

XLV. *Notes on the Australian Longicornia, with Descriptions of sixty New Species.* By FRANCIS P. PASCOE, Esq., F.L.S., V.-P. Ent. Soc., &c.

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IN an extensive collection of Australian *Longicornia* that I recently received from William Macleay, Esq., M.L.A., of Sydney, I found about thirty species quite new to me. Previously I had obtained from Mr. Stevens a number of undescribed species that had formed portion of a collection made by Mr. Damel in various parts of Australia. These, with a few others from various sources, are the materials from which the following descriptions are made.

The whole of the species here described are, with very few exceptions, quite distinct from any hitherto known to me; and these exceptions refer almost entirely to the genera *Symphyletes* and *Hesthesis*. In both of these there are some forms that at the first glance *do* seem as if they were only varieties, but, on examination, afford strong grounds for specific distinction, and it is in reference to these that I think it will be desirable to examine a large series of specimens before we can be *quite* sure that the characters on which they are based as species are permanent. I am very confident that entomologists do not take into sufficient consideration the variation that often occurs in species. There is an innate tendency in many species to vary infinitely, while others, under all circumstances, are almost immutable. Many of our domestic animals may be cited as examples of both cases. In the British Museum may be seen a series of an Australian Longicorn—*Brachytria gulosa*—almost any two of which, taken without the others, would certainly be considered distinct by the ordinary observer. *Zygrita diva* is another Australian Longicorn, of which probably two individuals will rarely be found alike. As a general rule, however, the great mass of species appears to vary but little; but in the *Longicornia* an exception must be made as to size, and the length of the antennæ.

In Mr. Damel's collection there was a *Leptura*, nearly allied to

L. sex-maculata. As the genus is quite unknown in Australia, and the specimen was pinned through the *left* elytron, it was probably there by accident.

GENUS *HEBECERUS*.

1. *Hebecerus niphonoides*.

H. piceus, pube grisea fuscaque varius; prothorace tumido, linea mediana, nigra, punctata; elytris basi fasciculis duobus nigris; antennis fuscis, griseo-annulatis.

Port Denison.

Pitchy, covered with a rather coarse greyish pile, varied principally with brown; head concave between the antennæ, without an impressed line; antennæ ciliated beneath, dark brown, the lower part of the third and following joints greyish; prothorax very convex, a black punctured line in the middle, and a large dark patch on each side; scutellum rounded behind, a black lozenge-shaped spot in its middle; elytra coarsely punctured, irregular at the base, each with two short costæ, terminated in a small fascicle of black hairs, costæ and corresponding lines along the elytra yellowish-grey, with indistinct brown spots, especially at the sides, posteriorly on the declivity towards the apex another fascicle; body beneath and legs covered with an ashy-grey pile, speckled with brown, two brown rings on the tibiæ.

Length 5 lines.

A very distinct species readily to be distinguished by almost any one of the characters given above. It may be remarked here, that some of the species of this genus vary considerably. This is especially the case with *Hebecerus marginicollis*, Boisd., which is sometimes of a pale reddish-brown, instead of dark-brown or black, its normal colour; then the antennæ vary in length, thickness, amount of ciliation, and are either annulated with ashy or uniformly brown; the broad stripe on each side of the prothorax is narrowed, confined to the posterior part, or absent altogether. I suspect *Hebecerus lineola*, Newm., is one of its forms.

2. *Hebecerus sordidus*.

H. fuscus, fulvescente pubescens; prothorace linea mediana nigra, nitida; elytris fortiter punctatis, basi costis duabus brevibus; antennis griseis.

Clarence River.

Brown or greenish-brown, covered with a greyish-yellow, almost golden pile; head with an impressed line between the antennæ;

prothorax irregular, tuberos on each side the disc, with a smooth elevated black line in the centre, which shortly bifurcates posteriorly; scutellum transverse, rounded behind; elytra strongly punctured, two obscure costæ on each, the inner near the base with a small tuft of hair; beyond this the costæ, including two given off from the shoulder, are nearly obsolete, until at the declivity towards the apex the inner two become prominent; body beneath and legs greyish-fulvous, speckled with brown; antennæ fulvous, slender, slightly ciliated beneath.

Length 6 lines.

The pile on this insect under a lens seems of a golden hue, but seen in conjunction with the dull brown derm beneath it, the tone is very much sobered down. It is a very distinct species.

3. *Hebecerus confertus*.

H. niger, pube griseo-cinerea, nigro-setosus; prothoracis discobicalloso; elytris irregularibus, plaga magna nigra albo-limbata pone medium; antennarum articulis septem ultimis duobus præcedentibus brevioribus.

Sydney.

Black, covered with a fine greyish-ashy pile, and with slender black setose hairs; head without an impressed line in front; antennæ brownish, the last seven joints together shorter than the preceding two; prothorax remotely punctured, a small but very distinct callosity on each side of the disc, behind and between these the prothorax is minutely corrugated: scutellum rounded behind, covered with a dense whitish tomentum; elytra coarsely punctured, somewhat hollowed out inside the shoulder and round the scutellar region, and again hollowed out in a longitudinal form posteriorly midway between the side and the suture, the edges of the hollow forming a kind of costa on each side, the outer of which is continued back to the shoulder; behind the middle a large, nearly transverse black patch, indistinctly bordered with white; body beneath and legs with a rough, greyish pile.

Length 4 lines.

Also very distinct: the surface of the elytra more irregular than in any other species; and the terminal joints of the antennæ more crowded than usual. It serves to show, once more, how uncertain are technical characters, and that in the descriptions of genera it is necessary to take into consideration details which it is scarcely possible to record, that in *Hebecerus plumula* the third antennal joint is scarcely longer than, or at most about half as long again as, the second, while it is about ten times longer in the species

just described. In other respects it is a true *Hebecerus*, and, therefore, in a generic description of the antennæ we should not be able to get beyond a very vague generalization.

Genus EXOCENTRUS.

1. *Exocentrus erineus*.

E. fuscus, nigro-setosus; prothorace transverso, griseo-pubescente, antice posticeque rufo-marginato; elytris seriato-punctatis, plagis duabus griseis; antennis pedibusque fuscis.
Port Denison.

Dark-brown, pubescent, everywhere with long, black, setaceous hairs; head with an impressed line on the vertex; eyes large, approximating above; antennæ dark brown, longer than the body, very setose; prothorax transverse, with a spine at the side a little behind the middle, and directed backwards at a sharp angle, the disc entire, covered with a sparse greyish pubescence, the anterior and posterior margins dull red; scutellum semilunar; elytra much broader than the base of the prothorax, seriate-punctate, the punctures less regular towards the apex, a large greyish patch on the middle, and another near the apex of each, but both indistinct; body beneath and legs brown, with a short greyish pubescence.

Length $2\frac{1}{4}$ lines.

The genus *Exocentrus* is found in all parts of the world, but this is the first time that it has been recorded from Australia. The present species has more the outline of the European *Exocentrus balteatus* than of either of the two Aru *Exocentri* to which it might be expected to be more nearly allied, but it is much darker, and more setose. I have another species, apparently of this genus, from King George's Sound, but in too bad a state to be described.

Genus NIPHONA.

1. *Niphona miscella*.

N. nigro-setosa, pube grisea fuscaque varia; prothorace fortiter punctato, medio subcarinato; scutello griseo.
Port Denison.

Black, closely covered with a greyish pile, varied with brown of two or three shades, with scattered black setaceous hairs intermixed; head greyish-brown, with a slightly impressed line on the vertex; antennæ shorter than the body, slightly pilose, dark brown, spotted with grey; prothorax obscurely varied with dark brown and grey, with a few coarse punctures, and a slightly

elevated carina or crest in the mesial line of the disc; scutellum transverse, greyish; elytra remotely punctured, slightly concave towards the base, which is marked with a very slight, almost obsolete ridge, the apex rounded, a large oblique whitish-grey patch behind the middle, not meeting at the suture, and bordered with darker brown than the rest of the elytron; body beneath with a sparse yellowish-grey pile; legs with a varied brown and greyish pubescence, mixed with long white hairs.

Length 4 lines.

This *Niphona* will be readily distinguished from the other Australian species by its prothorax.

2. *Niphona oblita*.

N. nigro-setosa, pube ochracea grisea fuscaque varia; prothorace modice punctato, medio simpliciter convexo; scutello nigro.

New South Wales.

Black, closely covered with a brown pile, varied with ochraceous and a little grey, mingled with a few black setaceous hairs; head with an impressed line between the antennæ, not on the vertex; antennæ varied with brown and grey; prothorax regularly convex, a brown, nearly naked mesial stripe with small punctures, on each side two ochraceous stripes, between which is a grey stripe spotted with black; scutellum transverse, entirely black; elytra coarsely punctured, simply convex at the base, the apex truncate, or rather sub-sinuate, the outer angle slightly projecting, dark-brown, with little patches of ochraceous and grey, the latter at the middle forming an oblique, indistinct patch; body beneath with a coarse, greyish pile; legs with a greyish-mottled pubescence, the tarsi nearly black.

Length 4 lines.

Has a general resemblance to the last species, but the prothorax is without the crest, and the greyish elytral patch—which is so general in one form or another in this genus—is more central. The other two Australian species (*N. Bakewellii* and *N. irata*) may be distinguished, *inter alia*, by having no stripes on the prothorax.

GENUS SYMPHYLETES.

1. *Symphyletes heros*.

S. niger, subnitidus, vix pubescens; prothorace amplo, trans-

versim plicato; elytris subtrigonatis, apice sinuato-truncatis, lateribus maculis duabus magnis albo-pubescentibus.

Interior of Northern Australia.

Black, slightly nitid, with a few exceedingly delicate scattered white hairs; head remotely punctured, with a deeply impressed line in front; lip, epistome and palpi dark ferruginous; antennæ strongly fimbriated beneath; prothorax full and rounded at the sides, somewhat abruptly constricted in front, the disc transversely impressed with waved lines, two slight tubercles in the middle and another strongly marked at the side anteriorly; scutellum scutiform; elytra subtrigonal, the shoulders produced, two very slightly marked ridges at the base, where it is also more coarsely punctured, the apex sinuately truncate, the side with two very large pure white hairy patches of irregular figure; body beneath black, shining, each abdominal segment bordered with closely set white hairs; legs black, subnitid, anterior coxæ in the male with a short incurved spine.

Length 14 lines.

A noble and very distinct species, approaching in coloration *Rhytiphora cretata*, Pasc. *Rhytiphora*, Newm., may be distinguished from *Symphyletes* by its shorter and more compact form, more transverse prothorax with nearly parallel sides, and larger head, especially manifested in the strongly developed vertex, which has the effect of throwing the eyes far below the level of the upper line of the prothorax. *Symphyletes* is masculine (*Συμφυλέτης*) and not feminine, as Mr. Newman and others make it.

2. *Symphyletes fulvescens*.

S. fulvescente-pubescentis, ochraceo varius; elytris subcylindricis, non tuberculatis, apice emarginatis.

Port Denison.

Somewhat narrow, covered with a short, dense, rich fulvous pile, varied with ochraceous; head rather broad and convex in front, the eyes small; antennæ slightly ciliated, spotted at the base with ochraceous; prothorax scarcely narrower anteriorly, the tooth at the side well marked, the disc irregular, with two small tubercles; scutellum subquadrate; elytra somewhat cylindrical, without tubercles, the apex of each slightly emarginate, the ochraceous markings consisting principally of a patch at the side, an oblique band commencing at the suture behind the middle and continued downwards and outwards, another on each side the

scutellum, and a few spots posteriorly; body beneath and legs covered with a close, ochraceous pile.

Length 8 lines.

A very distinct species, especially in the absence of tubercles on the elytra, and in the colour.

3. *Symphyletes decipiens*.

S. griseo-viridis; prothorace cylindrico, leviter corrugato; elytris extus albo-marginatis, apice anguste rotundatis.

Adelaide.

Greyish green, covered with a very delicate grey pubescence; head greyish white, with a small dark triangular spot behind each eye; antennæ luteous, with a thin grey pile; prothorax equal in length and breadth, sparingly punctured and very slightly corrugated in the middle, greyish green, varied with pale ochre; scutellum slightly transverse, rounded behind; elytra somewhat sinuate at the base, a little incurved behind the shoulder, then gradually tapering posteriorly, each ending in a very narrow and rounded apex, a pale ochreous patch on each side the scutellum, with a few small spots of the same colour on the disc, a few almost obsolete tubercles at the base, and a broad pure white stripe along the exterior margin; body beneath greyish, obscurely speckled with dark brown; legs with a tolerably copious greyish pubescence.

Length 7 lines.

Nearly allied to *Symphyletes nigro-virens*, Don., which, however, has a smoother and more transverse prothorax, contracted posteriorly, thicker and more pilose antennæ, and the elytra broader towards the apex, which is slightly truncate, presenting an angle externally. There are also striking differences in colour, which, as it is subject to vary to a certain extent, it is not necessary to specify.

4. *Symphyletes derasus*.

S. flavo-castaneus, nitidus; elytris subtrigonatis, granuliferis, apice truncatis, linea laterali dense albo-pubescente.

New South Wales.

Yellowish-chesnut, shining, the upper surface almost without pubescence; head rather broad, with a shaggy greyish pile in front, the eyes small, black; antennæ ciliated beneath, otherwise nearly naked; prothorax nearly cylindrical, the lateral tooth obsolete, the disc somewhat corrugated, with fine punctures and about six almost obsolete concolorous tubercles; scutellum trans-

verse, with a round, raised border posteriorly; elytra subtrigonal, sparingly punctured, with numerous concolorous tubercles on the disc, the apex truncate, a band of pure-white, densely set, short hairs along the side from the shoulder to near the apex; body beneath with a sparse greyish pile; legs nearly free from hairs, except a few at the base of the tibiæ and on the tarsi.

Length 8 lines.

I was at first inclined to consider this as only a very remarkable local variety of *Symphyletes viridis*, Don., a variety altered in colour, with the pubescence reduced to a minimum, the latter possibly from the age of the specimens. But the compact, pure white stripe of silky pile along the sides of the elytra seems to show that this is not the case, but that nudity is the normal condition. On a close examination there are also many points of difference which leave no doubt of its distinctness, as for instance, the more irregular prothorax, the form of the scutellum, and the truncate apices of the elytra. The male has a short spine on the anterior coxæ.

5. *Symphyletes farinosus*.

S. pubescens, griseus, albo fuscoque varius, et maculis fulvis dispersus; elytris basi tuberculis minutis sparsis, humeris callosis, apice truncatis; abdominis segmentis griseis, fulvo-marginatis.

Sydney.

Closely covered with a greyish pile, varied with white and dark brown, and banded or speckled with ochre-yellow; head yellowish, with two white longitudinal lines between the eyes, an impressed black line on the vertex; antennæ rather longer than the body, ciliated, grey, with paler spots; prothorax transverse, obscurely corrugated, without tubercles, and perfectly covered by the pubescence; scutellum broadly rounded posteriorly; elytra callous and projecting at the shoulder, incurved behind it, then slightly rounded, the apex truncate, near the scutellum the white predominates, taking a somewhat triangular shape, this is followed by more or less brown, the brown again predominating as an oblique band behind the middle, but bordering it anteriorly, the whole apical portion and a patch behind the shoulder are principally white; over all are spots of yellow, and smaller spots of black, these latter are owing to flattish granules at the base, and beyond it to the derm seen through the thinner pubescence at those points; body beneath greyish, the pectus and margins of

the abdominal segments ochre-yellow; legs greyish, tinged with yellow on the tarsi, the femora and tibiæ spotted with yellow.

Length 10 lines.

A beautiful and very distinct species.

6. *Symphyletes neglectus*.

S. dense cinerascens-pubescent, maculis ochraceis irroratus; prothorace lateribus antice dentato; elytris basi tuberculatis, maculis nigris nitidis adspersis, apice oblique sinuatis, bispinosis.

Sydney.

Covered with a close, pale ashy pubescence, slightly varied with darker and speckled with light ochre-yellow; head whitish, with ochre spots, and long white hairs on the face; lip and palpi ferruginous; mandibles black; antennæ ciliated beneath, the basal joints with a few long white hairs; prothorax a little shorter than broad, nearly smooth above, a short black tooth at the side anteriorly; scutellum rounded behind; elytra gradually narrowing from the shoulders, which are rounded and prominent, the apex of each obliquely sinuate and armed with two rather distant spines, the base with several small black tubercles which gradually diminish posteriorly, and are replaced by naked glossy black spots (the derm), the darker shades are so arranged as to throw the ashy portions into three or four large but very indistinct patches on each elytron; body beneath greyish, the abdominal segments bordered with yellowish silky hairs, sides of the metasternum spotted with ochre; legs ferruginous brown, with long hairs and little belts of greyish pile; anterior coxæ of the males with a strong recurved spine; fore-tibiæ in the same sex with a tooth on the middle beneath.

Length 9 lines.

This is the only Australian *Symphyletes* that I have seen which has a toothed protibia in the male. How far such a character is to be depended on is a question to be solved. This and the four following species belong to a group which is characterized by its grey or ashy colour, or both, more or less speckled with ochre-yellow. The elytra also are marked with small impressed spots, irregularly dispersed; in these the pubescence is wanting, so that the black derm becomes apparent. At the base of each spot a single short whitish hair is often visible, and this with the aid of an ordinary glass is seen to be considerably thicker than the rest. In this complicated system of coloration, there are, first, the black,

shining derm, visible wherever the pubescence is thin or wanting; secondly, the ochre-yellow spots on a grey or ashy ground, or both, the yellow portion being frequently more raised than the rest, while the ashy or sometimes nearly white part forms a band near the middle, or has a certain tendency to do so, and also a patch at the side before the band; and thirdly, a number of small shining granular tubercles, nearly always confined to the base, and disposed either irregularly or in three rows. It is to be hoped that this explanation will facilitate the comprehension of these descriptions, as the group is an exceedingly difficult one to portray.

7. *Symphyletes solutus*.

S. dense cinereo-albo-pubescentis, maculis pallide ochraceis irroratus; prothorace subtransverso, lateribus haud dentato; elytris basi vix tuberculatis, apice oblique sinuatis, bispinosis.

Port Denison.

Covered with a close ashy-white pubescence, varied with a darker ashy and speckled with light ochre; head whitish, with ochre markings on the vertex, and white hairs on the face; antennæ ciliated beneath, with long white hairs at the base; prothorax shorter than broad, corrugated above and particularly towards the sides, one of the anterior folds forming a slight projection at the side, but no tooth; scutellum somewhat triangular, the sides rounded; elytra broadest at the shoulder, narrowing posteriorly, the apex of each very hairy and obliquely sinuate with two small spines, the base with a few very small tubercles, which are nearly enveloped in the pubescence, and several black, impressed spots along the side, there are also about three very indistinct paler patches on the side of each, nearly in the middle; abdomen silvery-grey, the segments bordered at the side with pale yellow; sides of the metasternum with ochre spots; legs ferruginous brown, with long hairs and little belts of greyish pile.

Length 9 lines.

It will be seen from the description, that in many respects this species resembles the last. It differs, however, not only in its lighter colour, but in the more transverse and corrugated prothorax, and in the more triangular form of the scutellum, and the smaller tubercles on the elytra, which are scarcely perceptible without the aid of a good lens. The lower portion of the eye, also, is much smaller and more widely separated from its fellow.

8. *Symphyletes moratus*.

S. cinereo-pubescens, maculis pallide ochraceis dispersus; prothorace transverso, inæquali, subtuberculato; elytris apice sinuato-truncatis, haud spinosis, ad basin pauci-tuberculatis, pone medium fascia cinerea.

Port Denison.

Covered with a pale ashy pubescence, the black derm showing underneath at intervals, and sprinkled with light ochre; head obscurely spotted with ochre; antennæ ciliated beneath, greyish, spotted with ashy; prothorax broader than long, obsoletely bituberculate, the sides not toothed, indistinctly spotted with ochre; scutellum rounded behind; elytra narrowing from the shoulder, the apex of each sinuately truncate, without spines, a broad very pale ashy band below the middle, its anterior border very indistinct, its posterior marked by a dark irregular line, the side with a large patch of the same colour, the base with a few distant but prominent tubercles, one of which is situated on the shoulder; body beneath ashy, varied with ochre, especially on the abdomen; legs ashy, speckled with ochre and dark brown.

Length 11 lines.

Near *Symphyletes vetustus*, Pasc., but paler, less pubescent, the prothorax scarcely tuberculate, the band on the elytra broader, less irregular, and more indeterminate.

9. *Symphyletes munitus*.

S. griseo-pubescens, maculis ochraceis notatus vel reticulatus; prothorace leviter inæquali, antice constricto, disco sub-bituberculato; elytris apice subrotundatis, ad basin tuberculis seriebus tribus dispositis, pone medium fascia indistincta pallidiore.

Clarence River.

Covered with a loose greyish pubescence, spotted with ochre, the spots coalescing at intervals so as to give a sort of reticulated appearance; head varied with grey and yellow, the latter predominating; antennæ greyish yellow, ciliated beneath; prothorax about equal in length and breadth, contracted anteriorly, obscurely bituberculate, the side not toothed, varied with grey and ochre; scutellum rather narrow, rounded posteriorly; elytra gradually narrowing, the apex rounded and pilose, the base with three rows of tubercles, the outer composed of four tubercles, one of which is situated on the shoulder, the second and third rows of five each, an obscure greyish white band directly behind the middle,

anteriorly very indefinite, posteriorly bordered by a dark zig-zag line, the whole surface of the elytra marked with small black impressed spots (the derm); body beneath greyish, tinged with ochre; legs spotted with grey and ochre; coxæ of the males with a recurved spine.

Length 10 lines.

Owing to the loose sparseness of the pubescence, the glossy derm gives a slight appearance of varnish to the surface of this species, a peculiarity which is also possessed by *Symphyletes sodalis*, Pasc., but from this it is distinguished by its longer prothorax, more constricted anteriorly, and by the arrangement of its three rows of tubercles, the innermost of which is nearly equidistant between the suture and shoulder, while in *S. sodalis* it is almost close to the suture.

10. *Symphyletes ingestus*.

S. griseo-pubescens, maculis ochraceis notatus; prothorace leviter inæquali, subtuberculato, lateribus irregulariter rotundato, antice constricto; elytris apice rotundatis, ad basin pauci-tuberculatis, pone medium fascia cinerea distincta.

Sydney.

With a very short greyish pubescence varied with white and speckled (or semi-reticulated) with pale ochre yellow; head varied with grey, ashy and dark brown, the latter principally on the vertex; antennæ ciliated beneath, grey speckled with ashy; prothorax rather transverse, slightly irregular, with two very small almost obsolete tubercles on the disc, the side unequally rounded, confusedly spotted with ochre, ashy, and dark brown; scutellum glossy black, the centre only pubescent; elytra gradually receding from the shoulder, the apex rounded and densely fringed with short hairs, the base of each with about half-a-dozen tubercles, which are nearly confined to the region of the shoulder, one of them being situated on it, behind the middle a tolerably well defined whitish band, a whitish patch at the side between this and the shoulder, and a few smaller patches on the suture and near the apex; body beneath sprinkled with grey and ochre, the abdominal segments bordered with ochre; legs dark brown, with patches of ochre and grey; anterior coxæ of the males with a long recurved spine.

Length 12 lines.

The more irregular prothorax, especially at the sides, the

margined scutellum, and fewer basal tubercles on the elytra, are characters that will serve to distinguish this species.

GENUS RHYTIPHORA.

1. *Rhytiphora rubeta*.

R. tenuiter pubescens, fusca, maculis pilosis rufo-luteis varia; scutello croceo-piloso; elytrorum dimidio basali tuberculato.
Sydney.

Dark brown, covered with a short thick greyish-brown pile, and spotted with reddish; head with black scattered punctures, and a line on the vertex and between the eyes, amid the short reddish ochraceous pile; antennæ rather longer than the body, ciliated beneath, brown with obscure greyish rings or spots; prothorax black, with a few ochraceous hairy spots, the sides nearly parallel, a single transverse fold in the middle and several impressed marks on the disc; scutellum slightly transverse, rounded behind; elytra callous and projecting at the shoulder, a little incurved at the side, then gradually rounded to the apex, several black, shining granules on the basal third, the reddish spots numerous and at the side sometimes confluent; body beneath chesnut red, with a dull greyish pile; legs obscurely spotted with reddish and brown.

Length 9 lines.

A species very distinct from any other known to me.

GENUS PENTHEA.

1. *Penthea solida*.

P. fusca, pube cinerea brevissima tecta, maculis variis albis ornata; prothorace tuberculis tribus minutis instructo; elytris lineis duabus elevatis.

Clarence River.

Dark brown, covered with a very short greyish pile, with numerous small, variously formed, white spots, especially on the elytra; head rather large, an impressed line and a few shallow punctures on the vertex, between the eyes and in front several white spots; antennæ with all the joints except the basal banded with white at the base; prothorax transversely rugose, with three small but sharply prominent tubercles on each side; scutellum rounded posteriorly; elytra broadest at the shoulders, with a few shallow punctures only at the base (where there are also a few small tubercles) and sides, and two elevated uninterrupted lines on each, that are gradually lost posteriorly; body beneath covered with a

coarsish white pile, spotted irregularly with black; femora covered with a white pile, except at the apex; tibiæ black, with a white band in the middle; tarsi white, the last joint and claws black.

Length 13 lines.

This species differs in very few points from *Penthea vermicularia*, Don., and is perhaps only a local variety. The three small but sharply prominent tubercles on the side of the prothorax, however, and the continuous lines on the elytra not broken by the presence of tubercles, which seem to make up those lines on *P. vermicularia*, are sufficiently distinctive to warrant its separation.

2. *Penthea costata*.

P. picea, fere glabra; prothorace transversim rugoso; elytris fortiter bicostatis, interspatiis et margine laterali pube alba griseo-varia.

Sydney.

Pitchy, nearly glabrous, except on the middle and sides of the elytra, and beneath; head with an impressed line on the vertex, and a slightly raised line on each side of it, a few small punctures principally in front; antennæ pitchy, the third and some of the succeeding joints faintly tinged with white; prothorax transversely rugose, the sides feebly tuberculate; scutellum scutiform; elytra broadest at the shoulder, then slightly incurved, and again becoming nearly as broad as at the base, the surface undulating and marked, particularly at the base, with tubercles and punctures, two very strong costæ on each, the spaces between them and on each side, the suture posteriorly and the external margin, with a short silvery white pile, mottled with greyish; body beneath and legs pitchy, speckled with white hairy patches.

Length 11 lines.

I have seen only one specimen of this species. The peculiarly glabrous condition of the upper surface, it may be suspected, may be due to abrasion. From the similarity of the pattern on both sides I think not. In any case it is a very distinct species.

3. *Penthea pullina*.

P. ferruginea, vel rufo-fusca, pube grisea, fulvo-varia; prothorace medio vix rugoso; elytris bicostatis, costis tuberculato-interruptis.

Western Australia.

Ferruginous, sometimes very dark or nearly brown, with a thin apparently very deciduous pubescence, principally on the elytra,

which are mottled with ashy and yellowish, and spotted with brown; head with a narrow, impressed line on the vertex; antennæ from the third to the seventh joints inclusive with the basal half white; prothorax somewhat irregular, with a few impressed points; scutellum rounded posteriorly; elytra nearly parallel, each with two prominent costæ, which are marked at intervals by coarse tubercles, the base with a very few punctures, and scarcely any tubercles; body beneath and legs covered with a pure white pile, speckled with ferruginous.

Length 6 lines.

One of my specimens of this species is nearly glabrous, and the colour appears to vary. It is a well marked species.

4. *Penthea scenica*.

P. dense pubescens, rubra, albo-plagiata, et nigro-maculata; prothorace haud rugoso, latere tuberculis duobus elongatis instructo; elytris sub-costatis.

Port Denison.

Covered with a close-set, brick-red pile, varied with large white patches and spotted with black; head with an impressed line on the vertex; antennæ with the first two joints white, the rest black, with the apex and base of each only white, except the last, which is black at the apex; prothorax not rugose, two prominent tubercles at the side, one above the other, and one or two smaller ones behind them; scutellum transverse, rounded behind; elytra nearly parallel, two scarcely projecting costæ on each; the white patches are disposed thus—three common to both elytra, one scutellar, one behind this near the centre, the third towards the apex, and two proper to each, both at the side, but the posterior largest and extending obliquely upwards; the black spots are round, numerous and well defined, and besides these are many minute punctures in the substance of the elytra; body beneath and legs covered with a pale yellowish pile, mottled with fulvous.

Length 7 lines.

In colour this species slightly approaches *Penthea pardalis*, Newm., but is in all respects so very distinct as not to require a comparison.

5. *Penthea miliaris*.

P. angustior, dense pubescens, ochracea, nigro-maculata; pro-

thorace haud rugoso, latere tuberculis duobus elongatis instructo, elytris vix costatis.

Port Denison.

Narrower than the last, and differing in other respects; in the ochraceous colour, with a few paler spots, in the absence of the white patches on the elytra, the absence, or nearly so, of punctures, the slight or almost obsolete costæ, and the smaller, nearly triangular scutellum.

Length 6 lines.

Genus ZYGOCERA.

1. *Zygocera lugubris*.

Z. nigra, pube nigra cinereaue tecta; prothorace lateribus conico, disco mutico; elytris oblongis, bi-apiculatis, basi unibertuberculatis, nigris, medio apiceque cinereis nigro-maculatis.

New South Wales.

Black, with a short black pile varied with ashy; head ashy, with black stripes in front and at the sides; antennæ black, the third and intermediate joints slightly ashy at the base; prothorax conical at the side, a deeply impressed line near the posterior margin, and another less marked anteriorly, the disc not tuberos and very obscurely marked with ashy; scutellum rounded behind, black, bordered with white; elytra much broader than the prothorax at the base, with a single tubercle and an elevated line on each, the sides slightly rounded, the apex with a small spine at the suture, and a large one externally, the basal portion and an irregular patch behind the middle black, the rest dull ashy, with black spots; body beneath glossy black, the pectus varied with ashy, and an ashy patch containing a single spot on each side of the four basal segments of the abdomen; legs black, obscurely ringed with ashy; tarsi ashy, with the last two joints and claws black.

Length 5—6 lines.

Every one of the species of this genus, except *Zygocera cænosa*, which is unknown to me, is very distinct, and there would be no difficulty in finding characters that would apparently justify raising almost each of them to a separate genus. Still there are certain similarities that appear to lead from one species to another, although it must be admitted that it is scarcely satisfactory to combine them all under one generic name, as I am disposed to do. I believe Erichson (Wiegman's Arch. 1842, p. 224) is the only author who has described the genus *Zygocera*, the one under this name characterized by Mr. James Thomson (Arch. Ent. i. p. 189)

being no other than the *Callipyrga* of Mr. Newman. The *Zygocera pallidicornis* of the former author appears to be in fact the *Callipyrga turrita*, Newm. M. Leon Fairmaire has described another very distinct species from Chili.

2. *Zygocera cuneata*.

Z. fusca, pube cinerea tecta ; prothorace lateribus conico, disco mutico, nigro-fasciato ; elytris subanguste trigonatis, biapiculatis, basi unituberosis, maculis fasciisque duabus nigris. New South Wales.

Dark brown, with a yellowish ashypile, varied with black bands and spots ; head obscurely striped, a black impressed line on the vertex ; antennæ pitchy, with a thin greyish pubescence ; prothorax conical at the sides, the disc not tuberos, an anterior impressed line, and three interrupted nearly black bands ; scutellum subtriangular, but rounded at the apex, covered with greyish hairs ; elytra narrowly trigonate, with an elevated tuber at the base and a slightly raised line on each, the apex bispinous, the apical two-thirds ashy, without the yellow tint ; two irregular bands not meeting at the suture, one nearly in the middle, the other behind it, and a few spots principally at the base, black ; body beneath glossy black, the pectus irregular, pubescent, a greyish hairy patch on each side of the four basal segments of the abdomen ; legs dark brown, the base of the posterior femora and the tibiæ obscurely ashy, and the two basal joints of the tarsi ashy.

Length 5 lines.

The nearest ally of this species is *Zygocera pumila*, from which, however, it differs very decidedly in coloration and in the broader and more conical form of the sides of the elytra.

3. *Zygocera spilopecta*.

Z. lutea, pube grisea tecta ; prothorace lateribus dente minuto instructo, disco mutico ; elytris ovatis, basi simplicibus, apice rotundatis, basi maculisque (una majori postica) luteis. Hunter's River.

Yellowish-brown, approaching to ferruginous, with a scanty grey pile ; head and antennæ clothed with short grey hairs ; prothorax with a small sharp tooth at the side, the disc not tuberculate, marked with two or three obscure bands ; scutellum rather transverse, rounded posteriorly ; elytra slightly incurved behind the shoulder, then very gradually rounded towards the apex which is entire, the base not tuberculate, grey spotted with luteous, except

the apical portion, which is luteous, partially spotted with grey, and having at the side a large luteous patch, with one larger nearly white spot and two or three smaller spots marked on it; body beneath glossy luteous, the pectus somewhat pubescent, with a greyish patch enclosing a single shining spot on each side of the four basal abdominal segments; legs sparsely pilose.

Length 4—5 lines.

This species has a small, abrupt tooth at the side of its prothorax, which, however, has otherwise quite the character of those in which the disc is not tuberculate. It also differs in the rounded apex, and in the absence of the elevated line which runs into the outermost of the two spines, which always occurs when the apex is bispinous.

Genus ORICOPIS.

Caput immersum, *fronte* quadrata. *Oculi* emarginati. *Antennæ* mediocres, subapproximatæ, articulo basali subturbinato, tertio quarto breviori, cæteris multo brevioribus. *Prothorax* elevatus, bituberosus, lateribus dentatus. *Elytra* tuberculifera. *Pedes* mediocres, *femoribus* clavatis. *Prosternum* simplex. *Mesosternum* antice productum. *Corpus* ovatum, rugosum.

It is with some hesitation that I have separated the species described below from *Zygocera*, but there is such an amount of variation in its aspect and characters as would, I believe, preclude any one from searching for it in that genus. The characters, however, considering how variable they are in *Zygocera* itself, are but slight; the form of the basal joint of the antennæ, and the difference in the length of the third as compared with the fourth joint (in direct opposition to the true *Zygocera*), being certainly the principal.

1. *Oricopis umbrosus*. (Pl. XXIII. fig. 2.)

O. rufo-fusca, pube pallidiori tecta; prothoracis disco tuberculis bifidis remotis; elytris tuberculorum lineis duabus obliquis instructis.

Port Denison.

Dark chocolate brown, covered, except on the tubercles, with a paler pubescence; antennæ scarcely longer than the body, slightly ciliated beneath, the basal joint short, swelling out towards the apex, the third much shorter than the fourth joint, each of the remainder not half the length of the fourth; prothorax rather broader

than long, with a stout lateral tooth nearly in the middle, directly above it a bifid tuber, which is thus placed at a distance from its fellow, the space between them somewhat concave, except at the base, where another small concavity is formed; scutellum rounded posteriorly; elytra much broader than the prothorax at the base, slightly rounded at the sides, the apex entire, from each shoulder two oblique lines of tubercles, the inner of four, the outer of seven, all very glossy, the intervals coarsely but sparingly punctured, with a few smaller tubercles among them, at the sides the punctures more crowded; body beneath and legs with a sparse greyish pile, more concentrated at the sides of the abdomen; femora strongly clavate.

Length 6 lines.

Genus *THYADA*.

Caput immersum, *pedunculis* antennariis elevatis, contiguis. *Oculi* emarginati. *Antennæ* elongatæ, approximatae, fimbriatæ, articulo basali cylindrico, tertio et quarto longissimis, cæteris decreascentibus. *Prothorax* brevis, inæqualis, lateribus dentatus. *Elytra* subcostata. *Pedes* validi, *femora* clavata. *Prosternum* clavatum, antice bidentatum. *Mesosternum* antice declive. *Corpus* ovatum.

1. *Thyada barbicornis*. (Pl. XXII. fig. 4.)

The type of this genus is *Zygocera barbicornis*, Pasc., described in our Transactions (N.S. vol. v. p. 34), and there doubtfully referred to *Zygocera*. The extraordinary bearding of the antennæ, however, gives it a very peculiar aspect, and the form of the pro- and meso-sterna is different from the more typical *Zygocera*. There are, however, slight variations in the characters of the sterna throughout the genus.

Genus *SAPERDA*.

1. *Saperda stigmatica*.

S. cervino-fusca, albo-pilosa, antennis haud annulatis; capitis vittis quinque, prothoracis vittis duabus, elytrorum maculis numerosis plagisque duabus, flavescentibus.

Port Denison.

Closely covered with a rather coarse greyish-brown pile, and with numerous erect slender white hairs; head greyish-brown, with five indistinct stripes on the vertex and behind the eyes; antennæ very hairy, greyish, speckled with brown; prothorax

greyish-brown, with two pale yellowish discal stripes; scutellum rather transverse, rounded behind; elytra broadest at the base, where it is considerably broader than the prothorax, greyish-brown, with several small scattered spots at the base and in a line along the posterior half of the suture on each side, an oblique irregular patch commencing in the middle and continued downwards and outwards to the margin, and between this and the shoulder a small triangular patch at the side, all of a pale yellow colour; body beneath and legs with a thick greyish pubescence, speckled with yellowish-brown.

Length 6 lines.

A larger and proportionally stouter species than *Saperda paulla*, Germ., and otherwise very distinct.

2. *Saperda mystica*.

S. fusca, albo-pilosa; antennis haud annulatis; prothoracis vittis duabus, elytrorumque notis variis, cinereis.

New South Wales?

Closely covered with a smooth brown pile and with scattered, slender, white hairs; head brown, nearly unicolorous; antennæ ashy, spotted at the base; prothorax brown, with two discal, pale ashy stripes, which are connected by a narrow transverse band in the middle; scutellum rounded posteriorly; elytra broader than the prothorax at the base, brown, with pale ashy longitudinal patches, which are partially connected along the suture on each side, but not touching it; another set of uncertain patches, extending from the shoulder to the apex at the side, but breaking up into small spots at the apex, and a very distant zig-zag line obliquely behind the middle, all of the same ashy colour; body beneath with a dull ochreous pile, varied with greyish; legs hairy, brown, speckled with ashy.

Length 6 lines.

Narrower than the last species, with a smoother pile, and, notwithstanding a considerable difference in colour, closely allied to it. The four Australian species of *Saperda* differ from the true *Saperda* of Europe, in the presence of a tubercle or tooth on each side of the prothorax near its anterior border, and in the elevated prosternal process. The antennæ also are never so long as the body. *Saperda Bohemanni* and *Saperda erythaca* should rather be placed with *Phytoecia* on account of their bifid claws.

Genus MYCERINUS.

1. *Mycerinus luctuosus*. (Pl. XXII. fig. 5.)

M. dense tomentosus, niger, maculis albis ornatus; capite prothoraci latitudine æquali.

Port Denison.

Covered with a short thick black pile, varied with rather large white spots or stripes; head as wide as the prothorax, a white line over the eye and a white spot on the vertex; antennæ shorter than the body, the apex and base of each joint except the first two, and the third joint, nearly entirely white; prothorax nearly quadrate, about equal in length and breadth, a stripe at the side and two interrupted stripes on the disk white; scutellum rounded behind; elytra convex and nearly parallel to the apex, which is somewhat pointed, each marked with about ten white spots; body beneath and legs with a dull greyish-white pubescence.

Length 5 lines.

In colour this insect resembles *Mycerinus zebrinus*, an Indian species, but it is more cylindrical in form, with fewer and rounder spots.

2. *Mycerinus uniformis*.

M. ferrugineus, fulvescente-pubescentis; elytris paullo elongatis, sub-depressis, basi sparse punctatis.

Port Denison.

Ferruginous, closely covered with a pale fulvous pubescence; head concave in front, with a slightly impressed line on the vertex; antennæ longer than the body, slender, setaceous; prothorax about equal in length and breadth, narrower anteriorly, rounded at the sides, with a few punctures at the base; scutellum transverse, smooth in the middle; elytra rather elongate, somewhat depressed, gradually narrower from the shoulder to the apex, which is rounded, the base with a few small punctures; body beneath and legs with a thinner and paler pubescence.

Length 5 lines.

Closely allied to *Mycerinus aridus*, but different in colour, and more slender in its proportions generally. Nevertheless it may be only a local variety.

Genus ROPICA.

1. *Ropica incivilis*.

R. obscure griseo-pubescentis; elytris fere obsolete albo-maculatis, apice obtuso-angulatis.

Port Denison.

With a short dull greyish pubescence; head with a few coarse

punctures between the eyes; antennæ rather shorter than the body, the second joint about one-third the length of the first, the third twice as long as the first but shorter than the fourth; prothorax rather broader than long, the sides evenly rounded, a few scattered punctures on the disk; scutellum transverse; elytra with a few almost obsolete whitish spots, coarsely punctured in rows, which have an oblique direction at the base, the apex of each obtusely angular; body beneath and legs covered with a very fine pubescence.

Length 4 lines.

In the Society's Transactions I have described several species of this genus, but one or more of them may prove to be identical with some of those described by Mr. Newman under the name of *Pterolophia* (Entom. pp. 370, 380). From his description, however, I think *Pterolophia* may be referred to *Praonetha*, Blanch. He describes the antennæ as having the first and third joints of equal length, the fourth rather shorter. This is the character of *Praonetha*, while in *Ropica* the first joint is frequently not half as long as the third, and this is sometimes shorter than the fourth. It may be added that in the former genus the first joint is elongated and cylindrical, or even thicker towards the apex, while in *Ropica* it is short and more or less ovate. It is possible that *Ropica* may have to be divided, in one division the species being somewhat depressed and navicular in outline, like the one described above, the other more convex and approaching *Praonetha* in its shorter and more compact form. But in all these characters,—and the remark will apply generally to the *Longicornia*,—there are gradations that render an absolute limitation impossible.

2. *Ropica geminata*.

R. pube fulvo-grisea vestita; prothorace vittis duabus fuscis; elytris circa scutellum, plagisque lateralibus fuscis, regione suturali maculisque duabus pone medium albis, apice acute angulatis.

Sydney.

With a close, buffish-grey pubescence; head with a narrowly impressed line in front; antennæ longer than the body, the fourth joint considerably longer than the third; prothorax rather broader than long, the sides rounded but slightly irregular, the disc marked with two brown stripes; scutellum transverse; elytra slightly elongate, the apex of each acutely angular, the disc

punctured, partly in rows having unequal spaces between them, but at the base more irregularly, round the scutellum and various patches along the sides dark brown, the sutural region and two very distinct longitudinal spots behind the middle of each elytron white; body beneath and legs luteous, with a fine greyish pubescence.

Length 3 lines.

This comes very near a species from Aru (*Ropica stigmatica*, Pasc.), but is more elongate, the elytra terminating in a more acute angle and without the white sutural patch.

Genus ATIMURA.

Caput prothoracis latitudinis, inter oculos quadratum. *Oculi* prominuli, reniformes. *Antennæ* distantes, setaceæ, articulo basali brevi, turgido, tertio quarto longiori, cæteris gradatim decrescentibus. *Prothorax* breviter sub-cylindricus. *Elytra* parallela. *Pedes* breves, *protibiis* curvatis. *Ungues* simplices. *Coxæ* anticæ spinosæ. *Corpus* subangustatum.

This is essentially a Saperdoid form, probably not far removed from such genera as *Agennopsis* and *Estola*. I have noticed a species very like the one here described in Mr. Wallace's collections from the Indian Isles.

1. *Atimura terminata*. (Pl. XXIII. fig. 6.)

A. fusca; elytris interrupte quadricostatis, apice fulvo-pubescente.

Port Denison.

Brown, inclining to pitchy; head as broad as the prothorax, quadrate between the eyes, an impressed line on the vertex, with two or three bands of fulvous hairs; antennæ shorter than the body, slightly ciliated beneath, the third and fourth joints curved, the former twice as long as the basal joint; eyes prominent, uniform, the upper part narrow, and not approximate; prothorax rather longer than broad, subcylindrical, the sides very slightly rounded, the disc closely punctured, with short scattered hairs, which become more condensed anteriorly, forming a fulvous border to the prothorax; scutellum rounded behind; elytra broader than the prothorax, nearly cylindrical, very coarsely punctured, and rather suddenly rounded at the apex, where alone it is covered with a dense fulvous pile, with four interrupted raised lines or costæ on each, the three inner costæ ending abruptly, but previously becoming more elevated, the middle one of the three approaching

most nearly the apex, the fourth or outer costa terminates gradually in it; body beneath with a greyish-fulvous pubescence; prosternum expanding posteriorly; legs short, fore tibiæ somewhat curved, anterior coxæ shortly spined; last tarsal joint long and robust; claws simple.

Length 4 lines.

Genus ISALIUM.

Caput exsertum, antice productum, prothorace angustius. *Antennæ* mediocres, ♀ elongatæ, ♂ articulo basali obconico, intermediis apice unilateraliter dilatis. *Prothorax* subcylindricus, lateribus muticis. *Elytra* elongata, parallela. *Pedes* mediocres, *femoribus* subclavatis.

This genus is proposed for the reception of certain species hitherto placed with *Didymocantha*, but from which they differ in their elongated muzzle, antennæ, unarmed prothorax, and other characters. *Strongylurus scutellatus*, Hope, is the type, and it includes *Didymocantha thoracica*, Pasc., *D. cylindricollis*, Pasc., and probably *Coptopterus cretifer*, Hope.

Genus PHORACANTHA.

1. *Phoracantha fallax*.

P. robusta, fusca; prothorace subquadrato, rugoso-punctato, tuberculis tribus nitidis, lateribus spinoso; elytris flavo-trimaculatis, apice bispinosus.

Sydney. Adelaide.

Robust, dark-brown; head coarsely punctured, a lightly impressed line between the eyes; antennæ as long as the body, pubescent, the third to the sixth or seventh joints, inclusive, spined; prothorax opaque, subquadrate, about equal in length and breadth, coarsely and confluent punctured, with three distant, shining tubercles, a short sharp spine at the side; scutellum triangular, pubescent; elytra gradually narrowing behind, coarsely punctured at the base, each with two spines at the apex, and three yellow patches, one in the middle, one between it and the base, and a third directly before the outer spine; body beneath chesnut-brown, finely punctured, the abdomen pubescent and nearly impunctate; palpi and legs ferruginous, the latter with a close grey pile.

Length 10 lines.

Phoracantha quinaria, Newm., differs from this species in having no tubercles on the prothorax. It must be borne in mind that

the extent, and even the number, of the yellow patches which adorn the elytra of nearly all the species of this genus, are variable. The pattern, however, remains pretty nearly the same, and the apical spot, when it occurs in the species, appears to be constant in the individual. Throughout the genus, the elytra have always coarse, crowded punctures at the base, which gradually become smaller and more scattered towards the apex, each puncture having generally a single hair arising from its base.

2. *Phoracantha polita*.

P. subrobusta, fusca; prothorace oblongo, quinque-tuberculato, lateribus spinoso; elytris albis, nitidissimis, fusco-plagiatis, præsertim plaga una basali alteraque apicali, apice bispinosis.

Rockhampton. Sydney.

Moderately robust, dark brown; head covered with pale yellowish hairs, a narrow impressed line between the eyes; antennæ longer than the body, luteous, with a delicate greyish pubescence, the third to the sixth joint, inclusive, spined; prothorax oblong, narrowed anteriorly, with five shining tubercles, the posterior pair nearly divided (or otherwise with seven tubercles), the interspaces with a fine, somewhat silky, pile, the side with a short, conical spine; scutellum triangular, with a greyish pubescence; elytra very gradually narrowing behind, the basal half coarsely punctured, the rest minutely punctured, each with two spines at the apex, ivory white, with dark-brown glossy patches, which are variable in extent, of the two principal, one occupies the whole of the base, except the side, and another the central part from the middle to near the apex, between the two there is a small spot on each elytron, or the two may be joined by a varying line along the suture; body beneath dark brown, the pectus pubescent, the abdomen smooth and shining; legs brown, with a delicate greyish pubescence.

Length 8 lines.

Apparently coming nearest to *Phoracantha trimaculata*, Hope, but, so far as I can judge without a comparison of the two, with a more glabrous and differently sculptured prothorax.

3. *Phoracantha pubescens*.

P. subrobusta piceo-fusca; prothorace nitido, tuberculato, lateribus inæquali, mutico; elytris dimidio basali punctatis, fascia

ante medium et plaga magna basin versus flavis, dimidio apicali impunctatis, pubescentibus, apice truncatis.

Port Curtis.

Moderately robust, dark brown; head coarsely punctured, with an impressed line in front; antennæ as long as the body, luteous, finely pilose, the third to the sixth joints, inclusive, spined; prothorax nitid, oblong, unequal, three tubercles on the disc, the central one ovate, behind irregular or subtuberculate, the side rounded with two or three prominences, but not spined; scutellum rounded behind, pubescent; elytra slightly narrowing behind, the apex truncate, the basal half strongly punctured, a pale yellowish band and a large patch towards the base, the posterior half impunctate, and covered with a fine greyish pubescence; body beneath chesnut-brown, the abdomen pubescent; legs luteous, slightly pilose.

Length 8 lines.

The pubescence of the posterior half of the elytra is characteristic of this very distinct species.

4. *Phoracantha discreta*.

P. gracilis, fusca; prothorace oblongo, quinque-tuberculato, tuberculo medio lanceolato, lateribus prominulo, mutico, basi constricto; elytris angustatis, flavo-trimaculatis, apice sinuatis.

Sydney.

Slender, dark brown; head coarsely punctured, an impressed line between the eyes; antennæ longer than the body, pitchy, ciliated, the third to the sixth joints, inclusive, spined at the apex; prothorax oblong, nearly opaque, with five well-defined tubercles on the disc, the centre one lanceolate with the point forwards, the side with an abrupt prominence; scutellum rounded behind; elytra tapering, the base very rugosely punctured, each with its apex sinuate, and with three pale yellow patches, the one directly in the middle, forming almost a band; body beneath and legs glossy brown, bases of the femora and coxæ reddish.

Length 4 lines.

Resembles the next species (*P. scitula*), but is darker, more opaque, the prothorax broader, the tubercles more prominent, and the punctuation of the elytra more rugose.

5. *Phoracantha scitula*.

P. gracilis, luteo-fusca, nitida; prothorace oblongo, quinque-

tuberculato, lateribus prominulo, mutico, basi constricto; elytris angustatis, apice truncatis, plaga basin versus, altera mediana, tertiaque sub-apicali, flavis.

Port Denison.

Slender, luteous brown, shining; head roughly punctured, an impressed line between the eyes; antennæ longer than the body, luteous, slightly ciliated, the third, fourth and fifth joints spined at the apex; prothorax oblong, opaque, narrower at the base than anteriorly, rugose, with five tubercles on the disc, the central one elliptic, the side with a somewhat abrupt prominence; scutellum rather elongate, pilose; elytra tapering, truncate at the apex, each with three pale yellow patches, one somewhat lateral and midway between the second (which is nearly central) and the third (which is nearly at the apex); body beneath and legs luteous, sparingly pubescent.

Length 4 lines.

This graceful little species is allied to *Phoracantha unifasciata*, Hope, (why so called it is difficult to say,) but in that species the prothorax is broader and nitid, and there is no apical spot on elytra.

6. *Phoracantha bifasciata*.

P. gracilis, fusca, nitida; prothorace oblongo, tuberculis tribus longitudinalibus, lateribus irregulari, mutico; elytris muticis, fascia lata mediana, altera apicali, flavis.

Port Denison.

Slender, brown, shining, sparingly pilose; head dark ferruginous, with a few coarse punctures; eyes rather large, black; antennæ shorter than the body, luteous, slightly pilose, the third joint spined, the fourth and fifth nearly unarmed; prothorax dark ferruginous, oblong, sparingly and coarsely punctured, three longitudinal tubercles placed somewhat posteriorly, the side irregular but not spined; scutellum somewhat transverse, rounded behind; elytra slightly depressed, very gradually narrowing posteriorly, rounded at the apex, a broad band in the middle and another at the apex, pale yellow; body glossy beneath, dark ferruginous on the pectus, and luteous on the abdomen (in the female, each of the three intermediate segments has an ovate impression at the side, filled with long, silky hairs); legs luteous, with slender, scattered hairs.

Length 5 lines.

A very distinct species, remarkable for the little depressions on the abdomen of the female, which are exactly similar in character

to those of *Obrium ciliatum* (see p. 559), only that in the latter there are four pairs of them instead of three.

Genus ELETE.

Caput exsertum, *fronte* brevissima, *mandibulis* porrectis. *Oculi* divisi, *partibus* approximatis, *prominulis*, supra sub-approximatis, infra distantibus. *Antennæ* elongatæ, setacæ, basi subremotæ, articulo basali curvato, versus apicem incrassato, quarto tertio longiore, cæteris gradatim brevioribus. *Prothorax* elongatus, irregulariter cylindricus. *Elytra* angustata, sub-parallelæ, abdomine breviora. *Pedes* elongati; *coxæ* anticæ sub-approximatæ; *femora* clavata, basi attenuata; *tarsi* breves, articulo primo cæteris longiori. *Mesosternum* latum, postice emarginatum. *Corpus* angustatum.

The more important characters of this genus, such as the slender habit, the large and prominent coxæ, and the attenuated basis of the femora, point to some of the forms which group themselves round *Obrium*, although in habit it resembles some *Malloecera*, which are nearly allied to *Phoracantha*. The divided eyes, however, and the elytra imperfectly embracing the abdomen, are found only in genera allied to the first. With regard to the anterior coxæ, the forms from globular to conical are not only graduated, but in neighbouring genera, where the same form might be expected to recur, there is a marked difference. Compare, for instance, *Listrocerum*, where they are remarkably elongated and conical, with *Smodicum*, or *Molorchus major* with *Necydalis** *minor*,

* There is great confusion respecting these names. *Necydalis* was first used by Scopoli (Faun. Carniol.), and afterwards by Linnæus (Iter Æland.), and applied by them to *minor* and *umbellatarum*, *major* being then unknown. In the Fauna Suecica, the latter is for the first time described, and is placed immediately after *minor*. In the twelfth edition of the Syst. Naturæ, *major* comes first, and is followed, not only by *minor* and *umbellatarum*, but by eight species belonging to *Edemera*, *Asclera*, and other Heteromerous genera. Then came Fabricius (Syst. Eleuth.), who, calling the first of these groups by the new name of *Molorchus*, continued that of *Necydalis* to the remainder. So far as the latter change is concerned, he has not been followed; but *Molorchus* has been adopted by many authors. Now, it is quite evident that *major* and *minor* belong to different genera; accordingly, Mr. Newman long ago proposed *Helio manes* for the latter, having, however, used the term in the first place for an Australian Longicorn, which afterwards was found to be congeneric; and more recently M. C. G. Thomson, in his Skandinaviens Coleoptera, has proposed *Cænoptera* for the same species. We have thus four names for the two genera. If we are to avoid the introduction of a name which has never been used on the continent (*Helio manes*), I think priority will compel us to confine the term *Necydalis* to *minor* as the Linnæan type in the first instance, and then *major* naturally falls into *Molorchus*, as the first of the species described by Fabricius.

or *Stenopterus rufus* with *Acyphoderes aurulentus*. In *Obrium cantharinum* the coxæ are very nearly conical, while in the nearly allied *Axinopalpis gracilis* they are so slightly produced, that practically they may be defined as globose. All these genera, according to some systematists, would be placed in a family co-equal with *Prionidæ* and *Lamiidæ* that has *Molorchus* for its type. *Obrium* and *Molorchus*, however, I consider represent respectively two very distinct sub-families.

1. *Elete inscripta*. (Pl. XXII. fig. 2.)

E. livida, vittis fuscis figurata; femoribus intermediis et posticis, basibus exceptis, fuscis.

Sydney.

Livid yellow, with a short seta-like pubescence, and marked with a few longitudinal or zigzag lines; head exserted, with a short narrow front strongly sulcated between the insertion of the antennæ; a black stripe behind the eyes; mandibles porrect; lip very small; palpi truncate; eyes prominent, completely divided, the upper pair subapproximate, the lower remote; antennæ longer than the body, setaceous, slightly pilose, the basal joint claviform, the third shorter than the fourth, with a fine spine at the apex, the fourth longest, the rest gradually diminishing to the last; prothorax about twice as long as broad, irregularly cylindrical, with a broad central and a narrow black stripe at the side; scutellum triangular, rather closely covered with fine diverging hairs; elytra elongate, gradually narrowing behind, the apex truncate with numerous setiferous punctures, and marked on the shoulder and behind the middle with dark brown irregular and nearly longitudinal lines; body beneath testaceous, finely punctured; legs slender, femora clavate, the clavate portion of the middle and posterior femora dark brown.

Length 6 lines.

Genus *HESTHESIS*.

1. *Hesthesis angulatus*.

H. ater; elytris divergentibus, postice flavo-maculatis; abdomine supra duabus infra tribus fasciis flavis.

King George's Sound?

Black; base of the elytra greyish; front, anterior and posterior margins of the prothorax, a round spot on each elytron posteriorly, a patch on the episterna of the metathorax, a band on the first and

another on the fourth upper abdominal segments, and a band on each of the three inferior basal segments, clear lemon-yellow; sterna and legs covered with a whitish pile; prothorax rounded at the sides; elytra diverging posteriorly, each terminating externally in an acute angle, which, owing to a short incurvation, is slightly hooked, the external margin gradually incurved behind the shoulder.

Length 10 lines.

This is one of the best marked species of the genus, although allied to *Hesthesis cingulatus*. The form of the elytra, beginning to diverge at about half way from the apex of the scutellum, and the clear lemon-yellow of its numerous markings, are sufficiently distinctive. I have seen only one example.

Dr. Howitt mentions a "common" species at Melbourne having red antennæ, which appears to be near *Hesthesis cingulatus*. This is probably undescribed.

2. *Hesthesis murinus*.

H. niger; elytris integris, linea suturali postice curvata, alba; abdomine supra fascia alteraque infra albis.

New South Wales.

Black; elytra greyish; front, anterior margin of the prothorax, a band on the upper and another on the lower basal segments, silvery-white; a short oblique patch of the same colour towards the posterior margin of the elytra, connected with a paler stripe along the suture; prothorax nearly as long as broad, rounded at the sides, covered with a sparse greyish pile; elytra rounded at the sides, nearly truncate at the apex; femora brownish-red; body beneath with scattered greyish hairs.

Length 6 lines.

As the elytra in *Hesthesis* only cover the metathorax, the whole abdomen above is visible through the transparent wings; and it is therefore necessary to observe, that the first or upper basal segment of the abdomen does not correspond with the basal segment beneath, and that this forms one of the five abdominal rings in connexion with the second upper, and so on for the remainder.

Mr. Newman describes the males of *Hesthesis* as having 12-jointed antennæ. This is an error. The eleventh joint, it is true, is notched in the middle, as it very often is in this family, but the slightest examination will show that it is *only* a notch.

It is very likely that in some individuals of the same species

the number of bands on the abdomen may vary. I have seen instances where one of the bands has been only partial. The best characters in this genus are to be found in the forms of the prothorax and elytra. The species described above is the most soberly coloured of the genus, and very distinct from any other known to me.

3. *Hesthesis vigilans*.

H. fuscus; elytris postice intus rotundatis, extus apiculatis, linea suturali postice curvata, crocea; abdomine supra duabus infra etiam duabus, aliquando tribus, fasciis luteis.

New South Wales.

Black, elytra yellowish-brown, paler towards the suture; front, anterior margin of the prothorax, patch on the episterna of the metathorax, bands on the upper and lower basal segments, and two others on the third lower and fourth upper segments respectively (sometimes a narrower band on the second lower also), bright saffron-yellow; a short, transverse patch of the same colour towards the posterior margin of the elytra, connected with a paler stripe along the suture; antennæ black, passing into reddish-brown towards the apex; prothorax rounded at the sides, covered with a coarse pile, tinged more or less with yellow; elytra rounded internally at the apex, the sides also rounded, and terminating externally in a small obtuse angle; legs ferruginous, tarsi brown.

Length 6 lines.

Mr. Newman's description of *Hesthesis bizonatus* applies to this species so far as the number of abdominal bands is concerned, but the colour of the antennæ and legs is entirely different. I have not seen his species, which appears to have been known only from a specimen in the Zoological Society's Museum, although Dr. Howitt speaks of it as being found at Melbourne. It is the only described species that is not in my collection.

4. *Hesthesis acutipennis*.

H. niger; elytris subdivergentibus, apice angulatis; macula transversa postica crocea, abdomine supra tribus infra quatuor fasciis luteis.

New South Wales.

Black, elytra greyish-brown, front, anterior margin of the prothorax and more slightly the posterior also, and an oblique spot on the elytra, saffron-yellow; patch on the episterna of the metathorax, three bands on the abdomen above—one on the basal,

another on the fourth, and the third on the fifth—and four bands beneath, one on each abdominal segment, except the last, sulphur-yellow; last abdominal segment above and below ochraceous; antennæ reddish-brown; legs ferruginous; prothorax transverse, angulated at the sides; elytra rounded at the sides, slightly diverging posteriorly, the apex pointed.

Length 7 lines.

The form of the elytra at the apex is something like that of *Hesthesis plorator*, but the elytra themselves are much shorter. The short prothorax, with its angulated sides, is very distinctive of this species.

5. *Hesthesis vesparius*.

H. niger; elytris truncatis, sutura late grisescente-marginatis, basi humerisque aureis; antennis ferrugineis, articulis quatuor basalibus nigris.

New South Wales.

Black; front, sides of the prothorax anteriorly, base of the elytra and their anterior angles, and the first, second, third and fifth (at the margin) upper segments of the abdomen golden-yellow; patches on the episterna of the metathorax, sides of the first, middle of the second, the whole of the third and fourth lower segments, fulvous; prothorax equal in length and breadth, the sides very slightly and regularly rounded; scutellum black, triangular; elytra rounded at the sides, obliquely truncate inwards and downwards, a very broad, greyish sutural stripe from the shoulder to the apex, at the upper part of which, near the scutellum, is a rich yellow spot, below this at the angle is another spot; legs and antennæ reddish-ferruginous, the latter with the four basal joints black.

Length 7 lines.

The form of the prothorax, and the coloration of the elytra and antennæ, will serve to distinguish this pretty and very distinct species.

Genus SOLIMNIA.

Caput exsertum, *fronte* brevissima. *Oculi* emarginati. *Antennæ* elongatæ, remotæ, articulo basali subpyriformi, tertio cæterisque plus minusve æqualibus, subserratis. *Prothorax* transversus, lateribus dente armatus, disco lævigato. *Elytra* oblonga. *Pro-* et *meso-sterna* angustata, simplicia. *Corpus* subdepressum.

The genus to which *Solimnia* most nearly approximates appears

to be *Cerambyx*, from which it is essentially distinguished by the form of the pro- and meso-sterna, which are very narrow and depressed, the coxæ therefore nearly contiguous, and projecting far beyond the edges of their cotyloid cavities. In all true *Cerambyces* the contrary is the case, and the mesosternum is bilobed posteriorly. Nothing that ought to be referred to *Cerambyx* proper, in my opinion, has the prothorax so regular and free from rugosities as in this genus.

1. *Solimnia sublineata*. (Pl. XXII. fig. 3.)

S. sub-fusca, ternuiter pubescens; elytris pallidioribus, humeris exceptis, subnitidis.

New South Wales.

Brown, elytra, except at the shoulders, legs, and antennæ, paler, all covered with a thin, greyish pubescence; head very short in front, simply concave between the eyes, thickly punctured; antennæ much longer than the body, the third joint a trifle longer than the fourth, otherwise all, except the first two, are more or less equal in length, and dilated on one side, so as to give the antennæ a serrated appearance; eyes emarginate, the lower portion by far the largest and most prominent, not approximate above; palpi rather long, obtuse; prothorax transverse, thickly punctured, a strong tooth on each side; scutellum triangular; elytra broadest at the shoulder, the side slightly incurved, the apex rounded, with faintly-raised longitudinal lines on each, of these two are more marked than the rest; body beneath with a coarser, greyish pile; legs rather slender, femora not clavate, intermediate and posterior tarsi with the basal joint somewhat elongated.

Length 9 lines.

Genus CERAMBYX.

1. *Cerambyx nubilus*.

C. niger, griseo-pubescens; prothorace lateribus obtuse tuberculato, transversim plicato; elytris apice bispinosi; antennarum articulo tertio elongato, apice subnodoso.

Queensland.

Brownish-black, with a very thin, silky greyish pubescence; antennæ with the basal joint comparatively slender, curved, the third elongate, nearly as long as the fourth and fifth together, and only slightly nodose at the apex; tibiæ at the distal extremity and tarsi, and the upper part of the posterior femora at the base

covered with golden hairs; inner spine at the apex of the elytra much smaller than the outer one, the rest as in *Cerambyx sericus*, Newm. (*Hammaticherus turbinaticornis*, Germ.)

Cerambyx, Linn., is now restricted to those Longicorns of which *Cerambyx cerdo*, Linn., is the type. Many authors substitute for it *Hammaticherus* (Meg., Dej.), but the *Hammaticherus*, Serv., must be confined to *H. bellator* and its allies, (*Plocæderus*, Dej.).

Genus OBRIMUM.

1. *Obrium ciliatum*.

O. castaneum, nitidum, albo-setosum; elytris, lateribus exceptis, stramineis; antennis ferrugineis, setosis.
Sydney.

Glossy chesnut-brown (except the elytra), with long, slender, white hairs; head with a deep transverse impression above the epistome; eyes rather large, black; antennæ longer than the body, ferruginous, with long setose hairs, a small spine at the apex of the third joint; prothorax slightly punctured with few hairs, the disc irregular, with a rounded callosity on each side; scutellum rounded behind; elytra elongate, parallel, with deeply impressed crowded punctures, from each of which issues one of the setaceous hairs, of a pale straw-colour, with the two basal thirds of the sides only brown; body beneath dark chesnut, polished, paler on the abdomen; in the female the four basal segments of the abdomen have on each of their sides an ovate cavity, filled with closely-set yellowish hairs.

Length $3\frac{1}{2}$ lines.

In our *Obrium cantharinum* and its congeners, as well as in *Stenhomalus*, *Deilus*, &c., the third abdominal segment of the female is curiously contracted, and densely clothed with long hairs. In *Obrium ibidionoides* there is a transverse, ovate, hairy cavity at the base of each segment, except the last. In the species described above we see a third modification of this remarkable structure. It is probable, however, that this and other species now referred to *Obrium* will eventually be separated from that genus, if these and other characters should prove to be of more than specific importance.

Genus PHALOTA.

Caput subverticale; *fronte* turgida; *mandibulis* parvis. *Oculi*

mediocres, remote divisi, supra distantes. *Antennæ* remotæ setaceæ, articulo basali brevi, curvato, tumido, tertio cæterisque subæqualibus. *Palpi* breves, obtusi. *Prothorax* elongatus, antice latior, postice constrictus. *Elytra* parallela. *Pedes* breves; *coxæ* anticæ elongatæ, contiguæ; *femora* incrassata. *Corpus* gracile.

This genus appears to be allied to *Obrium*, although its head is so vertical as almost to bring it into the Saperdoid group (near *Stenostola*, for instance), were it not for other characters, such as the absence of emargination on the intermediate tibiæ, and the obtuse palpi. The insect is remarkable for its swollen front, which merges above into the two large antennary tubers.

1. *Phalota tenella*. (Pl. XXIII. fig. 1.)

P. fusca, subnitida, vix pubescens; elytris basi aliquando luteis.

Port Denison.

Dark-brown or black, with scarcely any pilosity, the head, prothorax and pectus luteous yellow, shining; head with a few scattered punctures, short, subvertical, bulging out in front, the antennary tubers large, separated at the base by a considerable concavity; eyes rather small, divided, the two portions widely apart, the upper smallest, and remote from its fellow; mandibles small, nearly vertical; antennæ as long as or longer than the body, the basal joint rather short and slightly curved, tumid, the rest, except the second, more or less equal; palpi short, obtuse; prothorax irregularly and very sparsely punctured, nearly twice as long as broad, and as broad as the head for three-fourths of its length, when it suddenly contracts; scutellum rounded; elytra a little depressed, coarsely and rather thickly punctured, the base sometimes more or less luteous; body beneath glossy black, the pectus luteous; legs with a slight tint of luteous.

Length $2\frac{1}{2}$ lines.

GENUS *CLÆADNE*.

Caput breve, *fronte* transversim quadrata. *Oculi* reniformes. *Antennæ* elongatæ, setaceæ, 11-articulatæ, basi distantes, articulo primo breviter obconico, tertio quarto longiore, cæteris subæqualibus, ultimo vix distincto. *Palporum* articulo ultimo ovato. *Prothorax* ovatus. *Elytra* angustata. *Pedes* sub-elongatæ, *femora* clavata, *tarsi* breves. *Prosternum* minutum, compressum.

In my M.S. Catalogue of Australian *Longicornia* I have placed

this genus between *Agapete* and *Ischnotes*. It differs very much from both in habit, those two being very remarkable, although in quite a different way, while *Clæadne* has a very commonplace look. Of all the Australian forms, perhaps, it comes nearest to *Amphirhoë* in outline, but that genus, owing to its longer muzzle, belongs to another category of the family. I received my specimen from Mr. Macleay; a second in Mr. Bakewell's collection is supposed to be from Adelaide.

1. *Clæadne melanaria*. (Pl. XXIII. fig. 5.)

C. nigra; elytris singulis lineis duabus elevatis basi griseo-hirtis instructis.

New South Wales.

Black, opaque; head coarsely and closely punctured, very short, and transversely quadrate in front; eyes reniform; antennæ longer than the body, setaceous, 11-jointed, distant at the base, the first joint short, obconic, the third longest, the fourth much shorter, the fifth nearly as long as the third, the remainder nearly equal to the fifth, the last scarcely distinguishable from the preceding one; palpi short, with the terminal joint ovate; prothorax ovate, with coarse, crowded punctures, and a few scattered, erect hairs; scutellum triangular; elytra narrow, parallel, two elevated lines on each, the inner not extending to half the length of the elytron, the outer continued to the apex, the base and both lines clothed with greyish-white hairs; body beneath and base of the femora chesnut-brown; abdomen short, gradually tapering from the base.

Length 5 lines.

Genus TYPHOCESIS.

Caput fronte brevi, quadrata. *Oculi* reniformes. *Antennæ* distantes, elongatæ, setacæ, articulo basali subpyriformi, tertio quarto longiore, cæteris plus minusve subæqualibus, vel gradatim brevioribus. *Palpi* apice subtriangulares. *Prothorax* rotundatus, disco subdepresso, lateribus dentatis. *Elytra* brevia, subparallela. *Pedes* elongati, *femora* clavata, *tarsis* intermediis et posticis angustatis, articulo basali elongato. *Prosternum* elevatum, subacutum.

This genus belongs to the group of which *Hemesthocera*, *Homalomelas*, *Prothema*, and *Euryarthron* are members, differing from all in the form of the prothorax and clavate femora. The angle formed by the depression of the prothorax creates a sort of ridge on each side.

1. *Typhocesis Macleayi*. (Pl. XXIII. fig. 4.)

T. fusca, subopaca; elytris singulis lineis duabus obliquis; tarsis flavidis.

Port Denison.

Dark brown, subopaque, with soft, scattered hairs, particularly on the prothorax; head short, quadrate in front, with a transverse impression beneath the antennæ; lip small, transverse; eyes of moderate size, reniform; antennæ distant at the base, longer than the body, setaceous, the basal joint subpyriform, the third longer than the fourth, the fifth and sixth about equal, the rest very gradually decreasing in size; palpi ferruginous, the last joint narrowly triangular; prothorax rounded, depressed, or nearly plane above, the side somewhat irregular, with a short tooth posteriorly; scutellum transversely subtriangular; elytra very short, the sides nearly parallel, rounded at the apex, very closely or nearly confluent punctured, with three very slightly-raised longitudinal lines in the middle of each, the side and sutures bordered with pale yellow, and at the base an oblique, yellowish line, commencing at the shoulder, and another rather beyond the middle, neither reaching to the suture; body beneath and legs chesnut-brown, shining, the tarsi yellowish; prosternum raised, terminating in a short tooth posteriorly.

Length 6 lines.

Genus PHACODES.

1. *Phacodes bispinosus*.

P. fuscus, pube cinerea irroratus; prothorace subtransverso, antice latiori; elytris apice bispinosis.

Hab. — ?

Robust, brown, inclining to pitchy, with scattered, irregular patches of pale-greyish hairs; head entirely covered with greyish hairs; antennæ stout, twice as long as the body in the male; prothorax subtransverse, rounded at the sides, much broader in front, with three nearly obsolete tubercles on the disc; scutellum transversely triangular; elytra simply punctured, considerably broader than the prothorax at the base, very gradually tapering posteriorly, the apex of each armed with two well-developed spines; body beneath reddish-brown, covered with an uniform greyish pubescence; legs pitchy-brown, covered with a close greyish pile.

Length 12 lines.

This is a species very likely to be confounded with *Phacodes*

obscurus, Fab., but it is very distinct, especially in its more robust form, shorter prothorax, transverse scutellum, elytra spined at the apex, and other characters. *Phacodes* differs very slightly from *Hesperophanes*; the chief points appear to be the absence of tubercles on the disc of the prothorax of the latter, and the shortness of the fourth joint of its antennæ (a common character among the *Callidium* forms); the more typical species of *Phacodes* have the third and three or four following joints spined at the apex.

Genus CALLIDIUM.

1. *Callidium asæmoides*.

C. nigrum, subnitidum; prothorace subtransverso, disco depresso sub-bituberoso; antennis brevibus, articulo tertio duobus sequentibus conjunctis longiore.

Adelaide.

Black, slightly nitid, with a few slender erect hairs; head coarsely punctured, a slight, impressed line between the eyes; antennæ rather more than half as long as the body, the third joint rather longer than the fourth and fifth together; prothorax depressed, broader than long, rounded at the sides, very coarsely punctured, except in the centre, with two tolerably large but very slightly elevated tubers placed transversely, with an impunctate space between them; scutellum transverse, rounded posteriorly; elytra oblong, depressed, with nearly parallel sides, and strongly marked with rugose, irregular impressions; body beneath pale brown, strongly punctured; legs slightly pitchy; femora clavate.

Length 6 lines.

The dark uniform colour, and the length of the third antennal joint, will readily distinguish this from any other Australian species.

2. *Callidium eburatum*.

C. rufo-ferrugineum, opacum; prothorace rotundato, basi contracto; elytris nigro-fuscis, rugoso-punctatis, fasciis duabus angulatis albis; femoribus clavatis, basi gracilibus; antennis articulo tertio quarto longiore, cæteris sub-æqualibus.

Sydney.

Reddish ferruginous, opaque, with a few white scattered hairs; head thickly punctured; eyes widely emarginate; antennæ shorter than the body, the third joint longer than the fourth, the succeeding nearly of equal length; prothorax slightly longer than broad, rounded at the sides, contracted at the base, with coarse crowded

punctures; scutellum narrowly subtriangular; elytra dark brown, covered with coarse confluent punctures, with two narrow zig-zag, ivory-like white bands, the upper not meeting at the suture; body beneath obscure luteous; legs dark brown; femora strongly clavate, slender at the base.

Length $3\frac{1}{2}$ lines.

Allied to *Callidium cleroides*, White, but with more tapering elytra, irregular angulated bands, and thicker antennæ.

GENUS BRACHYTRIA.

1. *Brachytria centralis*.

B. vix angustata; elytris lineis duabus longitudinalibus elevatis; scutello apice acuto.

Port Denison.

Proportionally shorter than *B. gulosa*, and sparsely covered with slender erect black hairs; head and prothorax luteous-yellow, coarsely punctured, the latter rounded and nearly equal in breadth and length; scutellum narrow, acutely triangular, black; elytra with the sides nearly parallel, slightly projecting at the shoulder, the apex rounded, coarsely punctured, bright blue, a large pale straw-coloured patch principally before the middle, on each elytron two well marked raised lines running from the shoulder to the apex; body beneath, except the propectus and throat, antennæ and legs, black; propectus and throat luteous.

Length 4 lines.

Described from a single example, and therefore, knowing how variable is its congener *Brachytria gulosa*,* I have said nothing about the colour in the diagnosis, the species being well distinguished by having only two elevated lines on each elytron, and the apex of its scutellum acute. It appears to me that *Brachytria latebrosa* and *B. pulcherrima* would be better placed with *Pytheus*, if both genera are to be retained.

GENUS PEMPSAMACRA.

1. *Pempsamacra subaurea*.

P. fusca, squamis aureo-brunneis tecta; prothorace postice bicalloso, lateribus subintegro; elytris maculis duabus fuscis.

Sydney.

Chesnut brown, covered with dark golden yellow scales above;

* This species varies from almost entirely black to black, with more or less yellow or white, and red; and from a prothorax strongly corrugated and opaque to one perfectly smooth and glossy.

head concave between the eyes, and without an impressed line; antennæ much shorter than the body, the last six joints shortly triangular, the third and fourth beneath, and the fifth ringed with white in the middle; prothorax punctured, much longer than broad, slightly tuberosus at the sides, with two spreading callosities at the base, the disc entire; scutellum very transverse; elytra rather elongate, covered, except the two spots on each—one in the middle, the other towards the apex—with short curved scales of a dark-golden tint; body beneath thickly covered with silvery-white scales; legs with yellowish scales.

Length $3\frac{1}{2}$ lines.

The smallest and narrowest member of the genus, which now contains five species. The last five joints of the antennæ are shorter and more transversely triangular, and the prothorax is longer and less irregular than in any other species; all of them, except *Pempsamacra pygmæa*, are remarkable for the beautiful metallic white clothing of the underside.

Genus BRACHOPSIS.

1. *Brachopsis nupera*.

B. rufa; elytris infuscatis; abdomine pedibusque nigro-chalybeatis.

Sydney.

Head luteous-red, shining, sparingly punctured; antennæ shorter than the body, black, the first joint obscurely marked at the base with reddish; prothorax impunctate, velvety, luteous-red, rather longer than broad, constricted anteriorly, the side bluntly conical; scutellum small, triangular; elytra very narrow, pale-reddish brown; legs, postpectus, and abdomen, blackish-chalybeate; antepectus luteous-red.

Length 6 lines.

Rather too close, perhaps, to *Brachopsis concolor*, W. W. Saund., but at the same time I am quite convinced that very few Coleopterists would combine it with that species. Besides the difference in colour, the prothorax is considerably narrower, especially anteriorly, and the tarsi are narrower and longer. This latter character, however, is probably only sexual, and the other differences might be bridged over if we had a larger series of specimens, particularly from localities between Tasmania and Sydney, the homes of the two forms respectively.

Genus *MACRONES*.1. *Macrones capito*.

M. fulvo-rufus ; antennis nigris, apicem versus sensim pallidioribus ; elytrorum carinis basi excepto, femoribus posticis basi, tibiisque medio, nigro-chalybeatis.

Port Curtis.

Fulvous-red, on the prothorax approaching to a golden orange ; head coarsely punctured, rather broad, with the sides parallel below the eyes ; antennæ black, but becoming gradually paler from the fifth or sixth joint ; lip very small ; eyes nearly round, black ; prothorax roughly punctured, rather longer than broad with a strongly marked, quadrate gibbosity in the middle, and a strong tubercle on each side ; scutellum triangular ; elytra rather broader than the prothorax at the base, where they are fulvous-red, gradually tapering to the apex, each with four rugose carinæ, which, except at the base, are steel black, the intervals being nearly white ; first abdominal segment elongate, slender, pale green, the rest and sterna ferruginous-red ; legs very slender, tibiæ of the intermediate and posterior pair, except at their extremities, and basal half of the post-femora, black ; posterior pair of tarsi white.

Length 11 lines.

Of the five species of *Macrones*, this approaches the most nearly to *Macrones rufus*, W. W. Saund., but differs in the colour of the antennæ and elytra, and the black intermediate and posterior tibiæ. Amongst the genera that may be grouped around *Stenoderus*, *Macrones* and *Enchoptera* are at once distinguished by their elytra diverging at the suture, their prolonged muzzle, and entire, rounded, or only slightly ovate, eyes.

Of these genera, however, *Enchoptera* differs from *Macrones* chiefly in its more slender proportions, narrower tarsi, and in the basal joint of the anterior pair being linear and not triangular. *Brachopsis* comes very near those genera, but it has no muzzle. *Psilomorpha* is another ally, distinguished by the normal suture of the elytra, and differing from *Stenoderus* chiefly in the elongate basal joint of the tarsi. *Oroderes* again, notwithstanding its reniform eyes, cannot be placed very far from these genera ; and, much as they differ in habit among themselves, I am not disposed to separate very widely *Stephanops*, *Diotima*, *Eroschema*, *Tessaromma*, *Bardistus*, *Tricheops*, *Uracanthus*, &c., and even *Bimia* (through *Akiptera* and *Tropis*). Many of these genera have elongate, often conical anterior coxæ, with the cotyloid cavity forming, with few exceptions, a very large angle externally.

Genus APHNEOPE.

Caput elongatum, antice productum, pone oculos in collo constrictum. *Oculi* emarginati. *Antennæ* filiformes, remotæ, articulo basali elongato claviformi, tertio quarto longiori, quinto quarto æquali, cæteris gradatim decrescentibus. *Palpi* apice obtusi. *Prothorax* elongatus, antice posticeque constrictus, lateribus et disco armatus. *Elytra* oblonga, subparallela. *Pedes* graciles, *tarsorum* articulo basali elongato. *Corpus* angustum.

This beautiful genus I place after *Tessaromma*, Newm., which Mr. James Thomson, in his "Essai," refers with *Chlorida*, *Phoracantha*, and others, to his "Division *Eburitæ*." I have no hesitation, however, in grouping both genera with *Stenoderus*, *Tritocosmia* and their allies, which, in Mr. Thomson's arrangement, belong to the "Legion (or Sub-tribe) *Lepturitæ*." I am disposed to agree with Dr. Leconte in not considering the *Lepturidæ* a distinct family of *Longicornia*, but rather that it is composed of several minor groups or sub-families in correlation only to the other sub-families of *Cerambycidæ*. It is in my opinion quite impossible to lay down any satisfactory characters by which the *Lepturidæ* may be distinguished as a whole. And the rigid adherence to a single character can only lead to the most unnatural combinations. As a proof of this, we have *Distenia* removed by Dr. Leconte from his *Lepturidæ* because of its globose anterior coxæ, and placed between *Criocephalus* and *Callichroma*. Now, in regard to these anterior coxæ, I cannot avoid expressing my opinion, that from globose to conical they are so graduated that in practice any reliance placed on their form must be received with caution. In reality the difference between a *shortly conical* coxa and a *globose* one is so slight, especially when we take into consideration that these terms are only used approximately, that it is often very puzzling to say which phrase would be the most accurate. Now in *Tessaromma* the anterior coxæ are very prominent, with a sort of hour-glass contraction in the middle; in *Aphneope* they are moderately prominent and but shortly, if at all, conical; in *Tritocosmia Digglesii* they are decidedly conical; in *Tritocosmia Roei* they are neither conical nor globose, but simply transverse; and between these two *Tritocosmia rubea* occupies an intermediate place. Many other examples of the same kind might be given.

1. *Aphneope sericata*. (Pl. XXII. fig. 1.)

A. purpureo-brunnea; elytris pubescentibus, maculis albo-sericeis dispersis, tertia apicali, nigris; antennis, tibiis, tarsisque testaceo-ferrugineis.

Port Denison.

Purplish-brown or claret-colour, the head and prothorax closely punctured with a few scattered erect hairs; the elytra with a short velvety pubescence, the posterior third deep black but the pubescence ceasing on the apical portion, before the black a line of white spots, others more dispersed towards the base; these spots are shallow impressions on the elytra, which are lined with white silky hairs, radiating from nearly a common centre; body beneath, except the four last abdominal segments and femora, luteous-brown, the four last segments black; antennæ, tibiæ and tarsi pale ferruginous. Head produced and subquadrate in front, rather protuberant behind and below the eyes, then suddenly constricted into a narrow neck; prothorax with a strong conical tooth at the side behind the middle, on the disc, nearly in the centre, are two well-marked tubers; scutellum scutiform; elytra slightly incurved at the sides, the apex rounded and convex above; antennæ scarcely so long as the body.

Length 8 lines.

The genus *Tropis*, of Mr. Newman, does not appear to have been described. The following are its characters.

Genus TROPIS.

Caput porrectum, productum, *fronte* quadrata. *Oculi* reniformes, horizontales. *Antennæ* lineares, 11-articulatæ, inter oculos insertæ, distantes, articulo basali elongato, claviformi, tertio cæterisque plus minusve subæqualibus, vel paullo decrescentibus. *Prothorax* sub-elongatus, antice postice constrictus, lateribus armatus vel conico-productus. *Elytra* subdepressa, costulata; *coxæ* anticæ prominulæ, contiguæ. *Acetabula* antica valde angulata. *Mesosternum* parvum. *Tarsi* mediocres, dilatatæ.

Mr. Newman gives as the type his *Rhagiomorpha oculifera* (Ann. Nat. Hist. v. p. 21), a very rare insect, from Tasmania. *Tropis dimidiata*, Newm., the other species, is very differently coloured, but I can see nothing to warrant its generic separation.

Genus PHAOLUS.

Caput breve, rotundatum. *Oculi* reniformes. *Antennæ* 12-articulatæ, inter oculos insertæ, distantes, elongatæ, subsetacæ, articulo basali brevissimo, incrassato, tertio cæterisque, ultimo excepto, subæqualibus. *Palpi* apice truncati. *Prothorax* transversus, lateribus dentatis. *Elytra* brevica, subparallela. *Pedes* breves, *tarsorum* articulo basali triangulari. *Prosternum* postice truncatum, *mesosterno* depresso.

The 12-jointed, subsetaceous antennæ sufficiently characterize this genus, which in most other respects is nearly allied to *Pæcilosoma metallicum*, Newm., which, however, is not a *Pæcilosoma*, as I have pointed out below.

1. *Phaolus Macleayi*. (Pl. XXIII. fig. 3.)

P. cupreo-violaceus; *palpis oculisque* fuscis.
New South Wales.

Rich copper, with violet reflections, especially on the head and prothorax; head very short in front, coarsely punctured, with a deep impression on the vertex and between the eyes; lip very small, black; antennæ 12-jointed, subsetaceous, longer than the body, distant at the base, inserted between the eyes, the basal joint very short and thick, the third also somewhat thick, the rest, except the last, about equal in length, the last shorter and rather compressed, as well as the two or three preceding it; prothorax transverse, scarcely wider than the head, with scattered black hairs, sparingly punctured, and somewhat corrugated, the side with a moderate tooth towards the base; scutellum rounded posteriorly; elytra glabrous, minutely punctured; body beneath violet, with a blackish pile.

Length 6 lines.

Genus IOTHERIUM.

Caput breve. *Oculi* reniformes. *Antennæ* 11-articulatæ, distantes, breves, apicem versus crassiores, articulo basali obconico, tertio cæteris longiori, tribus ultimis confertis. *Prothorax* transversus, lateribus spinosis. *Elytra* ampla, subparallela. *Prosternum* postice truncatum, *mesosterno* depresso.

The *Pæcilosoma metallicum* cannot properly be referred to *Pæcilosoma*, as in that genus the sterna are constructed quite differently, the mesosternum being elevated into a sharp keel, the anterior part of which is received into a notch of the prosternum.

The type of *Iotherium* is a rare and beautiful insect from Tasmania; but I have lately received from Mr. W. Macleay the same species, taken, it appears, in the neighbourhood of Sydney. In Victoria it does not appear to be uncommon.

EXPLANATION OF THE PLATES.

PLATE XXII.

- Fig. 1. *Aphneope sericata*.
2. *Elete inscripta*.
3. *Solimnia sublineata*.
4. *Thyada barbicornis*.
5. *Mycerinus luctuosus*.

PLATE XXIII.

- Fig. 1. *Phalota tenella*.
2. *Oricopis umbrosus*.
3. *Phaolus Macleayi*.
4. *Typhocesis Macleayi*.
5. *Cleadne melanaria*.
6. *Atimura terminata*.
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