

AUSTRALIAN COLEOPTERA: NOTES AND NEW SPECIES. VI.

By H. J. CARTER, B.A., F.E.S.

(Five Text-figures.)

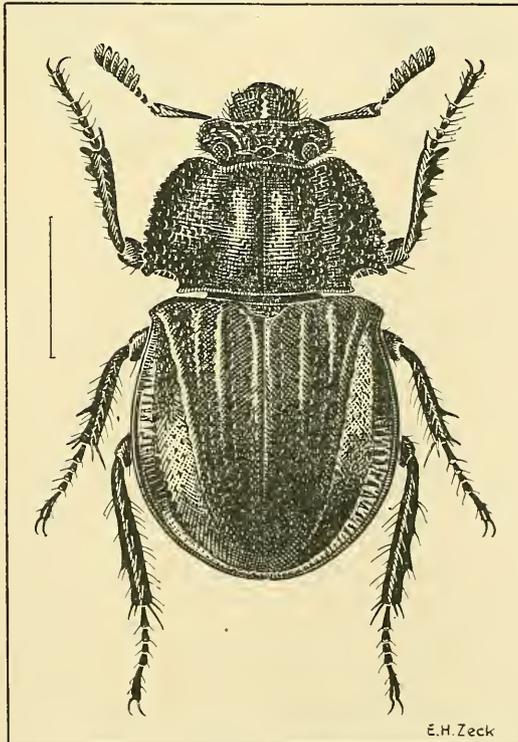
[Read 24th April, 1929.]

Lucanidae.

*RHYSSONOTUS COSTATUS*, n. sp. Text-fig. 1.

Oval, dark brownish-bronze, nitid, glabrous except for setae (long and numerous on mandibles, short and sparse on head and femora, alternating with lateral crenulations on pronotum).

*Head* ( $2.5 \times 5$  mm., excluding mandibles), coarsely rugose-punctate, front with saddle-shaped ridge terminating anteriorly in a large tubercle, sides widely lobate,



Text-fig. 1.—*Rhyssonotus costatus*, n. sp.

the lobes obliquely narrowed to front, more squarely rounded off behind, tubercle in front of eye; mandibles projecting about 2.5 mm., each armed internally with four, externally with two blunt teeth, their upper surface tuberculose and coarsely punctate, with long setae; eyes divided, bordered internally by a strong carina; antennae with scape shorter than rest combined; club 6-segmented. *Prothorax* 5 × 9 mm., anterior angles widely rounded off, sides lightly and arcuately widened to an acute subposterior tooth preceding a large oval excision, posterior angle acutely dentate; lateral border dentate-crenulate; surface coarsely rugose-punctate, save on raised ridges on each side of wide medial groove; four longitudinal depressions, two near apex, two near base external to medial ridges. *Scutellum* transversely oval, punctate. *Elytra* slightly longer than wide (10 mm. long), sides explanate, extreme border raised and entire, a row of large punctures on inside of explanation, humeri dentate; edges of suture carinate, a strongly raised sub-crenulate costa extending obliquely from shoulder to middle of apical declivity, and two short straight costae extending from base at equal intervals between first costa and suture; the first costa coarsely rugose on sides; irregularly seriate-punctate, the two rows of small punctures near suture more regular than rest. Underside sparsely punctate; flanks of prosternum with large sparse setae, mesosternum with large foveate depression.

*Dim.*—19 × 10 mm., including mandibles.

*Hab.*—New South Wales: E. Dorrigo (W. Heron).

A single male example shows a very distinct species remarkable for its costate and coarsely sculptured surface, with strongly crenulate margins to the prothorax. The general form and structure of head is nearest that of *R. politus* Cart., but the posterior excision of prothorax is deeper and more rounded than in that species.

Holotype in Coll. Carter.

#### Buprestidae.

STIGMODERA (THEMOGNATHA) MARGINALIS, n. sp. Text-fig. 2.

Oblong-ovate. Head, pronotum and underside black, the pronotum very nitid and glabrous, with an orange margin not extending to base; elytra dark brown, becoming reddish-brown towards apex, with an orange margin throughout extending over the lateral three intervals except near base—here only on external sulcus; legs blue.

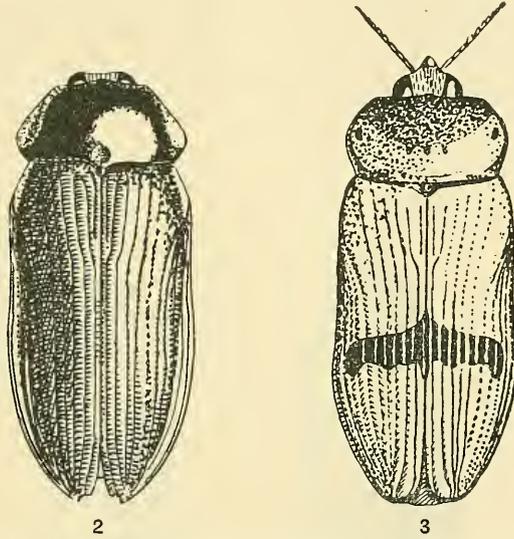
*Head* with close round punctures, glabrous and very lightly sulcate and excavate. *Prothorax* (6 × 11 mm.): Apex and base bisinuate, widest and strongly protuberant at basal third, thence obliquely narrowed to front, arcuately and less strongly behind; anterior angles acute, posterior widely obtuse; disc finely punctate, the punctures dense towards apex and sides, subobsolete at base and very feebly rugose on margins; a short smooth medial line shown on posterior half terminated by shallow fovea. *Scutellum* linguiform, nitid and impunctate. *Elytra* 21 × 12 mm., of same width as prothorax at base, very lightly widened at shoulders and lightly sinuate behind them, apices dehiscent and separately rounded save for a very small rounded excision at extremity; striate, intervals more or less uniformly convex; very sparsely and lightly punctate. Underside wholly black, glabrous, closely and somewhat rugosely punctate.

*Dim.*—29 × 12 mm.

*Hab.*—Western Australia (H. W. Brown).

A single ♀ sent by that most enterprising of coleopterists, Mr. H. W. Brown, shows a species that in colour is nearest to *S. flavocincta* L. & G., but in the form and surface of prothorax belongs to the *oleata-caroli* group, with an even more marked lateral extension, not quite deserving the term angulate. The apical emargination is also characteristic and unusual—somewhat as in the ♂ of *S. sanguinosa* Hope, as shown in my Revision (*Trans. Roy. Soc. S. Aust.*, 1916, p. 84).

Holotype in Coll. Carter.



Text-fig. 2.—*Stigmodera (Themognatha) marginalis*, n. sp.  
Text-fig. 3.—*Stigmodera (Themognatha) partcollis*, n. sp.

STIGMODERA (THEMOGNATHA) PARTICOLLIS, n. sp. Text-fig. 3.

Oblong-ovate. Head, two-thirds of pronotum, underside (chiefly) and appendages bright metallic greenish-bronze, the pronotum with a wide sublateral area yellow (non-metallic) extending over about one-third of surface, leaving a narrow lateral and basal margins bronze; abdomen with apical segment and a few spots on other segments flavous; elytra testaceous, except for a narrow basal margin, still narrower apical margin and a narrow postmedial fascia black, the fascia not extending to sides and bracket-shaped, with short longitudinal extensions backward on eighth stria.

*Head* glabrous, moderately sulcate and excavate; strongly and closely punctate. *Prothorax*, 6 × 11 mm., lightly bisinuate at apex and base, sides widely rounded, widest at basal third, all angles obtuse, the posterior widely so; disc rather finely and closely punctate, a little rugose at sides; punctures larger and more remote on basal half; a short, smooth medial line indicated towards base; without basal fovea. *Scutellum* linguiform, nitid golden-bronze. *Elytra* as wide as prothorax at base, widened at shoulders, lightly sinuate before the middle, widely rounded at apex; each widely subangulate at suture; striate, becoming striate-punctate

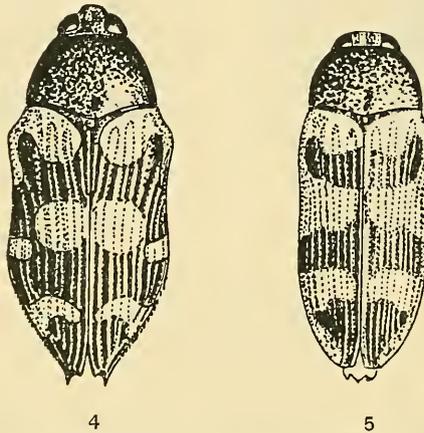
towards apex and sides, the striae here with rather large close punctures, intervals lightly convex for the greater part, nearly flat at base, and impunctate. Underside nitid and glabrous, strongly punctate, the punctures of prosternum close and round, of abdomen more irregular and rugose, the apical segment almost wholly flavous, two small yellow marks on each side of the two preceding segments and one on the second segment.

*Dim.*—29 × 12.5 mm.

*Hab.*—Western Australia (H. W. Brown).

A single ♀ sent is another of Mr. H. W. Brown's discoveries. It is nearest in pattern to *S. pictipes* Saund., but, besides the different arrangement of the metallic and yellow areas of the pronotum, the form is more like that of the preceding species (e.g., strongly widened at basal third—though more rounded than in *marginalis*), sides not at all sinuate in front (as in *pictipes*), the elytral fascia placed farther forward and of black colour, besides different in shape from that of *pictipes*. The extreme apex is very narrowly darkened, though this may be a variable feature.

Holotype in Coll. Carter.



Text-fig. 4.—*Stigmodera (Castiarina) duaringae*, n. sp.

Text-fig. 5.—*Stigmodera (Castiarina) sexualis*, n. sp.

STIGMODERA (CASTIARINA) DUARINGAE, n. sp. Text-fig. 4.

Oval, convex. Head, pronotum and underside coppery-bronze, nitid and glabrous, antennae and upper surface of legs greenish-bronze, elytra blue-black with testaceous markings as follows: a wide basal fascia interrupted at the suture and extending shortly backwards at sides, two transversely oval medial spots, two smaller transverse lateral spots near lower margins of the preceding, a narrow undulate pre-apical fascia, narrowly interrupted at the suture, extending to and widened at sides.

*Head* deeply excavate, the excavation bordered by carina on its front half and rugose-punctate. *Prothorax*: Apex arcuately produced at the acute angles, base very slightly bisinuate, posterior angles subacute; sides arcuately narrowed from base to apex; disc irregularly and rather coarsely punctate, rugulose at sides; a large, elongate basal fovea and a medial channel shown on apical half.

*Scutellum* blue, subcordate, depressed. *Elytra* as wide as prothorax at junction, thence rather suddenly widened at shoulders, then successively compressed, roundly widened and sharply attenuate to apex. Apices strongly bispinose with long exterior spine, margins strongly serrulate on apical third; punctate-striate, seriate punctures unusually coarse, intervals convex throughout and very sparsely punctate. Underside almost glabrous, nitid and finely punctate.

*Dim.*—11 × 5 (vix).

*Hab.*—Queensland: Duaranga (Mr. W. B. Barnard).

A unique male example was sent me in May, 1924, by its captor, one of the well-known family of Queensland naturalists, but I hoped to get further material. It is, however, so clearly distinct from others of the *assimilis* Hope-*inconspicua* Saund. group that it deserves a name, the distinctions being the combination of oval form, sharply bispinose apices, serrulate hind margins and a unique pattern.

Holotype in Coll. Carter.

STIGMODERA (CASTIARINA) SEXUALIS, n. sp. Text-fig. 5.

Oblong, lightly attenuate behind, moderately convex. Head and pronotum bronze, the latter bluish at sides; elytra testaceous with blue or greenish-blue markings as follows: narrow basal margin, a post-basal fascia narrow, with anterior margin concave, posterior straight, extended to base at the scutellum but not extending to sides; a post medial fascia, wider than former, undulate, widened at suture and narrowly extended both ways to the other fascia and apical spot. The last subtrapezoidal, the sides more or less parallel to margins, leaving a wide testaceous or orange border, the shortest side resting on, and generally slightly widened at the apex. Underside blue, abdomen in the male red, in the female blue, rather densely covered with flattened silvery hair, antennae and legs bluish.

*Head* excavated, closely punctate. *Prothorax* rather strongly convex, apex truncate, base lightly bisinuate, sides nearly straight on posterior two-thirds, or slightly widened in front of middle, arcuately narrowed anteriorly, the front angles wide, posterior rectangular: disc closely and rather uniformly punctate, a little rugulose at the flattened latero-basal margins, medial channel clearly marked on basal half, sometimes continuous to apex, terminated behind in a large fovea. *Scutellum* subcordate, depressed and punctate. *Elytra* as wide as prothorax at base, lightly enlarged at shoulders, scarcely compressed at middle, apices rather widely truncate, posterior margins entire; punctate-striate, seriate punctures large, intervals flat and rather coarsely punctate, especially on dark areas.

*Dim.*—11 × 4 mm.

*Hab.*—Queensland: Stanthorpe (Mr. E. Sutton).

I am indebted to this keen naturalist for some sixteen examples (11 ♂, 5 ♀) that show the sexual coloration recorded in my Revision of the genus (*Trans. Roy. Soc. S. Aust.*, 1916, p. 83) for *S. jekelli*, *cruenta* and other species. It is also the species erroneously determined as *S. cara* Blkb. (= ? *placens* Kerr.) in these PROCEEDINGS (1928, p. 272) by me, from which it differs in its darker pronotum, different apical structure and in having entire subapical margins. It differs from *S. affabilis* Kerr. (= *simplex* Kerr.) by its narrower and less convex form, its truncate apices and much more extensive yellow area of elytra, as also in the sexual coloration of the abdomen.

Holotype and allotype in Coll. Carter.

N.B.—*S. sexualis* has been compared with the unique type of *S. placens* Kerr. by Mr. Blair, but *S. cara* Blkb. is not in the British Museum, though its type was said to be there in Mr. Lea's record of the Blackburn types (*Trans Roy. Soc. S. Aust.*, 1912, p. xxxviii). The synonymy of *cara* and *placens* was stated by Blackburn, and acknowledged by Kerremans (*Ins. Gen.*).

*Cyria australis* Boisid.—From an examination of long series of *C. tridens* Blkb. and of *C. imperialis* Don., including the black varieties of both, I agree with Mr. Blair, who writes of *australis*: "I find our series is mixed, most of them being black forms of *tridens*, while a few are a similar black form of *imperialis*. From Boisduval's remark that 'the thorax is a little different from that of *imperialis*', one must, I think, assume that his species is of the *tridens* form, and *gagates* Hope, of which I have seen the type, is the same. It would appear, therefore that the black form of *imperialis*, which is much rarer, is nameless".

I propose the name *melaina* for this variety. The following synonymy holds:

*C. imperialis* Don. var. *melaina* Cart.

*C. australis* Bois. = *gagates* Hope, var. *tridens* Blkb.

The black form *australis* is apparently commoner in Southern Queensland, but there is great variety of coloration in the species. Examples from Coff's Harbour, N.S.W., vary from the pattern described by Blackburn, to those having the elytra with a yellow margin and two or three pairs of small, yellow spots. All black examples also occur; the pronotum may be with or without the yellow margin.

*Iridotaenia bellicosa* Blkb. (*Paracupta*) = *I. terrae-reginae* Obenb. (*Arch. f. Naturg.*, 1924, p. 36).

Mons. Théry having recently written me as to the need for referring Blackburn's species to *Iridotaenia* rather than to *Paracupta*, I find that Dr. Obenberger is clearly of the same mind, since his description of *terrae-reginae* exactly fits this well-known Queensland species. I have specimens from Kuranda.

*Pseudanilara* Théry = *Neotorresita* Obenb.

My conviction as to the identity of the above genera is not at all disturbed by the meticulous comparison of alleged differences contained on pp. 58, 59 (*Archiv. f. Naturg.*, 1928). This comparison is a little disingenuous in that Dr. Obenberger does not use the words of his original description to compare with selections from the original description of Théry. Thus, in one detail, he contradicts his own description by his new diagnosis, as follows:—

<i>Pseudanilara</i> Théry.	<i>Neotorresita</i> Obenb.	
Original description.	Original description.	As given in <i>Archiv. f. Naturg.</i> , 1928.
Hanches postérieures 'robustes, sinuées'	Hanches postérieures 'assez larges et longues'	Hinterhüften "ziemlich schmal, aber parallel-seitig, vorne geradlinig, gegen die Seiten nur sehr schwach vereugt."

The other compared differences are comparatively unimportant; as for example, the third art. of antennae: "subdenté", Théry; "Kaum triangelförmig", Obenb. Such details often depend on the point of view and position of the segment. Again, as to the visibility of the antennal cavities, Théry says, "seulement par dessous"; Obenberger says, in the original description, "petites, subterminales, ouvertes"; in his polemical note "aber von vorne deutlich sichtbar". A re-examination of *P. cupripes* Macl. shows that it is best seen from a position between these, i.e., obliquely in front and below. Such hair-splitting is scarcely scientific. The excellent figure that accompanied Obenberger's original description, together with that description, was sufficiently convincing to me of the synonymy of *Neotorresita achardi* with *P. cupripes* Macl.—a comparatively common and widely distributed insect.

The table of the alleged species on p. 59 is erroneous. Macleay's species, for example, are closely allied as species. It is absurd to separate them generically. Such an arrangement could only be made after an exhaustive and minute examination of the types. This has not been possible to Dr. Obenberger in the case of Macleay's three species, my own four species, Blackburn's *Neocuris dilaticollis*, and doubtfully of Kerremans' two species, the types of which I examined in the British Museum, together with that of Blackburn. I had then with me specimens that I had previously compared with Macleay's types in Sydney. I again assert that all the above are congeneric, with the "Hekatombe von Synonymen" that I believe to be accurate though "radikal". These types, together with my specimens, were shown by me to Mr. K. G. Blair, who agreed with me then as to their close similarity, and who has since then written me as to the similar generic position of *Neocuris nigricans* Blkb., which I suspected from its description, when I was revising the genus *Neocuris*.

*Stigmodera*.—Dr. Obenberger's answer to my criticisms contained in these PROCEEDINGS, 1924, p. 533, amounts to a categorical denial of each of the fifteen species, and four out of the five varieties and subspecies being synonymous with certain recorded species. In view of the difficulties that must arise when future students desire an accurate nomenclature, it seems idle further to publish contradictory opinions on questions which are largely matters of fact, or, in some cases, a matter of interpretation of variation. This latter can only be judicious at the hands, or under the eyes, of trained naturalists who have actually seen a considerable number of individuals, preferably as field observers. As this is a difficult matter to arrange, I would suggest as a compromise: (1) that Dr. Obenberger send his types, or specimens that have been compared with his types and certified by him to be conspecific therewith to the British Museum, where a larger number of recorded types are contained than in any other existing institution, for the opinion of the Entomologists of that Museum; (2) that the opinion of such Entomologist (or Entomologists) be published on each of the species in question between Dr. Obenberger and myself. On my part I will gladly forward to that Museum all such material as may be necessary as regards my own species or determinations.

Failing such an arbitration, future authors must themselves judge between us, due consideration being given to the great variations, especially of colour and size, a few of which were stated in my Revision of the genus (*Trans. Roy. Soc. S. Aust.*, 1916, pp. 80-85).

Meanwhile Dr. Obenberger publishes the description of sixteen more alleged new species of *Stigmodera*, of which fourteen are figured. Of these I cannot

see anything in the descriptions or figures that would deny the following synonymy:—

1. *S. (Themognatha) mrazi* Obenb. = *donovani* L. and G.
2. *S. (Themognatha) jakovlevi* Obenb. = *sanguineocincta* Saund.
3. *S. (Castiarina) tasmani* Obenb. = *jubata* Blkb., var.
4. *S. (Castiarina) semenovi* Obenb. = *moribunda* Saund., var. *dispar* Blkb.
5. *S. (Castiarina) odewahni* Obenb. = *hopei* Saund.
6. *S. (Castiarina) cicerini* Obenb. = *erythromelas* Boisd.
7. *S. (Castiarina) gebhardti* Obenb. = *sagittaria* L. and G.
8. *S. (Castiarina) acutangula* Obenb. = small *cupreoflava* Saund., var. *equina* Blkb.
9. *S. (Castiarina) stigmaticollis* Obenb. = *octospilota* L. and G., var. *rufipes* Macl.
10. *S. (Castiarina) yorkensis* Obenb.—The pattern and form is a common one, but the description is not clear as to colour. The one word "schwarz" in the first line would appear to apply to every part, where its colour is omitted, e.g., underside and elytral pattern. Again there is no comparison, as with so many of this author's descriptions, with its allies, a very important omission.
11. *Neotorresita microphaenops* Obenb. = *Pseudanilara purpureicollis* Macl., var. *nigra* Macl.

#### Notes on the Above.

1. I incorrectly placed *jansoni* Saund. as synonymous with *donovani* L. and G. in my Revision. This was corrected later (PROC. LINN. SOC. N.S.W., 1922, p. 68).

2. The sides of the elytra in this species vary in colour, the red often shading off into pale yellow. The pronotum is exceptionally strongly sculptured, a fact curiously unnoticed by Saunders.

3. Tasmanian species are so few that I cannot believe that this and 6 can be otherwise than variations of the well-known species mentioned above. *Vide* These PROCEEDINGS, 1919, pp. 137-139, for notes on Tasmanian species; also These PROCEEDINGS, 1924, p. 521.

4 and 9 exactly correspond with specimens lately examined, the type of *rufipes* Macl. containing, as in its description, every mark figured by Obenberger.

5, 7 and 8 are all well-known and variable species; 5 and 7 with a wide distribution in Western Australia.

*N.B.*—*placida* Kerr. is not synonymous with *hopei* Saund., as in my Revision.

*Chrysobothris* Esch.—In a footnote, p. 287, Dr. Obenberger corrects the spelling of this genus to *Chrysobotris*. I have not been able to see the original paper (*Zool. Atl.*, 1, 1829), but in Scudder's "Nomenclator Zoologicus", p. 67, and in the well-known work by Agassiz (*Col.*, p. 36) the word is spelt *Chrysobothris* and the Greek derivation is given. Even if the original paper misprinted this *Chrysobotris*, the long-established usage seems to entitle the claim of the more scholarly form derived from *βόθριον* (foveola).

#### Dascillidae.

##### DASCILLUS SERRATICORNIS, n. sp.

Ovate, nitid, dark brown; a short oblique vitta near shoulder of elytra, also tarsi, red; upper surface moderately clad with upright silvery hair (generally abraded near middle regions).

*Head*: Eyes round, very prominent, finely faceted; antennae long, extending beyond base of prothorax, segment 1 swollen, 2 nodulose, 3-11 triangular, each forming a sharp rectangular serration on interior margin and successively narrower. *Prothorax*: Apex of same width as head, sides soon strongly widened, widest near (not at) base; base strongly sinuate, with short truncation at scutellum, anterior margins decurved, posterior angles feebly falcate; anterior part of disc convex; slightly depressed towards base; densely and finely punctate and pilose. *Scutellum* rather large, subpentagonal. *Elytra* feebly obovate, narrowly margined; striate-punctate, striae punctures close; intervals just perceptibly convex and rather closely punctate, the interstitial punctures smaller than the seriate; the reddish shoulder stripe extending about one-third of elytra. Prosternal process sharply triangular between rather approximate coxae, underside seriate-punctate and subnitid, tibiae straight, tarsi slender.

*Dim.*—7.9 × 3.4 mm.

*Hab.*—Queensland National Park, MacPherson Range (H. J. Carter).

I took eight examples by beating in January, 1928. The species is readily distinguished from *D. brevicornis* Macl. (type examined) by its strongly serrate antennae, besides colour differences.

Holotype in Coll. Carter.

#### Tenebrionidae.

##### PLATYDEMA HERONI, n. sp.

Ovate-convex, nitid black, elytra with two shoulder spots and two latero-apical spots red; appendages black, or nearly so. tarsi piceous.

*Head* unarmed, coarsely punctate, epistoma semicircular, antennae not quite reaching base of prothorax; segments 5-10 successively widened and strongly transverse, 11 ovate. *Prothorax* about twice as wide as long, apex subtruncate, its angles widely rounded off and depressed, base bisinuate, considerably wider than apex, posterior angles very obtuse, sides arcuately converging to apex, widest near base, and together with the apex distinctly margined; surface strongly, not coarsely nor densely, punctate; basal foveae large and distinct. *Scutellum* large, triangular. *Elytra* widely obovate, wider than prothorax at base, widest at apical third, striate-punctate, punctures in striae large and well separated; intervals very lightly convex and finely punctate; underside rather coarsely and closely punctate; tibiae and tarsi clothed with golden pubescence.

*Dim.*—5.5 × 2.2 mm. (approx.).

*Hab.*—New South Wales: East Dorrigo (W. Heron).

Twenty-three examples sent by Mr. Heron. The species is nearest in size and markings to *P. aries* Pasc., in which the ♂ has frontal armature, the antennae and legs are red, the size smaller, also more convex, and the pale markings are interrupted fasciae. *P. pascoei* Macl. is much smaller, with a different elytral pattern, and the underside largely red. In *heroni* the only red on the underside is a small spot on the epipleurae.

Holotype in Coll. Carter.

##### PLATYDEMA TAYLORI, n. sp.

Ovate, strongly convex, nitid black; antennae and legs reddish-brown.

*Head* short and wide, epistoma arcuate, its suture ill-defined; eyes not prominent; front densely punctate, antennae short, 1.4 subcylindric, 5-10 successively widened, 11 ovate, much longer than 10. *Prothorax* strongly transverse,

apex and base bisinuate, sides very lightly arcuate, narrowed from base to apex; all angles obtuse, anterior strongly so; disc rather strongly and evenly (not closely) punctate, without medial or other impression, the usual basal foveae obsolete. *Scutellum* large, equilatero-triangular. *Elytra* slightly wider than prothorax at base, ovate and convex, a narrow raised border just perceptible from above; striate-punctate, the small seriate punctures only visible at sides of the two medial interstices; these strongly convex and impunctate. Underside almost impunctate.

*Dim.*—4 mm. long.

*Hab.*—N. Queensland: Cairns (F. H. Taylor).

A pair, attracted to light, sent by Mr. Taylor, after whom it is named. The species is separated from the other nitid, all-black species as follows: from *striatum* Montr. by smaller size and convex elytral intervals; from *deplanatum* Champ. by convexity and darker appendages; from *sulcato-punctatum* mihi by less steeply convex and impunctate intervals, besides its unarmed head in both sexes; *laticolle* Macl. besides differing in colour has a wider prothorax, longer and wider antennae. The only two examples seen show no sexual structure.

Holotype in Coll. Carter.

PLATYCLIBE WILSONI, n. sp.

Short and wide, depressed, parallel. Head and elytra reddish-brown, pronotum testaceous; antennae and tarsi red.

*Head* wide and convex, coarsely punctate, epistoma subtruncate, antennae with three apical segments forming a club, the eighth segment transitional in width between the seventh and ninth. *Prothorax* strongly transverse, apex truncate, except at angles, these rather strongly produced, subacute, but rounded at extreme tips, base truncate, posterior angles a little obtuse; sides straight, their margins entire, just visible from above; disc without medial impression, two foveae near middle, surface covered, not densely, with fine shallow punctures. *Scutellum* oval. *Elytra* of same width as, and closely adjusted to, prothorax, widely rounded behind; striate, scarcely punctate, the wide striae only showing an occasional distinct puncture, intervals wide and nearly flat, coarsely transversely rugulose.

*Dim.*—5 × 2 mm.

*Hab.*—New South Wales: Williams River (Lea and Wilson).

A single example on a card shows a distinct species of the form of *brevis* and *integricollis* mihi, but quite unlike either in sculpture as well as colour. Further material may show the elytral brown colour to be due to immaturity. I have been unwilling to remove the specimen from its card to examine the underside. The mandibles, at least the left-hand one, clearly tridentate.

Holotype in Coll. Wilson.

BOLBOPIANES (?) PALLIDIPES, n. sp.

Ovate, very convex; head metallic green, pronotum and elytra metallic black, with a greenish sheen, underside varicolarous (blue, with purple gloss in places); legs and basal two-thirds of antennae pale red or yellow, the apical segments of the latter, also the tarsi, infusate.

*Head* rather short and wide; eyes large, round, not prominent; separated by a space wider than a diameter of one eye; antennae just extending to base of prothorax; segments 1-6 sublinear and slender, 7-10 more or less round and

successively larger, 11 ovate, largest. *Prothorax* strongly transverse, apex a little sinuate, front angles advanced but widely rounded; base bisinuate, hind angles subrectangular, sides arcuately narrowed from base to apex; margins horizontally explanate, their surface with transverse rugae, disc lightly convex, with impunctate, mirror-like surface. *Scutellum* equilatero-triangular, very nitid. *Elytra* as wide as prothorax at junction, soon strongly widened behind the rounded humeri, sides subparallel (feebly widened behind middle), very convex, highest point in front of middle, surface rather steeply declivous at base and apex, the basal region slightly flattened behind scutellum, margins invisible from above; rather uniformly but sparsely dotted with minute punctures (visible only under lens); epipleurae with larger punctures, meso- and metasternum closely punctate, abdomen very finely so. Fore and mid tibiae straight and narrow, hind tibiae flattened, curved and widened to apex; fore and mid tarsi considerably enlarged, post tarsi less so, the first and fourth segments of the last about equal in length.

*Dim.*— $9 \times 4.5$  mm.

*Hab.*—New South Wales: East Dorrigo (W. Heron). ♀ wanting.

A single example is a puzzling insect to classify generically, the subparallel elytra giving it a more elongate appearance than the other species of the genus. By the method of exhaustion it can only be placed in *Bolbophanes* or in a new genus; but *B. varicolor* Cart. somewhat approaches this form, so that no great outrage is committed by its inclusion.

Type in Coll. Carter.

#### HEMICYCLUS SPHAEROIDES, n. sp.

♂. Subspherical; above, below and appendages nitid metallic black.

*Head* short and wide, somewhat engaged in the prothorax, eyes partly covered, these flattish and widely separate; front scarcely visibly punctate, forehead convex, rising steeply from flat epistoma. Antennae slender and linear, extending beyond base of prothorax, apical three segments somewhat rounded, eleventh much the largest. *Prothorax* very short and wide, base about twice as wide as apex, the latter arcuate-emarginate, front angles widely rounded, base arcuate without sinuation, posterior angles obtuse, sides arcuately and strongly narrowed from base to apex, margins sloping downwards, rather widely explanate at base, then narrowing to apex, their surface a little wrinkled; disc mirror smooth, impunctate. *Scutellum* triangular. *Elytra* as wide as long, wider than prothorax at base, humeri obtusely rounded and slightly projecting forward, a narrow explanate margin nearly continuous to, but obsolete at, apex; highest point of convexity at basal third, thence steeply declivous in front, more gradually behind; surface almost impunctate; underside similarly so, epipleurae a little uneven. Hind tibiae slightly arched, tarsi somewhat swollen, first segment as long as, but much wider than, fourth.

*Dim.*— $8.5 \times 7.5$  mm.

*Hab.*—North Queensland: Babinda (Mr. J. F. Illingworth).

♀ wanting. This unique specimen is readily separated from *H. réaumurii* Casteln. by its more convex, spherical form, this convexity, longitudinal and transverse, being greater than that of anything in the subfamily Cyphaleinae. The absence of colour is also noteworthy.

Holotype in Coll. Carter.

## LEPTOGASTRUS SUTTONI, n. sp.

Elongate-obovate; upper surface, including femora, dark blue, with sparse, upright hairs; underside, tibiae, tarsi, oral organs and antennae castaneous, the apical segments of the last dark.

*Head* and pronotum coarsely rugose-punctate, the punctures on the former close and round, on the latter forming a reticulation of longitudinal cells; epistoma rounded with subangular protuberance in front of eyes, these little prominent; antennae moniliform, segment 3 longer than 4, thence to 10 successively enlarged, 11 ovoid, wider than 10 and more than twice as long. *Prothorax* cupuliform; apex and base subtruncate, widest at anterior fourth, sides arcuately and considerably narrowed, without sinuation to base, margins not differentiated from disc, extreme border finely crenulate, bearing long setae; anterior angles subrectangular (somewhat blunted) and deflexed, posterior widely obtuse; disc with three depressions, a medial sulcus on posterior third, a smaller longitudinal depression on each side of middle. Abdomen pedunculate. *Elytra* obovate and convex, narrowest at junction with prothorax, widest near apex; punctate-sulcate, with about ten rows of close sulci, containing round punctures forming crenulations at sides of intervals, the latter sharply raised except near suture; sutural interval wide and flat, with some irregularly placed setose punctures thereon. Prosternum, especially at sides, coarsely punctate, abdomen less strongly so. Femora ovoid, post tarsi with fourth segment as long as the rest combined.

*Dim.*—6 × 2 mm.

*Hab.*—Queensland: Stanthorpe.

A single example taken by Mr. E. Sutton, after whom I name it, can be readily distinguished from *L. cyaneus* Cart.—the only other blue species—by the different shape of both pronotum and elytra. In *cyaneus* the pronotal angles are markedly dentate, the posterior being emphasized by the lateral sinuation, while the elytra are subcylindric.

Holotype in Coll. Carter.

## Cistelidae.

## HYBBENIA DENTIPES, n. sp.

♂. Elongate-ovate, black, nitid, pilose; tarsi and the apices of the five exterior segments of antennae castaneous.

*Head* densely punctate, eyes very transverse, separated by a distance greater than half the diameter of one; antennae sublinear, 3 longer than 4; 4-11 subequal in length, but successively narrower. *Prothorax* rather convex, apex subtruncate (slightly produced in middle), base truncate; widest at, or near, base, thence arcuately narrowed to apex; anterior angles obtuse, posterior subrectangular; disc strongly, uniformly, not densely, punctate, sides clothed with upright red hair, extreme border not visible from above; with three basal foveae, the medial very superficial, those near angles deeper and subtriangular. *Elytra* slightly wider than prothorax at base, and more than thrice as long, sides subparallel for the greater part (or very lightly obovate); striate-punctate, the striae punctures rather small (smaller than in *H. elongata* Macl.), intervals convex, especially on apical half, the sutural four on each containing about two irregular rows of smaller punctures than those in striae, the external intervals containing an irregular single row, the surface rather thickly clad with short upright hair. Underside with close, shallow punctures; front tibiae with a blunt tooth on the inside at basal third.

*Dim.*—14 × 4.5 mm.

*Hab.*—N. Queensland: Charters Towers district (Mrs. F. H. Taylor).

Two specimens, both ♂, were captured in a train at night. They are distinguished by the combination of widely separated eyes, convex elytral intervals, and dentate fore-tibiae of the ♂.

Type in Coll. Carter. ♀ latet.

HYBRENIA TIBIALIS, n. sp.

♂. Subparallel, nitid black, glabrous; oral organs, antennae and legs castaneous.

*Head* sparsely punctate, eyes large, prominent and subcontiguous, antennae with segment 3 longer than 4, both very slender, 5-10 subequal in length, very gradually and successively widening, 11 shorter and wider than 10. *Prothorax* convex, apex and base subtruncate, sides rounded in front, anterior angles quite rounded off, rather strongly sinuate behind, posterior angles subrectangular, disc minutely punctate, with wide medial depression and a wide basal transverse depression as well as a basal sulcus within the raised border (lateral border unseen from above). *Elytra* wider than prothorax at base and about three and a half times as long, striate-punctate, the intervals convex and impunctate, the striae containing large oval punctures continued with very slight diminution of size to extreme apex; sternal area moderately punctate, abdomen almost impunctate; hind tibiae bent inwards and downwards on basal half, thence widened and fringed beneath with pale hairs.

*Dim.*—17 × 5 mm.

*Hab.*—N. Queensland: Ravenshoe (H. J. Carter).

I took a single ♂ example in June, 1921. It is like, in form and sculpture, *H. nitidior* Cart., from which it may be distinguished by its red legs and the remarkable hind tibiae, the more convex prothorax and the elytral seriate punctures continuous to apex.

Holotype in Coll. Carter. ♀ wanting.

Since the number of species of *Hybrenia* is nearly twice as many as when my former table was published (*Proc. Roy. Soc. Vict.*, 1915, p. 85), I append a revised tabulation.

Table of *Hybrenia*.

1. Colour black, or nearly so .....	2
Elytra with alternate intervals red .....	<i>vittata</i> Pasc.
Colour red or yellow .....	22
2. Appendages dark .....	3
Appendages clear red or yellow .....	19
3. Elytral intervals flat .....	4
Elytral intervals convex .....	6
4. Surface glabrous .....	<i>sublaevis</i> Macl.
Surface pilose or pubescent .....	5
5. Elytral striae distinct throughout .....	<i>pimeloides</i> Hope
Elytral striae only discernible on apical half .....	<i>substriata</i> Cart.
6. Elytral intervals sharply raised (subcostate) .....	7
Elytral intervals rounded or little raised .....	8
7. Pronotum very nitid and sulcate, form slender .....	<i>subsulcata</i> Macl.
Pronotum opaque, rugose, scarcely sulcate, form robust .....	<i>rugicollis</i> Cart.
8. Surface glabrous .....	9
Surface pilose or pubescent .....	12
9. Pronotum subopaque, much narrower than elytra .....	<i>angusticollis</i> Cart.
Pronotum nitid, not much narrower than elytra .....	10

10. Pronotum impunctate ..... *nitidior* Cart.  
 Pronotum punctate ..... 11
11. Size large ( $20 \times 7\frac{1}{2}$  mm.), elytral seriate punctures large and square .....  
       ..... *laticollis* Macl.  
 Size smaller ( $15 \times 4\frac{1}{2}$  mm.), elytral seriate punctures much smaller .....  
       ..... *angustata* Macl.
12. Protibiae of ♂ dentate or widened in middle ..... 13  
 Legs without sexual characters ..... 14
13. Eyes approximate, protibiae of ♂ subdentate in middle ..... *nitida* Blkb.  
 Eyes widely separated,\* protibiae of ♂ dentate at basal third ..... *dentipes*, n. sp.
14. Eyes approximate ..... 15  
 Eyes widely separated ..... 17
15. Elytral intervals very lightly raised, surface lightly pubescent ..... 16  
 Elytral intervals well raised, surface strongly pilose ..... *pilosa* Cart.
16. Pronotum and elytral intervals moderately punctate ..... *elongata* Macl.  
 Pronotum and elytral intervals more densely punctate ..... *torrida* Cart.
17. Surface thickly pilose, strial punctures commingled with interstitial .....  
       ..... *occidentalis* Cart.  
 Surface lightly pubescent, strial punctures clearly distinct from interstitial ..... 18
18. Surface very nitid, pronotum sulcate ..... *illidgei* Cart.  
 Surface less nitid, pronotum non-sulcate ..... *yeppoonensis* Cart.
19. Femora with apical two-thirds testaceous ..... *femorata* Cart.  
 Legs red ..... 20
20. Surface pilose ..... *planata* Cart.  
 Surface glabrous ..... 21
21. Size very large (23-25 mm. long), eyes widely separated ..... *grandis* Borch.  
 Size smaller (17 mm. long), eyes approximate ..... *tibialis*, n. sp.
22. Colour pale yellow, glabrous ..... *pallida* Cart.  
 Colour castaneous, pilose ..... *horni* Cart.

\* Eyes widely separated means that the space between them is at least equal to half the diameter of one.

#### Cerambycidae.

##### MESOLITA ALTERNATA, n. sp.

Elongate, subcylindric, densely pubescent; head and pronotum black, the former moderately, the latter thickly, clad at base and apex with white recumbent pile, medial area largely glabrous; elytra with alternate and subequal transverse bands of white and black, the base, middle and apical bands white, the rest black, antennae and legs reddish, the segments of the former darker at apices, though scarcely annulate.

*Head* finely punctate, antennae longer than body, segment 3 much longer than 4; 4-10 successively shorter, 11 showing a short compressed pseudosegment. *Prothorax* elongate-ovate, longer than wide, very slightly enlarged in middle, apex a little produced in middle and slightly wider than base; finely punctate and longitudinally strigose on dark medial area. *Scutellum* smaller than usual, scarcely distinguished from surroundings by dense clothing. *Elytra* subcylindric, very lightly widened behind middle, of same width as prothorax at base, apices separately subdentate (i.e., produced without being definitely acute or rounded); some punctate striae traceable, seen more clearly on dark areas; two short nude lines on basal white area.

*Dim.*— $5 \times 1.5$  (circiter) mm.

*Hab.*—Queensland: Kuranda (G. E. Bryant).

A single example (Holotype) in British Museum may readily be distinguished from the only three species having the apices unarmed, namely, *inermis* Pasc., *myrmecophila* Lea and *transversalis* Pasc., by its different pattern, subcylindric form and very dense pubescence.

## MESOLITA ANTENNALIS, n. sp.

Head and pronotum black, irregularly clad with silvery pubescence, elytra bronze-brown with pale markings, these more strongly pubescent than the rest and consisting of a short white fascia at apical third, extending about half-way across elytra, this rather narrowly produced behind along suture to apex; some sparse, irregular, pale, pubescent spots along side and on basal third; antennae and tibiae variegated, the former with base of all segments from the second and a middle ring of segments 3-7 testaceous, the rest dark brown; apices of femora and middle ring of tibiae testaceous.

*Head*: Antennae slightly longer than body and stoutly cylindrical; segment 3 much longer than 4; 4-11 successively shorter. *Pronotum* scarcely longer than wide, ovate, widest near apex, narrowest at base; punctate and finely, longitudinally strigose on apical half. *Scutellum* large and rounded behind. *Elytra* obovate, of same width as prothorax at base, rather widely rounded behind middle, each apex subangulate in middle; a line of large punctures near suture on basal third, an irregular raised impression on each near base having foveate punctures thereon; dark area with some irregular, elongate scratches, surface thinly and unevenly clad with silvery pubescence.

*Dim.*—5 mm. long.

*Hab.*—New South Wales: Barrington Tops (H. J. Carter).

I took a single example in January, 1927. In form and size near *inermis* v.d. Poll., it is distinguished by a quite different elytral pattern and apical structure, as also by its variegated antennae and tibiae. It is gummed on cardboard and I have been unwilling to remove it to examine the underside.

Holotype in Coll. Carter.

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