely and sparsely punctured. Abdomen with medio-basal impression; punctures as on elytra. Metasternum rather deeply excavated posteriorly. Length, 2.10-2.20 mm.

*Hab.*—Victoria: Daylesford, in moss (C. Oke).

Described from 7 females obtained in October and February. The head and two joints of antennae black, the strigose pronotum and short pale clothing should make this an easy species to identify.

*RYBAXIS DELECTABILIS*, n. sp.

♂. Sternum and abdomen (apex excepted) black; fourth-tenth joints of antennae deeply infuscated, head and pronotum dark obscure brown, disc of elytra and apex of abdomen bright reddish-castaneous, legs, palpi and joints 1-3 and 11 pale reddish-castaneous. Clothed with moderately long yellowish pubescence.

Head with a large depression in front between antennae and two large round interocular foveae; with fine scattered punctures becoming closer and coarser in front. Antennae with joint 1 as long as next two combined, 2 short, 3 longer than 2, thin at base, increasing to apex, 4-8 produced on inside over entire length, 4 larger than 2, 5 larger than 4, 6-7 equal, larger than 5, 8 shorter but same width, 9-10 larger, subequal, 11 truncate-ovate, lightly cut away on inside near apex; joints 4-10 finely rugose. Prothorax transverse, strongly rounded on sides; with a large fovea on either side connected by a strongly impressed curved line, central fovea obsolete. Elytra lightly transverse, with sutural striae distinct and discal widely impressed at base and traceable to apical declivity; epipleural furrow very distinct; with fine distinct but scattered punctures. Metasternum shallowly impressed in front, becoming deeper and wider behind. Ventral surface of abdomen with a small node on base of fourth segment, apex with an elongate fovea. Intermediate trochanters finely dentate. Anterior tibiae minutely dentate before apical third.

♀. Differs from the ♂ in having antennae much thinner, with the joints not produced inwards and only joints 8-10 dark; abdomen without node and non-foveate; the trochanters and tibiae non-dentate. Length, 2.20 mm.

*Hab.*—Victoria: Carrum and Frankston (C. Oke).



The antennae of this very distinct species are peculiar in the ♂; the joints appear to be a different shape according to the position from which they are viewed, as in *parvidens*, *quadrituberculata* and *quadriceps*. When viewed from the side they are seen to be as described above. The colours of the antennae in the two sexes appear to be constant in all the specimens before me, though some have the abdomen brownish, not black; these are probably immature.

Types in author's collection.

RYBAXIS KINGI, n. sp.

Castaneous; three apical joints of antennae infuscated. Clothed with short pale pubescence.

Head with two round interocular foveae, and deeply impressed between antennae. Antennae with joint 1 long, 2 not so wide and less than half length of 1, 3 thin, longer than 5, 5 longer than 4 or 6, 7 same as 5, 8 smallest, 9 large, 10 larger, 11 largest, oblong-ovate. Prothorax with sides strongly rounded, widest near middle; transverse furrow biarcuate, medial fovea very small, lateral moderate; with fine scattered punctures. Elytra with sutural striae foveate at base and distinctly impressed to apex, discal well impressed to apical declivity; shoulders obliquely raised; with fine fairly close punctures. Abdomen with two short divergent carinules, fasciculate between; under surface flattened, with a small impression near apex. Metasternum rather deeply sulcate. Four front femora lightly inflated. Anterior tibiae feebly spinose near apex, intermediate with a long curved spur at apical fifth.

♀. Similar to ♂, but differs in having abdomen convex, tibiae unarmed and the club thinner. Length, 1.50 mm.

*Hab.*—Victoria: Eltham (C. Oke).

Very like *harti* in size and general appearance even as to the apical joints of antennae being infuscated, but tibiae differently armed. Schaufuss and Lea describe *isidorae* as having the last joint of antennae pale and the front tibiae noticeably armed. Smaller than *sanguinipennis*, which is also different in colour and has apex of abdomen sulcate. In *otwayensis* the abdomen is excavate and has a recurved plate on lower surface.

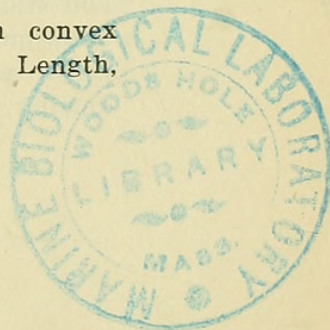
Type in author's collection.

RYBAXIS BREVIS, n. sp.

♂. Reddish-castaneous. Rather closely clothed with short pale pubescence.

Head small with five foveae, 2 between eyes, 2 at bases of antennae and 1 in depression between antennae. Antennae with joint 1 large, as long as next two combined, 3 smaller than 2, 5 longer than adjacent joints, 8 smallest, 10 subtrapezoidal, 11 largest, truncate-ovate. Prothorax transverse, sides widely rounded; with three distinct foveae at base; rather close fine punctures. Elytra transverse, with 6 basal impressions; sutural striae distinct, discal distinct to apical declivity, strongly curved; shoulders distinctly raised; punctures a little sparser than on pronotum. Abdomen with two divergent carinules reaching about apical third of basal segment; under surface flattened, apex foveate. Metasternum widely impressed. Intermediate trochanters dentate. Intermediate tibiae notched at apex, leaving a short spur.

♀. Differs from the male in having thinner antennae, abdomen convex underneath and apex non-foveate, trochanters and tibiae not armed. Length, 1.10-1.20 mm.





*Hab.*—Victoria: Warburton and Belgrave (C. Oke).

A small species related to *electrica* King, but the spur on intermediate tibiae will distinguish it from that and other described species. There are indications of the transverse impression at base of thorax, but these are faint and invisible from some directions.

RYBAXIS LEAI, n. nom.

*Rybaxis villosa* Lea (nom. praeocc.).

The name *villosa* was preoccupied, by Raffray (1904) for a species from Tonkin, when proposed by Lea and so it is necessary to alter the later name.

RYBAXIS STRIGICOLLIS Westw.

(= *R. longipilosus* Wilson.)

Having examined well over 200 specimens of this species I feel confident of the above synonymy. The only differences that were noted in the description of the latter species were in the antennae, viz.: *strigicollis* with the ninth and tenth joints of the antennae black and the eleventh "rather strongly bent"; *longipilosus* with unicoloured antennae and the apical joint "a little bent." In a series in front of me (74 specimens, including some cotypes of *longipilosus*) there is every gradation in colour of the ninth and tenth joint, from flavous (immature) to black; also the apical joint varies a little in shape, though the apparent shape of this joint depends on the angle from which it is viewed.

Specimens have been taken that were almost white and kept alive in captivity until they reached the mature colour. The darkening of the antennal joints is very gradual and apparently in some individuals they never really become black, but remain at most infuscated. This species is very common around Melbourne and is widely spread in Victoria, as I have taken it from such widely spread localities as: Grampians, Bendigo, Lorne, Wandong, Mornington and Traralgon. It also occurs in New South Wales and Tasmania.

RYBAXIS QUADRICEPS Westw.

Lea has drawn attention to a specimen in the Howitt collection which he thought had been correctly identified as this species, and I think there can be no doubt that this determination is correct. The species is fairly common around Melbourne, but I have not taken it associating with ants and it certainly cannot be considered a myrmecophile even if an odd specimen has been found near, or with, ants. Neither can *R. strigicollis* be so regarded. Both species live in grass tussocks and moss.

*Hab.*—Victoria: Fern Tree Gully, Emerald, Warburton, Carrum, Frankston (C. Oke).

EUPINOPSIS UNICLAVATA, n. sp.

♂. Castaneous. Clothed with fairly short pubescence, a few longer reddish hairs on abdomen and antennae.

Head large, longer than wide, attenuated in front; the vertex raised in front forming a ridge between the antennae, behind a ridge a large depression and two small round interocular foveae; the front concavely declivous, with the anterior margin lightly reflexed; mandibles quadri-dentate; with scattered microscopic punctures. Antennae with joint 1 long, 2 about half size of 1, 3-5 much smaller, subequal, 6-7 larger, subglobular, equal, 8 still larger, 9 smallest, quadrate,



10 narrow, transverse, 11 very large, truncate ovate; 6-8 each with a little group of papulae on inner surface, each papula with a long luteous seta, 10-11 covered with the setiferous papulae. Prothorax transverse, narrowed to apex, widely rounded on sides, with a small medio-basal fovea and the base with a line of small punctures. Elytra large, narrowed to the base; sutural striae deeply impressed to apex; discal rather widely impressed at base, but becoming obsolete about middle; with a few scattered indistinct punctures. Abdomen with first segment large; ventral surface with a large transverse impression at apex. Metasternum with a wide, but not deep impression. Legs long. Length, 1.50 mm.

*Hab.*—Victoria: Belgrave (C. Oke).

The head and antennae of this species are both remarkable and distinctive. The impression on the head, behind the inter-antennal ridge, appears to be feebly divided into two separate impressions when viewed from behind, but from other directions it appears to be entire. The antennal club is formed entirely by the last joint, which is very large.

Type in author's collection.

#### EUPINOLUS, n. gen.

Head rather large, longer than wide, front impressed, two interocular foveae. Antennae irregular, club formed by the last joint only. Prothorax cordate, with a medio-basal fovea and one on either side below the disc; the base with a fine transverse groove, which is more or less punctate. Elytra without basal foveae or discal striae, sutural striae rather faint. Abdomen rather long, margined, ventral surface with segment 1 hidden under the metasternum, but just perceptible between the coxae, 2 large, 3, 4, 5 short, 6 larger. Metasternum large. Anterior and intermediate coxae contiguous; posterior distant. Legs of moderate length.

The transverse groove of the prothorax is right on the base and is rather fine, with the medio-basal fovea touching it, but the lateral foveae, which are not visible, or scarcely so, from above, are some distance from it. The genus will be distinguished from *Eupines* and *Eupinoda* by the fovea on prothorax and the single jointed club; and from *Eupinopsis* by the absence of basal foveae and discal striae on the elytra.

Genotype, *E. lucifugus*.

#### EUPINOLUS LUCIFUGUS, n. sp.

♂. Reddish-castaneous. Clothed with moderately long semidecumbent pubescence, a few longer hairs on abdomen. With faint indistinct punctures.

Head rather large, a little longer than wide, anterior margin sinuate and reflexed; with a large deep impression in front, and two small rounded interocular foveae. Antennae long, joint 1 large, 2 a little narrower, much shorter, 3-6 subequal, smaller than 2, 7 large, two and three-fourths as wide as 6, 8 a little smaller than 7, subglobular, 9 smallest, 10 just perceptibly larger than 9, 11 large, same width as 7, truncate-ovate; seventh and eighth joints with small papulae bearing long yellowish setae on inner surface. Prothorax subquadrate, rounded on sides; medio-basal fovea small. Elytra fairly large, sutural striae distinct to apex. Abdomen with first segment large, the following joints decreasing and bent downwards; ventral surface with 3-5 segments shortened down middle, the apex slightly produced underneath and lightly impressed. Metasternum with a large deep impression, which is subcarinate on the sides. Legs long, all the femora lightly inflated in middle, posterior tibiae curved inward.



♀. Differs in being smaller; joints 7 and 8 of antennae not being inflated and the apical joint smaller, though still of large size; ventral surface of abdomen more convex and the metasternum not so widely impressed. Length, ♂, 1.40; ♀, 1.15 mm.

*Hab.*—Victoria: Fern Tree Gully and Warburton (C. Oke) under deeply embedded logs.

The impression on the head is peculiar and appears of different shape from each angle of view. Viewed from behind it appears as a large irregular depression, deep behind and shallow in front, with an oblique extension behind each antenna. From the sides it appears to be open in front, but divided in its middle by a swollen ridge. The peculiar formation of the ♂ antennae will easily lead to its identification; in the female the seventh joint is longer, but not wider, than the adjacent joints.

Types in author's collection.

EUPINOLUS PARASITUS, n. sp.

♂. Reddish-castaneous. Moderately clothed with fine yellowish depressed pubescence, with distinct patches of golden pubescence on sides of pro-, meso- and metasternum near the coxae.

Head moderate, narrowed in front, hind angles rounded; a large impression between antennae and two fairly large round interocular foveae; with sparse fine punctures. Antennae with joint 1 longer and wider than 2, 2 larger than 3, 3-6 subequal, 7 inflated, longer and wider than 2, 8 same as 6, 9-10 slightly increasing, 11 largest, truncate-ovate. Prothorax widest at apical third, suddenly narrowed to apex, arcuately narrowed to base; with a round fovea and a line of punctures at base. Elytra with sutural striae distinct to near apex; punctures as on head. Metasternum widely and rather deeply excavated. Ventral surface of abdomen with a round impression near apex. Legs rather long and thin, unarmed.

♀. Differs in not having the seventh joint inflated, metasternum not so excavated and ventral surface without preapical impression. Length, 1.35 mm.

*Hab.*—Victoria: Belgrave and Emerald (C. Oke), found associating with *Amblypone obscurus*; Bayswater (J. E. Dixon).

Types in author's collection.

EUPINOLUS SOCIALIS, n. sp.

♂. Reddish-castaneous. Clothed with short pale pubescence.

Head large, slightly wider than prothorax, much narrowed in front; with a large round impression between antennae and two small round interocular foveae. Antennae with joint 1 larger than 2, 3-4 smaller, 5 nearly as long as 2, 6-8 small, subequal, 9 as wide as 2, 10 a little larger, 11 largest, ovate-acuminate. Prothorax widest in front of middle, rounded on sides, rather suddenly constricted near base; a small round median fovea at base, with fine microscopic punctures. Elytra longer than wide, sutural striae distinct to apex, discal striae faintly indicated near base; punctures more distinct than on prothorax. Abdomen short, declivous; second ventral flattened, and a transverse impression on the fifth. Metasternum widely impressed. Intermediate trochanters compressed and obtusely produced in middle.

♀. Differs from the ♂ in having the ventral surface of the abdomen convex and the trochanters unarmed. Length, 1.25 mm.



*Hab.*—Victoria: Fern Tree Gully and Belgrave (C. Oke), found in nests of *Amblypone australis*.

Types in author's collection.

EUPINOLUS OBSCURUS, n. sp.

Similar to *E. parasitus*, but larger, darker and the antennae not the same. The seventh joint is much larger and is produced inwards on the apex; the eleventh joint is much larger than in the preceding species.

*Hab.*—Victoria: Evelyn (C. Oke) in a nest of *Amblypone obscurus*.

This may prove to be only a variety, or form, of *E. parasitus*, but even so it would be desirable to give it a varietal name. Of the numerous specimens I have obtained of *parasitus* none has shown any sign of bridging the differences between that species and *obscurus*.

Type (unique) in author's collection.

EUPINODA FRATERNA, n. sp.

♂. Reddish-castaneous; abdomen, except apex, darker. Clothed with short pale pubescence, scarcely visible on prothorax and elytra.

Head rather small, narrowed in front, with two small, round, interocular foveae. Antennae with joint 1 large, 2 smaller, 3-4 still smaller, equal, 5 lightly inflated, 6-8 same as 3, 9 as wide as 5, transverse, 10 larger, 11 pedunculate at base, then suddenly wider than 10, the large part ovate-acuminate. Prothorax widest at apical third, much narrowed to apex. Elytra longer than wide, sutural striae distinct to near apex; shoulders slightly raised; with a fine scattered punctation. Metasternum widely impressed, subcarinate around depressed part. Second ventral segment (first visible) large, flattened, with two small tubercles, close together, nearer base than apex, segments 3-5 shortened down centre, 6 large, widely foveate. Legs long; the posterior trochanters compressed and obtusely produced in middle; the femora lightly inflated in middle and the tibiae thickened towards apex. Length, 1.20 mm.

*Hab.*—Victoria: Belgrave (C. Oke) in nests of *Amblypone obscurus*.

The tubercles on the abdomen are small and lightly transverse, with the distance between slightly more than the length of each tubercle. The fifth joint is not so large as in most species of *Eupines* having that joint inflated, but is distinctly larger than adjacent ones. The club appears to be formed by the last two joints only, though the ninth is wider than the eighth. The tenth has the base very thin or stem-like, with apex suddenly clavate.

Type in author's collection.

EUPINES NIGELLA, n. sp.

♂. Black or almost so, appendages dark brownish. Clothed with very short, fine, adpressed pubescence.

Head small, narrowed in front of eyes, without impressions. Antennae with joints 1 and 2 stout, 3-8 moniliform, 9 slightly wider, transverse, 10 wider, transverse, 11 largest, ovate. Prothorax widest in front of middle, where sides are rounded. Elytra subparallel-sided, with sutural striae indistinct. Ventral surface of abdomen flattened, apical segment impressed. Metasternum widely impressed. Anterior femora strongly inflated; intermediate less noticeably so; posterior scarcely inflated. Anterior tibiae suddenly narrowed at apical fourth; intermediate with a short sharp spur at apex; posterior mucronate at apex.



♀. Differs in not having inflated femora, tibiae unarmed, abdomen not flattened and without impression, metasternum not so widely impressed and antennae a little thinner. Length, 0.90 mm.

*Hab.*—Victoria: Fern Tree Gully, Gembrook (C. Oke).

A small narrow black species, flatter and more parallel-sided than usual, with a distinct spur on middle tibiae. The pubescence is very fine and scarcely visible under a hand lens, but under a  $\frac{1}{2}$  inch compound lens is very conspicuous.

#### EUPINION, n. gen.

Body elongate, convex. Head transverse; eyes prominent submedian; antennae rather short; palpi as in *Eupines*; under surface without median carinae. Prothorax without impressions. Elytra with sutural and discal striae. Abdomen with narrow margin, declivous posteriorly. Anterior coxae conical, prominent, sub-contiguous; intermediate contiguous; posterior sub-globular, lightly separated. Size minute.

The beetle for which this genus is proposed has somewhat the facies of *Eupines*, but is without the median carina on under surface of head, which is quite a conspicuous character in *Eupines*; the discal striae on elytra add another distinction.

In the single species described the grooves on front of head and the produced apex of abdomen, with the pygidium on the ventral surface, are characters unknown in *Eupines*, but these may be merely specific. The latter character occurs in some species of *Tyramorphus*, while others have the apex normal.

Genotype, *E. crassipes*.

#### EUPINION CRASSIPES, n. sp.

♂. Dark castaneous-brown, appendages almost flavous. Moderately clothed with short, fine, depressed, ashen pubescence; a few long hairs below eyes.

Head with two round interocular foveae, and two longitudinal impressions between antennae. Antennae rather short; joint 1 large, 2 slightly smaller, 3-8 small, 9 very little larger, 10 large, transverse, 11 largest, as long as four preceding combined. Prothorax widest about middle, evenly decreasing to apex, rather suddenly narrowed before base; finely and rather closely punctate. Elytra slightly longer than wide, sides rounded and increasing to beyond middle; punctures as on prothorax; sutural striae distinct to apex, discal stria represented by a deep notch, a fine stria near margin, visible to middle. Abdomen strongly declivous posteriorly, the apex somewhat produced and bent under, the pygidium on ventral surface, under surface lightly flattened, the apex of fourth segment deeply emarginate in middle and on each side of emargination a triangular projection. Metasternum rather deeply impressed and finely carinate on each side. All the femora inflated, the intermediate largest and with a small sharp tooth at base, the anterior carinate on the inner under edge. Intermediate tibiae inflated in middle, notched at base, spinose at apex.

♀. Similar but under surface of abdomen lightly convex, with the intermediate and posterior femora, and middle tibiae not inflated. The anterior femora are lightly inflated. Length, 0.80 mm.

*Hab.*—Victoria: Noble Park (C. Oke), in moss with numbers of a small black species of *Iridomyrmex*.

Type in author's collection.



## MALLEECOLA, n. gen.

Head large, with prominent carinae; truncated in front; a cuneiform process at base of eyes. Under surface with a median carina from mentum to base. Eyes moderate, coarse facets, sub-median. Antennae eleven-jointed, club large, of three or more joints; fairly close together at their insertion. Mentum longer than wide. Maxillary palpi rather small; first joint scarcely visible, second long, thin at base, suddenly clavate near apex, third short, sub-globular, fourth slightly shorter than second, subfusiform, lightly truncate at apex, where there is a minute appendage. Prothorax with carinae on disc and flanges on the sides. Elytra with strong sutural and discal striae. Abdomen of 6 segments, lateral margin strong, first ventral hidden under the metasternum, second segment longer than the following ones. Prosternum very short. Mesosternum with a slightly raised intercoxal process. Metasternum large. Anterior coxae conical, prominent, approximate; intermediate not prominent, lightly separated; posterior somewhat triangular, distant. Trochanters short. Femora and tibiae compressed and angular; femora grooved for reception of tibiae, tibiae grooved for tarsi. Tarsi with minute basal joint, 2 and 3 subequal, a single robust claw.

It is with some doubts that I refer this genus to the Brachyglutini, but if that is not its right position it would require a new tribe, as it certainly cannot be referred to any other tribe as defined by M. Raffray.

Genotype, *M. myrmecophila*.

## MALLEECOLA MYRMECOPHILA, n. sp.

♂. Reddish-castaneous; antennal joints 8-9 infuscated. Clothed with fine sub-squamosa pubescence, more noticeable on head and prothorax, which are sub-opaque and have fine reticulate punctures, than on elytra and abdomen, which are subnitid and have a very fine punctation.

Head longer than wide (as 6 : 5 or including ocular processes 6 : 8½), flat on vertex, the front of which is carinated and tri-lobed, the lateral margins carinated and quadri-lobed; from the central lobe of anterior margin a well-raised carina runs back about one-third towards base, then branches and diverges towards sides and then converges towards base (thus enclosing a square), a short carina to each eye; a fovea at base, carinated on its sides; posterior margin raised; in front of vertex concavely declivous with the anterior margin tri-lobed, central lobe narrow and slightly produced; under surface produced into a cuneiform process on each side cutting through the eyes. Antennae thick, reaching middle of prothorax; joint 1 thick, as long as next 3 combined, 2 same width, transverse, 3-7 narrower, transverse, equal, 8 wider, very thin, closely applied to 9, 9 wider, thin, 10 same width as 9 but longer, 11 largest, truncated. Prothorax (excluding flanges) longer than wide; tri-carinate, the lateral carinae becoming subobsolete at basal third; base bilobed; hind angles somewhat produced and rounded; an elongate median basal fovea; with wing-like flanges on the sides, having fairly acute points in front, widely rounded behind. Elytra with sutural striae foveate at base and distinct to apex, discal striae foveate and widely impressed at base, becoming obsolete near apex; shoulders raised, from apex of shoulder a fine carina extends to apical fourth of each elytron; lateral margins extended and carinate, hind margins sinuous, shortened at suture; epipleurae without impression. Metasternum widely and deeply impressed. Ventral surface of abdomen lightly flattened, with a small round node or swelling at apex of second segment. Anterior trochanters compressed and produced into an obtuse tooth. Femora wide and thin, tibiae with inner margin straight, outer



rounded from base to beyond middle, then obliquely cut away to apex, which is truncated.

♀. Similar to the ♂, but the antennal club is not so large and the tenth and eleventh are more separated. The metasternum is not so widely nor deeply impressed, though still noticeably so. The abdomen is slightly more convex beneath and is without node on second segment. Length, 1.70-1.90 mm.

*Hab.*—Victoria: Gypsum and Lake Hattah (C. Oke), in nests of *Iridomyrmex rufoniger*.

This is, I consider, the most remarkable looking Pselaphid described from Australia, and it is exceedingly difficult to give a satisfactory description of it in a few words. The carinae of the head are very conspicuous, forming a square placed so that a corner points towards each eye, the four points being connected with the margins by short carinae. The fovea of the pronotum looks as though it had been impressed into the median carina, splitting it and having a thin, or narrow, piece of the carina on either side. The legs are quite different from any Pselaphid known to me, but are very much like some species of the Histerid genus *Chlamydopsis*. The club is four-jointed with the 8th, 9th and 10th so closely applied to one another that under a hand lens they appear as one joint.

Types in author's collection.

#### **Pselaphini.**

##### **PSELAPHUS ALLUVIUS, n. sp.**

♀. Dark reddish-castaneous; elytra paler, palpi and tarsi pale testaceous. Nitid. Thickly clothed with long dark hair-like setae, tips of tibiae with yellowish pubescence; apex of mesosternum and base of abdomen, on under surface, with dense pearly squamose pubescence.

Head with median sulcus narrow in front, widened and interrupted behind eyes, feebly indicated on vertex to near base; with two interocular tubercles, antennal tubercles very pronounced; with large rough uneven punctures. Antennae long, joint 1 nearly as long as next three combined, 2 wider than 3, 3-8 about same width, 9-10 each widened from base to apex, 10 wider than 9, 11 large, ovate-acuminate. Palpi nearly as long as antennae, fourth joint with short straight peduncle, club large, longer than peduncle, strongly rounded on outside, with a wide sulcus on apical third of club. Prothorax longer than wide, widest at apical third, much narrowed to apex; base with a straight impression, without interruptions; punctures as on head. Elytra with four basal foveae; sutural and discal striae distinct to apex, with a short stria between them on each elytron; without punctures. Abdomen with first visible segment longer than the others combined; very strongly margined; under surface convex. All the femora rather strongly inflated. Metasternum sulcate anteriorly, then abruptly declivous and largely excavated. Length, 2.50 mm.

*Hab.*—Victoria: Bendigo (C. Oke), clinging to under surface of a stone on the old alluvial diggings.

A large robust species at once distinguished from previously described Australian species by the large punctures on head and thorax.

Type in author's collection.

##### **PSELAPHUS ELECTILIS, n. sp.**

♂. Bright reddish-castaneous. Nitid. Clothed with moderately long dark setae, apex of elytra distinctly fringed; apex of pro- and mesothorax and base of abdomen, on both surfaces, with dense pearly squamose pubescence.



Head with median channel wide and deep, continuous from apex to base, but interrupted between eyes by two minute black tubercles; between these and eyes are two large rounded tubercles; the antennary tubercles strongly raised. Antennae long, all the joints longer than wide, 9-10 a little stouter than preceding joints, their combined length longer than 11, which is ovate. Palpi as long as antennae; fourth joint curved, its club rather small, barely one-third of the length of joint, sulcate with a short seta at apex. Prothorax longer than wide, with the sides gently rounded; base with a narrow transverse groove, in front of which is a vague impression; sides with a rounded fovea connected with a triangular impression, these almost isolated. Elytra with four small round basal foveae; shoulders obliquely ridged; with sutural striae very distinct to apex, discal striae curved, geminate to near apical declivity, where inner one ends, outer almost reaching margin. Abdomen with second segment as long as the following segments combined; on its under surface with an elongate-oval depression, apex sulcate. Metasternum widely and deeply impressed from base to apex, excavate posteriorly.

♀. Differs from the ♂ by the metasternum not being sulcate at apex and only lightly excavate posteriorly and second segment without depression. Length, 2.25 mm.

*Hab.*—Victoria: Pakenham and Belgrave (C. Oke), in moss.

A very fine species, in appearance nearer to *pulchellus* than any other known to me, but the clothing is shorter and not so dark and the elytral striae are geminate. Nearer to the description of *pilosus* than any other Australian species, but the sulcus on head continued to base and not narrow, the shoulders are also marked. The inflated "button" on under surface of head is unusually large.

Types in author's collection.

PSELAPHUS SULCIVENTRIS, n. sp.

♂. Pale castaneous; palpi, legs and elytra somewhat flavous. Sparingly clothed with pale, hooked or bent, pubescence; apex of elytra fringed; apex of mesosternum and base of abdomen with dense pearly squamose pubescence.

Head much attenuate in front, median channel rather narrow, abruptly ending between eyes; with fairly conspicuous, but obtuse, interocular tubercles; behind each tubercle, near eye, are five large punctures, elsewhere smooth. Antennae of moderate length, all the joints longer than wide, eleventh ovate, the last three forming a light club. Palpi with the fourth joint elongate, arcuate, with club about one-third total length. Prothorax longer than wide, base with an uninterrupted impression, sides with an oblique impression from end of transverse impression to base. Elytra with four basal impressions, sutural striae distinct to apex, discal striae finely geminate to apical declivity. Abdomen with first segment longer than the following segments combined; ventral surface with a fairly narrow sulcate impression from base to apex. Metasternum narrowly flattened on apical three-fourths, then excavate posteriorly. Posterior tibiae dilated to near apex, then rounded off. Length, 1.50 mm.

*Hab.*—Victoria: Gypsum (C. Oke), near nest of *Euponera lutea*.

A small pale species, in some respects close to *geminatus*, but head and base of pronotum not reticulate. It is also near to *tuberculifrons*, but antennae are different and dorsal striae geminate. From some directions there appears to be a minute tubercle on the vertex of the head, but from the sides this is not visible.

Types in author's collection.



*PSSELAPHUS SQUAMULOSUS*, n. sp.

♂. Pale castaneous; legs and palpi paler. Clothed with short pubescence, having the appearance of small scales in parts, rather sparse on elytra where it is arranged in four rows; front of prosternum, sides of mesosternum and base of abdomen with pearly-white squamose pubescence.

Head with median channel rather wide and deep, ending a little behind eyes, but interrupted between eyes; in front of eyes, two basal joints of antennae and extreme base finely reticulate. Palpi long; fourth joint arcuate, with its club about one-third of total length, its apex lightly produced on inner side, on the outer side obliquely cut away and sulcate, the sulcus with fine pubescence. Antennae with joint 1 large, 2 much smaller, 3-8 cylindrical, of same width, 9-10 a little stouter, 11 a little wider than 10, as long as two preceding combined. Prothorax subhexagonal, widest behind middle, the base with a wide transverse impression, which is finely reticulate and without impressions; the sides with an elongate impression, narrow at base and ending in a round foveate expansion near middle, carinate at its outer edge and around the expansion. Elytra with sides rounded from base to apex, base with four foveae; sutural striae distinct to apex, discal very distinct to apical declivity, strongly curved inwards. Abdomen with first segment large; ventral surface with an elongate impression on the first (visible) segment. Metasternum rather widely excavated posteriorly. Legs long.

♀. Differs in having the abdomen convex underneath and without impression, the metasternum not so excavated and the antennae a little thinner with its apical joint smaller. Length, 1.80 mm.

*Hab.*—Victoria: Fern Tree Gully, Emerald (C. Oke).

The clothing is of a reddish-yellow and on the abdomen is adpressed and appears to be in the form of small scales.

Types in author's collection.

*Ctenistini.**NARCODES SQUAMOSUS*, n. sp.

♂. Dark piceous, in parts almost black; antennae (club excepted) and legs diluted with red; palpi pale castaneous. Upper surface covered with pale yellowish scales, under surface and appendages clothed with pale stiff pubescence. Punctures large and sparse, much obscured by the clothing.

Head with antennal tubercles distinctly raised and separated on the sides from the head by a notch; behind antennae strongly impressed, and with two large round interocular foveae; hind angles rather strongly produced and a point on each eye. Antennae fairly long, joint 1 stout and long, 2 shorter but stouter than 3, 3-8 diminishing in length, 9-10 large, increasing, 11 truncate-ovate. Prothorax with anterior angles strongly produced downwards into a sharp point, just behind which is a smaller projection; a large medio-basal impression and a larger impression on the sides. Elytra transverse, sutural and discal striae deeply impressed and distinct to near apex, shoulders obliquely raised. Abdomen much longer than elytra, strongly margined; under surface sulcate from base to apex, the latter foveately impressed. Metasternum widely and deeply excavate; sides of excavation carinate and ending in a blunt tubercle overhanging the hind coxae. Legs long; anterior trochanters produced into a short truncated process; all the femora inflated, the anterior with a very small tooth near base; all the tibiae strongly curved and obtusely spurred at apex; tarsi short.



♀. Similar, but club small with the 11th joint almost globular; the metasternum not so excavate, and under surface of abdomen convex. Length, 2.10 mm.

*Hab.*—Victoria: Warburton (C. Oke).

The clothing of the upper surface consists entirely of fairly large scales. These are of a pale yellowish colour, but owing to the inequalities of the surface the light strikes them at different angles and gives the insect a mottled appearance. The prothorax appears to have a feeble ridge down the disc from some directions, while from others there appears to be a V-like impression. On each eye there appears to be a small conical projection composed of a few scales.

The shape of the head, prothorax and sternum will distinguish this species from the previously described ones.

Types in author's collection.

#### **Tyrini.**

##### **TYROMORPHUS TERMITOPHILUS, n. sp.**

♂. Reddish-castaneous; tibiae and tarsi darker, the extreme base of head, pronotum and antennal joints infuscated. Clothed with rather long reddish pubescence.

Head nearly as wide as prothorax, much narrowed in front; with an impressed line from base to front, and two foveae close together in centre of vertex, connected together across central line; large rough punctures. Antennae reaching middle coxae, joint 1 large, 2-10 oblong, of equal width, 11 a little wider, nearly as long as three preceding combined. Palpi with third joint sub-triangular, fourth very large. Prothorax quadrate, convex, rounded on the sides, a small medio-basal fovea, punctures not quite so conspicuous as on head. Elytra transverse, narrowed to base; sutural striae foveate near base, discal striae foveate and widely impressed at base, becoming obsolete near middle; shoulders raised; punctures as on head. Abdomen with punctures as on pronotum; under surface deeply impressed from base to near apex. Metasternum widely impressed. Legs long and unarmed.

♀. Differs from the ♂ in having the under surface of abdomen non-sulcate and the metasternum with a smaller impression. Length 2.75 mm.

*Hab.*—Victoria: Violet Town (C. Oke), in nest of *Coptotermes acinaciformis* Frogg.

Types in author's collection.

##### **TYROMORPHUS QUADRIDENTATIS Lea.**

Several females of this species are before me, one of which Mr. Lea has kindly identified for me, and these show that the species is variable in its colour. The darkest specimen has its head, pronotum and abdomen almost black, from some directions it is quite black, from others there are reddish lights, the under surface is infuscated, the elytra ruby-red with the suture and apex blackish, the two basal and apical joints of antennae reddish, joints 3-7 infuscated, 9-10 black. The palest is bright reddish-castaneous, suture, abdomen and under surface darker, 11th joint pale, palpi flavous. The paler specimens may be immature or perhaps some individuals do not attain the darker colours. This variation in the colour leaves the presence or absence of the medio-basal fovea on the pronotum as the only difference between *quadridentatis* and *spinosus*. It may seem strange, but the fovea, though of exactly the same size, does not show up so distinctly on the darker examples. I doubt whether *quadridentatis* is distinct from *spinosus*. As the male has not been described I give its sexual characters.



♂. Metasternum widely and deeply impressed. Under surface of abdomen with a wide deep excavation from base to apex, the apex itself produced and curved under. Legs robust; anterior trochanters armed near base, intermediate produced into a round tooth at apex; the anterior femora strongly inflated, constricted near apex, a sharp tooth at base, intermediate very strongly inflated, upper edge widely rounded, lower lightly rounded, with a golden fascicle in centre, a small round protuberance at apical third crowned with a long thin testaceous fascicle; posterior lightly inflated and constricted near apex; anterior tibiae strongly curved, intermediate tibiae rather thick with a compressed spur-like fascicle a little nearer apex than base, from spur to near apex obliquely narrowed, the apex produced inwardly into a cuneiform spur, with numerous bristles near apex, hind tibiae widened to apex, near where it is notched and with a compressed fascicle of hairs.

Victorian localities: Evelyn, Emerald and Warburton (C. Oke), first record from the mainland.

Allotype ♂ in author's collection.

#### TYROMORPHUS SPECIOSUS King.

Numerous specimens of this species have been taken by Mr. J. E. Dixon and myself in the Dandenong Ranges, most of them under stones and logs where there have been nests of *Amblypone australis*; whether there has been any actual association between the ants and beetles has not been observed, but it is rather doubtful, because several have been taken where there were no ants of any kind. Mr. Lea has given (These PROCEEDINGS, 1910) a full description of the ♂ and a very fine figure of same, but the ♀ has not been described.

♀. Differs from the ♂ in having head slightly smaller, with the impressions less distinct; the dorsal surface of abdomen without the raised process and non-fasciculate, and the under surface non-sulcate; the metasternum unarmed. Anterior trochanters acutely dentate. Anterior and intermediate femora armed, posterior not armed.

In both sexes, figured but not mentioned by Lea, there is an acute tooth at base of anterior femora, and from this there is a short carina ending in a small oblique tubercle.

Hab.—N.S. Wales: Otford (A. M. Lea); Victoria: Fern Tree Gully (J. E. Dixon and C. Oke), Upwey (Dixon), Belgrave and Emerald (Oke).

Allotype ♀ in author's collection.

#### TYROMORPHUS TIBIALIS Wilson.

There are fourteen specimens of this species before me and these show some slight variation in the colour of the antennae. One pair, ♂, ♀, taken together, have joints 1-8 pale reddish-yellow, 9-10 black, or almost so, 11 dull ruby-red, but most specimens have four or five joints blackish, while one specimen has all the joints 2-11 black, or almost black. In all the specimens before me the suture, base of elytra, the shoulders and apical angle of elytra are either infuscated or black. The ♀ has not been described.

♀. Similar to the ♂ and has the anterior trochanters and femora armed as in that sex, but differs in the intermediate trochanters and tibiae not being armed; the metasternum not so deeply impressed and the ventral surface of abdomen convex.



*Hab.*—Victoria: Warburton (F. E. Wilson and C. Oke), Evelyn in tussocks, Pakenham in moss, Fern Tree Gully in moss and in nest of *Amblypone australis* (Oke), Drysdale in nest of *Chalcoponera metallica* (Rev. P. C. Nye).

Allotype ♀ in author's collection.

*PALIMBOLUS RUGOSUS*, n. sp.

♂. Castaneous; disc of elytra and appendages reddish. Thickly clothed with long black hooked setae.

Head rather small, narrowed in front, with the antennary tubercles strongly raised; with large, rugose, confluent punctures. Antennae with basal joint longer than next four joints combined, joint 2 much narrower than 1, 3 smaller, 5 a little longer than 4, 6 quadrate, 7-8 subequal, transverse, 9-10 larger, increasing, transverse, 11 ovate truncate, lightly bent. Prothorax subhexagonal, widest a little in advance of middle; with a large medio-basal fovea and the sides obliquely impressed; punctures as on head. Elytra transverse, sutural striae distinct, discal widely impressed at base, becoming obsolete near middle, shoulders raised and oblique; with a fine scattered punctation. Abdomen with punctures as on elytra; under surface flattened, with a triangular impression on apical segment. Mesosternum sulcate with sides of sulcus carinated. Metasternum convex, lightly impressed down centre, a little excavate posteriorly. Intermediate trochanters with a very small sharp tooth, posterior with a short blunt tooth. All the femora lightly inflated, the intermediate more noticeably so than the others. Inner claw of anterior tarsi trifold. Tibiae straight and simple.

♀. Similar to the ♂, but differs in having trochanters not armed, antennae a little thinner, abdomen convex and inner claw of anterior tarsi simple. Length, 3.3-20 mm.

*Hab.*—Victoria: Carrum and Frankston (C. Oke).

A very fine species allied to *P. dimidiatus* Raff which has been described as having the basal joint of antennae long and the head and prothorax with rugose confluent punctures, but the ♂ of that species has "a strong impression from middle coxae to apex of abdomen" and the posterior tibiae armed.

Type in author's collection.

*PALIMBOLUS POSTCOXALIS*, n. sp.

♂. Dark reddish-castaneous; appendages somewhat lighter, head and prothorax almost black. Clothed with rather dense dark pubescence.

Head with two round interocular foveae and the front deeply impressed; with a few scattered punctures, becoming closer on antennary ridges. Antennae stout; joint 1 long, longer than 2-3 combined, 2 small, 3, 4, 5 increasing in width, 3-4 subequal in length, 5 longer, 6-7 shorter than 5, 8 short, transverse, 9-10 increasing, transverse, 11 large, longer than 9-10 combined, an oblique impression on under surface at base. Prothorax slightly longer than wide, widest in front of middle; with a deep medio-basal impression, the sides with a longitudinal impression, foveate before middle; with a few fine scattered punctures. Elytra slightly wider at apex than length, narrowed to base, with four basal foveae; punctures rather coarse and fairly close. Abdomen strongly margined; under surface lightly flattened, excavate near apex. Metasternum widely excavate posteriorly. Intermediate trochanters with a long curved process, truncate at apex. Posterior coxae produced into a sharp tooth over the trochanters, which are armed with a strong tooth. All the femora lightly inflated, the posterior notched



and with a blunt tooth near base. Hind tibiae with a short, obliquely truncated, spur at apical fourth and a minute spur at apex. Front inner claws trifold.

♀. Differs from the male in having the under surface of abdomen convex, legs unarmed, 11th joint without impression, and front inner claws simple. Length, 3 mm.

*Hab.*—Victoria: Warburton (C. Oke).

In appearance much like *victoriae* King, but the armature of the hind coxae and femora, and the absence of tubercles from abdomen will distinguish it from that species. The fifth joint of the antennae when viewed from above is wider than its neighbours, but is scarcely so, if at all, when seen from the side. On the under side the 10th is produced to fit into the impression on the 11th.

Type in author's collection.

#### NEOPALIMBOLUS, n. gen.

Body oblong. Head attenuate in front. Eyes median. Antennae thick, with three-jointed club, the bases distant and their tubercles prominent. Palpi long: first joint moderate, second long, very thin at base, suddenly clavate at apical third; third joint about half the length of second, pedunculate at base, clavate from basal third; fourth subfusiform with a short peduncle. Prothorax cordiform, with impressions. Elytra short, with striae. Abdomen, long, with wide margin. Intermediate coxae contiguous with their trochanters, long. Posterior coxae distant. Tarsi with first joint small, second long and continued as two long filaments below the plane of the third, which is the longest joint and carries two well-developed claws, the inner claw of the anterior tarsi trifid in ♂, simple in ♀.

This genus resembles *Palimbolus* in facies, but differs from that genus by the maxillary palpi and the tarsi. The latter are quite unlike those of any species known to me in nature, but are somewhat like the tarsus of *Caccoplectus celatus* Sharp, figured by Raffray (*Genera Insectorum*, Plate 9, Fig. 10).

Genotype, *N. goudiei*.

#### NEOPALIMBOLUS GOUDIEI, n. sp.

♂. Dark reddish-castaneous; elytra paler, palpi flavous. Clothed with long pubescence, appearing pale in some lights, almost black in others.

Head slightly longer than wide, rather deeply impressed between antennal tubercles; with three interocular foveae, one near each eye and one further back on vertex; a few coarse punctures on antennal tubercles, elsewhere smooth. Antennae reaching middle coxae; joint 1 stout, cylindrical, longer than next two combined, 2-6 slightly decreasing, 7 smaller, 8 smallest, 9-10 transverse, 10 larger than 9, 11 ovate, not quite length of two preceding combined. Prothorax about as wide as long, widest before middle, somewhat angular and flattened on sides; with a large oval medio-basal impression and three impressions on each side, one near base, one premedian and one at apex; almost impunctate. Elytra transverse, angles rounded away and dilated to apex; sutural stria distinct, with an impression near base, discal impression oblique, with a basal fovea; with a moderate scattered punctation. Abdomen slightly wider than elytra; punctures much as on elytra; under surface lightly flattened. Metasternum depressed. Legs unarmed.

♀. Similar to male, but abdomen convex and sternum not so impressed. Length, 2.25 mm.



*Hab.*—Victoria: Sea Lake (J. C. Goudie), Gypsum (C. Oke, November).

I have much pleasure in naming this interesting species after Mr. J. C. Goudie, who was the first to collect it.

♀ *GERALLUS* (TYRUS) *HOWITTI* King (= ♀ *nec* ♂ *Tyromorphus howittii* King (Lea) = ♂ *Gerallus decipiens* Lea = ♂ *Schaufussia mona* Wilson).

There can be no mistake about the above synonymy as I have several specimens of both sexes before me and have taken a pair *in cop.* Mr. Lea, in redescribing King's type, mistook that specimen for the ♂ on account of the armature of the trochanters, but they, and the femora, are the same in both sexes. By the kind permission of Mr. Kershaw, I have examined King's type in the Howitt collection, now in the National Museum, and find it is a ♀, the under surface of abdomen being gently convex.

The great difference in the head of the ♂ from the ♀, while not previously noted in *Gerallus*, is found in the allied genus *Rytus* and Mr. Lea has drawn attention, in both of his descriptions, to the fact that this species greatly resembles *Rytus subulatus*.

*Hab.*—Victoria (Howitt, and Macleay Museum), Warrandyte (Wilson), Eltham, Ringwood and Bayswater (Oke).

#### CLAVERGERINAE.

##### CLAVERGEROPSIS AUSTRALIAE Lea.

Only the ♀ of this species has been described by Lea; having taken the ♂, I complete the description by adding its sexual characters.

♂. Mesosternum with diverging carinae on sides, the centre with a sharp carina. Metasternum raised, subcarinate, abruptly declivous behind. Abdomen lightly flattened and with vague impressions. Anterior femora flattened beneath, intermediate lightly flattened beneath, arcuate on outer edge, a strong spur near base on inside. Intermediate tibiae with a small tooth on inside near apex.

*Hab.*—N. S. Wales (after Lea); Victoria: Pakenham (C. Oke).

Allotype ♂ in author's collection.

##### ARTICERUS LEAI, n. sp.

♂. Reddish-castaneous. Moderately clothed with short pale depressed pubescence, a few short setae at apex of elytra, between middle coxae and on base of metasternum with golden pubescence.

Head longer than wide, lightly dilated behind eyes; closely punctate. Antennae longer than head, base narrow, then strongly dilated to beyond middle, where it is fairly wide and flattened, and then feebly diminishing to apex, apex almost circular in cross-section; with a shallow impression in middle. Prothorax feebly transverse, widest at apical third, suddenly narrowed to apex, lightly narrowed to base; with a large round impression near base; punctures as on head. Abdomen with a deep transverse depression not encroaching on middle of convex portion, but continued on each side as an oblique impression, with a small fascicle on each side; under surface obliquely strigose at base; constricted and flattened along middle; apex with a small transverse process, crowned with a golden fascicle. Prosternum unarmed; with large punctures, especially on sides. Metasternum rather strongly excavated posteriorly, with two small tubercles placed transversely near apex of excavation. The femora inflated; the middle, which has an acute (somewhat hooked) tooth at basal third, more strongly than the others. Middle tibiae strongly inflated and produced into an acute tooth at apex on lower



surface; on upper surface strongly notched and cut away at apical third, leaving an acute tooth. Length,  $1\frac{1}{2}$  mm.

♀. Differs in having the metasternum declivous, but not excavate, and unarmed; the abdomen convex and unarmed; legs less inflated and unarmed.

*Hab.*—Victoria: Lake Hattah (C. Oke), in nests of *Iridomyrmex*.

A small, narrow, almost parallel-sided species with antennae much as in *mastersi* Lea, but abdomen very different. In Lea's table of the genus, it would be associated with *aurifluus* Schauf. by "metasternum transversely armed", but in the present species the tubercles are very small and continue the plane of the sternum, while in *aurifluus* they are at right angles. The tubercles are so small that they might easily escape notice, and taking the metasternum as unarmed, it would be associated with *irregularis* Lea, from which species it differs, *inter alia*, by the antennae and middle tibiae.

Type in author's collection.

#### ARTICERUS FIMBRIATUS, n. sp.

♂. Reddish-castaneous. Conspicuously clothed subsquamose pubescence, except in abdominal excavation, which is highly polished; intermingled with the pubescence are numerous setae, which form a rather conspicuous fringe around pronotum and at apex of elytra; on the abdomen are some longer hairs, particularly in excavation and a row across pygidium.

Head long, almost cylindrical, very little wider behind eyes than before, bluntly pointed; with fine sparse punctures. Antennae moderately long, thin at base, then suddenly widened and flattened, circular at apex, lightly concave on inside edge. Prothorax transverse, angles widely rounded; with a large elongate foveate impression in front of base; punctures closer than on head. Elytra wider than prothorax at base, dilated to apex; subsutural striae fairly distinct; punctures much as on thorax. Abdomen with a deep transverse excavation, feebly encroaching on middle of convex portion; with conspicuous fascicles on the sides; under surface flattened and constricted across middle. Metasternum feebly raised in centre, scarcely tuberculate, thence sloping away, but not excavated. Middle trochanters armed with an acute tooth at apex. The femora lightly inflated. Anterior tibiae with a truncated process at apical third, middle tibiae with a curved sharp tooth at apical fourth. Length, 1.60 mm.

*Hab.*—N.S. Wales: Glen Innes (W. du Boulay), in nest of *Iridomyrmex*.

The most conspicuously clothed species known to me, the long hair-like setae on the abdomen being very noticeable.

In general appearance somewhat like *aurifluus* Schauf., but the antennae are longer and narrower, and there are differences in the clothing, sternum and legs.

Mr. du Boulay took several specimens which were running about freely and mating in the nests, and he has kindly given me two males.

Types in author's collection.

#### ARTICERUS ANGUSTICOLLIS Westwood.

♂. Obscure castaneous. Well clothed with short pale pubescence, becoming thicker and longer on elytra towards apex; the lateral ridges of abdomen with a distinct golden fascicle and sides with a few longer hairs. Antennae, head, both surfaces, prothorax, elytra and mesosternum with distinct reticulate punctures; middle of metasternum and under surface of abdomen indistinctly punctured.



Head elongate, somewhat triangular in front, feebly widened behind eyes. A few long setae protruding from mouth. Antennae thin at base, then compressed and rather suddenly widened, straight on inside, lightly rounded on outside, truncate at apex, the apex itself oval. Prothorax subquadrate with an elongate impression on disc. Elytra quadrate, suture raised, sutural stria distinct. Abdomen with a transverse excavation not encroaching on middle of convex portion; under surface shortened down centre and flattened. Metasternum convex, declivous posteriorly. Anterior trochanters dentate. All the femora inflated, the intermediate more strongly than the others and with a rounded tooth at base covered with a golden fascicle. All the tibiae curved inwardly, rounded on outside; the anterior widened to apex, notched on inside and feebly spurred; intermediate widened to near apex, which is strongly spurred; posterior widened to near apex and more strongly compressed than the others.

♀. With under surface of abdomen convex and the legs unarmed.

Westwood's type was undoubtedly a ♀ of this species; he described the thorax as oblong, but this is hardly correct, though numerous specimens before me are so in appearance, but not by measurement. The elongate impression on the prothorax causes that segment to appear longer and narrower than it really is. The ♂ antennae are more rounded on the outer edge than the female, which are not so wide as Westwood's figure makes them appear to be.

*Hab.*—Victoria: Melbourne (after Westwood), Caulfield, Preston and Bendigo (C. Oke), in nests of a small black *Iridomyrmex*.

#### Buprestidae.

##### STIGMODERA MONTIGENA, n. sp.

Subcylindric; violet-blue, antennae, scutellum and suture greenish-blue, elytra with the following markings yellow: two round postbasal and subhumeral maculae, an irregular premedial and an arcuate postmedial fascia, fasciae not reaching suture.

Head channelled, sparsely punctate in front, closely behind. Prothorax with sides strongly rounded, widest behind middle, apex truncate, base bisinuate, anterior angles obtuse, posterior acutely produced; disc finely and closely punctate; medial line indicated throughout, medio-basal fovea distinct. Scutellum lightly concave, with a few punctures. Elytra as wide as prothorax at base, sides nearly straight, apices with an oblique excision, finely bispinose; striate-punctate, intervals flat (except near apex), finely punctate and transversely wrinkled. Under surface finely punctate and almost glabrous. Dimensions,  $10.5 \times 3.5$  mm.

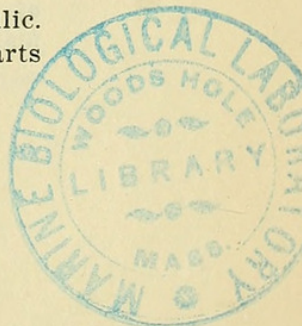
*Hab.*—Victoria: Warburton Ranges (C. Oke).

Of the size and shape of *S. wilsoni*, but the punctuation of the pronotum is finer and closer, also the sculpture of the elytra is different and this character will separate it from other allied species.

Type (unique) in author's collection.

##### STIGMODERA FOSSORIA Carter.

Several specimens of this species have been taken at Belgrave and Fern Tree Gully by Dr. F. M. Burnet and myself, and these show the markings, as described by Mr. Carter, to be constant, except that the extreme base of elytra is metallic. The green parts have a tendency to become blue or purple and in parts (particularly under surface) to give off brilliant metallic reflections.





## Ptinidae.

## DIPLOCOTES MINUTA, n. sp.

Reddish-castaneous; head and sides of prothorax infuscated. Clothed with microscopic pale pubescence.

Head behind antennae strongly transverse, indistinctly bisinuate, sides hollowed out; finely reticulated. Antennae fairly long, joint 1 large, bent, 2 much smaller, thin at base, wider at apex, 3 oval, 4-9 moniliform, 10 largest, 11 much smaller, rounded at apex. Prothorax longer than wide, widest at apical third, where sides are strongly rounded; a transverse arcuate impression at basal third, somewhat dilated, but scarcely foveate, in middle; sides with an obtuse tubercle directed cephalad; longitudinally strigose. Elytra ovate, truncate at base; with large seriate punctures. Legs fairly long, femora lightly inflated, tibiae thin at base, feebly dilated to near apex. Length, 1.10 mm.

*Hab.*—Victoria: Bendigo, in nest of *Chalcoponera*.

The smallest species of the subfamily as yet described from Australia. In appearance it is very like *howittanus*, but much smaller and the transverse impression on pronotum is arcuately dilated in middle, but not deeply foveate as in *foveicollis*.

The unique specimen was taken under a large stone which covered an unusually large colony of the *Chalcoponera*. The beetle was first seen amongst a number of the ants with whom it was apparently on the best of terms.

Type in author's collection.

## DIPLOCOTES HOWITTANUS Westw.

A specimen from the Grampians, Victoria (C. Oke), shows a variety of this species in being larger and the antennae thicker than usual. It was taken under bark in company with some ants, but unfortunately no specimens of the latter were kept for determination.

## POLYPLOCOTES APICALIS, n. sp.

Pale reddish-castaneous; antennae with intermediate joints darker. Rather thickly clothed with long yellowish pubescence, disc of meso- and metathorax and base of abdomen with squamose pubescence.

Head with declivous front carinate on either side and with a few large punctures; behind antennae transverse, bisinuate; punctures as on front. Antennae with joint 1 long and stout, 2 much narrower, 3 longer than 2, 4-7 transverse, 8 larger, 9 largest, 8-9 somewhat compressed laterally. Prothorax longer than wide, anterior angles widely rounded; near base with a wide transverse impression which is expanded in centre; with setiferous papulae and confluent punctures. Elytra ovate, truncate at base, with moderate-sized seriate punctures. Metasternum lightly impressed. Basal segments of abdomen apparently fused together and with a few scattered punctures. Legs rather long. Length,  $1\frac{3}{4}$ -2 mm.

*Hab.*—Victoria: Hattah, in nests of a small black species of *Iridomyrmex* (C. Oke).

A very distinct species, having the ninth, or apical, joint larger than the subapical, a character which will separate it from all previously described species of the subfamily. The papulae on the thorax are small but distinct, and mostly blackish, and each one bears a fairly long yellowish seta.

Type in author's collection.



## POLYPLOCOTES SIMILIS, n. sp.

Light castaneous; head and antennal joints 1-7 darker. Clothed with moderately long yellowish pubescence.

Head behind antennae strongly transverse and strongly bisinuate; eyes projecting; rugose-punctate. Antennae long, joints 1-7 rugosely punctate, joint 1 long, 2 thin at base, wider at apex, 3 a little thinner, 3-7 decreasing in length, increasing in width, 7 transverse, 8 very large, nearly as long as three preceding combined, 9 less than half length of 8, narrowed to and rounded at apex. Prothorax longer than wide, with a wide transverse impression near base; longitudinally strigose. Elytra oval, lightly truncate at base, with large close seriate punctures. Legs fairly long. Length,  $1\frac{1}{4}$  mm.

*Hab.*—Victoria: Inglewood, in nest of *Crematogaster laeviceps* (C. Oke).

This species closely resembles *Diplocotes howittanus* Westw. and *Decemplocotes strigicollis* Lea in general appearance, but the former has eleven-jointed antennae and the latter ten-jointed, while the present species has only nine. My unique specimen was taken under a small piece of wood, where the ants had their nest, in the dry Mallee scrubs.

Type in author's collection.

## POLYPLOCOTES CARINATICEPS Lea.

This species has only been recorded from Western Australia, but in November, 1924, I took two specimens from a nest of *Crematogaster laeviceps* at Hattah, N.W. Victoria.

## BITREPHESES, n. gen.

Body short, oval. Head deflexed. Antennae two-jointed. Prothorax with a large impression. Elytra seriate-punctate. Sternum short. Anterior coxae lightly separated, intermediate well separated, posterior distant. Femora grooved for reception of tibiae. Tibiae sulcate.

This new genus makes an interesting addition to a remarkable group of beetles—the myrmecophilous Ptinidae. The antennae are nearer to *Ectrephe formicarum* than to any other described species, but are only two-jointed, not three, and the apical joint is larger. The prothorax is almost exactly as in *E. kingi*, but that species has very different antennae.

The front of the head seems to be raised into a conspicuous ridge, but this is due to the hollowing of the sides. The margin of the clypeus is semicircular, with the labrum long and protruding over the base of mandibles.

Genotype, *B. cuneiformis*.

## BITREPHESES CUNEIFORMIS, n. sp.

Reddish-castaneous; parts of head, basal joint of antennae and sides of prothorax infuscated. Clothed with minute pale pubescence and with thick golden pubescence between all the coxae and a round patch on abdomen.

Head behind antennae bisinuate and strongly transverse, rugosely punctate; the sides in front of antennae obliquely hollowed, where it is strigose, elsewhere with a few granules. Antennae with first joint large, rugosely punctured, second larger, flattened, subcuneiform, rounded off on outside edge, with microscopic reticulate punctures. Prothorax transverse, on both sides, in front of middle, produced into a sharp cuneiform projection, behind which is an elongate impres-



sion; here the sides are compressed into a thin angular projecting plate; the base with a transverse impression; a large round foveate impression before base, from which striae radiate. Elytra equal in length and width, base bisinuate; the striae lightly impressed and having large, round, setigerous punctures. Under surface of abdomen with large shallow punctures becoming more numerous towards apex. Femora lightly inflated, tibiae compressed, bent near base, the two posterior pairs feebly serrated on upper edge. Length, 1.20-1.50 mm.

*Hab.*—Victoria: Lake Hattah, in nests of *Iridomyrmex rufoniger* (C. Oke).

Several specimens of this very interesting little inquiline were taken, some under cover in the nest itself, others in the beaten down "footpaths" or tracks between the nests. The beetles appear to be on very good terms with the ants and if a beetle is turned over on its back, several ants will come to its assistance and help it to turn over again. Beyond this I was not able to observe any intimacy between host and guest, but this was very well demonstrated by turning over one beetle several times with a piece of grass.

#### Cerambycidae.

##### ATESTA DIXONI, n. sp.

♂. Dark piceous-brown, in parts diluted with red; antennae and legs dark reddish-brown; a sinuate premedial fascia and apex pale flavous. Subnitid. Thickly clothed with long greyish setae, joints 4-11 in addition with very short pale adpressed pubescence.

Head elongate, deeply channelled, antennal tubercles moderately prominent; with coarse rough punctures. Antennae with three joints beyond apex of elytra; second joint small, third very feebly armed, longer than first or fourth. Prothorax with sides trisinuate, medial swelling fairly acute; a transverse impression near apex, an impression near base; an elongate smooth node in centre and four smaller ones arranged around it; punctures large and rough, not sharply defined. Elytra elongate, parallel-sided to near apex, then rounded off, apices simple; shoulders obliquely raised; with large round seriate punctures becoming finer behind. Under surface with moderate-sized scattered punctures.

♀. Antennae not quite reaching apex of elytra. Length, 11-14 mm.

*Hab.*—Victoria: Lake Hattah (J. E. Dixon and C. Oke), bred from Black Box sticks.

In facies it is nearer to *bifasciata* than to any other described species, but differs in having much finer antennae, with the third joint almost imperceptibly armed, instead of strongly so, and apex simple instead of obliquely cut away. *A. angasi* has the apex oblique with a minute spine, and *tatei* has the apex emarginate and armed.

I have much pleasure in naming this after my friend, Mr. J. E. Dixon, who has bred it out on several occasions from sticks brought from Lake Hattah.

Type in author's collection, paratypes in coll. Dixon.

##### ATESTA BESTI, n. sp.

♀. Black; base of thorax, tibiae and antennae diluted with red; a wide fascia and apex of elytra dark flavous. Nitid. Thickly clothed with long pale setae, with joints 4 faintly, 5-11 thickly clothed with short adpressed pubescence.

Head narrowly but deeply channelled; antennal tubercles rather large, prominent; with large rough punctures. Antennae not quite reaching apex



of elytra; joint 2 very short, 3 longer than 1 or 4, very faintly armed. Prothorax with a strong transverse impression near apex, at base with a round impression; sides in front of middle notched, behind with a rounded projection; an elongate smooth node on disc, with four smaller ones arranged around it; punctures rather large and rough. Elytra elongate, parallel-sided to near apex, the latter obliquely truncated; an impression on base near shoulders, which are slightly raised and smooth; punctures large and round, becoming much finer and less distinct near apex. Under surface with a few scattered punctures. Length, 12 mm.

*Hab.*—Victoria: Gypsum (C. Oke) in November, attracted to light.

Apex of elytra being truncate will, *inter alia*, separate this species from *dixonii*, while the apex not being armed will distinguish it from *tatei*. The black markings on the elytra are: a round scutellar patch, narrowly continued across base to sides, epipleurae, a round spot on either elytron at basal third, and a sinuate fascia at apical third.

Named after Mr. D. Best, a most enthusiastic and successful breeder of longicorn beetles.

Type in author's collection.

#### Chrysomelidae.

##### MONOLEPTA JUCUNDA, n. sp.

Flavous and black.

♂. Head with a strong curved interocular impression, lightly dilated forward in centre. Eyes rather small but prominent. Antennae moderately stout, just passing hind coxae; second and third joints equal, fourth longer, eleventh sharply pointed. Prothorax transverse, sides rounded, hind angles rounded off; with minute indistinct punctures. Elytra subelliptic; punctures rather small and close, but sharply defined. Epipleurae abruptly narrowed near hind coxae. Basal joint of hind tarsi nearly as long as the rest combined. Apex of abdomen with two narrow impressions on under surface.

♀. Similar to the ♂, but without impressions on the abdomen and the apex more convex beneath. Length, 3.3-5.0 mm.

*Hab.*—Victoria: Fern Tree Gully, Emerald, Warburton (C. Oke), in grass.

The head, antennal joints 6-10, a subtriangular blotch on sides of pronotum and one on disc (which is more or less distinct), scutellum, a fairly wide transverse mark on base (but not reaching sides) and suture (not quite reaching apex) towards apex, on sides, with a horseshoe-shaped mark, black; the 1st-4th and 11th (extreme tip infuscated) joints flavous, the others black or almost so; the sternum and ventral segments of abdomen infuscated in some places.

A pretty little species allied to *aberrans* Lea, but with different markings, and the second and third joints of antennae of equal length. Most of the specimens have an indistinct or vague blotch on middle of pronotum, but on one ♀ it is quite distinct and is almost a medial vitta.

Types in author's collection.

##### MONOLEPTA THEMEDICOLA, n. sp.

Flavous; a spot at base of head, a medio-apical spot and sides of pronotum, a spot on base (one-third from scutellum towards sides), shoulders and inner edge of epipleurae, 2 premedian and 3 post-median spots of elytra, and extreme



base of hind tarsi, black; antennal joints 4-11 with an infuscated mark near their apices.

Head with a narrow but fairly deep procurved interocular impression, with a small impression in front, a few punctures behind. Eyes large and prominent. Antennae with the second joint short, third a little longer, the others much longer. Prothorax nearly twice as wide as long, sides almost straight, base rounded, apex straight; transverse impression feebly indicated towards sides; punctures fine and close but sharply defined. Elytra long, subparallel-sided to near apex; punctures a little stronger than on pronotum; epipleurae narrowed before hind coxae. Basal joint of hind tarsi a little more than once and one-half the length of the rest combined.

*Hab.*—Victoria: Evelyn, Fern Tree Gully (C. Oke), on *Themeda triandra* Forst.

Close to description of *bivitticollis* Lea, but differs in the shape and punctures, while the markings on the elytra are certainly different. Only two vittae on prothorax, with its sides not rounded, will separate it from *trivitticollis* Lea. The elytral markings are not as noted for *figurata* Weise, and *megalops* Lea, also the vittae on prothorax and the close punctures on elytra separate it from the latter. The hind angles of the prothorax are produced into a minute tooth, but this is not visible from some angles.

Type in author's collection.

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Oke, C. 1928. "Notes on Australian Coleoptera, with description of new species. Part i." *Proceedings of the Linnean Society of New South Wales* 53, 1–30.

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