Further Notes on Australian Coleoptera, with Descriptions of New Genera and Species.

By the Rev. T. Blackburn, B.A.

XXIX.

[Read October 1, 1901.]

CARABIDÆ.

GIGADEMA.

It is extremely difficult to identify the species of this genus that have been described in the section that have the disc of the pronotum smooth or at any rate non-punctulate. The difficulty arises chiefly from the insufficiency of the descriptions,—more particularly their reliance upon prothoracic characters (which vary sexually as well as specifically) in most cases without note of the sex of the specimen referred to. Signor Gestro furnished some valuable notes and numerous figures relating to the species of De Castelnau's collection but I am afraid his figures are not reliable (Ann. Mus. Gen., 1875). His figure of the prothorax of *G. longipenne*, Germ. (sex not specified, but it is evidently the female), makes that segment scarcely wider than long (as seven to six), but the width of the prothorax in *longipenne* (female) is as seven to four and a quarter. I am quite confident as to my identification of this species as I have examples from Germar's locality, and I have no doubt either but that Gestro's notes refer to the true *longipenne*,—the fault is in the drawing of the figure. Ten species appertaining to this section of *Gigadema* have been described (disregarding *noctis*, Newm., which seems to be a mere name). Of these ten I myself described three and *longipenne*, Germ., is well known to me. *Bostocki*, Cast. (from W.A.), I have identified with tolerable certainty by the aid of Dr. Gestro's notes. The remaining five are from Eastern Australia (Queensland and N.S. Wales). I have before me two species from that region which, however, I am not able to identify with certainty, and also a species from Victoria which is not unlikely to be one of those described from N.S. Wales. *G. atrum*, Macl., is not before me; it is a very isolated species by the form of its palpi as well as by its sculpture and seems from the description unlikely to be a true *Gigadema*. One of my three species mentioned above (from N. Queensland) is almost certainly *grande*, Macl. (female,

the type appears from the description to have been a male, but my specimen agrees with Gestro's figure of the female); the other two are not unlikely to be two of *intermedia*, Gestro, *titanum*, Thoms., and *politulum*, Macl., but I cannot identify them confidently. I have also before me two species from Central and one from Western Australia which are all certainly undescribed, and of which I furnish descriptions below. I also furnish, below, a tabulation showing the prominent characters of all the species of this section of the genus (except *intermedium*, *titanum*, and *politulum*, which I am quite confident are not identical with any of the species characterised in the tabulation, but which I am not able to tabulate from the descriptions).

In this genus the form of the ligula is very diverse, but appears to be constant in individuals of the same species; at any rate it is constant in specimens of *G. longipenne*, Germ.,—the only *Gigadema* of which I have been able to examine a fairly long series,—and also in such few specimens as I have seen of other species. The form and proportions of the prothorax also furnish reliable specific characters so long as the fact is allowed for that in nearly (if not quite) all the species the *front outline* of that segment presents *sexual* characters. Further valuable assistance in the identification of species may be found in the puncturation of the elytra, which (so far as I can judge) is but little affected by sex. The sexes in this genus are not very readily determined by external characters; I do not find any constant sexual character on the ventral segments, and the anterior tarsi are scarcely dilated in the males; in some specimens however the front tarsi bear some sucker-like papillæ on their under surface, and I have assumed this to be a male character.

G. dux, sp. nov. Mas. Robustum; nigrum; capite inæquali, sparsim irregulariter sat fortiter punctulato; ligula pernitida puncturis paucis impressa, in parte mediana depressa, ad latera elevata (antice obtuse, postice sat anguste); prothorace quam longiori ut 10 ad 6 latiori, fere ut *G. longipenne*, Germ. maris conformato (*i.e.* laterum arcu, margine antico, et angulis similibus) sed lateribus ad basin magis parallelis (his in parte dimidia postica obtuse crenulatis), disco toto fortiter crebre transversim strigato; elytris striatis, interstitiis sat planis (7° nullo modo cariniformi) creberrime nec seriatim rugulosis (sed apicem versus interstitiorum externorum puncturæ nonnihil biseriatim impressæ apparent). Long., 17 l.; lat., 5½ l.

A very large and deep black species. The non-seriate sculpture of its elytral interstices (except in the apical portion near the lateral margins) and the very strong close transverse wrinkling

of the disc of its pronotum at once separate it from all its described congeners.

W. Australia; sent to me by Mr. Jung.

G. longius, sp. nov. Fem. Minus robustum; piceum; capite minus inæquali sat crebre subfortiter punctulato, pone oculos haud tumido; ligula in parte mediana depressa sat opace coriacea et sat crebre punctulata, ad latera elevata (antice obtuse, postice sat anguste) obsolete sat crebre punctulata, partibus elevatis quoque grosse seriatim punctulatis; prothorace quam longiori ut 10 ad 7 latiori, fere ut *G. longipennis*, Germ. maris conformato (sed marginis antici parte mediana paullo magis prominenti), lateribus totis crebre acute crenulatis, disco leviter transversim rugato (partibus ceteris sat grosse,—quam *G. longipennis*, Germ., multo magis fortiter,—punctulatis); elytris striatis, interstitiis subplanis (7° leviter carinato) biseriatim subtilius (4°, 6°, 8°, 9° que vix seriatim, quam cetera magis crebre) punctulatis. Long., 18 l.; lat., 6 l.

Not unlike *G. longipennis*, Germ., but very much larger, the ligula totally different, the sides of the head not tumid behind the eyes, the sides of the prothorax strongly crenulate, the puncturation of the head and pronotum much stronger, the interstices of the elytra flatter, and their puncturation though scarcely finer decidedly closer,—especially on the fourth, sixth, eighth, and ninth interstices.

Central Australia (McDonnell Ranges).

G. longicolle, sp. nov. Fem. Minus robustum; piceum; capite minus inæquali sat crebre subfortiter punctulato, pone oculos vix tumido; ligula fere ut præcedentis (*G. longioris*), sed in parte mediana minus crebre punctulata; prothorace quam longiori ut 10 ad $7\frac{3}{4}$ latiori, postice sat fortiter angustato, sat fortiter subcrebre punctulato (disco lævi excepto), lateribus sat fortiter arcuatis minus fortiter sinuatis in parte postica dimidia leviter crenulatis, margine antico in medio modice prominenti, angulis anticis rotundatis posticis leviter obtusis; elytris striatis, interstitiis sat planis (7° manifeste carinato excepto) regulariter sat fortiter biseriatim punctulatis. Long., 17 l.; lat., 6 l.

The prothorax of this species is notably less strongly transverse than that of any other *Gigadema* known to me and its sides are less strongly sinuate in approaching the base. The punctures of the elytral interstices are as strong as in the species which I take to be *G. Bostocki*, Cast., but they are placed more regularly in rows and considerably more closely than in that species.

Central Australia (Oodnadatta).

TABULATION.

A. Disc of pronotum smooth or transversely strigate (not punctured).
B Ligula strongly convex ... ... *longipennis*, Germ.
BB. Ligula not of uniformly convex form.
C. Ligula extremely nitid and punctureless, except having a few distant punctures ... *rugaticolle*, Blackb.
CC. Ligula not like that of *rugaticolle*.
D. Seventh interstice of elytra not carinate.
E. Sides of head strongly tumid behind the eyes ... ... *eremita*, Blackb.
EE. Sides of head not tumid behind the eyes ... ... *dux*, Blackb.
DD. Seventh interstice of elytra carinate,—at least near the base.
E. The interstices become near apex convex and very closely punctured *grande*, Macl. (?).
EE. The interstices not as in *grande (?)*.
F. More than two rows of punctures on fourth and sixth interstices .. *longius*, Blackb.
FF. Interstices four and six with only two rows of punctures.
G. Prothorax strongly transverse.
H. Puncturation of interstices normal (about as in *longipennis*) . *mandibularis*, Blackb.
HH. Puncturation of interstices much more sparse and strong *Bostocki*, Cast. (?).
GG. Prothorax notably less strongly transverse... ... ... *longicolle*, Blackb.
AA. Disc of pronotum closely and rugulosely punctured ... ... *sulcatum*, Macl., and others forming a distinct section of the genus.

N.B.—The following described species are omitted from the above tabulation owing to uncertainty in my identification of them, viz., *G. intermedium*, Gestro, *politulum*, Macl., and *titanum*, Thoms.

XANTHOPHŒA.

X. concinna, sp. nov. Elongata; sat nitida; rufo-testacea, elytris pallidioribus singulis vittis binis nigris (altera suturali, altera submarginali) integris ornatis; oculis modicis, crebre minus leviter granulatis; prothorace quam longiori ut $2\frac{1}{3}$ ad 2 latiori, supra transversim subfortiter strigato et leviter punctulato, parte marginali late deplanata et leviter recurva, lateribus leviter arcuatis postice modice sinuatis, angulis posticis acutis sat fortiter extrorsum directis; elytris striatis, interstitiis sat planis minus crebre punctulatis (3° postice punctura setigera unica impresso). Long., 4 l.; lat., $1\frac{2}{5}$ l.

The sutural vitta of the elytra covers the sutural and second interstices; the lateral vitta covers the sixth, seventh, and eighth interstices on each elytron all the vittæ are entire and very sharply defined.

Differs from *X. grandis*, Chaud, and *suturata*, Newm., by the much stronger and closer granulation of its eyes. From the other (except possibly several which are unknown to me but are certainly quite distinct) species having the sides of the pronotum widely dilated it is readily distinguished by (in combination) its fifth elytral interstice devoid of setigerous punctures, its third elytral interstice with only one setigerous puncture, and its elytral interstices not particularly closely punctured (much less closely than in *X. vittata*, Dej.).

N.S. Wales (Blue Mountains).

X. cylindricollis, sp. nov. Elongata, angusta (quam latior fere quater longior), sat convexa; nitida; glabra; rufa, elytrorum apice antennis pedibusque dilutioribus; capite pone oculos fortiter tumido; oculis magnis, vix manifeste granulatis; prothorace quam caput manifeste angustiori, quam latiori ut 4 ad 3 longiori, subcylindrico, postice quam antice vix latiori, fere lævi, longitudinaliter profunde canaliculato, canali integro), parte laterali minus late sulcata, lateribus ante medium leviter arcuatis pone medium leviter sinuatis, angulis posticis minus acutis leviter extrorsum directis; elytris profunde striatis, striis crenulatis, interstitiis convexis subtiliter sparsissime punctulatis (3° puncturas setigeras 3 ferenti). Long., 3 l.; lat., $\frac{4}{5}$ l. (vix).

It is with some hesitation that I refer this species to *Xanthophœa*. It certainly does not look congeneric with *X. grandis*, *vittata*, and their allies. But it is much more like (in respect of facies) the species that Chaudoir placed in *Xanthophœa* under the name *ferruginea*, with which it might well be congeneric. However, as Mr. Sloane has recently proposed an arrangement of the Australian genera of *Lebiides* (Pr. L.S., N.S.W., 1898) which seems to me satisfactory (at any rate provisionally) and intelligible, that for me settles the matter, and I think it well for workers on Australian *Carabidæ* to follow as much as possible his definitions of genera and so leave him a free hand to improve his work himself if in some instances he should find that his generic definitions are of too wide a character. Mr. Sloane's essential characters for *Xanthophœa* are "4th joint of tarsi bilobed, antennæ inserted considerably in front of the eyes, tarsi setose on the upper surface," all of which are characters of the present species. He includes in *Xanthophœa* all the Australian species that have hitherto been referred to *Demetrias*.

The nearest ally known to me of this species is the insect discussed below under the name *X. (Demetrias) longicollis*, Macl., from which it differs *inter alia* by its narrower and more convex form, longer prothorax, and especially the well-marked dilatation (behind the eyes) of the sides of its head. The last-mentioned

character *inter alia* also distinguishes this species from *X. (Demetrias) tweedensis*, Blackb., and *X. (Cymindis) rufescens*, Macl., to both of which it is allied.

N. Queensland ; sent to me by Mr. Koebele.

X. (*Cymindis*) *longicollis*, Macl. I have received from Mr. Lea some specimens of an insect from Northern N.S Wales which the sender says are *C. longicollis*, Macl., Mr. Lea appears to have compared them with Macleay's type and therefore I suppose his determination may be accepted (Macleay's description is quite useless). The species sent by Mr. Lea is the same that I have regarded as *X. ferruginea*, Chaud., and which I still believe to be that insect ; if it be so, Chaudoir's name must be dropped in favor of the name *Xanthophœa longicollis*, Macl.

X. (*Demetrias*) *rufescens*, Macl. I have examples from Cairns (Macleay's locality) of an insect which agrees well with the description of this species except in its elytral interstices (not "without punctures" but) under a strong lens showing some fine and very sparse puncturation. I have no doubt of its being *X. rufescens* but I am not satisfied that it is distinct from *X. longicollis*. Its elytral interstices are certainly less strongly convex (especially near the lateral margins) than those of *longicollis*, but I cannot find other characters to distinguish it.

TRIGONOTHOPS.

In Proc. L.S., N.S.W., 1892, pp. 65 and 66, I furnished some notes in which I drew attention to the difficulty of distinguishing *T. longiplaga*, Chaud, from *T. pacifica*, Er. Since the publication of those notes I have collected both species in the localities where the types were taken, and have found that they are certainly distinguishable by their sexual characters, but I cannot distinguish them otherwise. The male of the species which I take to be *longiplaga* has its front tarsi strongly dilated and four setigerous punctures on its apical ventral segment ; the male of *pacifica* has front tarsi much less dilated, and only two setigerous punctures on its apical ventral segment. Usually the anterior pale spot reaches the front margin of the elytra in *longiplaga ;* it very rarely does so in *pacifica* but there are exceptions in both species. The "vars. ?" *lindensis* and *occidentalis* which I referred to *pacifica* may possibly be vars. of *longiplaga*.—or even distinct species,—as they are females, and I cannot find any character to differentiate the females. I have not seen a male of *pacifica* except from Tasmania or of *longiplaga* except from Victoria.

T. flavofasciata, Chaud. This species is distinguishable from *T. pacifica*, Er., and *longiplaga*, Chaud, by its wider prothorax and its elytral interstices considerably more distinctly punctured. The lateral dilatation of the anterior pale space on its elytra is

rarely wanting. So far as I can judge it is never present in *pacifica* or *longiplaga*. In Pr. L.S., N.S.W. (*loc. cit.*), I expressed doubt as to the validity of this species but the further examination of additional specimens has dispelled my doubts. Its male has front tarsi only feebly dilated and only two setigerous punctures on the apical ventral segment.

ECTROMA.

In Pr. L S., N.S.W., 1889, p. 710, I proposed this name for certain species allied to *Sarothrocrepis* which the Baron de Chaudoir had stated were in his opinion distinct from that genus. I regard *Dromius civica* as the type of *Ectroma* and it was on that insect that the characters distinguishing *Ectroma* from *Sarothrocrepis* were specified. I am not sure that the three other species which de Chaudoir considered congeneric with *civica* are really so, nor am I certain that I know them all (two at least of them are quite insufficiently described). If I am right in my identification of them—and I think I can hardly be mistaken in one at least (*Lebia benefica*, Newm.)—their sexual characters are slightly different (the intermediate tarsi in the male being feebly dilated) but they agree with *D. civica*, Newm., in what I regard as the essential distinction of *Ectroma* from *Sarothrocrepis*—viz., the form of the apical joint of the labial palpi, which is in *Sarothrocrepis* compressed and at the apex wide and truncate, while in *Ectroma* it is more slender and at the apex attenuate (though very narrowly truncate at the extreme apex). There are a number of Australian species in my opinion best placed at present in *Ectroma* which differ a little *inter se* in respect of structural characters and which may possibly call for the creation of several new generic names eventually. Their structural differences consist chiefly in sexual characters and in the form of the fourth joint of the tarsi. In most of them the fourth joint of the tarsi is (as in *civicum*, Newm.) bilobed on all the tarsi; in one species (described below) the fourth joint is alike on all the tarsi but is not actually bilobed (it is dilated and the claw joint is inserted on the upper surface near the base, but the apex viewed from beneath is not or but slightly emarginate); in two other species (described below) the fourth joint of the front and middle tarsi is bilobed while that of the hind tarsi is simple. The following are the leading characters which I regard as in combination distinguishing *Ectroma* from allied genera:—The fourth joint of at least the front and middle tarsi dilated and having the fifth joint inserted near its base (its apex not, or more or less strongly, emarginate), claws pectinate, upper surface of tarsi not setose, base of antennæ not far distant from the eyes, apical joint of labial palpi more or less slender and towards its apex attenuate, body not pubescent.

The following names appear to have been given by the earlier authors to insects that I should refer to *Ectroma*, viz.,—*Dromius tridens*, Newm., *Lebia benefica*, Newm., *L. Duponti*, Putz., and *Cymindis inquinata*, Er. I regard the first three of these as representing but one species which must stand as *Ectroma tridens*, Newm. In Proc. L.S., N.S.W., 1892, p. 67, I conjectured that *D. tridens* might be the same as *Trigonothops pacifica*, Er., with the description of which its description such as it is agrees decidedly better than it does with the description of *Lebia benefica*, Newm.; nevertheless de Chaudoir states confidently (Berl. Ent. Zeit., 1873, p. 54),—possibly on an actual inspection of the type,—that *D. tridens* is congeneric with *L. benefica*, Newm. (which he certainly would not have stated if it had been a *Trigonothops* and if he had the type before him), and moreover I have (since I wrote my note on *D. tridens*) received from Mr. A. Simson a specimen stated to be on the authority of M. Putzeys named *D. tridens* which is certainly an *Ectroma* and in my opinion conspecific with *E.* (*Lebia*) *benefica*, Newm. These two items of evidence are no doubt strong, and in deference to them it seems best to regard *Dromius tridens* (until further evidence is forthcoming) as an *Ectroma* badly described by its author and as identical with *Lebia benefica*, Newm. I cannot, however, leave the subject without adding the remarks that Newman is hardly likely to have described the same insect as a *Dromius* and as a *Lebia;* and that the facies of *Dromius* (to which Newman attributed his *tridens*) is very much more that of *Trigonothops* than of *Ectroma*, while the facies of *Lebia* is much more that of *Ectroma.*

As regards *Lebia Duponti*, Putz., de Chaudoir states (I have no doubt correctly) that it is identical with *L. benefica*, Newm. Concerning *Cymindis inquinata*, Er., de Chaudoir states that it is congeneric with *L. benefica* and the description reads like that of a possible variety of that species (which is common in Tasmania,—Erickson's locality for *inquinata*), but as I have not seen a specimen exactly agreeing with the description of *inquinata* it is better for me to consider it probably a good species.

Of subsequently described species the following seem likely to be referable to *Ectroma* though placed in different genera. It seems well to mention them here for the guidance of future describers, although their descriptions are not of a kind to indicate their generic position and I conjecture them to belong to *Ectroma* chiefly by the notes of their size and style of markings. They are *Trigonothops ornata*, Macl. (which must be very like *E. benefica*, Newm.) and *Sarothrocrepis liturata*, Macl., *notata*, Macl., *notabilis*, Macl., and *fasciata*, Macl. They are all from N.W. Australia except *fasciata* which is from Queensland.

I may add that two species described by me as of this genus (*obsoletum* and *parvicolle*) are only doubtfully referable to it, their antennæ being inserted at a greater distance from the eyes than those of typical species. I should have been disposed to place them in *Trigonothops* were it not that one of them (*obsoletum*) has the fourth joint of its tarsi not truly bifid (though appearing so when viewed from the upper side) and that in the other the position of the antennæ seems really intermediate between its position in those two genera while its facies is much more that of *Ectroma* than of *Trigonothops*. Perhaps in reality they ought to be considered as representing two new genera,—one of which may be *Eulebia* (a genus unknown to me and not recognisably diagnosed).

It is further to be noted that it is just possible I may in the following descriptions re-name some of Macleay's species mentioned above, the descriptions of which are merely brief indications of color and markings,—but as none of my species agree satisfactorily with those indications and are all from localities very distant from those quoted by Macleay I do not think identity probable.

E. elegans, sp. nov. Mas. Testaceum, prothoracis parte mediana late ferruginea, elytris macula magna communi nigro-fusca ornatis (hac reversa arborem simulanti, ad basin sicut ad striam 5^{am} utrinque extenditur dilatata, parte frondem simulanti ad striam 7^{am} utrinque et ad partem apicalem 8^{am} extensa, in parte dilatata basali utrinque macula parva subscutellari testacea notata); oculis subtiliter nullo modo obsolete (fere ut *E. beneficæ*, Newm.) granulatis; antennis mox ante oculos insertis; capite coriaceo subopaco parum convexo; prothorace quam longiori ut 2 ad $1\frac{1}{3}$ latiori, antice quam postice manifeste angustiori, canaliculato, coriaceo, subopaco, lateribus sat fortiter rotundatis nullo modo sinuatis, latitudine majori vix ante medium sita, angulis posticis obtusis nullo modo reflexis, basi bisinuata vix lobata; elytris nitidis, striatis, interstitiis antice subconvexis postice planis; tarsorum omnium articulo 4° subtus producto ad apicem vix emarginato, supra fere ad basin concavo; articulo 5° prope 4^{i} basin inserto; unguiculis pectinatis. Long., $2\frac{3}{4}$ l.; lat., $1\frac{1}{5}$ l.

The common dark blotch on the elytra (viewed with the head of the insect towards the observer) resembles the figure of a tree, with the basal part of the trunk greatly dilated and the upper outline of the foliage serrate.

Victoria.

E. inquinata, Er. I have before me specimens from Western and South-Western Australia which appear to me distinct from

E. benefica, Newm., though undoubtedly closely allied to it. Structurally they differ by their coriaceous subopaque head and pronotum and the evidently greater length of the basal joint (as compared with the second) of their hind tarsi. The pattern of their elytra differs by the absence of a humeral dark mark and the dark mark behind the middle not being produced forward on the suture. I should have no hesitation in describing this insect as a new species were it not for the possibility of its being a variety of *E. (Cymindis) inquinata*, Er.,—having the external discal dark mark attributed to that species confluent with the post-median blotch.

E. grave, sp. nov. Testaceum, elytris macula basali (hac in interstitio 4° sita) macula humerali et macula communi postmediana (hac marginem lateralem attingenti, antrorsum in sutura et ad marginem lateralem late breviter producta, apicem fere attingenti) fusco-nigris ornatis; capitis forma antennarum insertione et oculorum granulis ut præcedentis (*E. elegantis*); prothorace quam longiori ut $1\frac{1}{2}$ ad 1 latiori, antice parum angustato, canaliculato, ut caput subtiliter coriaceo subopaco, lateribus leviter arcuatis pone medium subsinuatis, angulis posticis obtusis (sed fere rectis) manifeste reflexis, basi media late leviter lobata, latitudine majori sat longe ante medium sita; elytris sat nitidis, striatis, interstitiis antice sat manifeste postice vix convexis; tarsorum anticorum 4 articulo 4° bilobo, posticorum hoc articulo simplici perbreve (quam articulus 3^{us} duplo breviori); unguiculis pectinatis. Long., $2\frac{1}{2}$ l.; lat., $1\frac{1}{5}$ l. (vix).

At once separable from the preceding two species by the fourth joint of the hind tarsi being simple. The post-median common dark blotch on the elytra extends from margin to margin, occupying about the front two-thirds of the hind half of the elytra, and is feebly produced forward at its extremities and on the suture; its hind margin is not far from straight. The front and middle tarsi are feebly dilated in the male. It is just possibly identical with *Sarothrocrepis Mastersi*, Macl. (from Queensland), of which the entire description is as follows:—"Length, 3 l. This species, though much smaller, looks very like *Lebia posticalis*, Guer. It is however of rather a paler hue, and the black fascia on the elytra is larger."

Victoria and Tasmania.

E fasciata, Macl. (?). I have before me specimens which may appertain to this species. They are from Queensland, Central Australia, and North-west Australia, and therefore likely in respect of their habitat to be Macleay's insect. The description of it is as follows:—"Length, 2 l. Like the last (*Sarothrocrepis*

pallida) but much smaller, and with a broad black fascia on the hinder part of the elytra which is prolonged along the suture towards the apex." The description of *S. pallida* is a similar comparison of that species with *S. Mastersi*, and the description of *S. Mastersi* (as noted above) a similarly brief comparison with *S. posticalis*. There is not much in the above to assist identification, but I remember seeing the type of *fasciata* some years ago at Sydney and recognise the present species as at any rate considerably resembling it. The species that I therefore call "*E. fasciata*, Macl. (?)" is entirely testaceous except some fuscous coloring (not always present) along the front of the pronotum and the sides of the abdomen, and on the elytra a dark subbasal spot on either side near the scutellum and a dark marking behind the middle the form of which is difficult to describe; the second interstice is dark from the middle for about two thirds of its distance thence towards the apex, the third and fourth interstices are dark from about the beginning of the apical one-third of their length to about the beginning of the apical one-fourth, the fifth interstice is dark on a still smaller space, and the sixth interstice is dark from about the middle of its length for about one-half its distance thence to the apex; the first interstice is slightly infuscate on the part corresponding to that which is dark fuscous on the second interstice. Thus the dark portions of the interstices form a kind of common fascia extending from the sixth interstice on one elytron to the same on the other elytron, which fascia is strongly trifid on its front margin and jaggedly arcuate on its hind margin. The above markings scarcely vary in the dozen specimens that are before me. The granulation of the eyes, insertion of antennæ and coriaceous subopacity of the pronotom do not seem to differ much from the same in the preceding species. The prothorax is wider than in the allied species, its width being to its length almost as one and two-thirds to one. The striation and interstices of its elytra are not noticeably different from the same in *grave*. The tarsi very closely resemble those of *grave*, with the exception that the fourth joint of the hind pair is notably longer, being quite distinctly more than one-half the length of the preceding joint. I possess besides the specimens described above two examples of an *Ectroma* from South-west Australia (Eucla) which I take to represent a variety of the same insect as I can find no difference except in the markings of the elytra which are almost exactly as in the species that I have (above) called "*E. inquinata*, Er. (?)." Of the two forms this latter (from Eucla) seems to agree more exactly than the other with Macleay's quasi-description.

It is perhaps possible that the insect described above is that

which in his paper on the *Carabidæ* of West Australia (P.L.S., N.S.W., p. 499, 1898) Mr. Sloane has called *E. beneficum*, Newm. I have not seen the true *beneficum* from West Australia.

E. fragile, sp. nov. Testaceum, elytris macula basali (hac in interstitio 4° sita) et notulis brevibus linearibus in interstitiis 2° 4° 6° que sitis sicut ut notulæ arcum interruptum communem formant (hoc ab elytrorum longitudinis medio retrorsum directo) fuscis ornatis, abdominis segmentis prope latera et apicem fusco-notatis, nonnullorum exemplorum notulis fuscis nonnullis carentibus; capitis forma antennarum insertione et oculorum granulis fere ut *E. elegantis;* prothorace quam longiori ut $1\frac{1}{2}$ ad 1 latiori, antice parum angustato, canaliculato, cum capite subtiliter coriaceo subopaco, lateribus modice arcuatis pone medium vix subsinuatis, angulis posticis obtusis quam *E. gravis* minus reflexis, basi media late leviter lobata, latitudine majori sat longe ante medium sita; elytrorum striis interstitiisque fere ut *E. gravis;* tarsis ut *E. fasciata*, Macl. (?) (ut supra descriptum est). Long., $2\frac{1}{5}$ l.; lat., $1\frac{1}{10}$ l.

This species is of somewhat fragile depressed appearance as compared with its allies. It can be readily distinguished from all the others described above except *E. fasciata*, Macl. (?) by the structure of its hind tarsi, from the last-named species by its very much less transverse prothorax as well as by its different elytral markings.

South Australia (Sleaford Bay).

The following is a tabulation showing the characters of the species known to me of *Ectroma*.

A. Head considerably longer than in the following species ... ... *parvicolle*, Blackb.
AA. Head notably shorter.
B. None of the tarsi have the fourth joint simple.
C. Apex of the elytra dark ... ... *civicum*, Newm.
CC. Apex of the elytra pale.
D. Joint 4 of the tarsi strongly dilated and at apex not emarginate ... ... *obsoletum*, Blackb.
DD. Joint 4 of the tarsi less dilated, and at apex emarginate (in some species feebly).
E. Sides of prothorax strongly and evenly rounded, not at all sinuate ... ... *elegans*, Blackb.
EE. Sides of prothorax neither strongly nor evenly rounded.
F. Pronotum nitid, not coriaceous ... *tridens*, Newm.(?) / *beneficum*, Newm.
FF. Pronotum subopaque, coriaceous ... *inquinata*, Er.(?)
BB. Joint 4 of hind tarsi simple.
C. This joint extremely short ... ... *grave*, Blackb.
CC. This joint notably longer.
D. Prothorax very strongly transverse ... *fasciata*, Macl.(?)
DD. Prothorax much less transverse ... *fragile*, Blackb.

D. collaris, sp. nov. Sat elongatus; sat nitidus; glaber; rufo-brunneus, elytris circa scutellum et latera versus infuscatis; capite parvo; prothorace quam longiori ut 6 ad 5 latiori, antice quam postice sat angustiori, longitudinaliter profunde canaliculato, lateribus late explanatis (fere ut *Xanthophœæ vittatæ*, Dej.) pone medium subsinuatis, angulis posticis bene determinatis sed fortiter (quam *D. australis*, Er., multo magis fortiter) obtusis; elytris striatis, interstitiis leviter convexis (3° bipunctato) coriaceis. Long., 4 l.; lat., 1½ l.

The insect described above seems to be certainly congeneric with *D. australis*, Er., agreeing with it in the following characters:—Head not convex between the eyes, constricted (but obliquely narrowed) and transversely impressed behind the eyes; mentum with a median tooth; tarsi glabrous on upper surface (their fourth joint not bilobed); claws serrate; elytra glabrous. In all other respects likely to be generic it agrees with *D. australis*, Er., and has the facies of that species. It is readily distinguished from *D. australis inter alia* by its narrower prothorax which is widely explanate (somewhat as in *Xanthophœa vittata*, Dej.) on the sides.

Victoria.

D. pauper, sp. nov. Minus elongatus; subnitidus; glaber; rufo-brunneus, prothoracis disco et elytris (margine excepto) piceo-brunneis; capite sat magno; prothorace quam longiori ut 4 ad 3 latiori, antice quam postice vix angustiori, longitudinaliter sat fortiter canaliculato, lateribus ut *D. collaris* explanatis pone medium subfortiter sinuatis prope angulos anticos breviter ciliatis, angulis posticis rectis; elytris fortiter striatis, interstitiis subconvexis minus latis punctulatis. Long., 3 l.; lat., 1½ l.

This species presents all the generic characters attributed (above) to *D. collaris*, nor can I find any other characters less indicative of generic agreement with *D. anstralis* unless the presence of a few fine short setæ fringing the front portion of the lateral edges of the prothorax can be regarded as such a one. It has stout antennæ and short stout tarsi (the fourth joint of the latter emarginate, though by no means bilobed) exactly like those of *D. australis*, Er., excepting that the tarsi of the hind legs—as is also the case with *D. collaris*—are a little less stout. It is at once distinguishable from its two described congeners by *inter alia* the narrower more convex and quite strongly punctulate interstices of its elytral striæ.

Tasmania.

PHLŒOCARABUS.

The following species is a member of this genus according to Mr. Sloane's definition of it in his remarks on the *Lebiides* in Proc. L.S., N.S.W., 1898. It has all the structural characters that I have quoted above as distinctive of *Diabaticus* with the exception that its head is abruptly (not obliquely) narrowed behind the eyes, which Mr. Sloane says is the case with species that he places in *Phlœocarabus*. It is to be noted, however, that De Chaudoir proposed a new generic name (*Notoxena*) for one of those species—in Mr. Sloane's opinion incorrectly. The fact is that the genera of the *Lebiides* (as Mr. Sloane points out, quoting Dr. Horn in confirmation) are in a very serious state of confusion; and there are not a few genera—*Phlœocarabus* included—to which it is not in my opinion wise to refer any species without specifying the characters on which the reference is founded, to enable future authors when difficulties are cleared up, to determine the proper place of such species. The following species is certainly, I think, identical generically with the insect that Mr. Sloane calls *Phlœocarabus* (*Trigonothops*, Macl.; *Notoxena*, Chaud.); *nigricollis*, Macl., from which I do not find it to differ structurally in any respect except that its head is a little shorter and its tarsi are more slender.

P. Farinæ, sp. nov. Glaber; testaceus, capite prothoraceque rufescentibus, in elytris regione scutellari, sutura (apice summo excepto) et fascia postmediana piceis, hac postice serrata; oculis leviter nec subtiliter manifeste granulatis; prothorace sat fortiter transverso, supra transversim subtiliter rugato, longitudinaliter canaliculato, ad latera late explanato, antice parum emarginato, lateribus pone medium sinuatis, angulis posticis acute rectis, basi media sat fortiter lobata; elytris coriaceis, striatis, interstitiis leviter convexis, 3° puncturis 3 instructis (punctura postica ad apicem summum posita); tarsis sat gracilibus. Long., 2—2½ l.; lat., $\frac{4}{5}$—1 l.

The width of the post-median fascia and the size of the scutellar blotch in one of my two specimens are considerably greater than in the other. This evidence of variability renders it impossible to specify any difference between this species and *P. nigricollis*, Macl., in respect of color and markings except that the head and prothorax are bright rufo-testaceous in this species. Compared with *P. nigricollis* this species apart from color has an almost similar pronotum which however is a little less explanate laterally and has hind angles a trifle sharper; the sculpture of its elytra is scarcely different, perhaps a trifle less deep. The much smaller size, the shorter head and the consider-

ably more slender tarsi, however, furnish very satisfactory distinctions.

Central Australia (Farina, at light).

TAROMORPHA.

Mr. Sloane (*loc. cit.*) includes this among the genera unknown to him, which consequently he cannot place in his tabulation o *Lebiini.* Its place in his tabulation is beside *Coptoglossus* from which it differs by its mentum devoid of a median tooth.

SILPHOMORPHA.

S. rufoguttata, Blackb. This species—described by me Tr. R. Soc., S.A., 1893, p. 295—was wrongly referred to *Silphomorpha*, being a member of the allied genus *Adelotopus.* I carelessly overlooked the fact that its eyes are margined externally. It must be very like *A. bimaculatus*, Macl., and may be identical with it. The diagnosis of that insect is too brief (consisting of nine words) for confident identiflcation but such as it is it fits my specimen. The diagnosis however is followed by the additional (the only additional) information, "This species is narrower than the last" (*A. apicalis*). My insect is much *less* narrow than that which I have regarded as being *A. apicalis*, Macl., and in fact is wider than any other *Adelotopus* known to me—which, no doubt, was the cause of my calling it a *Silphomorpha* without sufficient study of its characters. It is uncertain therefore whether the name *rufoguttata* can stand as representing a species distinct from *bimaculata*, Macl.

CLIVINA.

C. eyrensis, Blackb. I suspect this species of being identical with *C denticollis*, Sloane. When (at the time I described it) I compared it with Mr. Sloane's descriptions and referred it to his "*obliquata* group," I held it to be a member of the section of that group in which the elytral striæ are not "simple," and so did not consider the question of its being *denticollis* which forms the other section In revising the nomenclature of my *Clivinæ* I have noticed the satisfactory agreement of this species with the description of *denticollis* in all respects except the puncturation of its elytral striæ, and observing that those impressions are certainly only *very feebly* punctured and bearing in mind that the distinctness of puncturation is not a very reliable character in the *Scaritides*, I deem it probable that the name *eyrensis*, Blackb., must become a synonym of *denticollis*, Sloane.

HARPALUS.

H. promtus, Er. I have already (Pr. L.S., N.S.W., 1890, p. 557) noted the occurrence of an insect agreeing well with the description of *H. promtus* in South Australia. It agrees so wel]

with the description that I consider nothing wanting to assure the identification except the inspection of specimens from Tasmania. Since my former note was written I have found it on the Victorian mountains. De Chaudoir referred *H. promtus* to *Bradycellus*. The species before me, however, is certainly congeneric with those which Mr. Sloane has referred to the genus *Euthenarus* (on comparison with New Zealand specimens) which was founded by Bates for some *Harpalidæ* from New Zealand allied to *Bradycellus*. The species that I have before me differs from the other two described Australian *Euthenari* by *inter alia* the sharply rectangular hind corners of its prothorax.

HAPLANER.

H. insulicola, sp. nov. Robustus; modice elongatus; nitidus; piceus, palpis pedibus antennarum basi et elytrorum lateribus postice testaceis, nonnullorum exemplorum pronoto et corpore subtus obscure rufescentibus; capite sat magno, antice utrinque impresso; prothorace sat fortiter transverso, supra lævi, subtiliter canaliculato, postice utrinque impresso, basi quam margo anticus vix latiori, lateribus modice arcuatis, latitudine majori ante medium sita, angulis anticis haud productis posticis obtusis; elytris postice ad latera haud distincte sinuatis, profunde striatis, striis externis (9ª et 8æ parte postica exceptis) et ceterarum (1ª 2ª que exceptis) parte postica obsoletis, striarum interstitiis fortiter convexis, stria basali brevi fere nullo.

Maris quam feminæ statura sat brevior est. Long., $2\frac{1}{3}$—3 l.; lat., 1—$1\frac{1}{10}$ l.

This species is evidently congeneric with *H. velox*, Cast., agreeing with it in the non-dilated tarsi of its male, the absence of defined lateral elytral striæ, and the almost non-sinuate lateral margin of the elytra. It differs from *velox inter alia* by the four inner striæ of the elytra being very much more deeply impressed and having their interstices quite strongly convex, and by the eighth elytral stria running forward into the front one-fourth of the elytra where it coalesces with the ninth stria.

Thursday Island; given to me by Captain Bourke, R.N.

H. velox, Cast. Mr. Sloane (P.L.S., N.S.W., 1898, p. 460) expresses a doubt as to the occurrence of this species near Melbourne. I have it from that locality and also from S. Australia.

N.B.—I do not know the derivation (and the consequent gender) of the name *Haplaner*. Is it a misprint for *Haplanes?* I see Mr. Sloane calls it "Harplaner" but that is not Chaudoir's name nor is it more intelligible than *Haplaner*.

NOTOPHILUS.

N. lætus, Blackb. I have specimens from tropical Queensland (sent to me by the late Mr. Cowley, of Cairns) which I am unable to separate from this South Australian species.

LECANOMERUS.

L. obscurus, Blackb. This species (described in Tr. Roy. Soc., S.A., 1887, p. 189) is a form of *Stenolophus (Harpalus) dingo*, Cast., and the name must sink into a synonym of the latter species. I may say that in my opinion this insect cannot rightly be associated with the European *Stenolophi*, from which it differs widely in the form of the fourth joint of its tarsi, &c.; it seems to require a new generic name, as it differs from *Lecanomerus* and other *Harpalid* genera of Australia in the shape of its mandibles and other characters. As, however, Mr. Sloane is at present working as an able specialist on the Australian *Carabidæ*, I shal' leave the matter for his treatment.

L. (*Diaphoromerus*) *victoriensis*, Blackb. In P.L.S., N.S.W., 1890, p. 777, I explained my reasons for calling this insect, with much hesitation, a *Diaphoromerus* Mr. Sloane has recently (*l.c.*, 1898, p. 464) traversed this reference in favor of *Lecanomerus*. I take this opportunity of saying that I concur in his remarks.

THENAROTES.

T. metallicus, Blackb. This species would be better placed in *Notophilus*.

T. minor, Blackb. I named this (Tr. R.S., S A., 1887, p. 185) as doubtfully a variety of *T. discoidalis*, Blackb. A recent examination of it however points to its being a good species as, apart from color differences, I find that the basal foveæ of the pronotum are separated from the lateral margin by a slightly convex unpunctured space, whereas in *T. discoidalis* they are continuous to the lateral margin.

T. discoidalis, Blackb. This species is very near *Trechus atriceps*, Macl., which (as I have already noted, Tr. R.S., S.A., 1895, p. 28) is a *Thenarotes*. I think it distinct, however, as the smallest specimen I have seen is notably larger than *T. atriceps*, and the sides of its prothorax are very evidently less strongly rounded.

LESTIGNATHUS.

L. minor, Blackb. This species must be removed to the closely allied genus *Hormacrus* recently (P.L.S., N.S.W., 1898, p. 488) founded by Mr. Sloane.

LACORDAIRIA.

Mr. Sloane (*loc. cit.*, *p* 487) expresses the opinion that this genus and a number of others that have hitherto been attributed to widely different groups of *Carabidæ* ought to be associated together and placed among the *Licinides*. In this I think he is right. I cannot, however, follow him in the opinion that *L. anchomenoides*, Cast., *argutoroides*, Cast., and *marginata*, Cast., ought to be attributed to the genus *Microferonia*. I

think he bases this reference on the episterna of the metasternum being in those species narrower than in *L. proxima*, Cast., which he regards as a typical *Lacordairia* (probably correctly, although I do not know *L. cychroides*, Cast., which is I presume the real type, and Mr. Sloane seems to imply that he has not seen it either). For my part I do not find the diversity in the episterna of the species mentioned above at all of a kind that would suggest generic diversity to me, and certainly the species are extremely like each other in facies. But however that may be it appears to me that the episterna of the least closely allied of them all are far less distinct *inter se* than they all are from the episterna of *Microferonia*, which moreover is very different from them all in facies. My own inclination is to leave them in *Lacordairia*, but if they are to be removed from it I think they ought to be formed into a new genus. Mr. Sloane in his tabulation of *Licinides* (*loc. cit.*, p. 188) makes two aggregates of genera having the episterna respectively "quadrate (short)" and "decidedly longer than broad." I feel no hesitation whatever in referring all the species of *Lacordairia* mentioned above to the former aggregate and no hesitation in referring *Microferonia* to the latter. I do not feel much doubt as to the correctness of my indentification of the species mentioned (I collected the specimens on the Victorian mountains—Castelnau's locality), except in the case of *L. argutoroides*, my single (supposed) example of which is much darker in color than the description indicates and which moreover certainly presents some structural differences from the other three, but not in the direction of *Microferonia*.

L. angustata, Cast. I have a specimen (taken by myself on the Blue Mountains—Castelnan's locality) of an insect which I cannot doubt is this species, as it agrees perfectly with the description. It, however, is a *Siagonyx* (having the intercoxal projection of the prosternum strongly margined behind, &c.), and is closely allied to *S. amplipennis*, Macl. (my identification of which has been confirmed by Mr. Sloane), but it differs from Macleay's species *inter alia* by its prothorax being very much narrower and its labrum so deeply bisinuate that the middle part stands out as a strong projection.

TRECHUS.

The Australian species that I attribute to *Trechus* differ considerably *inter se* in facies, none of them, moreover, bearing much resemblance to any European species known to me. Their characters of a kind likely to be generic are very uniform however excepting perhaps those of *T. baldiensis* in which the recurved elytral striole is very near the margin—practically wanting—and *T. Tasmaniæ* whose comparatively stout antennæ and

short stout palpi (which nevertheless are of the *Trechus* type) suggest a doubt whether it might not suitably receive a new generic name. Until there is reason to believe that most of the Australian *Trechides* are known it seems to me best to attribute to *Trechus* all the species presenting the following characters (and not differing from *Trechus* by any other obviously generic peculiarity), viz :—Anterior tarsi of male with the basal two joints (only) dilated ; antennæ with only the basal joint less pubescent than the other joints ; apical joint of palpi of normal length and of elongate-conic form (pointed at apex) ; frontal sulci of head arched, and continued hindward towards (or behind) the hind margin of the eyes.

The number of Australian species that have been attributed to *Trechus* is, I believe, eleven. Four of these were described by Sir W. Macleay and could not be identified from the descriptions. I have, however, seen the types, all of which are from Queensland. I have already (Proc. L.S., N.S.W., 1892, p. 97) reported that three of them belong to other genera than *Trechus* while the other (*concolor*) I could not feel confident about, the specimen being a female and material for comparison with other species not being at hand ; it did not, however, seem to me to be a *Trechus*. Of the remaining seven I have before me types or co-types of all except one—*T. nitens*, Putz. That species is probably near my *T. Tasmaniæ*, but it is evidently not identical as it is described as having all its elytral striæ distinct except the seventh and the base of the prothorax very little more than half as wide as the the front. The following table will indicate characters by which the already named species of *Trechus* may be distinguished—those attributed to *T. nitens* being founded on the description only.

A. Prothorax not narrower at base than on front margin.
  B. Elytra fully striate.
    C. Interstices of elytral striæ very strongly convex near apex ... ... *Victoriæ*, Blackb.
    CC. Interstices of elytral striæ not or but little convex.
      D. Prothorax strongly transverse ... ... *diemenensis*, Bates.
      DD. Prothorax very slightly transverse ... *subornatellus*, Blackb.
  BB. Elytra with seventh and eighth striæ not, or scarcely, traceable.
    C. The elytral striæ strongly punctulate ... *baldiensis*, Blackb.
    CC. The elytral striæ non-punctulate ... *solidior*, Blackb.
AA. Prothorax distinctly narrower at base than on front margin.
  B. Elytra fully striate ... ... *Simsoni*, Blackb.
  BB. Elytra with only the seventh stria wanting *nitens*, Putz.
  BBB. Elytra with only the three or four inner striæ distinct ... ... *Tasmaniæ*, Blackb.

T. subornatellus, sp. nov. Minus elongatus ; subovatus ; sat convexus ; sat nitidus ; piceo-niger, palpis antennarum basi

pedibus et elytrorum fascia postmediana maculari maculisque nonnullis subapicalibus testaceis; capite parvo, sulcis frontalibus profundis fortiter arcuatis; oculis minus convexis; prothorace quam longiori ut 5 ad $3\frac{1}{2}$ latiori, antice quam postice angustiori, longitudinaliter sat profunde canaliculato, quam elytra multo angustiori, lateribus parum arcuatis postice haud sinuatis, angulis posticis acute subrectis, foveis basalibus sat profundis, basi media retrorsum leviter convexa; elytris striatis (omnibus bene impressis), interstitiis nonnihil convexis (3° puncturis 3 setiferis instructo. Long., $1\frac{3}{5}$ l.; lat., $\frac{4}{5}$ l. (vix).

Readily distinguishable by the conspicuous tertaceous spots on its elytra most of which are placed so as to form an irregular common fascia somewhat behind the middle of the length of the elytra; also by its small head and narrow prothorax, the latter having its sides less arcuate than is usual in the Australian *Trechi*.

Victoria (Fernshaw).

T. solidior, sp. nov. Minus elongatus; subovatus; sat convexus; robustior; sat nitidus; piceo-niger, ore palpis antennis pedibus elytrorumque marginibus (his anguste) rufo-testaceis; capite modico, sulcis frontalibus profundis fortiter arcuatis; oculis minus convexis; prothorace quam longiori fere sesquilatiori, antice quam postice sat angustiori, longitudinaliter sat profunde canaliculato, quam elytra sat angustiori, lateribus modice arcuatis postice parum sinuatis, angulis posticis leviter obtusis bene determinatis, foveis basalibus magnis leviter impressis coriaceis, basi media retrorsum leviter convexa; elytris striatis, striis subsuturalibus profunde (externis gradatim minus profunde, 7° 8° que vix manifeste) impressis, interstitiis subplanatis (3° puncturis 3 setiferis instructo). Long., 2 l.; lat., $\frac{4}{5}$ l.

Near *T. diemenensis*, Bates, from which *inter alia* it is readily distinguishable by the external two striæ of its elytra being all but effaced—scarcely traceable. Resembles *Lecanomerus* in facies.

Victoria (Alpine district).

T. Tasmaniæ, sp. nov. Modice elongatus; subovatus; sat convexus; nitidus; niger, palpis mandibulis antennis basin versus pedibusque rufescentibus; capite modico, sulcis frontalibus profundis fortiter arcuatis; palpis brevibus; oculis minus convexis; prothorace quam longiori ut 3 ad 2 latiori, postice quam antice paullo angustiori, longitudinaliter canaliculato, lateribus sat fortiter arcuatis postice nullo modo sinuatis, latitudine majori sat longe ante medium sita

angulis posticis valde obtusis (fere subrotundatis), foveis basalibus modicis, basi latissime leviter lobata; elytris striatis, striis subsuturalibus profunde (externis gradatim minus profunde, 5°—8° vix vel haud manifeste) impressis, interstitiis sat planis (3° puncturis magnis 3 setiferis instructo). Long., $1\frac{3}{5}$ l.; lat., $\frac{3}{5}$ l.

A *Bembidium*-like species, also resembling *Trechodes gibbipennis* in facies, but with very different palpi, non-gibbous elytra, &c. The basal part of the prothorax is of peculiar shape, its lateral portion almost continuing the line of the lateral outline of the segment for a short distance so that it seems to consist of a very wide and very short lobe.

Tasmania (on a mountain in the Lake District).

TRECHODES (gen. nov. *Trechidarum*).

Mentum dente acuto instructum; ligula setifera (?); palporum articulus ultimus subfiliformis quam præcedens parum brevior (fere ut *Perilepti*); labrum transversum ciliatum; caput supra utrinque fortiter arcuatim sulcatum; antennæ elongatæ, articulo basali glabro; tarsi elongati, maris anticorum articulis basalibus 2 dilatatis; corpus convexum, glabrum; elytra (striis subsuturali et marginali exceptis) haud striata.

T. (*Bembidium*) *secalioides*, Blackb.

It is necessary to found a new genus for the reception of *Bembidium secalioides*, Blackb., which I attributed doubtfully to *Bembidium* (Proc. L.S., N.S.W., 1890, p. 786), remarking that it might eventually have to be so treated. In spite of its *Bembidium*-like facies I find that it is in reality allied to *Trechus*. The palpi having their apical joint elongate (as in *Perileptus*) and the frontal sulci of the head being strongly arched as in *Trechus*. Unfortunately I have not a specimen for dissection, so that a satisfactory examination of the ligula is not practicable but I can see that it is setiferous and I think it is considerably shorter than its paraglossæ. The form of its palpi associate this genus with *Perileptus* from which however its elongate tarsi, strongly convex form, and very different facies, readily separate it. *Bembidium bipartitum*, Macl., is likely to be a member of this genus.

T. gibbipennis, sp. nov. Sat convexus; glaber; nitidus; niger; antennis pedibusque nonnihil picescentibus; capite supra utrinque fortiter arcuatim sulcato, sulcis pone oculos continuis; prothorace quam longiori vix latiori, subglobulo, longitudinaliter leviter canaliculato, tenuissime marginato, supra lævi (puncturis nonnullis in sulco transverso subbasali positis exceptis), utrinque fovea in lobo basali pone angulos

posticos impresso, his minutis subdentiformibus, lobo basali latissimo valde elongato ; elytris striis singulis subsuturalibus et marginalibus profunde impressis (illis antice abbreviatis), alibi nullo modo striatis, sulco profundo transverso discoidali paullo pone basin instructis, ante hunc sulcum gibbosis, punctura magna discoidali mox pone medium aliaque minore anteapicali impressis ; tarsis minus elongatis. Long., $1\frac{1}{5}$ l.; lat, $\frac{2}{5}$ l.

This extraordinary little insect is certainly I think allied to *T. secalioides*, Blackb., though it is quite possible that the discovery of additional species may result in its being convenient to separate it generically under a new name. The two seem rightly associated as a distinct group of *Trechides* having the palpi of *Perileptus* (like those of *Bembidium* except that the apical joint is greatly elongated), but with the convex form of a *Bembidium* and the elytra brilliantly nitid and (except the very deep subsutural and marginal striæ) without a trace of striation. In the present species the large anterior discal elytral puncture of *secalioides* is replaced by a deep transverse sulcus in front of which the elytra are gibbous. The possibly generic distinctive characters of this species as compared with *secalioides* consist in its evidently shorter tarsi (especially the hind pair) and antennæ, the excessively fine marginal edging of its prothorax and the curious basal lobe of the latter, the lateral outline of which so nearly continues the outline of the true lateral margin of the segment that to a casual inspection the hind angles appear as small denticulations of the margin placed at a distance from the base equal to about a quarter of the length of the whole segment. The superficial characters of this insect are so remarkable that there can be no difficulty in recognising it whatever may be thought of its generic position.

Tasmania (on a mountain in the Lake District).

TACHYS.

Mr. Sloane (Proc. L.S., N.S.W., 1896, III.) has furnished a very valuable memcir "on the Australian *Bembidiides* referable to *Tachys*," &c. *Tachys* is a genus particularly difficult to define as no one character can be specified distinguishing it from *Bembidium*. Lacordaire makes it a section of *Bembidium*. Dr. Schaum treats it as a good genus and limits it to species having both a recurved elytral striole and anterior tibiæ obliquely truncate at the apex. There exist numerous species in which it is difficult to say whether there is a true elytral striole,—that character being either very faint or the striole being confused with one of the systematic striæ. The absence of the striole is in some species accompanied by the presence of the tibial charac-

ter in the most exaggerated form; on the other hand there are species in which the tibial character is very faintly defined,—some in which it is difficult to determine whether their tibiæ place them in *Bembidium* or *Tachys*. Mr. Sloane has defined *Tachys* on the tibial character alone and has admitted into the genus species in which the elytral striole is decidedly wanting. It is to be noted that he has adopted this definition with great diffidence, and has distinctly stated that it does not satisfy his ideas of desirable generic grouping in the *Subulipalpi*, being adopted provisionally. I think that he is quite right in exercising great care to avoid the formation of genera which the future discovery of additional species is likely to invalidate, and that where a describer deems a new species before him likely to be subsequently proved (by the finding of intermediate forms) to be merely an aberrant race of some known genus it is better to refer it to that genus—at the same time specifying clearly the characters which render its position doubtful. I am not therefore prepared to challenge Mr. Sloane's action in this matter or his opinion that a more satisfactory grouping of Australian *Bembidiides* is attained by separating the species having the tibiæ characteristic of *Tachys* from those having them of the typical *Bembidium* form irrespective of their elytral sculpture, than by making the elytral sculpture of importance as a generic character. In fact Mr. Sloane has concentrated attention on the *Carabidæ* so much more than I have done, and I so generally agree with his conclusions, that I am much disposed to yield to his authority. It seems, however, desirable that I should make these remarks because my own contributions to the descriptions of Australian *Bembidiides* have followed a different line and I have given as much prominence to elytral as to tibial sculpture in generic apportionment, not however relying absolutely upon either and in the case of species where those characters were not both of them of either the *Tachys* or the *Bembidium* type adding the consideration of facies so that one of my species (as noted below) has not been placed by me as Mr. Sloane would now place it.

T. (*Bembidium*) *victoriensis*, Blackb. This species was placed by me in *Bembidium* with the remark that although having the tibiæ of a *Tachys* it has elytral sculpture inconsistent with a place in that genus. Its facies being decidedly more accordant with *Bembidium* than with a typical *Tachys* I apportioned it to the former genus. On Mr. Sloane's conception of *Tachys*, however, it must stand in that genus rather than in *Bembidium*. In Mr. Sloane's tabulation of Australian species of *Tachys* its place is with *T. brunnipennis*, Macl., and *ectromioides*, Sloane, from both of which it differs by its elytra being fully and very deeply striate and having their interstices strongly convex.

T. similis, Blackb. When I described this insect I omitted to remark on (and, indeed, to notice) its close resemblance to the European *T. scutellaris*, Germ.; I scarcely know how to separate it from that species by any other character than the much shorter and feebler frontal sulci of the head,—a distinction, however, sufficiently strongly marked to form a perfectly satisfactory specific difference.

T. Adelaidæ, Blackb. A comparison of this species with examples of *T. transveraicollis*, Macl. (compared with the type by Mr. Sloane) has satisfied me that the two names are founded on one insect. Sir W. Macleay's description is quite insufficient to have indicated this identity. Sir W. Macleay's name has priority.

CILLENUM.

C. (*Bembidium*) *Mastersi*, Sloane. This insect (described by Mr. Sloane as a *Bembidium*) is extremely close to the European *C. laterale*, Sam. Its coloring scarcely differs, but it is of decidedly more elongate form and has evidently longer and less stout antennæ. The genus *Cillenum* has not been previously recorded as Australian.

BEMBIDIUM.

The Australian species of *Bembidium* have been reduced to small numbers by Mr. Sloane, with whose conclusions I cordially agree subject to the slight doubt expressed above as to his treatment of the distinction between *Tachys* and *Bembidium*. I have (above) removed from *Bembidium* two more species that he had left in it, which leaves in it ten species (three of them from Queensland, named by Macleay,—two of these practically undescribed,—unknown to Mr. Sloane or to myself). One of them (*B. bipartitum*, Macl.) I have conjectured (above) to be a *Trechodes*, but at any rate it is not a *Bembidium* as the apical joint of its palpi is described as elongate. *B. amplipenne*, Macl., and *sexstriatum*, Macl., if true *Bembidia* are certainly I think distinct from all of the genus that have been described by other authors. There thus remain only seven Australian species (including the two described below) that can be confidently referred to *Bembidium*. I have the types or thoroughly authentic specimens of all of them before me. Their distinctive characters may be tabulated as follows :—

A. Pronotum widely margined, the hind angles strongly explanate ... ... *Jacksoniense*, Guér.

AA. Pronotum not as above.

B. Elytra fully striate or seriate-punctulate.

C. Head scarcely convex longitudinally in the middle between the eyes ... ... *Riverinæ*, Sloane.

CC. Head strongly convex longitudinally in the middle between the eyes.

D. Elytra with a conspicuous (but not sharply limited) depression a little behind base . *dubium*, Blackb.
DD. Elytra without the sub-basal depression.
E. The seventh elytral stria strongly defined *proprium*, Blackb.
EE. The seventh elytral stria subobsolete ... *Hobarti*, Blackb.
BB. The six inner striæ (only) of the elytra present *errans*, Blackb.
BBB. The five inner striæ (only) of the elytra present ... ... *wattsense*, Blackb.

B. Hobarti, sp. nov. Subovatum ; minus convexum ; sat nitidum ; nigricans, antennarum basi mandibulis pedibusque rufescentibus ; capite utrinque profunde sat recte sulcatum ; prothorace quam longiori circiter sesquilatiori, antice quam postice multo latiori, longitudinaliter canaliculato, utrinque ad basin minus profunde impresso, lateribus antice fortiter rotundatis postice breviter rectis anguste marginatis, angulis posticis minutis sat rectis, latitudine majori ante medium sita, parte basali transversim depressa, basi fere recta ; elytris fortiter punctulato-striatis (stria 6ª quam præcedentes minus fortiter impressa, 7ª fere nulla, 8ª margini fere contigua), interstitiis manifeste convexis, striola recurva haud plane carenti ; tibiis anticis ad apicem latis, supra vix manifeste oblique truncatis. Long., $1\frac{1}{5}$ l.; lat., $\frac{1}{2}$ l.

This is a species that illustrates the difficulty of distinguishing *Tachys* and *Bembidium*. It has an irregular sulcus near the apex of the elytra which is somewhat of the nature of a recurved striole and the extreme apical part of the upper outline of its front tibiæ seems from a certain point of view obliquely truncate, although it would be equally correct to say that the apical outline of the tibiæ (*i.e.*, the line joining the upper and lower outline of the tibiæ) is a curve. I do not think that Mr. Sloane would place the insect in *Tachys* as having the upper outline of the tibiæ genuinely obliquely truncate at the apex. It is not very near any other *Bembidium* known to me. The seventh stria of its elytra is extremely slight but is distinctly traceable under a lens as a row of fine punctures, so that this species must be ranked among those having fully striate elytra. The two discal punctures of the third elytral interstice are small and inconspicuous, the sub-apical puncture more distinct.

Tasmania (near Hobart).

B. wattsense, sp. nov. Ovale ; subelongatum ; sat convexum ; nitidum ; nigrum, antennarum basi mandibulis tibiis tarsisque rufescentibus ; capite utrinque profunde sat recte sulcatum ; prothorace quam longiori haud plane sesquilatiori, antice quam postice multo latiori, longitudinaliter canaliculato, utrinque ad basin sat profunde impresso, lateribus antice fortiter rotundatis postice rectis anguste marginatis, angulis posticis rectis, latitudine majori ante medium sita,

parte basali transversim depressa, basi fere recta; elytris punctulato-striatis, striis 6ª 7ª que omnino carentibus, interstitiis sat planis (3ª puncturis setiferis 3 modicis impresso), striola recurva haud plane carenti; tibiis anticis ad apicem latis, supra vix manifeste oblique truncatis. Long., $1\frac{1}{5}$ l.; lat., $\frac{1}{2}$ l. (vix).

Rather close to the preceding (*B. Hobarti*) but narrower and more convex, the prothorax more decidedly cordiform with the basal impressions much better defined, the elytra less deeply striate with the stiæ much more distinctly punctulate, the sixth and seventh striæ quite wanting (not even represented by punctures). In the typical specimen the third and fourth elytral striæ are abbreviated in front at the front setiferous puncture of the third interstice where they meet (it being placed at the edge of the third interstice and the fourth striæ bending over to it). This may be an accident of the individual as I find a somewhat similar arrangement of striæ on one (but not on the other) elytron of *B. Hobarti*.

Victoria (Dividing Range; on bank of the Watts River).

DYTISCIDÆ.

ANTIPORUS.

A. (Hydroporus) collaris, Hope. I have before me a male (from Port Darwin) and two females (from King's Sound) which there is little doubt appertain to this species. The Rev. H. Clark (Journ. Ent. I., p. 412) quotes Westwood for the presence of four abbreviated stria-like lines very faintly impressed on each elytron. On the elytron of the females before me there are faint traces of four lines (only visible from a certain point of view, and so faint as to be hardly worthy of mention) but I cannot find them in the male. As in all other respects (especially in the remarkable pronotum) these insects agree perfectly with the description of *A. collaris* I feel no doubt as to the identification, although the four lines are less distinct than one would expect from even the phrase "very faintly impressed." This view of the matter is confirmed by one of my specimens being from Port Darwin, which is near Port Essington (Hope's locality). Mr. Masters in his Catalogue has placed *H. collaris*, Hope, in the genus *Antiporus;* I cannot find any published note suggesting that place for it, but nevertheless *Antiporus* seems to me of existing genera that in which *H. collaris* should stand, as its hind tibiæ are punctured as in that genus and its epipleuræ are distinctly broad in the posterior part (quite as broad as in *A. Blakei*, Clk.). Nevertheless I am of opinion that if Dr. Sharp had had my specimens under inspection when he wrote his great work on

the *Dytiscidæ* (in which he states that he can give no information about *H. collaris*) he would have formed a distinct genus for them. I am not in a position to do so myself as I have not made a sufficiently special study of the *Dytiscidæ* to enable me to furnish a satisfactory diagnosis without treating a male example in a manner that my unique male would not bear, and therefore I shall leave the species in *Antiporus* remarking however that it differs from all those which Dr. Sharp placed in that genus in respect of the sculpture of its pronotum (the lateral margins being very widely thickened and raised, with a sulcus or deep stria separating the marginal from the discal portion) and in respect of its sexual characters. The front tibiæ of the male have an external median tooth similar to, but a little smaller than, the tooth on the middle tibiæ of *A. Blakei ;* the front tarsi are somewhat feebly dilated and a little longer than those of the female; my specimen has lost one each of the front and middle tarsi, on the remaining ones I can find but one claw, though I am suspicious of a claw having been broken off the middle tarsus. The front tarsus seems to have its claw springing directly from the apex of the third joint as though the basal part of the claw joint were wanting, but it is quite possible that that appearance would be found to be deceptive if a fresh specimen whose tarsi would bear manipulation could be examined. The posterior tibiæ and all the femora are unarmed. In one of the specimens mentioned above the base of the pronotum is rufous at the sides, which suggests the idea of identity with *H. gravidus*, Clk. (also described from Port Essington) and I feel no doubt that *H. undecim-maculatus*, Clk., is closely allied, if not a variety of the same species.

NECTEROSOMA.

N. costipenne, Lea. This insect is no doubt identical with *H. penicillatus*, Clk., one of the commonest and most widely distributed as well as most variable of the Australian water beetles. Dr. Sharp, in his work on the *Dytiscidæ* of the world, includes under the name forms with and without elytral carinæ, in which I have no doubt he is right as I find that the forms with strongly carinate, and those with non-carinate, elytra are connected by forms in which the elytral carinæ are more or less feeble. Even if the carinate forms represent a species distinct from the non-carinate ones, however, it was the carinate form that Clark described under the name *Hydroporus penicillatus* and therefore the non-carinate form, if either, is the one that would need a new name.

PLATYNECTES.

P. subœnescens, Lea. Mr. Lea has been good enough to send me a specimen of this insect. He distinguishes it from *œnescens*,

Shp., only by its less metallic tone of coloring and the absence of a testaceous spot on its elytra. The size he assigns to it is slightly larger than that Dr. Sharp mentions as the size of *œnescens*. Presumably Mr. Lea has, since the time when he described *P. subœnescens*, taken additional specimens, as the example sent to me (from Beverley, W.A.) has a testaceous spot on each elytron similar to that of *œnescens*. Hence the differences mentioned are reduced to somewhat larger size and less distinctly æneous coloring. Nevertheless, if my specimen of *œnescens* is rightly named (as I think it is), I take Mr. Lea's species to be a valid one as it is (my specimens of both are females) of considerably different form, having more rounded sides and being distinctly less blunt at the hind apex. *P. subœnescens* belongs to Dr. Sharp's first group of *Platynectes*, and is very distinct from all its described Australian congeners except *œnescens*.

GYRINIDÆ.

MACROGYRUS.

M. fortissimus, sp. nov. Fem. Late ovalis; minus convexus; nitidus; supra nigroæneus vix cuprascens; subtus piceus, palpis pedibus abdomineque obscure rufescentibus; supra subtilissime coriaceus; elytris striolis minimis transversis subtilissime impressis, obsoletissime regulariter striatis, interstitiis vix manifeste (alternis quam cetera nonnihil magis distincte) convexis, ad apicem leviter dehiscentibus late subtruncatis, angulis externo bene definito sed nullo modo acuto (mediano nullo) suturali subrotundato; tibiis anticis apicem versus modice latis, angulo externo apicali obtuso sed extrorsum manifeste prominentibus; pygidio sat dense fulvo-pubescenti. Long., $8\frac{1}{4}$ l.; lat., $4\frac{2}{5}$.

A large species (not smaller than *M. rivularis*, Clk.), at once distinguishable from all its described Australian congeners except *M. Howitti*, Clk., by the absence of longitudinal elytral sulci. It differs from the description of *M. Howitti*, *inter alia*, by its large size, its extremely wide form, the absence of metallic blue and green coloring from its lateral margins and the presence of quite distinct (though very faint) striæ on its elytra. Compared with specimens (females) from Tasmania which agree well with the description of *M. Howitti* the present species differs (apart from the distinctions noted above) by the finer and closer transverse striolation of its elytra and by the striolæ appearing very closely and finely zigzagged,—an appearance that seems (under a very strong lens) to be caused by the presence of minute punctures interrupting their outline. The elytral quasi-striæ are nine in number, and the external striæ are scarcely more distinct than those near the suture. The apex of the elytra

should perhaps be designated "doubly truncate, with the two truncate faces meeting in an extremely obtuse and non-prominent angle."

N.S. Wales (Blue Mountains).

M. opacior, sp. nov. Fem. Ovalis; minus latus; depressus; in elytris sat opacus; nigro-piceus, palpis pedibusque dilutioribus, elytris suturam versus manifeste rufescentibus; supra subtilissime coriaceus; elytris striolis et lineis subtilibus elevatis brevibus transversis instructis, in parte laterali sulcis 4 profunde impressis (in parte altera vix manifeste striatis), ad apicem dehiscentibus et ut *M. rivularis*, Clk, sinuatis; tibiis anticis ad apicem extus fere recte angulatis. Long., 6 l.; lat., $2\frac{1}{2}$ l.

Readily distinguishable from all its described Australian allies by its opaque reddish-brown elytra. It agrees with *M. rivularis*, Clk., and *M. latior*, Clk., in the sinuate apical outline of its elytra; differing from the former *inter alia* by its much smaller size and from both in its elytra having only four sulci in their lateral portion and scarcely any trace (even close to the base) of any striæ between the sulci and the suture. On the anterior portion of its elytra very fine short elevated lines take the place of the impressed striolæ usual in the genus.

Victoria (Mt. Macedon); sent by Mr. Kershaw.

M. paradoxus, Regimb. See note (below) on *Dineutes Gouldi*, Hope.

M. (*Gyrinus*) *obliquatus*, Aubé. In Mr. Masters' Catalogue this species is said to be widely distributed in Australia. Aubé quotes it as common to Australia and the "Iles de la Sonde." Regimbart in his Monograph of the *Gyrinidæ* gives "Timor" as its habitat. I have examined a large number of *Gyrinidæ* from different parts of Australia, but have not seen any which agree with the description of *obliquatus* and consider that further evidence is required to establish the occurrence in Australia of that insect.

DINEUTES.

D. Gouldi, Hope. I have before me examples from N. Australia (one of them from Port Darwin, near the original locality) which I believe, in spite of certain discrepancy with the description, to be this species, the coloring, size, &c., being sufficiently notable to make it improbable that two species from the same locality would agree in respect of them. The obstacle to considering this identification certain is that the description calls the elytra "*trispinosa*" and adds the information that the median spine is larger than the two lateral ones,—whereas in the insect before me each elytron has only *two* spines. In one example I

observe that the elytra including their sutural spines are closely in contact with each other at the apex and might be regarded at a casual glance as having three spines on the conjoined elytra (the two sutural spines appearing as one). Although I must admit that Hope's Latin diagnosis (the lateral spines being called "*bini*") *strictly* implies six spines on the two elytra, I cannot help thinking that Hope used the word "*bini*" instead of "*duo*" carelessly and that his "*trispinosa*" refers to the fact that the two conjoined elytra present the appearance of being (together) trispinose. Otherwise it is certainly remarkable if in the one locality there are two species agreeing in general characters that render them particularly distinct among their allies of the same family yet differing in the armature of their elytral apices. I have both sexes of this insect before me. It is further to be noted that this insect is not a true *Dineutes* but a *Macrogyrus* and is certainly, I think, *M. paradoxus*, Regimb., of which M. Regimbart remarks that in general appearance "it resembles a *Dineutes* much more than a *Macrogyrus*." Unless Hope's type is in existence I do not see much prospect of the identity of *D. Gouldi* being conclusively determined. If some Coleopterist in England could ascertain whether the type is in the Oxford University Museum and if so send me a description or figure of tho outline of the apical portion of its elytra and also report as to whether the specimen has a distinct scutellum I should greatly value the information.

D. australis, Fab., and *rufipes*, Fab. I suspect that as far as Australian specimens are concerned these names refer to but one species, which is widely distributed in Central and Northern Australia. I notice that *D. australis* is attributod to the East Indies as well as to Australia and it may well be that the two *species* are distinct but that *australis* nevertheless has been incorrectly quoted as Australian. Unfortunately I am not able to refer to all the literature bearing upon the question, but the descriptions before me (including those of Fabricius) seem to me as if they might have been founded on only one species. I should be very glad if anyone could throw any fresh light upon this subject.

PALPICORNES.

HYDROPHILUS.

H. scissipalpis, sp. nov. Modice latus, postice sat obtusus; nitidus; piceo-niger, antennis palpisque testaceis, pedibus anticis totis femoribus 4 posterioribus et abdominis maculis lateralibus rufis, tarsis fulvo-ciliatis; prothorace brevi, cum capite ut *H. albipedis*, Cast., et *H. latipalpi*, Cast., punctulato, lateribus leviter arcuatis, angulis posticis rotundatis, basi utrinque latera versus rotundatim retrorsum dilatata;

scutello lævi; elytris triseriatim punctulatis, prope apicem haud seriebus additis impressis; lamina prosternali postice concava; carina sternali postice sat acuta, vix pone coxas posticas producta; sterno breviter pubescenti.

Maris palporum maxillarium articulo penultimo apicem versus intus leviter compresso-dilatato, paullo ante apicem subito angulatim angustato; tarsorum anticorum articulo apicali subtus laminato-dilatato; unguibus anticis modice robustis, minus arcuatis, externo quam internus fere duplo longiori.

Feminæ palpis tarsisque simplicibus. Long., 13—15 l.; lat., 6—6½ l.

This species differs from the previously described Australian *Hydrophili* as follows; from *gayndahensis*, Macl., by its very much shorter sternal carina; from *brevispina*, Fairm., by the very different front claws of the male, different colors, &c.; from *albipes*, Cast., by the much less numerous rows of punctures on its elytra near the apex, the differently shaped penultimate joint of the male palpi, the very much greater inequality of the front claws of the male, the basal outline of the prothorax, the evidently more rounded basal angles of the prothorax, &c.; from *latipalpus*, Cast., by the much less numerous rows of punctures on its elytra near the apex, the extremely different male characters, the colors, &c. *H. ruficornis*, Klug, is unknown to me in nature and is insufficiently described by its author, but from Fairemaire's remarks on it in the Journ. Mus. Godeff, p. 80, that species evidently has a very much longer sternal carina and apparently its prosternal lamina is not concave posteriorly.

Central Australia.

H. gayndahensis, Macl. This species is practically undescribed, —the quasi-description merely stating that its sternal carina passes the extremities of its hind femora, and that its palpi tarsi and fringing hairs are reddish. There is nothing in this to distinguish it from *H. ruficornis*, Klug.

HISTERIDÆ.

CHLAMYDOPSIS.

C. comata, sp. nov. Nitida; nigro-picea, antennis pedibus elytrisque (his piceo-umbratis) castaneis; capite grosse granuloso-ruguloso; prothorace transverso, supra ad latera late explanato et alte reflexo, haud punctulato, ante basin utrinque longitudinaliter profunde strigato; elytris lævibus, humeris ut processus cornua magna simulantes (his ad apicem penicillam pilorum aureorum valde elongatorum ferentibus) productis, lateribus pone humeros ut cristæ magnæ (his antice penicillam ut humeri ferentibus) elevatis; propygidio pygidioque sat fortiter punctulatis; pedibus minus elongatis. Long., 1½ l.; lat., 1⅕ l.

This species is evidently congeneric with those that I have previously described under the generic name *Chlamydopsis*. It is distinguishable from all the species hitherto attributed to that genus by, *inter alia*, its extremely nitid and punctureless elytra as well as by the extraordinary humeral horn and lateral crest that project from each elytron and the thick pencil of very long golden hairs (nearly long enough to reach back to the propygidium) that rise from the apex of the humeral process and the front of the summit of the lateral crest. A single specimen was found in a pool of water.

South Australia (near Woodville).

BUPRESTIDÆ.

MELOBASIS.

M. interstitialis, sp. nov. Minus nitida; supra viridi-ænea, prothoracis angulis posticis scutelloque purpureis, elytrorum costis interrupte aureo-cupreis; subtus purpureo-cuprea; pedibus anticis viridi-æneis posterioribus obscure subpurpureis, tarsorum articulo ultimo viridi; antennis obscuris; corpore subtus ad latera pedibusque albo-pilosis; capite (fere ut *M. cupreo-vittatæ*, Saund.) plano, confertim granuloso-punctulato, albido-piloso; prothorace quam longiori ut 5 ad $3\frac{1}{2}$ latiori, antice vix angustato, antice et postice fortiter sinuato, fere ut *M. cupreo-vittatæ* punctulato (sc. in disco sat crebre minus fortiter, ad latera grosse rugulose), lateribus subrectis (fere ut *M. Saundersi*, Mast.); elytris fere ut *M. Saundersi* 5-costatis, interstitiis (fere ut *M. Saundersi*) subtiliter confertim subæqualiter punctulatis sed quam hujus speciei puncturis magis concinnis, parte antica haud transversim strigata, lateribus postice sat crebre denticulatis, denticulo suturæ proximo quam ceteri majori; sterno sat longe pone marginem anticum transversim fere recte gibboso, parte mediana antice minus crebre minus fortiter (postice magis crebre magis fortiter) punctulato; segmentis ventralibus basalibus 2 crebre subtiliter (ceteris minus crebre) punctulatis.

Maris quam feminæ pronoti disco magis fortiter punctulato, segmento ventrali apicali postice bi-emarginato trispinoso.

Feminæ segmento ventrali apicali profunde sat anguste emarginato. Long., $7\frac{2}{3}$ l.; lat., $2\frac{1}{4}$ l.

The golden coppery parts of the elytral costæ are the front one-fifth of the first (sutural) costa, a short piece of the second costa slightly in front of its middle, of the third costa a short piece near the base and another behind the middle, of the fourth the hind extremity, and of the fifth a somewhat long piece near the front. This species is notable among those having costate