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MEMOIRS, No. 2.

LORD HOWE ISLAND.

ITS

Zoology, Geology, and Physical Characters.

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No. 4.

THE INSECT FAUNA OF LORD HOWE ISLAND.

BY

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THE INSECT FAUNA OF LORD HOWE ISLAND.

WITH the exception of two Rhynchophora, described by MM. Saunders and Jekel in 1855, and two Longicorns, made known by Messrs. Adam White and J. Thomson, nothing of importance was published concerning the insects of Lord Howe Island until the year 1874-5, when Mr. F. P. Pascoe described a few remarkable forms from material collected by Mr. G. Masters. Beyond these scattered but interesting descriptions nothing has appeared on the insect fauna of the Island, and I, therefore, propose in this paper to submit all the material to which I have been able to obtain access to a careful examination. The greater part of this material is contained in the collection of the Australian Museum, but I have also had at my disposal a few species from other sources. The collections from Lord Howe Island in the former are mainly the result of Mr. Masters' labours, during three days collecting in June, 1869, and of those of Mr. Etheridge's party, which visited the island, at the instance of the Trustees of that Institution, in August, 1887, and of the efforts of Mr. E. H. Saunders, who made considerable collections there in the beginning of the following year. The latter collection is of special interest in that it contains a number of insects from the summit of Mount Lidgbird, a rocky peak, some 2,500 feet high, of which the entomology was previously unknown.

The insect fauna of Lord Howe, viewed in relation to generic distribution, displays a marked affinity to the fauna of the Australian sub-region, such as we should expect from the geographical position of the island. Indeed, with the exception of the endemic genera, the only extra-Australian forms with which I am acquainted are two genera of Longicorns, *Somatidia* and *Xyloteles*, both typical of New Zealand. I have already stated* my belief that the insect-fauna of Norfolk Island, the other oceanic dependency of New South Wales, is essentially Australian in its character, and in support of my conclusion I have given a list of the species as far as they are known to me. I now propose to adopt a similar course with the insects of Lord Howe Island; and to illustrate the relationship of the Coleoptera with those of the mainland by a table showing the distribution of the genera and species. A glance at this table will bring to light the two prominent features of the fauna,—1st. That the more conspicuous genera (*e.g.*, *Scaraphites*, *Lamprima*, *Isodon*, *Saragus*, *Leptops*, &c.) are peculiarly Australian;—2nd. That the Island contains a number of highly-modified endemic forms, *e.g.*, *Cormodes*, *Embaphiodes*, *Æthreus*, *Hybomorphus*, *Blax*, &c.

* Report on a Small Zoological Collection from Norfolk Island.—Proc. Linn. Soc. N.S. Wales, 1887, II, pp. 1001-1014.

TABLE OF COLEOPTERA SHOWING GEOGRAPHICAL AFFINITIES.

- A. Genera or Species of wide or cosmopolitan range.
 B. Genera or Species which extend to Malaysia or the Polynesian Islands.
 C. Genera or Species which are common to Australia and New Zealand.
 D. Genera or Species which are confined to Australia.
 E. Genera or Species which are confined to New Zealand.
 F. Genera or Species which are peculiar to Lord Howe Island.
 G. Genera or Species which are common to Norfolk and Lord Howe Islands.

	A	B	C	D	E	F	G		A	B	C	D	E	F	G
Scaraphites				d				Aphodius	a		c				
Macleayi				d				lividus	a		c				
Clivina	a		c					Heteronychus	a						
vagans				d				vulgivagus				d			
sp. n. ?				d?				Isodon				d			
Chlaenius	a					g		noctis						f	
peregrinus				d		g		Melobasis		b					
Diaphoromerus				d		g		purpurascens				d			g
iridipennis				d		g		empyria						f	
Lestignathus				d				Monocrepidius	a		c				
fugax						f		striatus				d			g
Dyscolus	a		e					Telephorus	a						
hilaris						f		apterus						f	
Cybister	a		c					Cormodes						f	
tripunctatus	a							Darwini						f	
Sternolophus	a							Omadius	a						
nitidulus				d				prasinus				d			
Metoponcus	a		e			g		Hylecoetus	a						
cyaneipennis				d		g		pervagus				d			
fugitivus						f		Hopatrum	a						g
Creophilus	a		e			g		calvulum						f	
erythrocephalus		b				g		Platydema	a						
Hesperus	a					f		spicata				d			
pacificus								Saragus				d			
Plagonophana			e					exulans						f	
Kingi				d				guelmi						f	
Platysoma	a		c					Nyctobates	a						
sp. n. ?						f?		sterrha						f	
Saprinus	a		c					Meneristes				d			
gayndahensis				d				vulgaris						f	
Ostoma	a							curtulus						f	
pudicum						f		Mordella	a		c				
Neotrichus	a							australis				d			
lucifugus						f		sp. n. ?						f?	
Phormesa		b						Sphaeropterus		b					
epitheca						f		barbipes						f	
Gempylodes	a							Leptops				d			
tmetus				d				Etheridgei	f	
Pycnomerus	a		c					Orthorrhinus		b	
moestus						f		lateralis						f	
Dendrophagus	a		e					vagus				d			
australis				d				Tranes		b					
Cryptamorpha	a		c					insularis						f	
Desjardinsii	a		c					Belus				d			
*Lamprima				d				acrobeles						f	
insularis						f		Isacantha				d			
Figulus	a							inculta						f	
regularis		b													

* This genus extends as far as Waigiou, North-west New Guinea.

	A	B	C	D	E	F	G		A	B	C	D	E	F	G	
Embaphiodes ...						f		Ceresium	a		c					g
pyxidatus						f		simplex		b	c					g
Imalithus				d				sp. ?				d?				
sp. n. ?						f?		Hemesthocera				d				
Euthyrrhinus ...		b	c					flavilinea				d				
meditabundus..		b					g	Clytus	a		c					
Aethreus						f		australis		b						
cicatricosus ..						f		Blax							f	
Hybomorphus ...						f		Wollastoni							f	
melanosomus..						f		Xyloteles		b						
Idotasia		b	c					segrex							f	
montivaga						f		Somatidia					e			
squamigera ...						f		pulchella							f	
Calandra	a		c					capillosa							f	
granaria	a		c					aranea							f	
oryzæ	a		c					Monohammus	a							
Aphanocorynes ..				d				fistulator		b						
procerus						f		fasciatus		b						
Cossonus	a							Zygocera	a							
lethargicus ...						f		bifasciata		b						
Litocerus	a							Sybra	a							
Balli						f		sp. n. ?							f?	
Cnemoplites				d				Chaetocnema.....	a							
Howei						f		sp. n. ?							f?	
Howea						f		Coccinella	a		c					
angulata						f		transversalis ...	a							
Phacodes				d												
obscurus				d												

COLEOPTERA.

In the following list the species obtained by Mr. Etheridge's party are distinguished by an asterisk.

CARABIDÆ.

*SCARAPHITES MACLEAYI, Westw.

Scaraphites Macleayi, Westwood, Arcana Entom., 1842, I, p. 157.

The occurrence of a typical Australian species of *Scaraphites*, a genus of large wingless ground beetles, in Lord Howe Island, is particularly interesting in view of the limited distribution of the group. A considerable number of specimens, which were found beneath logs, &c., have been obtained by the collectors who have visited the island.

CLIVINA VAGANS, Putz.

Clivina vagans, Putzeys, Stett. Ent. Zeit., 1866, p. 38.

Several specimens, which only appear to differ from this species in their somewhat larger size (9½ mm.), and rather less narrowed prothorax. *C. vagans* is found in Tasmania and also in South Australia.

CLIVINA, sp.

A small copper-coloured species.

*CHLÆNIUS PEREGRINUS, Laferté.

Chlænium peregrinus, Laferté, Ann. Soc. Ent. France, 1851, p. 247.

Common in Norfolk Island as well as throughout the Australian continent.

*DIAPHOROMERUS IRIDIPENNIS, *Chaud.*

Diaphoromerus iridipennis, Chaudoir, Bull. Mosc., 1843, p. 405.

This species is common in Queensland, and also occurs in Norfolk Island.

*LESTIGNATHUS FUGAX, sp. nov.

Elongate-ovate, dark piceous, shining, sometimes with a bluish tinge; elytra strongly striate, the interstices rather narrow, plain; antennæ (except the basal joint) and palpi reddish testaceous; legs rufo-piceous.

Head narrow; eyes rather prominent. Antennæ more than two-thirds the length of the body, the basal joint piceous. Prothorax narrowed behind, with a distinct median line; the sides rounded in front; posterior angles rounded. Elytra oblong-ovate, very slightly contracted before the middle, strongly and regularly striate, the interstices narrow and smooth, the second stria, on each side, with an obscure puncture before the middle; sides slightly sinuate before the apex. Legs rather long. Length 13 mm.

Differs from the Tasmanian *Lestignathus cursor*, Er., to which it is very nearly allied, by its more strongly and closely striated elytra, and by having the prothorax rather less narrowed behind. The head is a little smaller, and the interstices, besides being narrower, have a tendency to approach one another both in front and behind.

*DYSCOLUS HILARIS, sp. nov.

Elongate-ovate, piceous, shining; head rather broad, moderately convex; prothorax transverse, the margins broad; elytra rather strongly striate, the interstices broad and smooth; antennæ reddish testaceous; legs pitchy red.

Eyes moderately prominent. Antennæ about half as long as the body. Prothorax considerably narrowed behind, with a distinct median line, and a large foveolate impression on each side at the base; sides rounded for nearly half their length, then narrowed to the base; the posterior angles rounded. Elytra oblong-ovate, strongly and regularly striate, the third stria, with an obscure puncture near the base; the second stria with two obscure punctures, one near the middle, the other towards the apex; sides rounded, slightly sinuate before the extremity. Length 10-11 mm.

Summit of Mount Ledgbird (2,500 feet), and throughout the island; appears to be a common species.

Allied to *Dyscolus dilatatus*, Er., but with the head more convex, and the prothorax broader and more strongly margined, &c. The basal joint of the antennæ is also proportionately longer.

DYTISCIDÆ.

CYBISTER TRIPUNCTATUS, *Oliv.*

Dytiscus tripunctatus, Olivier, Ent. 1795, III, p. 14, pl. 3, fig. 24; Sharp, Trans. Royal Dubl. Soc., (2) II, p. 727 (1882)—*Cybister gayndahensis*, Macleay, Trans. Ent. Soc., N.S.W., 1871, II, p. 127.

A single specimen of this species, which is found in Australia, and almost universally throughout the tropical and sub-tropical regions of the old world, was recently obtained in Lord Howe Island by Mr. Langley.

HYDROPHILIDÆ.

*STERNOLOPHUS NITIDULUS, *Macl.*

Sternolophus nitidulus, Macleay, Trans. Ent. Soc. N.S.W., 1871, II., p. 129.

I have seen specimens from fresh-water pools near Mount Gower, which agree in every respect with the type of this Queensland species.

STAPHYLINIDÆ.

*METOPONCUS CYANEIPENNIS, *Macl.*

Leptacinus cyaneipennis, Macleay, Trans. Ent. Soc. N.S.W., II, p. 137 (1871),

M. cyaneipennis, Olliff, Proc. Linn. Soc. N.S.W., (2) II, p. 477 (1887).

Apparently not uncommon.

METOPONCUS FUGITIVUS, sp. nov.

Elongate, pitchy red, shining, finely and sparingly pubescent; elytra much shorter than the prothorax, reddish piceous; abdominal segments dark pitchy red; legs reddish testaceous.

Head large, much longer than broad, very slightly narrowed in front, truncate behind, extremely finely and very sparingly punctured, a few larger but somewhat obscure punctures on the disc, two behind the eye, one near the posterior angle, and two on the posterior margin; the frontal sulci oblique, moderately conspicuous; the inner orbital margin of the eye impressed. Antennæ reddish testaceous, second joint slightly longer than broad, joints 3-10 transverse. Prothorax somewhat convex, a little narrowed posteriorly, sinuate behind the middle, sparingly and extremely finely punctured, with four moderately distinct dorsal punctures, two on each side of the middle; anterior and posterior angles rounded. Scutellum pitchy. Elytra decidedly shorter than the prothorax, a little longer than broad, almost piceous posteriorly, rather paler near the base, very finely and sparingly punctured, with a short impression on each side of the scutellum at the base. Abdomen finely and sparingly punctured. Length $6\frac{1}{2}$ mm.

Summit of Mount Ledgbird (2,500 feet).

Easily distinguished from *Metoponcus cyaneipennis*, Macl., by its short elytra and obscure colouring.

*CREOPHILUS ERYTHROCEPHALUS, *Fabr.*

Staphylinus erythrocephalus, Fabricius; Olliff, Proc. Linn. Soc. N.S.W., (2) II, p. 492 (1887).

Widely distributed throughout Australia, and extending as far as Norfolk Island, New Caledonia, Tonga, &c.

HESPERUS PACIFICUS, *Oll.*

Hesperus pacificus, Olliff, Proc. Linn. Soc. N.S.W., (2) II, p. 509 (1887).

Two specimens found under dead leaves.

One or two species of this family—chiefly belonging to the later tribes of the Staphylininæ—which are known to me from Lord Howe Island, are not recorded here, as they cannot be satisfactorily determined without an examination of the Australian species, but a detailed account of them will be included in the forthcoming part of my "Revision of the Staphylinidæ of Australia," now in course of publication in the "Proceedings of the Linnean Society of New South Wales."

SCYDMENIDÆ.

PHAGONOPHANA KINGI, *King.*

Phagonophana Kingi, King, Trans. Ent. Soc. N.S.W., I, p. 92, pl. 5, figs. A 1-4 (1864).

Several badly-preserved specimens of this interesting species, which is known to range from Albany, West Australia, to Queensland.

HISTERIDÆ.

PLATYSOMA, sp.

A single specimen.

SAPRINUS GAYNDAHENSIS, *Macl.*

Saprinus gayndahensis, Macleay, Trans. Ent. Soc. N.S.W., II, p. 158 (1871).

Two or three specimens of a *Saprinus*, which were found *in stercore*, agree very well with this species.

TROGOSITIDÆ.

OSTOMA PUDICUM, sp. nov.

Plate VI, f. 7.

Ovate, depressed, black, somewhat shining; prothorax very coarsely punctured on the disc, densely clothed at the sides with light brown appressed scales; elytra at the base broader than the prothorax, thickly covered with scales, each with seven costæ composed of bead-like elevations.

Head transverse, strongly and closely punctured in front, rather less strongly punctured behind. Antennæ eleven-jointed, ferruginous, the club distinctly three-jointed. Prothorax deeply emarginate in front, the sides rounded anteriorly, abruptly narrowed and indistinctly serrate behind the middle. Scutellum transverse, rounded behind, irregularly punctured. Elytra about twice as long as the head and prothorax together, slightly narrowed behind, with broad margins, the costæ moderately raised, shining, interrupted at short intervals by slightly impressed punctures, the interstices flat, the third, fourth, and fifth, considerably broader than the others; underside dark ferruginous, shining; sterna coarsely punctured; abdomen finely and closely punctured. Legs dark ferruginous. Length 8—11 m.m.

Summit of Mount Ledgbird (2,500 feet); also found on the low-lying land.

The species described above agrees with *Ostoma* in form and all essential points of structure; the prosternum, however, is much broader behind the coxæ, the margins of the elytra are more dilated, and the form of the elytral costæ is very different. In spite of these differences, I think the species must be retained in the genus, unless a new one is established for its reception. A variety occurs in which the disc of the prothorax is tinged with bronze.

COLYDIIDÆ.

NEOTRICHUS LUCIFUGUS, sp. nov.

Elongate, parallel-sided, dark fuscous, thickly covered with erect fulvous setæ; prothorax distinctly longer than broad, granulose, sides parallel; elytra strongly seriate-punctate.

Head broadly transverse, strongly rugulose; eyes very prominent. Antennæ dark reddish testaceous, with the penultimate joint very broad. Prothorax broader than the head, rather thickly covered with coarse granules and short erect setæ; anterior angles prominent; the sides explanate and clothed with a row of outstanding setæ. Elytra slightly narrower in front than behind, with series of coarse punctures; the interstices narrow and bearing erect setæ; near the humeral angles, which are somewhat prominent, the elytra have a tuberculate appearance. Underside dull, rather strongly and sparingly punctured. Legs fuscous; the tibiæ with conspicuous setæ on the outer margins. Length 4—5½ mm.

There can, I think, be no doubt as to the identity of this species with *Neotrichus*, recently characterized by Dr. Sharp. It is nearly allied to his *N. serratus* (Journ. Linn. Soc., XIX, p. 117, pl. 6, fig. 1, 1885), which it resembles in having the surface granulose, and the sides of the prothorax parallel; but it may be distinguished by its less coarse setæ. The genus would appear to have a wide distribution, as it is now known from Japan, Ceylon, and Lord Howe Island.

PHORMESA EPITHECA, sp. nov.

Elongate, depressed, fuscous; prothorax with the margins luteous, strongly bicostate, with a strongly-marked elevation on each side in front, the sides regularly rounded; elytra luteous, marked with fuscous, each with five costæ.

Head densely and moderately strongly rugulose-punctate. Antennæ pitchy red, with a very distinct two-jointed club. Prothorax about one-third broader than long, somewhat narrowed in front, very strongly and closely rugulose-punctate between the costæ, much less strongly punctured behind the costæ. Scutellum very minute. Elytra about one and a half times as long as the head and prothorax together, parallel-sided for two-thirds of their length, then gradually rounded to the apex, irregularly marked with inconspicuous fuscous spots; each elytron with five moderately-elevated costæ, the interstices broad and furnished with a double series of indistinct punctures. Underside opaque, sterna rugulose, abdominal segments finely punctured. Legs pitchy red; tibiæ paler. Length $5\frac{1}{2}$ mm.

Summit of Mount Ledgbird (2,500 feet.)

The bicostate prothorax and ample size of this species will distinguish it from the other members of this genus, which appears to have a wide range in the Malay Archipelago.

GEMPYLODES TMETUS, sp. nov.

Very narrow and elongate, opaque black; prothorax rugulose-punctate, with a deeply-impressed median line, and an elevated ridge on each side of the middle; elytra bicostate, with rows of deeply-impressed punctures.

Head rather strongly and moderately closely punctured; eyes not very prominent. Antennæ pitchy, gradually thickening towards their extremity, the first two joints short, the third longer than any of the succeeding ones except the apical, which is pointed at the tip. Prothorax very elongate, narrowed posteriorly and slightly constricted behind the middle, very closely and irregularly punctured; the median channel more deeply impressed in the middle than in front or behind. Scutellum very small, with a few minute punctures. Elytra about twice as long as the head and prothorax together, very slightly narrowed in the middle, strongly seriate-punctate, the interstices, except the second and fourth, which are elevated into conspicuous carinæ, almost obliterated; the suture slightly raised; the apex of each elytron emarginate within. Underside evenly and not very closely punctured. Legs reddish testaceous. Length $6\frac{1}{2}$ -9 mm.

Near the foot of Mount Ledgbird, under bark; also found at Maryborough, Queensland.

Allied to *Gempylodes macer*, Pasc., and *G. Lewisii*, Sh., but readily distinguished by its densely punctured and ridged prothorax.

PYCNOMERUS MOESTUS, sp. nov.

Elongate, narrow, depressed, shining; antennæ with a distinct two-jointed club; head and prothorax piceous, elytra pitchy red, the latter with strongly-punctured striæ.

Head rather strongly and closely punctured, with two impressions between the antennæ; eyes not very prominent. Antennæ pitchy red, moderately robust. Prothorax slightly longer than broad, a little narrowed posteriorly, punctuation coarse and dense, somewhat confused on the disc; the anterior angles not prominent; sides slightly rounded. Scutellum very minute, impunctate. Elytra rather strongly punctate-striate, the interstices narrow, slightly raised and smooth; humeral angles not prominent. Legs pitchy red. Length $3\frac{1}{2}$ - $4\frac{1}{2}$ mm.

Summit of Mount Ledgbird (2,500 feet).

Closely related to the New Zealand *Pycnomerus longulus*, Sh.,† a species which should be added to the Australian list, as I have seen specimens from the Pine Mountains, Queensland. *P. moestus* may be known by its more strongly-punctured prothorax, which lacks even a vague discal depression, and its strongly-punctured elytral striæ and raised interstices.

CUCUJIDÆ.

DENDROPHAGUS AUSTRALIS, *Erich.*

Dendrophagus australis, Erichson; Olliff, Proc. Linn. Soc. N.S.W., X, p. 218 (1885).

A common and widely-distributed species which is found throughout Australia.

CRYPTAMORPHA DESJARDINSII, *Guér.*

Psammæcus Desjardinsii, Guérin; Olliff, Proc. Linn. Soc. N.S.W., X, p. 220 (1885).

This species is frequently found on the banana trees, but it is probably an introduced species, as it is almost cosmopolitan in its range, being one of those species which are carried about in articles of commerce.

LUCANIDÆ.

*LAMPYRIS INSULARIS, *Macl.*

Lampyris insularis, Macleay, Proc. Linn. Soc. N.S.W., X, p. 137 (1885).

This species appears to be peculiar to the island, where the males are sometimes found in great numbers clinging to the limbs of low-growing shrubs and flying in the sunshine. The females are not nearly so abundant. Both sexes vary greatly in colour, some being almost violet or pale-bluish green, but the commonest form is of the ordinary brassy hue.

*FIGULUS REGULARIS, *Westw.*

Figulus regularis, Westwood, Ann. Sc. Nat., (2) I, p. 120 (1834).

A species of wide distribution on the Australian continent; also found in New Guinea.

SCARABÆIDÆ.

APHODIUS LIVIDUS, *Oliv.*

Aphodius lividus, Olivier, Ent. I, p. 86, pl. 26, fig. 222.

This species is cosmopolitan in its range.

DYNASTIDÆ.

HETERONYCHUS VULGIVAGUS, sp. nov.

Elongate, dark piceous, shining, moderately convex; head with two central tubercles; prothorax exceedingly finely and very sparingly punctured; elytra strongly striate-punctate in the middle; pygidium irregularly punctured at the base.

Head narrowed and bisinuate in front, transversely rugulose; the median carina indistinct, with a strongly-developed tubercle on each side of the middle. Antennæ bright castaneous. Prothorax about one-third broader than long, slightly narrowed in front, finely margined; the anterior angles acute, the posterior rounded. Scutellum triangular, smooth. Elytra with eight rows of large, more or less impressed, punctures, of which the four central rows are abbreviated posteriorly; the second, fifth, and seventh rows

† Trans. Royal Dubl. Soc., (2) III, p. 389, pl. 12, fig. 21 (1886).

more strongly impressed than the others; the apex of each elytron very strongly and irregularly punctured. Underside piceous; the sterna moderately closely covered with long erect pubescence. Legs dark castaneous; the anterior tibiæ obtusely tridentate, the others bicarinate. Length 14—16 mm.

Low-lying lands, at light; also found in the vicinity of Sydney, New South Wales.

ISODON NOCTIS, sp. nov.

Elongate-ovate, rather robust, castaneous, shining, very convex; prothorax broadly transverse, smooth; elytra rather strongly striate-punctate, the striæ abbreviated posteriorly; pygidium finely and irregularly punctured at the base.

Head narrowed in front, rather strongly rugulose in front of the median carina, which is moderately distinct, behind strongly and irregularly punctured, especially near the sides; the base smooth. Antennæ castaneous. Prothorax broadly transverse, strongly convex, somewhat narrowed in front; the sides strongly rounded; the posterior margin somewhat impressed on each side of the middle. Scutellum smooth. Elytra with the sutural stria finely punctured and moderately strongly impressed, the punctures of the discal striæ exceedingly coarse and somewhat irregular, the interstices moderately broad, a broad impunctate interval between the sutural and the first discal stria; the apex of each elytron moderately strongly and very sparingly punctured. Underside pale castaneous; the sterna thickly clothed with long silky pubescence. Legs castaneous; tibiæ and tarsi inclining to pitchy; anterior tibiæ tridentate, the others bicarinate. Length 16—20 mm.

This species is evidently allied to *Isodon lævicollis*, Macl., but may be separated at once by the presence of the broad impunctate intervals on the elytra between the sutural and the discal striæ, by having the sides almost free from punctures, and the head smooth at the base. In *I. lævicollis* there is an irregular row of punctures midway between the sutural and the first discal stria, and the striæ themselves are continued until they reach the side; the punctures in this species, although more irregular and much more numerous, are not nearly so deep as in *I. noctis*.

BUPRESTIDÆ.

MELOBASIS PURPURASCENS, *Fabr.*

Melobasis purpurascens, Fabricius, Syst. El., II, p. 217—*M. purpureosignata*, Lap. and Gory, Mon., pl. 2, fig. 9.

This species is not uncommon in Australia; it is also found in Norfolk Island.

MELOBASIS EMPYRIA, sp. nov.

Coppery green, shining; prothorax bright coppery, purplish on the disc; scutellum fiery copper; elytra coppery, with purple reflexions, irregularly striate-punctate, the third and fourth interstices obviously raised.

Head nearly flat in front, coarsely and very densely punctured. Prothorax at the base more than one-third broader than long, considerably narrowed in front, rather strongly and sparingly punctured on the disc, the punctation at the sides much stronger and denser, the anterior margin slightly produced in the middle, its angles produced and rounded; the sides rounded; the posterior margin nearly straight. Scutellum excessively finely punctured. Elytra about twice as long as broad, coppery, inclining to fiery near the suture and about the middle, rather strongly and irregularly striate-punctate; the sides straight and nearly parallel for about two-thirds of their length,

then denticulate, and narrowed to the apex. Underside bright coppery green, the sterna strongly and not very closely punctured, the abdomen with the punctuation somewhat obsolete. Legs coppery green, finely punctured, the tarsi darker. Length 12 mm.; greatest width $4\frac{1}{2}$ mm.

A distinct species of *Melobasis*, evidently belonging to the *M. nervosa* group.

ELATERIDÆ.

MONOCREPIDIUS STRIATUS, *Macl.*

Monocrepidius striatus, Macleay, Trans. Ent. Soc. N.S.W., II, p. 252 (1872).

This species is found in Queensland, and also in Norfolk Island.

LAMPYRIDÆ.

*TELEPHORUS APTERUS, sp. nov.,

Plate VI, f. 3.

Moderately robust, dull steel-blue, somewhat shining, clothed with very fine dusky pubescence; prothorax very slightly longer than broad, the posterior third bright testaceous; elytra abbreviated, finely punctured and coriaceous; abdomen elongate, segments 1-5 margined with testaceous posteriorly.

Head very finely punctured. Antennæ fuscous, the second joint very small. Prothorax considerably broader than the head, scarcely narrowed behind, extremely finely and irregularly punctured, the anterior two-thirds steel-blue, the posterior third testaceous; the sides sub-parallel, all the angles rounded; an indistinct median line. Scutellum truncate behind, extremely finely punctured. Elytra narrowed anteriorly, rounded behind, not reaching beyond the third abdominal segment, finely and irregularly punctured, the suture slightly raised; the inner apical angles rounded. Abdomen ample, very finely punctured, the first to fifth, and sometimes the sixth, segments broadly bordered with testaceous. Underside blue-black, the abdominal segments bordered with testaceous. Legs blue-black, finely pubescent. Length 13-18 mm.

Abundant throughout the island on low-growing shrubs; also found on the summit of Mount Ledgbird. The female is noticeably larger than the male, and has the abdomen proportionally longer and broader; both sexes are apterous. A variety occurs in which the first five abdominal segments are yellow, with the anterior margins narrowly bordered with blue-black.

This species is one of the most interesting of the endemic Coleoptera in that it shows a marked modification of a type of universal distribution. In spite of the abbreviated elytra, and the absence of wings, it does not differ materially from *Telephorus*, and I therefore venture to associate it with that genus. Perhaps subsequently it will be necessary to separate it under another name.

CLERIDÆ.

CORMODES DARWINI, *Pasc.*

Cormodes Darwini, Pascoe, Journal Entom., I, p. 47, pl. 2, fig. 8 (1860).

A single specimen of this remarkable wingless species, found near Mount Gower, under bark, is now in the collection of the Australian Museum.

OMADIUS PRASINUS, *Westw.*

Omadius prasinus, Westwood, Proc. Zool. Soc. Lond., 1852, p. 53, pl. 26, fig. 2.

This widely-distributed Australian insect appears to be tolerably common.

LYMEXYLONIDÆ.

HYLECOETUS PERVAGUS, sp. nov.

Elongate, clothed with short griseous pubescence, head and prothorax piceous, the latter longer than broad, finely and densely rugulose-punctate; elytra ferruginous, very finely and closely punctured, each with two feebly elevated costæ.

Head rather large, finely rugulose between the eyes, which are very large, prominent, and contiguous in front. Antennæ reddish testaceous, clothed with fuscous pubescence, the terminal joint elongate, acuminate at the extremity. Prothorax decidedly longer than broad, narrowed behind, densely and irregularly punctured, finely and closely pubescent, the pubescence more distinct near the sides; the anterior margin arcuate, the angles rounded; sides with a slight prominence in the middle. Scutellum longer than broad, finely rugulose-punctate. Elytra almost parallel-sided, finely and very-closely punctured, rounded behind; each elytron with two feeble linear elevations on the disc, and a third very indistinct but similar elevation near the side. Underside reddish testaceous, clothed with fine pubescence, and very finely and densely punctured. Legs reddish testaceous. Length 15-21 mm.

A single specimen dug out of a fallen log; also found at Kiama, in the Illawarra district of New South Wales.

Apparently a very distinct species differing from the few known Eastern forms in having the prothorax, which is without a central furrow, decidedly longer than broad. Its nearest ally is probably *Hylecoetus javanicus*, Chev.,† a species which ranges from Sumatra to North-west New Guinea.

TENEBRIONIDÆ.

*HOPATRUM CALVULUM, sp. nov.

Elongate ovate, moderately convex, dull opaque black, very sparingly clothed with extremely fine fulvous pubescence; prothorax extremely finely rugulose; elytra very obscurely punctate-striate, the intervals very minutely rugulose.

Head broadly transverse, very finely rugose punctate; the sides produced in front of the eyes. Antennæ ferruginous. Prothorax strongly emarginate in front; the sides strongly rounded; the posterior margin bisinuate. Scutellum transverse, rounded behind, finely punctured at the base. Elytra sub-parallel for two-thirds of their length, then rounded to the apex, obscurely punctate-striate; the interstices broad, nearly flat, and minutely rugulose. Underside somewhat shining, moderately closely and irregularly punctured. Legs piceous, tibia and tarsi inclining to ferruginous. Length 6-7 mm.

Allied to *Hopatrum Mastersi*, Macl., and the Norfolk Island *H. insulanum*, Oll.,‡ but differs in its smoother appearance and more obscurely striate elytra. To the naked eye its surface appears to be almost smooth, but when examined under a powerful lens it is seen to be minutely rugulose or roughened.

PLATYDEMA SPICATA, sp. nov.

Ovate, pitchy black, shining, moderately convex, prothorax extremely finely and rather closely punctured; elytra finely punctate-striate, the striæ not extending to the apex, the interstices broad and slightly raised.

† Cf. Fairmaire, Notes Leyd. Mus., ix, p. 155 (1887).

‡ Proc. Linn. Soc. N.S.W., (2) II, p. 1006, (1887).

Head rounded in front, extremely finely punctured; the male with two horizontal pointed horns above the eyes; the female with two similarly-placed processes, which are blunt at the extremity. Antennæ dark ferruginous, finely pubescent. Prothorax at the base about twice as broad as long, extremely finely and rather closely punctured, with two indistinct oblique impressions behind, one on each side of the middle. Scutellum broadly transverse, extremely finely punctured. Elytra strongly convex, finely punctate-striate, the striæ not very deeply impressed and abbreviated posteriorly, the interstices broad, slightly raised, and extremely finely and rather sparingly punctured. Underside pitchy black, somewhat shining, finely and sparingly punctured. Legs dark ferruginous, tarsi paler. Length 6—6½ mm.

Except as regards the development of the processes on the head, the sexes of this species do not differ perceptibly. It appears to be very distinct from the described Australian forms; but I have seen a *Platydemia* from Bowen, Queensland, and Kiama, New South Wales, which agrees with it in every point except that the elytral striæ are less strongly marked.

**SARAGUS EXULANS*, *Pasc.*

Saragus exulans, Pascoe, *Journal Entom.*, II, p. 466 (1866); Macleay, *Proc. Linn. Soc. N.S.W.*, (2) II, p. 667 (1887).

An abundant species, which varies from 10 to 14 mm. in length.

**SARAGUS GULIELMI*, *sp. nov.*

Elongate-ovate, moderately convex, pitchy black, somewhat shining; prothorax finely and densely rugulose punctate; elytra closely and rather strongly lineate-punctate.

Head transverse, rather finely rugulose punctate; clypeus with the sides sloping, scarcely emarginate in front. Antennæ dark ferruginous. Prothorax transverse, considerably narrowed and broadly emarginate in front, finely and closely rugulose punctured on the disc, more evidently rugulose near the sides; the lateral margins broad and not clearly defined. Scutellum very finely and sparingly punctured. Elytra rather strongly and somewhat irregularly lineate-punctate, the punctures less impressed posteriorly, the suture slightly raised. Underside pitchy black, somewhat shining; abdominal segments minutely punctured and finely aciculate at the sides. Legs pitchy; the tibia and tarsi ferruginous. Length 14—17mm.

Summit of Mount Ledgbird (2,500 feet), under stones; also found on the low-lying lands.

This species may be distinguished from *Saragus exulans*, with which it has hitherto been confused in more than one Sydney collection, by its comparatively longer and much more strongly punctured prothorax, and its more distinctly punctured elytra. In form it is more elongate, and usually it is larger in stature. This species, which, like the last, is probably endemic, is dedicated to the Hon. William Macleay, M.L.C., who has recently published an exhaustive review of the species of *Saragus* and the allied genera of Helæinæ.

**NYCTOBATES STERRHA*, *sp. nov.*

Plate VI, f. 1.

Elongate, robust, black, shining, strongly convex; prothorax broadly transverse, slightly narrowed behind, with a distinct median line; elytra very broad behind, narrowed in front, strongly punctate-striate, the interstices broad and convex.

Head and clypeus rather finely and sparingly punctured, the latter with an indistinct transverse impression in the middle. Antennæ dark ferru-

ginous, reaching to the middle of the prothorax, the third joint evidently longer than the succeeding ones. Prothorax finely and sparingly punctured; anterior angles deflexed and rounded; the sides slightly narrowed behind the middle; posterior angles nearly rectangular, very slightly produced; median line strongly impressed posteriorly. Scutellum rounded behind, very finely and irregularly punctured. Elytra at the base considerably broader than the prothorax, widening for two-thirds of their length, then rounded to the apex, the striæ are distinctly punctured, and the interstices broad and very convex. Underside black, highly polished; first three segments of abdomen finely and irregularly punctured; sterna and last two abdominal segments extremely finely and irregularly punctured. Legs pitchy black, shining, tarsi clothed with fulvous pubescence. Length 23—25 mm.; greatest width 10—11 mm.

As far as I can judge from the description, the above resembles *Promethis lethalis*, Pasc., from Queensland, in *facies*, but in that species the prothorax is said to be more contracted behind, and the elytral punctures indistinct as compared with *P. angulata*, two points in which this species certainly does not agree. In *N. sterrha* the prothorax is more rounded in front and less narrowed behind, and the punctures of the elytral striæ are more distinct, although, if anything, less strongly impressed. I have little doubt as to the generic position of this species, which is probably not confined to Lord Howe Island, as it answers very well to Lacordaire's diagnosis of *Nyctobates*; but I may add, that the characters of the genera in this division of the heteromorous beetles are generally so unsatisfactory that their identification is a matter of the greatest difficulty, to a student working at a distance from accurately-named collections. If, perchance, any errors of generic identification should occur in the species described in this paper, I trust that the presence of lithographed figures will obviate any serious confusion.

**MENERISTES VULGARIS*, sp. nov.

Plate VI, f. 6.

Elongate, black, shining, moderately convex; prothorax with the posterior angles very slightly produced; elytra rather finely punctate-striate, the interstices extremely finely punctured.

Head finely and very densely punctured in front, not so densely punctured behind; clypeal suture indistinct. Antennæ dark ferruginous. Prothorax broadly transverse, slightly narrowed both in front and behind, finely and not very closely punctured, the anterior angles rounded, the sides regularly rounded, the posterior angles slightly produced. Scutellum rounded behind, minutely punctured. Elytra at the base rather broader than the prothorax, widening for two-thirds of their length, then arcuately rounded to the apex, finely punctate-striate, the interstices broad, slightly raised, and minutely punctured. Underside pitchy black, somewhat shining, minutely punctured. Legs pitchy, tarsi paler. Length 12—15 mm.

Summit of Mount Ledgbird (2,500 feet); also found abundantly on the low-lying lands.

This species has many characters in common with *Meneristes servulus*, Pasc., but its more convex form, rounded prothorax, and finely punctured elytral striæ will at once distinguish it. The remarks appended to the last description, with regard to the insufficiency of the generic descriptions in this group, apply with special force to *Meneristes* and its allies. The forms described here agree with *Meneristes*, inasmuch that the tibiæ are spurred and the femora thickened, but the basal joints of the antennæ are more elongate than is usual in that genus.

*MENERISTES CURTULUS, sp. nov.

Elongate-ovate, black, shining, rather convex; prothorax rounded in front, the posterior angles scarcely produced; scutellum very small; elytra moderately strongly striate-punctate, the interstices broad, minutely and sparingly punctured.

Head finely and moderately closely punctured, rather smooth in the middle, finely wrinkled at the sides; clypeal suture nearly straight, strongly impressed; eyes very prominent. Antennæ ferruginous. Prothorax at the base not quite one-third broader than long, slightly narrowed both in front and behind, finely and not very closely punctured. Scutellum minute, triangular. Elytra at the base rather broader than the prothorax, arcuately narrowed from behind the middle to the apex, moderately strongly punctate-striate, the punctures placed at short intervals in the striæ, which are moderately impressed. Underside pitchy black, shining; the abdomen finely and sparingly punctured. Legs pitchy, tarsi ferruginous. Length 8—10 mm.

At once separable from the preceding species by its comparatively short, ovate form, broad, convex prothorax, and minute scutellum. It appears to be an abundant species.

MORDELLIDÆ.

MORDELLA AUSTRALIS, Bois.

Mordella australis, Boisduval, Voy. Astrob., II, p, 289 (1835).

A single specimen.

MORDELLA, sp.

An abraded example of a species nearly allied to *Mordella 14-maculata*, Macl.

CURCULIONIDÆ.

SPHAEROPTERUS BARBIPES, Saund. & Jek.

Isomerinthus barbipes, Saunders & Jekel, Ann. Soc. Ent. France, (3) III, p. 293, pl. 15, fig. 3 (1855).

This species is unknown to me.

*LEPTOPS ETHERIDGEI, sp. nov.

Plate VI, f. 5.

Elongate ovate, piceous, densely covered with griseous scales; rostrum long, depressed in the middle; prothorax rugulose, narrowed in front; elytra ample, seriate-punctate, obtusely bi-tuberculate posteriorly.

Head thickly covered with scales, those near the sides inclining to ochraceous; rostrum about as long as the prothorax. Eyes narrow, vertical. Antennæ rather long, the scape closely scaled, funiculus finely pubescent. Prothorax decidedly broader than long, moderately strongly rugulose, the scales inclining to ochraceous at the sides, an obscure median carina which is effaced anteriorly. Scutellum distinct, pointed behind. Elytra about two and a half times as long as the prothorax, somewhat flattened above, moderately strongly seriate-punctate, the punctures widely separated and somewhat irregular, the interstices broad and slightly raised, the third interstice slightly and the sixth rather strongly elevated posteriorly, giving the elytra a bi-tuberculate appearance. Underside and legs moderately closely scaled and finely pubescent. Length $12\frac{1}{2}$ mm.; greatest width $6\frac{1}{2}$ mm. †

A single example of this very distinct species was in the collection obtained by the party which recently visited Lord Howe Island under the charge of my colleague, Mr. R. Etheridge, junr.

† In the case of the Rhynchophorous beetles the measurements are exclusive of the rostrum.

**ORTHORRHINUS LATERALIS*, *Pasc.*

Orthorrhinus lateralis, Pascoe, Ann. Mag. Nat. Hist., (5) IX, p. 381 (1882).

Evidently not uncommon, as it occurs in most of the collections I have seen from the island.

**ORTHORRHINUS VAGUS*, sp. nov.

Sub-cylindrical, piceous, thickly covered with ashy gray and ochraceous scales; prothorax moderately strongly tuberculate, with two erect fascicles in front; elytra with irregular rows of tubercles, and three discal tufts.

Head covered with ochraceous scales; rostrum nearly straight, decidedly longer than the prothorax, finely and rather closely punctured. Antennæ moderately long; the funiculus with the first joint almost as long as the four succeeding ones together, the second joint elongate, the third to sixth about as broad as long. Prothorax rather longer than broad, strongly constricted in front, the tubercles inconspicuous near the anterior margin, the two marginal tufts composed of erect pubescence and scales. Scutellum transverse, rounded behind, thickly covered with scales. Elytra considerably more than twice as long as the prothorax, parallel-sided, with rows of impressed punctures between irregular series of tubercles, those in the middle being the most conspicuous; each elytron with a small tufted eminence near the base, a large tuft behind the middle, and a third on the preapical callus, which is not very prominent. Underside thickly clothed with ochraceous and scattered dusky-white scales. Legs with the tibiæ bisinuate internally. Length, 11—13 mm.

This species, which is also found at Kiama, in the Illawarra district of New South Wales, evidently belongs to the *O. cylindrirostris* group of the genus *Orthorrhinus*. The antennæ are inserted at rather more than a third of the length of the rostrum from the apex, and the basal half of the elytra is, in most specimens, decidedly lighter in colour than the apex, owing to the preponderance of the gray scales.

TRANES INSULARIS, *Pasc.*

Tranes insularis, Pascoe, Ann. Mag. Nat. Hist., (4) XIII, p. 387 (1874).

Summit of Mount Ledgbird (2,500 feet); also found on the low-lying lands. It appears to be an uncommon species.

BELUS ACROBELES, sp. nov.

Plate VI, f. 2.

Elongate, fuscous, somewhat shining, sparingly clothed with fine gray pubescence; rostrum ferruginous and smooth beyond the point of insertion of the antennæ; prothorax finely rugose, the sides and the median line clothed with ochraceous pubescence.

Head moderately strongly punctured between the eyes, which are large and prominent, finely punctured at the base; rostrum roughly punctured at the base. Antennæ ferruginous, the second joint about half as long as the first, the third and fourth a little shorter than the first, fifth to tenth somewhat thickened, gradually increasing in length, the apical joint pointed at the extremity. Prothorax considerably narrowed and somewhat constricted in front, slightly impressed on each side in the middle, the median line distinct, sparingly clothed with fine ochraceous pubescence; the sides thickly clothed with ochraceous pubescence. Scutellum broadly transverse. Elytra strongly produced posteriorly, somewhat flattened on the disc, strongly punctured, the punctures arranged in rows near the suture, rugulose near the sides.

Underside sparingly clothed with ashy scales in the middle, the sterna and abdominal segments with ochraceous scales at the sides. Legs finely pubescent. Length 10—11 mm.

Appears to be distinct from any of the described species of this peculiarly Australian genus.

ISACANTHA INCULTA, sp. nov.

Elongate, greatly narrowed in front, piceous, somewhat shining, covered with fine slaty gray pubescence; the prothorax and elytra finely granulate, the former only slightly constricted in front.

Head rather finely granulose, a line of dusky white pubescence on the inner margin of the eyes, which are large and prominent; rostrum long, cylindrical, nearly straight, rugulose-punctate for two-thirds of its length with the apical third ferruginous, shining, and almost impunctate. Antennæ black, with the base ferruginous; the second joint very short; the third slightly longer than the first. Prothorax distinctly and not very closely granulate; the sides rounded, narrowed, and very slightly constricted in front. Scutellum transverse, clothed with ochraceous pubescence. Elytra distinctly and irregularly granulate, the suture slightly elevated. Underside piceous, clothed with fine slaty gray pubescence; the sterna rather thickly, and the abdominal segments sparingly, covered with ochraceous pubescence. Legs finely pubescent. Length, 9—13 mm.

This species has the form of *Isacantha congesta*, Pasc., except that the prothorax is much less constricted in front; the pubescence is slaty gray above, and the elytra are less strongly granulate than those of the other species.

EMBAPHIODES PYXIDATUS, Pasc.

Embaphiodes pyxidatus, Pascoe, Ann. Mag. Nat. Hist., (4) XIII, p. 419, (1874); *loc. cit.* XVI, pl. 1, fig. 6 (1875).

This singular form appears to be very rare. I have only seen a single specimen.

IMALITHUS, sp. ?

An old and discoloured specimen of a species evidently belonging to this genus, and apparently distinct from *I. patella*, Pasc., is in the collection of the Australian Museum.

*EUTHYRRHINUS MEDITABUNDUS, Fabr.

Euthyrrhinus meditabundus, Fabricius, Syst. Ent., p. 139.

Widely distributed and variable; occurs in Norfolk Island.

AETHREUS CICATRICOSUS, Pasc.

Aethreus cicatricosus, Pascoe, Ann. Mag. Nat. Hist., (4) XVI, p. 65, pl. 1, fig. 8 (1875).

I have seen a single specimen agreeing in every respect with the description of this species.

HYBOMORPHUS MELANOSOMUS, Saund. & Jek.

Hybomorphus melanosomus, Saunders & Jekel, Ann. Soc. Ent. France, (3) III, p. 304, pl. 15, fig. 8 (1855).

A remarkable endemic form. A large number of fragments and dead remains of this species were found by Mr. Masters under logs and in rotten wood during his visit to the island in June, 1869. As far as I am aware, this is the last occasion on which the insect has been found, none of the collectors who have recently visited the island having obtained it.

IDOTASIA MONTIVAGA, sp. nov.

Elliptic, rather elongate, black, shining; prothorax greatly narrowed in front, strongly punctured at the sides; elytra striate-punctate at the sides.

Head finely and rather closely punctured; rostrum slightly arcuate. Eyes not very prominent, finely granulated. Antennæ piceous. Prothorax in front moderately strongly and closely punctured on the disc, the punctures effaced posteriorly, the sides strongly and sparingly punctured; all the punctures are elongate, those on the disc being aciculate. Elytra at the base rather broader than the prothorax, greatly narrowed posteriorly, strongly striate-punctate at the sides, very obscurely striate-punctate, the interstices rather broad, smooth, and impunctate. Legs moderately long, piceous; femora thickened. Length 3—4 mm.

Summit of Mount Ledgbird (2,500 feet).

Allied to *Idotasia evanida*, Pasc.

IDOTASIA SQUAMIGERA, sp. nov.

Elliptic, rather short, narrow, black, somewhat shining, closely covered with rather large opaque black scales; prothorax with a longitudinal line of yellowish-gray scales in the middle, and a spot of similar scales on each side; elytra with a large spot of yellowish-gray scales in the middle on each side.

Rostrum slightly arcuate. Eyes not prominent, finely granulated. Antennæ piceous. Prothorax greatly narrowed in front, rather strongly punctured. Elytra at the base rather broader than the prothorax, elongate-ovate, somewhat narrowed behind, obscurely striate on the disc, more strongly striate at the sides, where the punctures are visible through the scales, the interstices moderately broad. Legs moderately long; femora strongly thickened, sparingly scaled. Length $2\frac{1}{2}$ mm.

A very distinct species, unlike anything known to me.

CALANDRA GRANARIA, Linn.

Calandra granaria, Linnæus, Syst. Nat., Ed. X, p. 378; Jacq. Duval, Gen. Col., pl. 29, fig. 140 (1854).

A cosmopolitan species, which has doubtless been introduced.

CALANDRA ORYZÆ, Linn.

Calandra oryzæ, Linnæus, Amoen. Ac., VI, p. 395 (1765); Olivier, Ent., V, p. 97, pl. 7, fig. 81.

Summit of Mount Ledgbird (2,500 feet).

A species of world-wide distribution. Probably introduced in rice or other grain.

APHANOCORYNES PROCERUS, sp. nov.

Elongate, somewhat flattened above, black, shining; rostrum rather long, slightly constricted at the base; prothorax very long, strongly constricted in front; elytra strongly punctate-striate, interstices rather narrow, extremely finely punctured.

Head rather strongly and not very closely punctured; rostrum moderately strongly punctured near the base, finely and densely punctured in front. Antennæ pitchy red, the first joint of the funiculus longer than the succeeding ones, which are of nearly equal lengths. Prothorax more than one and a half times as long as broad, considerably narrowed and strongly constricted in front, rather strongly and not very closely punctured on the disc, less strongly punctured at the sides, with a deeply-impressed line near the anterior margin, which is straight and impunctate; sides feebly rounded. Elytra a little more than one and a half times as long as the prothorax,

slightly narrowed behind, strongly punctate-striate, the striae less impressed near the sides. Legs piceous; tarsi pitchy. Length $4\frac{1}{2}$ — $5\frac{1}{2}$ mm.

This species appears to approach *Aphanocorynes depressus*, Woll., but the the head and prothorax are much more strongly punctured, and the elytra more deeply striate; the prothorax is also longer, more convex, and decidedly more constricted in front.

COSSONUS LETHARGICUS, sp. nov.

Elongate, parallel-sided, much depressed, black, shining; prothorax strongly and sparingly punctured throughout; the elytra strongly punctate-striate.

Head finely punctured, with a tolerably strong impression in the middle between the eyes; rostrum rather short, dilated in front, finely and evenly punctured. Eyes moderately prominent, finely granulated. Antennae pitchy, the club covered with fine gray pubescence. Prothorax rather longer than broad, narrowed and somewhat constricted in front, strongly and sparingly punctured, a median impunctate space; the sides rather strongly rounded; posterior margin straight, slightly impressed on each side of the middle. Scutellum small, impunctate. Elytra rather less than twice as long as the head and prothorax together, at the base rather broader than the latter, strongly punctate-striate, the interstices moderately broad and extremely finely punctured; shoulders not very prominent; sides nearly parallel, rounded behind. Legs moderately robust, reddish testaceous. Length $5\frac{1}{2}$ —6 mm.

This species is very distinct from any of the Cossonideous beetles contained in the Sydney collections, but as the group is one which has received but little attention from Australian entomologists, I cannot speak with any degree of certainty as to its allies. In *facies* it is not unlike *Cossonus basalis*, Pasc., described from New Guinea, except that it is rather more convex, but its sculpture is very different.

ANTHRIBIDÆ.

LITOCERUS BALLI, sp. nov.

Elongate, moderately convex, dull ferruginous, densely clothed with fine ashy gray pubescence; prothorax with two longitudinal piceous bands, one on each side, the basal carina strongly raised and sinuous near the margins; elytra finely punctate-striate, with a slightly raised fuscous spot on each side near the base, and a series of irregular fuscous streaks behind the middle, the apex inclining to brownish yellow.

Head inclining to fuscous between the eyes; rostrum moderately robust, narrowed anteriorly, with a distinct median line; eyes large and prominent, regularly oval, and approximating in front. Antennae moderately long, slender, ferruginous; the last three joints slightly thickened, the middle or penultimate one being somewhat shorter than the others. Prothorax in front a little wider than the head, widening for rather more than two-thirds of its length, then narrowed to the base; the anterior margin straight, slightly thickened; the transverse carina well separated from the base, straight in the middle, sinuate on either side. Scutellum extremely small, finely pubescent. Elytra about three times as long as the prothorax, nearly parallel-sided, rather finely punctate striate, a short stria at the base, next the suture, which is abbreviated long before the middle, the interstices rather broad. Underside and legs closely covered with ashy gray pubescence. Length $12\frac{1}{2}$ mm.; greatest width 5 mm.

A distinct species, unlike anything known to me. It is dedicated to Lieut. H. L. Ball, the discoverer of Lord Howe Island.

CERAMBYCIDÆ.

*CNEMOPLITES HOWEI, *Thom.*

Arimaspes Howei, Thomson, Syst. Ceramb., p. 203 (1864); Lacordaire, Gen. Col., VIII, p. 114 (1869).

A large Macrotomid which I have seen in several collections is probably identical with this species, which was originally described from Lord Howe Island, but as I have not been able to refer to M. Thomson's description I cannot speak with certainty. In colour and *facies* the island specimens agree with *Agrianome gemella*, Pasc., but the prothorax is more closely punctured, especially in front, and the median line is more pronounced. The tibiæ are smooth externally, with no trace of spines.

HOWEA, gen. nov.

Labial palpi with the apical joint slightly elongate, somewhat narrowed posteriorly, the apex truncate. Mandibles short, robust. Head broadly transverse, hollowed out in front between the antennæ. Eyes large, prominent, approximating above, strongly emarginate anteriorly. Antennæ rather longer than the body, somewhat slender, filiform, the basal joint short and thickened, the second very short, the third very long, the fourth to eleventh of nearly equal lengths. Prothorax transverse; the anterior margin raised, sloping towards the sides; the anterior angles produced into long outstanding spines. Scutellum conspicuous, narrowed and rounded posteriorly. Elytra ample, elongate, parallel-sided, rounded behind, not spined at the sutural angle. Prosternal process raised, rounded behind. Legs moderately long, compressed, the femora slightly thickened; tarsi with the first joint decidedly longer than the others; claws slightly thickened at the base.

This genus appears to belong to the division of the Prionidæ known as the Trogosominæ, and to be allied to *Trogosoma* and *Acideres*. Its simple antennæ, feebly-separated eyes, and the form of its prothorax, distinguish it from these and the allied genera which are known to me.

HOWEA ANGULATA, sp. nov.

Plate VI, f. 8.

Elongate, parallel-sided, dark ferruginous, somewhat shining, finely and sparingly pubescent; head and prothorax densely rugose-punctate; elytra strongly punctured, each with three obscure costiform elevations.

Head rather strongly rugose-punctate. Antennæ ferruginous, the basal joint rather darker, strongly punctured, the apical joint slightly narrowed at the extremity. Prothorax broadly transverse, slightly narrowed behind, strongly and densely rugose-punctate, with an indistinct oblique impression on each side at the base; anterior margin thickened and reflexed, somewhat sloping on each side, the angles produced into conspicuous, slightly recurved, blunt spines; posterior margin impressed. Scutellum obscurely rugose-punctate. Elytra at the base considerably broader than the prothorax, nearly parallel-sided, strongly and rather closely punctured on the basal half, less strongly and more closely punctured posteriorly; the sides finely margined, obtusely rounded at the apex. Underside ferruginous; the sterna sparingly clothed with long pubescence; the prosternum rugose-punctate; abdominal segments finely punctured, sparingly covered with very fine short pubescence. Legs ferruginous. Length 18—20 mm.

Two specimens, one of which is probably the female, as it is of larger size, and has the head slightly hollowed out behind the eyes.

PHACODES OBSCURUS, *Fabr.*

Phacodes obscurus, Fabricius, Mant. Ins., I, p. 151; Blanchard, Voy. Pole Sud., IV, p. 271, pl. 17, fig. 13.

A single example of this widely-distributed Australian species.

*CERESIUM SIMPLEX, *Gyll.*

Stenochorus simplex, Gyllenhal, Schön. Syst. Ins., App. I, p. 178.

A widely-distributed and variable species, which ranges from the Philippines to New Zealand.

CERESIUM, sp.

A species allied to *C. pachymerum*, Pasc., but with the prothorax broader and the legs darker in colour.

HEMESTHOCERA FLAVILINEA, *Newm.*

Hemesthocera flavilinea, Newman, Zool., 1850, p. 111; White, Cat. Long. Brit. Mus., VIII, pl. 6, fig. 2.

This somewhat local Australian species appears to be common in the island.

CLYTUS AUSTRALIS, *Lap. & Gory.*

Clytus australis, Laporte & Gory, Mon., p. 99, pl. 19, fig. 118.

Widely distributed, ranging from Australia and New Guinea to the Philippine Islands.

*BLAX WOLLASTONI, *White.*

Deucalion Wollastoni, White, Proc. Zool. Soc. Lond., XXIV, p. 406, pl. 40, fig. 6 (1856)—*Blax Wollastoni*, Thomson, Class. Long., p. 23 (1860).

This species appears to be tolerably common.†

XYLOTELES SEGREG, sp. nov.

Elongate, sub-cylindrical, somewhat narrowed both in front and behind, piceous, tinged with bronze-green, rather thickly clothed with gray pubescence; elytra striate, rather strongly punctured at the base, each with a patch of dusky white pubescence near the apex.

Head transverse, finely pubescent, with a distinct median line. Antennæ pitchy, finely pubescent, the bases of joints 3—11 inclining to reddish testaceous. Prothorax about as broad as long, very finely and not very closely punctured, with two moderately impressed transverse lines, one near the anterior margin, the other near the base. Scutellum closely covered with fine yellowish-white pubescence. Elytra somewhat narrowed behind, moderately distinctly striate, with longitudinal series of punctures near the base, which are effaced posteriorly, closely covered with fine gray pubescence; the sides sub-parallel, gradually rounded to the apex, which is not produced. Legs finely pubescent; the tibiæ and tarsi inclining to reddish testaceous. Length 6—9 mm.

Allied to *Xyloteles griseus*, Fabr., and *X. Pattesoni*, Oll.; compared with the latter it is decidedly more pubescent, and has the elytra less narrowed posteriorly.

SOMATIDIA PULCHELLA, sp. nov.

Plate VI, f. 4.

Elongate, very convex, narrowed both in front and behind, bronze green, shining, tinged with purple, very sparingly clothed with erect testaceous setæ; elytra strongly punctured near the base; antennæ, tibiæ, and tarsi pale reddish testaceous; femora fuscous.

† I take it that *Blapsilon irroratum*, a New Caledonian form, is erroneously recorded from Lord Howe Island in the explanation of Plate V, in the Journal of Entomology (vol. i, p. 132), as no reference is made to the locality in Mr. Pascoe's text.

Head transverse, finely and sparingly pubescent, with a few punctures on the disc; the median line distinct. Antennæ with the third joint rather longer than the first, the succeeding joints slightly decreasing in length. Prothorax longer than broad, less narrowed in front than behind, sub-cylindrical, rather strongly and closely punctured, the punctures less strong anteriorly, clothed with very fine pubescence and scattered setæ. Scutellum triangular, very small. Elytra elongate-ovate, the punctuation strong and moderately dense near the base, gradually effaced posteriorly, clothed with very fine gray pubescence near the suture and at the sides, with four rows of long erect setæ which emanate from punctures, and are separated by considerable intervals; each elytron with three longitudinal elevations on the basal half, of which the first only is conspicuous. Legs moderately long, finely pubescent; the femora thickened. Length 10 mm.

Summit of Mount Ledgbird (2,500 feet).

This is a very pretty and distinct species; its habit is particularly striking from the fact that the pale-coloured setæ are shown up with unusual clearness against the dark pigment of the elytra.

SOMATIDIA CAPILLOSA, sp. nov.

Elongate, moderately convex, narrowed both in front and behind, fuscous, strongly setose; elytra strongly punctured near the base, obscurely punctured posteriorly; antennæ fuscous, the basal, and two-thirds of joints 2—11, reddish testaceous.

Head transverse, finely and obscurely punctured, clothed with fine gray pubescence and scattered setæ. Antennæ moderately long, the third joint about as long as the first, the fourth, a little longer than the third, the succeeding joints slightly decreasing in length. Prothorax rather broader than long, less narrowed in front than behind, rather finely and closely punctured, the punctures rather closer at the sides than on the disc, clothed with fine gray pubescence and scattered setæ. Scutellum very small, triangular. Elytra elongate-ovate, the punctuation rather strong and moderately close near the base, less close and somewhat obscured posteriorly, thickly clothed with fine gray pubescence, and rather closely covered with rows of long testaceous setæ, which emanate from punctures. Legs moderately long, finely pubescent; the femora thickened; the bases of the tibiæ and the tarsi inclining to reddish testaceous. Length $5\frac{1}{2}$ — $6\frac{1}{2}$ mm.

SOMATIDIA ARANEA, sp. nov.

Elongate, convex, narrowed both in front and behind; head and prothorax ferruginous, the latter densely and strongly punctured; elytra piceous, tinged with bronze-green, strongly and densely punctured; antennæ and legs pale testaceous.

Head very finely pubescent, with a few scattered punctures. Antennæ with the tips of joints 4—10 fuscous. Prothorax a little broader than long, rather more narrowed behind than in front, densely punctured. Elytra ovate, rather short, the punctuation strong and dense on the basal two thirds, inclined to rugosity, less dense posteriorly, where they tend to range themselves in rows; the apex smooth. Legs moderately long; the femora thickened. Length 4 mm.

A single specimen. In habit this species approaches the New Zealand *Somatidia pinoides*, Bates.

**MONOHAMMUS FISTULATOR*, Germ.

Monohammus fistulator, Germ., Ins. Spec. Nov., 1824, p. 478.

Widely distributed in the Eastern Archipelago, ranging from Java to Australia.

MONOHAMMUS FASCIATUS, *Montr.*

Monohammus fasciatus, Montrouzier, Ann. Soc. Agr. Lyon, VII, p. 63 (1855).

A widely-distributed species.

ZYGOCERA BIFASCIATA, *Pasc.*

Zygocera bifasciata, Pascoe, Trans. Ent. Soc. Lond., (2) V, p. 32 (1859).

A single example, which differs from the ordinary *Z. bifasciata* in wanting the elytral fasciæ. In all other points it entirely agrees with that Australian form, and I am, therefore, inclined to regard it as a variety which probably is not geographical, but merely individual.

SYBRA, sp.

A single specimen.

CHRYSOMELIDÆ.

CHÆTOCNEMA, sp.

Many discoloured specimens.

COCCINELLA TRANSVERSALIS, *Fabr.*

Coccinella transversalis, Fabricius, Spec. Ins., I, p. 97 (1781).

A very widely-distributed species.

The other orders of insects have not received much attention from the various collectors who have visited the island, but a considerable number of Lepidoptera and Hymenoptera have been obtained from time to time. The latter, unfortunately, cannot be determined in the present unsatisfactory condition of our local collections of the order; but the occurrence of *Diamma bicolor*, Westw., and *Thynnus Leachiellus*, Westw., are facts of some interest and importance.

The butterflies are represented by the following species:—*Danais plexippus*, Linn., *D. petilia*, Stoll., *Pyrameis cardui*, Linn. (var. *Kershawi*, McCoy), *Junonia vellida*, Fabr., *Hypolimnas bolina*, Linn., *Charaxes sempronius*, Fabr., *Lycaena boetica*, Linn., *Terias smilax*, Don., *Papilio eretheus*, Don., and *P. Macleayanus*, Leach. Of these it will be observed that the species are either of wide distribution or identical with common Australian forms. Two species of Sphingidæ, a number of obscure Noctuidæ, and other Heterocera are contained in the collection of the Australian Museum; of these the only recognisable species are *Protoparce convolvuli*, Linn. (var. *distans*, Btl.), *Dasypodia cymatodes*, Gu., *Achaea melicerte*, Dr., *Nyctemera amica*, Wh., and *Asopia farinalis*, Linn. The *Dasypodia* was found in immense numbers by Mr. Etheridge and his party in small caves on the sea-shore.

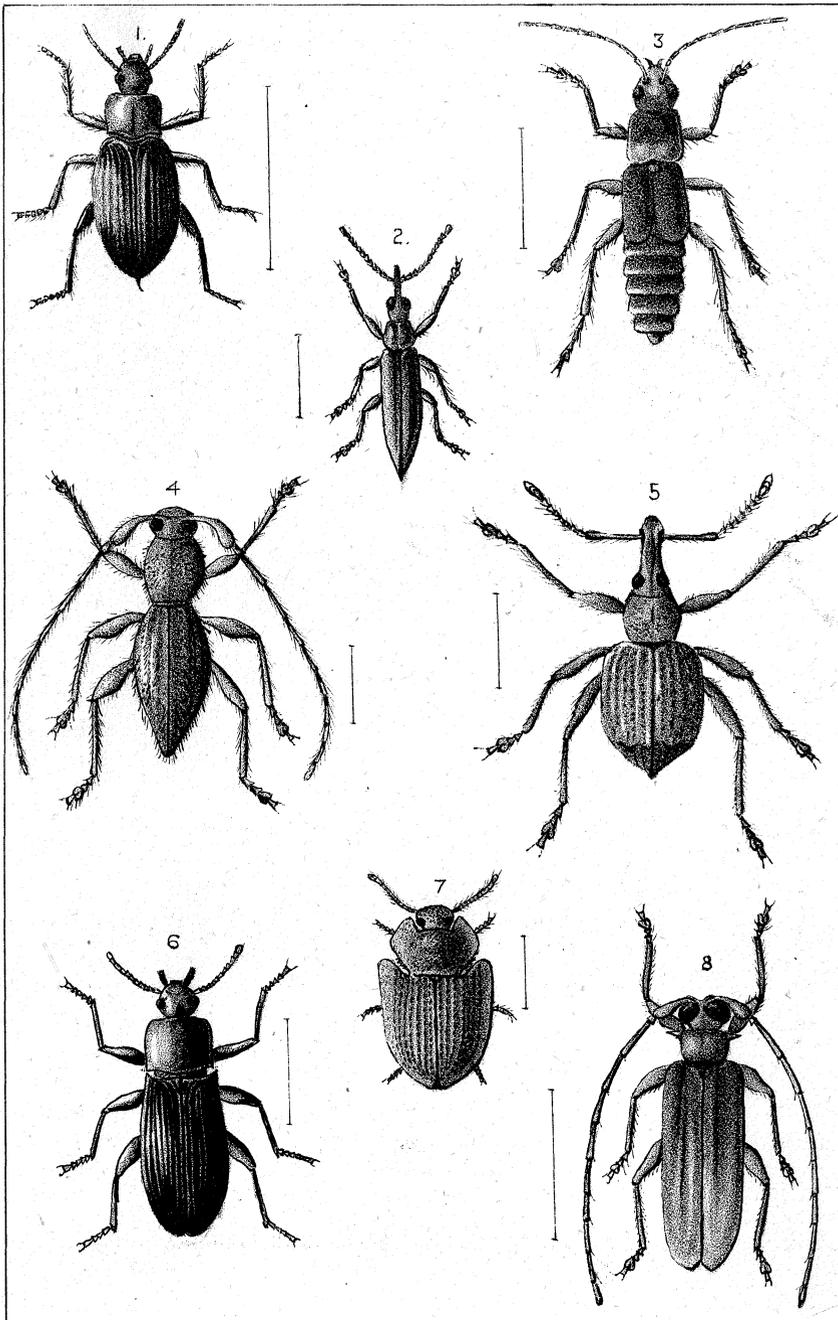
The Orthoptera are represented by species of *Blatta*, *Gryllotalpa*, and *Phaneroptera*, as well as by the huge wingless phasmid *Eurycantha australis*, Montr. This curious creature is generally known among the islanders as the "tree-lobster," and it appears to be very abundant, almost every collection from the island being found to contain specimens in all stages of growth, a fact which would seem to indicate that they are not restricted in their appearance to any particular season of the year. The gigantic water-scorpion, *Belostoma indicum*, St. F. & Serv., recently found by Mr. Langley, and a few small Nabiiidæ complete the list of insects known to me.

A. SIDNEY OLLIFF.

EXPLANATION OF PLATE VI.

- Fig. 1.—*Nyctobates sterrha*, Oll.
- Fig. 2.—*Belus acrobeles*, Oll.
- Fig. 3.—*Telephorus apterus*, Oll. (female).
- Fig. 4.—*Somatidia pulchella*, Oll.
- Fig. 5.—*Leptops Etheridgei*, Oll.
- Fig. 6.—*Meneristes vulgaris*, Oll.
- Fig. 7.—*Ostoma pudicum*, Oll.
- Fig. 8.—*Howea angulata*, Oll. (female).

The natural sizes are shown by indicators.



G.H. Barrow, Del et Lith.

(5 e. 26-88.)

ERRATA.

Page.	Line.				
4	...	16	...	for	Admiralty read Admiralty
7	...	45	...	„	Inlets „ Islets.
7	...	46	...	„	Zig-Zaged „ Zig-Zagged.
8	...	6	...	after	Lord „ Howe.
8	...	25	...	for	Haliaster „ Haliastur.
				and „	lucogaster „ leucogaster.
10	...	16	...	„	Philipp „ Phillip.
12	...	7	...	„	Galinula „ Gallinula.
20	...	29	...	„	Hoplodactylus „ Haplodactylus.
21	...	50	...	„	decrease „ decreasing.
23	...	42	...	„	was „ were.
25	...	24	...	„	Brazeri „ Brazieri.
26	...	31	...	„	arter „ after.
33	...	44	...	„	Actæa „ Actæa.
35	...	8	...	„	Huegellii „ Huegeli.
36	...	18	...	„	chebrus „ chabrus.
36	...	19	...	„	leolophus „ leiolophus
36	...	29	...	„	Huegellii „ Huegeli.
39	...	13	...	„	breviceps „ brevipes.
40	...	29	...	„	Cœloria „ Cœloria.
45	...	5	...	after	Excursion delete the comma and insert was.
45	...	16	...	„	number „ the comma.
45	...	23	...	before	resorting read in.
45	...	37	...	after	number delete the comma.
47	...	35	...	„	ledges „ „
48	...	5	...	for	nearly read newly.
77	...	21	...	„	Lidgbird „ Ledgbird.
88	...	36	...	„	tibia „ tibiae.
95	...	47	...	„	pubescnee „ pubesence.
101	...	34	...	„	spec „ speck.
105	...	8	...	„	shorther „ shorter.
113	...	40	...	„	Promotory „ Promontory.
117	...	38	...	„	debris „ débris.
117	...	38	...	„	dessicated „ desiccated.
124	...	26	...	„	mergeance „ mergence.
130	...	78	...	„	grand-mass „ ground-mass.
				„	Phæton „ Phæton.

N.B.—Plates iv. and v. :—The figures on these plates have been reversed.