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

By the REV. T. BLACKBURN, B.A.

XXVIII.

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Through the obliging mediation of my good friend Dr. Horn of Berlin I have been brought into communication with Professor Kolbe of the Royal Museum at Berlin, who has done me the distinguished favor of entrusting to my hands for examination the type specimens of a number of the Tasmanian Coleoptera described by Erichson in 1842. This generous loan has enabled me to clear up some of the enigmas of the Australian fauna and to assign to their proper places various species which in former papers I have been obliged to pass over as incapable of certain identification, especially in the genus Heteronyx and the family Curculionidæ. The results of my studies of the above-mentioned types will be found in the following pages.

CICINDELIDÆ.

CICINDELA.

C. Jungi, sp. nov. Modice elongata, sat parallela; viridis vel cuprea, labro mandibulis (his apicem versus nigricantibus) elytrisque albidis (his macula viridi communi elongata, basin attingenti, longe ante apicem desinenti, ad latera apicemque varie sinuata, ornatis); capite inter oculos (his valde prominulis) fortiter convexo, clypeo dense niveo-piloso, vertice antice longitudinaliter subtiliter strigato postice subtiliter rugulose punctulato; prothorace sat transverso, niveo-piloso, antice posticeque transversim sulcato, longitudinaliter canaliculato, subtiliter confertim rugulose punctulato, lateribus sat arcuatis; elytris vix perspicue punctulatis, margine postice haud denticulato; corpore subtus (metasterni coxarum posticarum abdominisque parte mediana excepta) antennarum articulis basalibus 4 pedibusque sat dense niveo-pilosis.

Maris tarsis anticis modice dilatatis; feminæ labro 3-dentato.

Long., $5-5\frac{1}{2}$ l.; lat., $1\frac{4}{5}-2$ l.

The elytra have no markings whatever except the one common green blotch which extends from the base hindward to about the

beginning of the apical one-third of the elytra. This blotch is deeply bi-emarginate on its lateral margins and also emarginate on its hindmargin. The emargination of the hindmargin is in some specimens not deeper than those of the lateral margins, but in other examples is very much deeper (in one even becoming a long cleft extending two-thirds of the distance up the middle of the blotch towards its front margin). This species differs from C. upsilon as follows: form evidently more elongate and parallel; elytral markings quite different; clypeus and basal part of antennæ densely pilose; prothorax much more pilose and with less straight sides; head considerably more convex between the eyes; elytra much less distinctly punctured; labrum of female tri-dentate in front. The female examples before me have the apex of the suture distinctly spiniform, but in the unique male there is no trace of a spine; perhaps this is an abnormal specimen.

S. Australia; Yorke Peninsula (taken by Mr. Jung).

CARABIDÆ.

GIGADEMA.

G. rugaticolle, sp. nov. Fem. Elongatum; parallelum; minus nitidum; piceum, corpore subtus pedibusque rufescentibus; capite modico, pone oculos modice angustato, sat sparsim subfortiter punctulato et transversim perspicue rugato; labro sat elongato; prothorace sat cordiformi, quam longiori fere sesquilatiori, canaliculato, in disco toto sat æqualiter sat fortiter transversim strigato, in partibus marginalibus omnibus sat fortiter minus sparsim punctulato, lateribus late deplanatis, basi bisinuata; elytris striatis, striis punctulatis, interstitiis nullo modo convexis, subtiliter (ut striæ) punctulatis, puncturis in interstitiis nonnullis triseriatis; femoribus anticis ad basin subtus obtuse angulatim dilatatis; ligula planata, parte media leviter concava. Long., 16 l.; lat., $5\frac{1}{2}$ l.

This species is distinguishable among its allies by the absolutely flat interstices of its elytra (the puncturation of which is very fine and runs partly in two, partly in three, longitudinal rows) and the strong uniform transverse wrinkling of the disc of its pronotum. Compared with G. longipenne, Germ., of same sex, it is of somewhat similar, but a little wider form; its labrum is much more obtuse at the apex; its head does not differ much except in the upper surface being conspicuously strigate transversely; its ligula is of entirely different form; its prothorax does not differ much in outline except in the middle part of the front margin being more prominent; the marginal flattening of the pronotum is much wider and better defined (even more

so than in G. Bostocki); the disc of the pronotum is strongly strigate and therefore opaque; the elytral interstices are quite flat and are more finely punctured, the punctures not running in two regular series on each interstice but on the greater part of most of the interstices in three rows; the basal part of the front femora is obtusely and widely angular beneath (in longipenne there is a small sharp tooth). I do not know G. Froggatti, Macl., or atrum, Macl., but it is evident from the descriptions that this present insect is very distinct from them,—the former having the "whole prothorax coarsely punctured" and its elytral interstices being called "ridges;" while the latter is described as having inter alia its "head without punctures" and the apical joint of its maxillary palpi triangular.

N.W. Australia.

DIABATICUS.

D. australis, Er. Some time ago I took an example of Diabaticus on the Dividing Range, Victoria, which appears to me to be a variety of the Tasmanian D. australis. It differs from the type in the front one-third part of its elytra being of the same ferruginous colour as the prothorax. The interstices of its elytra being more absolutely flat than those of australis suggest the possibility of specific distinctness, which however could only be decided by examination of numerous specimens. I do not think the insect has hitherto been recorded as occurring on the mainland of Australia.

D. (?) tumidiceps, Blackb. and minor, Blackb. In Tr. R.S., S.A., 1889, p. 133, I very doubtfully attributed these species to Diabaticus provisionally. In Pr. L.S., N.S.W., 1898, p. 494, Mr. Sloane says that they cannot in his opinion stand in Diabaticus but require a new generic name. I take this opportunity of saying that I agree with him. As he is, I believe, at present working on the Lebiides I leave to him the task of dealing more satisfactorily with their generic position.

SILPHOMORPHA.

S. difficilis, sp. nov. Lata; sat nitida; supra fere tota piceonigra, corpore subtus antennis palpis pedibusque rufis; fere lævis, punctura magna in utroque elytro prope scutellum impressa; capite prothoraceque fere æqualibus; elytris obsolete interrupte substriatis, interstitiis vix omnino planis, apice subsinuata anguste rufescenti, lateribus leviter deplanatis. Long., 4½ l.; lat., 2½ l.

This species is notable among its immediate allies by the large puncture on each elytron placed very near to, and about on a level with the hind apex of, the scutellum. The elytra are dis-

tinctly less evidently striate than those of S. fallax, Westw., and more evidently than those of S. decipiens, Westw. The prothorax is not at all explanate on the sides, the elytra broadly so, but very indefinedly, much less definedly than in fallax. S. lævis, Cast., is perhaps the species to which the present one is nearest, but it is too briefly described for any clear idea of it to be formed without seeing the type. It seems however to be differently colored having a "reddish lateral margin to the thorax and elytra" (there is no trace of such coloring in the present species) and having the "thorax bi-impressed on the posterior part" (the present species has no inequalities that can be called distinct impressions); moreover it is from a very distant locality (tropical Queensland); the probabilities therefore are decidedly against identity.

N.S. Wales (Tweed R. district).

ADELOTOPUS.

A. micans, sp. nov. Angustus, elongatus (quam A. filiformis, Cast., parum latior; nitidus; glaber; antennis palpis pedibus pronoti lateribus elytrorum apice corporeque subtus plus minusve piceis vel rufescentibus; capite sat lævi; prothorace quam longior sesquilatiori, antice parum (quam A. hæmorrhoidalis, Er., multo minus fortiter) angustato, sparsim manifeste (quam A. filiformis, Cast., multo minus crebre) punctulato, lateribus quam A. filiformis, Cast., paullo minus rectis paullo magis late recurvis; elytris ut prothorax (sed apicem versus magis crebre) punctulatis, nullo modo striatis, sutura prope apicem vix subcarinata; prosterno haud carinato. Long., 3 l.; lat., 1½ l.

Resembles A. filiformis, Cast., and aphodioides, Westw., in its pronotum and elytra being very much more distinctly punctured than those of dytiscoides, Newm., hydrobioides, Westw., nemosomoides, Westw., hæmorrhoidalis, Er., &c. From aphodioides it differs inter alia by its puncturation being much less close and the sides of its prothorax straighter and very much less strongly recurved.

S.A. (Quorn).

A. Tasmani, sp. nov. Angustus, elongatus (ut A. filiformis, Cast.); nitidus; glaber; ut A. micans coloratus; supra haud punctulatus; prothorace (puncturis carentibus exceptis) fere ut præcedentis A. micantis sed lateribus etiam magis anguste recurvis; elytris (puncturis carentibus exceptis) fere ut præcedentis, sed sutura haud carinata; prosterno fortiter carinato. Long., $2\frac{4}{5}$ l.; lat., 1 l.

A very narrow species, of the form of A. filiformis, Cast., but differing from that species inter alia by its upper surface being

devoid of distinct puncturation even under a strong lens. A. hæmorrhoidalis, Er., is much less narrow in form, with the sides of its prothorax very much more strongly narrowed towards the apex. A. nemosomoides, Westw., is a still more narrowly elongate form, with the sides of its prothorax quite straight. Hydrobioides, Westw., vicinus, Cast., apicalis, Macl., are all inter alia of much less narrowly elongate form.

Tasmania (Lake District).

A. creberrimus, sp. nov. Subovalis, minus angustus, minus convexus; minus nitidus; supra piceus, antennis palpis pedibus prothoracis basi lateribusque elytrorum lateribus et corpore subtus rufescentibus; glaber; capite creberrime ruguloso, genis ut A. ipsoidis, Westw., dilatatis; prothorace ut A. ipsoidis conformato, supra sat æqualiter confertim ruguloso; elytris totis (humeris summis exceptis) crebre punctulatis, puncturis suturam versus sat magnis sat rugulosis (ut A. ipsoidis) sed latera apicemque versus multo minoribus, stria subsuturali manifesta; prosterno carinato. Long., $3\frac{4}{5}$ l.; lat., $1\frac{3}{5}$ l.

Allied to A. ipsoides, Westw., but of evidently more elongate form, with the sculpture of the pronotum very much more crowded and evenly distributed and the whole surface of the elytra except a very small space at the shoulders very distinctly punctured. In ipsoides the front two-thirds of the inner half of each elytron is strongly punctured (but much less closely than in creberrimus) while the external half of each elytron (except close to the lateral margin) and the apical portion are almost punctureless. Cylindricus, Chaud., is no doubt another ally of A. ipsoides; its prosternum is described as non-carinate. A. obscurus, Cast., is stated by Dr. Gestro (Ann. Mus. Gen., 1884, p. 303), on the authority of Castelnau's type and a co-type from Macleay, to be identical with subopacus, Macl. I have a specimen of subopacus, Macl. (compared with the type), which is a much smaller insect than creberrimus, with pilose elytra and the elytral puncturation. not interrupted even on the shoulders.

S. Australia (Basin of Lake Eyre).

PROMECODERUS.

P. Sloanei, sp. nov. Fem.? Elongato-ovalis; nitidus; niger, vix ænescens; palpis antennis tarsisque vix picescentibus; capite convexo, sat æquali, labro medio longitudinaliter fortiter sulcato, genis (ut P. ovipennis, Sl.) subtus angulatim prominentibus, menti dente medio sat acuto; prothorace convexo, quam latior fere longiori, antice et postice transversim modice impresso, canali mediana longitudinali bene definita obsolete punctulata (hac sulcos transversos attin-

genti, postice subfoveato), lateribus minus fortiter (quam P. scauroides, Cast., multo minus fortiter) arcuatis in parte postica summa sinuatis, angulis posticis rectis; elytris modice convexis, subtiliter perspicue striatis (striis perspicue punctulatis), striis 1^a et 2^a antice fortiter extrorsum versis et prope basin conjunctim profunde sulcatis, inter has strias et suturam fovea sat profunda impressa, parte apicali subrugulosa. Long., $5\frac{3}{4}$ l.; lat., $2\frac{1}{5}$ l.

In general shape and build this species resembles an insect sent to me by Mr. Sloane under the name P. semistriatus, Cast. Its most striking character consists in the strong longitudinal sulcus of the labrum, which is even more deeply impressed than in any of my specimens of the small group of Tasmanian species notable for that character. The puncturation of its elytra is more marked than in any other specimen of the genus in my collection, extending in regular rows from base to apex and being quite distinct even on the lateral portions; it can hardly be the result I think of immersion in spirits. The sinuation (close to the base) of the lateral margins of the prothorax is stronger than in any other *Promecoderus* known to me. This lateral margin is continued along the base (where it becomes thicker and stronger than on the sides) for about a quarter of the width of the segment and is obsolete in the middle. The prothorax is fully as long as (if anything a trifle longer than) wide by careful measurement. The first and second elytral striæ running into a short deep fovea-like sulcus at the extreme base seems to be a good character. I cannot make up my mind as to the sex of the specimen before me. The front tarsi are not spongiose beneath, but they are very short and wide for a female,—the basal joint scarcely longer than wide and the following three joints distinctly transverse. I can find only one puncture on each side of the hindmargin of the last ventral segment, but as the setæ of the punctures are wanting and the margin itself is slightly damaged I am not sure that there may not have been two punctures on The lateral foveæ of the ventral segments are not linearly produced towards the middle of the segments. median longitudinal line of the pronotum is much like that in a specimen sent to me by Mr. Sloane as olivaceus, Macl. species is as brilliantly nitid as P. scauroides, Cast.

Western Australia (Yilgarn District).

GNATHAPHANUS.

G. Darwini, Blackb. Mr. Sloane (Proc. L.S., N.S.W., 1899, p. 555) says that a comparison of the description of the above insect with that of G. (Diaphoromerus) multipunctatus, Macleay (both published in P.L.S., N.S.W., 1888, Part 2), convinces him

of their identity and that as he feels ittle doubt of G. multipunctatus being identical with G. impressipennis, Cast., he thinks Darwini is probably in the same case. It seems to me likely enough that my name is founded on the same species as Sir W. Macleay's; in which event, although the two names were published simultaneously my name must sink, as Sir W. Macleav's paper was read before mine; but my G. Darwini is perfectly distinct from a Queensland species sent to me by Mr. Sloane as G. impressipennis, Cast. (and in my opinion correctly named), from which it differs inter alia by its having no punctures on the fourth elytral interstice and none on the front onethird part of the fifth interstice. Unfortunately my G. Darwini is a female, and the Queensland specimen is a male,—but I think it very improbable that the female of the Queensland species has such deep elytral striæ or so strongly prominent interstices (which however are flattened,—not keel like,—except close to the base and near the apex) as G. Darwini.

LAMELLICORNES.

ANODONTONYX.

A. (Scitala) languida, Er. I have the type before me and find it to be an Anodontonyx. It is identical with the species that I regard as A. nigrolineata, Boisd. This confirms Burmeister's opinion that the two names are founded on the same insect, but Burmeister makes Boisduval's name the synonym,—whereas the reverse is the case (as Blanchard cites it and as it is quoted in Masters' Cat.).

HETERONYX.

Erichson seems to have overlooked this name altogether as he makes no reference to it in founding his genus Silopa to which he refers numerous Tasmanian species. Silopa however, as Lacordaire and others have shown, is quite identical with Heteronyx. In my "Revision of the genus Heteronyx" (P.L.S., N.S.W., 1889, &c.) I was obliged to pass H. (Silopa) glabratus, Er., fumatus, Er., and hepaticus, Er., among the species unknown to me. I have now, through the courtesy of Herr Kolbe, the types of these three species before me and can furnish the following notes on them, assigning to them their places in my arrangement of the genus.

H. glabratus, Er. This species belongs to my Section III., Group I., Sub-group II., having its labrum elevated above the clypeus, its antennæ of eight joints and its claws appendiculate. In my tabulation of that Sub-group it stands beside H. raucinasus, Blackb. (P.L.S., N.S.W., 1889, p. 142) along with H. consanguineus, Blackb. (a subsequently described species). It differs from both of them by its much less closely and more

strongly punctulate elytra, and from raucinasus by its much less

closely and less rugulosely punctured head.

H. (Silopa) fumatus, Er. This species belongs to my Section III., Group II., Sub-group II., having its labrum elevated above the clypeus, its antennæ of nine joints, and its claws appendiculate (tabulated in Proc. L.S., N.S.W., 1889, pp. 662, &c.). It is identical with my H. rapax, the name of which must conse-

quently sink into a synonym of H. fumatus.

H. (Silopa) hepaticus, Er. I cannot see any character of specific value to separate this species from the preceding (H. fumatus). I think it is a male and fumatus a female. In the two descriptions there does not seem to be any tangible difference beyond that the scutellum of hepaticus is said to be sparsely (of fumatus, not) punctured, and the elytral interstices in hepaticus to be transversely subrugulose. I find these distinctions in the two specimens except that the scutellum of fumatus is certainly not absolutely without punctures, though its punctures are very evidently less numerous than those of hepaticus. I also observe that the elytral puncturation of hepaticus is a trifle closer than that of fumatus. And here it may be noted that the puncturation of both scutellum and elytra in the type specimen of H. rapax, Blackb., is intermediate between that of Erickson's two species. But these very slight differences do not appear to me sufficient to found species on, at any rate unless a study of numerous specimens should show that they are persistent,—and moreover not sexual.

As I have mentioned previously (P.L.S., N.S.W., 1889, pp. 1243-4) Blanchard considers hepatica, Er., a synonym of australis, Guér., and I have not sufficient evidence before me to form a decided opinion as to whether he is right. Unfortunately hedoes not give his reasons for the determination which could not be of much value unless it was founded on an inspection of the types.

H. grandis. In the remarks on this species (Tr. R. Soc., S.A., 1900, p. 113, line 28) "1891" should be substituted for "1892."

DIAPHONIA.

D. seminigra, Kraatz. This seems to me to be identical with D. Parryi, Jans.; the latter is the older name. This synonymy has not (so far as I can ascertain) been noted before.

BUPRESTIDÆ.

STIGMODERA.

S. Pallas, sp. nov. Sat lata; sat nitida; colore variegata, capite prothoraceque cupreis, elytris stramineis (his fasciis cyaneis 3 ornatis,—1ª basali lata marginem lateralem antice

anguste attingenti in disco retrorsum extensa et in sutura producta, 2^a post-mediana sat lata, 3^a apicali cum 2^a in sutura anguste connexa), corpore subtus aureo-æneo, antennis pedibusque cyaneis (his viridi-micantibus); capite minus elongato, crebre fortiter punctulato, inter oculos profunde concavo, parte inter oculos retrorsum haud angustata; prothorace quam longior sesquilatiori, subgibbo (i.e. antice fortiter declivi), ut caput punctulato, lateribus a margine antico (hoc quam basis fere duplo angustiori) longe pone medium divergentibus (hinc ad basin fere rectis); elytris ad basin subrectis, ad apicem late rotundatis, striatis, interstitiis parum convexis punctulatis, lateribus postice crenulatis; corpore subtus crebre sat fortiter punctulato; unguiculis inermibus. Long., 8 l. lat., $3\frac{1}{5}$ l.

The three strongly contrasted colors of the upper surface (bright copper on the head and pronotum, pale yellow and cyaneous on the elytra) together with the unarmed apices of the elytra render this species easy to identify. It is not unlike S. cupricollis, Saund., but in that species the elytra are emarginate and spinose at the apex and there are three zones of yellow on the elytra,in the present species only two (this is not a sexual difference), &c., &c. The cyaneous markings on the elytra are intricate and The basal is of very transversely quadrate difficult to describe. form and does not reach the lateral margin except very narrowly at the base; it extends backward about one-seventh of the length of the elytra but is triangularly produced about half as far again on the suture. The postmedian fascia (looked at with the apex of the elytra towards the observer) bears a rough resemblance to a tree, the trunk of which is represented by the connection on the suture of the postmedian fascia and the apical blotch. apical blotch occupies about the apical one-eighth of the elytra, and its front margin is somewhat sinuous. The specimens before me are females.

Thursday Island (sent to me by Mr. French).

S. erubescens, sp. nov. Modice elongata; sat nitida; colore variegata, capite prothoraceque purpureo-violaceis (illo viridi-tincto), elytris in parte anteriori testaceo-brunneis in parte posteriori tertia sanguineis [his notulis cyaneis ornatis,—sc. basi summa sutura parte antica excepta (in hac colore cyaneo postice dilatato) et fascia subrecta mox pone medium sita (hac nec suturam nec marginem lateralem plane attingenti)], corpore subtus antice violaceo postice viridescenti, antennis pedibusque altero adspectu cyaneis altero viridibus; capite sat elongato, crebre minus fortiter (postice magis fortiter minus crebre) punctulato, inter oculos vix concavo, parte inter oculos retrorsum haud angustata; prothorace

quam longior ut 8 ad 5 latiori, ut capitis pars posterior punctulato, lateribus modice arcuatis (latitudine majori pone medium sita) angulos posticos versus subplanatis; elytris ad basin mediam leviter angulatim productis, ad apicem rotundatis, punctulato-striatis, interstitiis sat convexis sparsim punctulatis, lateribus postice haud crenulatis; corpore subtus sparsius minus fortiter punctulato; unguiculis inermibus. Long., $10 \, \mathrm{l.}$; lat., $3\frac{4}{5} \, \mathrm{l.}$

This species bears a certain resemblance to S. rubricauda, Saund., but differs from it inter alia multa by its glabrous head, differently colored head and prothorax, the presence of a well-defined transverse fascia immediately behind the middle of its elytra. The sanguineous coloring of the elytra occupies the portion behind the fascia. The cyaneous coloring of the suture begins a little in front of the middle and is narrow to the beginning of about the apical one-third of the elytra, where it dilates into an elongate oval blotch which reaches the apex and there is again dilated along the apical margin to nearly the width of its widest part.

Thursday Island (sent by Mr. French).

Modice elongata; minus nitida; ænea, S. guttigera, sp. nov. elytris flavo-testaceis (his ad basin anguste æneis, ad apicem violaceis, guttis sex sat parvis ornatis, -sc. duabus communibus et binis prope marginem lateralem positis), abdomine rufo-testaceo, antennis pedibusque violaceis viridimicantibus, scutello violaceo; capite modice elongato, crebre subfortiter sat æqualiter punctulato, longitudinaliter sat profunde concavo, parte inter oculos postice parum angustata; prothorace quam longior sesquilatiori, fere ut caput punctulato, lateribus pone medium manifeste dilatatorotundatis, basi quam margo anticus ut 6 ad 31 latiori utrinque punctura foveiformi instructa; elytris ad basin mediam leviter angulatim productis, ad apicem anguste obsolete emarginatis vix bi-apiculatis, ad latera mox pone basin fortius emarginato sinuatis, punctulato-striatis, interstitiis leviter convexis sat crebre minus subtiliter punctulatis, lateribus postice subtiliter crenulatis. Long., 8 l.;

In outline and sculpture this species closely resembles S. Jekeli, Saund., but it is much smaller, with very different markings and coloring, and with its prothorax notably less strongly transverse and less strongly dilatate-rotundate on the sides, and the foveiform puncture at the middle of the base of the pronotum (so conspicuous in Jekeli) is wanting.

Victoria.

CLERIDÆ.

ELASMOCERUS.

E. picticollis, sp. nov. Mas. Elongatus, sat parallelus; pube subtili erecta vestitus; niger vix ænescens, pronoti margine antico (parte mediana excepta) basique elytrorum marginis lateralis parte dimidia antica et abdomine rufo-testaceis; capite confertim rugulose, pronoto paullo minus crebre, elytris etiam minus crebre nec rugulose, minus subtiliter punctulatis; antennarum articulo apicali laminiformi quam ceteri conjuncti triplo longiori; prothorace subcylindrico quam latior sat longiori. Long., 3½ l.; lat., 1 l.

This genus has not been previously reported as Australian. It was founded on some American species with which African ones have since been associated. The antennæ of the male are very remarkable, and probably mimic those of some other insects on which *Elasmocerus* is parasitic,—perhaps *Longicorns* with flabellated antennæ.

Victoria.

TENEBRIONIDÆ.

CHALCOPTERUS.

Late subovalis, sat brevis; minus nitidus; C. cribratus, sp. nov. niger, elytris olivaceo-æneis; capite æqualiter crebre subtilius punctulato, oculorum interspatio quam antennarum articuli basalis longitudo vix latiori; sulcis ocularibus nullis; antennis quam corporis dimidium parum brevioribus, modice robustis, apicem versus perspicue incrassatis, articulo 3° quam 1^{us} 2^{us} que conjuncti manifeste longiori quam 4^{us} 5^{us} que conjuncti manifeste breviori; prothorace quam longior duplo (postice quam antice ut 5 ad 3) latiori, æqualiter crebre subtilius (quam caput paullo magis leviter) punctulato, antice leviter emarginato, a basi antrorsum (superne viso) arcuatim angustato, basi media perspicue minus late lobato, angulis anticis obtusis (sed bene definitis) posticis (superne visis) leviter obtusis (fere rectis); elytris nullo modo striatis, subæqualiter (apicem versus magis confertim) fere ut prothorax sed multo magis profunde punctulatis et puncturis manifeste majoribus seriatim instructis; prosterno medio leviter obtuse carinato; corpore subtus crebre leviter punctulato; femoribus anticis sparsim subtiliter punctulatis; tarsis nigro-setosis, posticorum articulo basali quam ceteri conjuncti vix breviori. Long., 5 l.; lat., 3 l.

In my tabulation of the genus Chalcopterus (P.L.S., N.S.W., 1893, pp. 56, &c.) this species falls beside C. rugosipennis, Macl., from which it is extremely distinct inter alia both in coloring and shape. Macleay's insect is "elongate-ovate" with elytra

"nearly three times as long as wide;" in the present species the elytra are much less than twice as long as wide. The elytral puncturation resembles that of *C. fastuosus*, Germ., but is coarser and sub-asperate with the seriate punctures more evidently larger than the punctures of the interstices. The prothorax, however, is that of the aggregate "E" (on p. 56) while that of fastuosus is of the aggregate "EEE" (on page 61).

Queensland.

ŒDEMERIDÆ.

PSEUDOLYCUS.

P. torridus, sp. nov. (Mas.) Elongatus, sat angustus; dense pubescens; ater, prothorace medio et elytris rufis, antennarum basi palpisque picescentibus; capite crebre subtilissime punctulato, antice fortiter elongato; antennarum articulis 3°—10° dilatatis (3° 4° que inter se sat æqualibus, 5° quam 4^{us} paullo breviori vix angustiori, 5°—10° gradatim angustioribus, 4° quam 10^{us} plus quam duplo latiori; prothorace subcylindrico, supra subtilissime punctulato, indeterminate inæquali (certo adspectu prope angulos omnes tumido), lateribus manifeste arcuatis; elytris fortiter 4-costatis. Long., 4½ l.; lat., 1½, l. (vix).

A very distinct species. In my tabulation of the genus (Tr. R. Soc., S.A., 1899, p. 85) it falls at the end, thus,—

AAA. Pronotum not having a median ridge that becomes bifid in its hinder part. Joints 3-11 of the

antennæ entirely black torridus, Blackb.

Apart from color this species differs from those (previously described) not having on their pronotum a central ridge diverging hindward in two branches in its hind part, *inter alia* by the much stronger costæ of its elytra.

Queensland.

CURCULIONIDÆ.

EUTHYPHASIS.

E. funerea, sp. nov. Picea, pube fusco-cinerea (hac notulis pallide cinereis et nigris variegata) dense vestita, antennis pedibusque obscure ferrugineis, corpore subtus ferrugineo (in sternis obscuriori); rostro quam latiori fere duplo longiori, sat depresso; prothorace quam latior multo longiori, antice subtubuliformi; hoc cum capite confertim subrugulose subtilius punctulato; elytris punctulato-striatis, ad apicem modice producto-elongatis, interstitiis nonnullis leviter costiformibus. Long., $3\frac{2}{5}$ l.; lat., $\frac{1}{2}$ l.

The black pubescence forms a quadrate patch on each elytron placed somewhat obliquely and considerably behind the middle. The pubescence of lightest color is on the sides of the pronotum

and immediately before and behind the black elytral patch. The general pubescence of the head and pronotum is evidently darker than that of the elytra. This species differs entirely from its previously described congeners in colors and pattern (in these respects it is remarkably like Ophthalmorychus angustus, Blackb.). It differs structurally from E. parva, Blackb., inter alia by its prothorax distinctly (though not strongly) tubuliform in front, its elytra less produced at the apex, its much denser pubescence, and the manifestly subcostiform appearance of some of its elytral interstices.

Victoria (Dividing Range).

MANDALOTUS.

M. crudus, Er. This species is very well described by its author and there is little which an inspection of the type calls for by way of addition, although a considerable number of congeneric species have since been described. It is at once distinguishable from all the Mandaloti known to me (and, I think, from the few I do not know) by the sculpture of its elytra which (owing to the presence of numerous obtuse feebly elevated ridges forming a kind of reticulation) presents an areolate appearance somewhat suggestive of the elytral sculpture of the Colydiad Meryx areolata, Pasc.,—though the areolation is less sharply defined than in that insect. The type is a male, the mesosternal projection being very decidedly of the form of a blunt spine (as described by Erichson) and therefore very different from that of *M. hoplostethus* (also from Tasmania). To Erichson's description of the hind tibiæ it should be added that at the middle of the inner margin (immediately before the commencement of the curvature of the outline) there is a strong transverse carina which from some points of view looks like a prominent tooth.

M. rigidus, Er. This is certainly the female of M. crudus. It has exactly similar elytral sculpture, but differs in being somewhat wider and more robust in form, with the mesosternal spine replaced by a feeble tubercle and the tibia presenting the differences that usually distinguish those of female Mandaloti from their males.

M. sterilis, Er. The type of this species is probably a male, but with very feeble sexual characters. I should say that it is identical with M. (Dysostines) fuligineus, Pasc. (judging by the description of that insect). It is distinguishable from all the other Mandaloti known to me by its narrow elongate form. The carination of the alternate interstices of its elytra is well defined,—the white spot at the base of the third interstice (mentioned by Erichson) very indistinct. The mesosternum and tibise

are as described by Erichson except that the hind tibiæ are more strongly sinuate on their inner outline than I should understand by the term "subrectæ" and it should be added that the hind tibiæ are decidedly incrassate,—no doubt a sexual character, also that the suture between the first and second ventral segments is extremely fine and the segments themselves on the same plane.

M. vetulus, Er. I feel no doubt of this being the female of M. sterilis. It differs from it (as rigidus does from crudus) in being of somewhat wider and stouter build with the tibiæ considerably more slender and evidently less sinuate on their inner outline. The elytra have their alternate interstices distinctly elevated. The elytral markings mentioned by Erichson as present in vetulus are very feebly defined and to my thinking merely indicative of freshness of condition in the specimen; I attach no specific importance to them.

PERPERUS.

- P. (Nothrodes) languidus, Er. Erichson's generic name is (as noted by Lacordaire) a synonym of Perperus. The species is very well described by its author. I cannot separate it from a species of which I have examples from N.S. Wales and Gippsland, which Mr. Lea has sent to me as insularis, Schönh., but which I believe to be innocuus, Schönh. Unfortunately most of the pubescence is gone from the type specimen of languidus (e.g. the four vittæ described as marking the pronotum), so that it is perhaps not justifiable to say positively that it is identical with innocuus, but I can find no structural character on which to separate it. The species that I take to be insularis, Schönh, has a broad white lateral elytral vitta, the humeral angles of the elytra much better defined and the elytral interstices less flat,—all of them characters referred to by Schönherr in his description.
- P. convexipennis, sp. nov. Piceus, squamis cinereis et fuscis intermixtis vestitus; rostro quam prothorax parum breviori, supra vix manifeste carinato, ad apicem modice dilatato; antennis piceo-ferrugineis, funiculi articulo 2° maris basali sat æquali (feminæ paullo longiori); prothorace quam longior maris haud (feminæ manifeste) latiori, ad latera sat rotundato, supra sat crasse (nec profunde nec confertim) punctulato, fusco-trivittato; elytris fortiter convexis, sat fortiter punctulato-striatis, sutura et interstitiis alternis quam interstitia alia magis convexa, postice fortiter (maris minus fortiter) declivibus; corpore subtus subargenteo-squamoso. Long. (rostr. excl.), $3\frac{3}{5}$ l.; lat., $1\frac{1}{5}$ — $1\frac{3}{5}$ l.

Notable for its extremely convex elytra. Looked at from the side the prothorax appears only half as high as the elytra *P. urticarum*, Pasc., approaches it in form but there is consider-

ably less difference between its prothorax and elytra in height (viewed from the side). Also in urticarum the eyes are less widely separated from each other and the elytral interstices are equal (or nearly so). The other species have their elytral interstices equal.

N.S.W. (Maitland, &c. Mr. Froggatt calls it a vine pest).

ETHADOMORPHA (gen. nov. Erirhinarum).

Corpus plus minusve squamosum; rostrum (? utriusque sexus) gracillimum valde elongatum (speciei typicæ quam prothorax sat longius) arcuatum; scrobes præmedianæ, oblique sub rostrum vergentes; antennæ minus elongatæ, scapo oculum haud plane attingenti, funiculo 7-articulato (articulis basali sat robusto sat elongato, ceteris parvis inter se subæqualibus, apicalibus 3 gradatim paullo dilatatis); eculi ovales grosse granulati; prothorax transversus, antice breviter subtubuliformis, lobis ocularibus nullis, lateribus leviter arcuatis, basi subrecta; scutellum minimum; elytra quam prothorax sat latiora; prosternum antice sat emarginatum, ante coxas minus elongatum, longitudinaliter nullo modo concavo; coxæ anticæ fere (sed haud plane) contiguæ; femora inermia; tibiæ anticæ intus ad apicem breviter mucronatæ; tarsi breves sat lati (articulis 3° bilobo, 4° 3um haud superanti); unguiculi minutissimi simplices; segmenta ventralia basalia 2 inter se sat æqualia, 3° 4° que brevissimis.

The very small Erirhinid for which I propose this name cannot be referred to any hitherto characterised genus. Its most distinctive feature is in its tarsi which are short and broad, not very unlike those of a Misophrice but with a minute claw joint (in the emargination of the third joint) ending in two very small simple divergent claws. In my tabulation of the Erirhinid genera of Australia this one falls besides Omorophius (Tr. R.S., S.A., 1894, p. 149), from which it is distinguished as follows:—

NN. Ocular lobes wanting.

O. Apical joint of tarsi well developed Omorophius

OO. Apical joint of tarsi very minute and not passing third joint ... Ethadomorpha

It does not resemble Omorophius superficially, but has the facies of Ethas which however has the fourth tarsal joint normally developed, the prothorax with ocular lobes, &c. Its tarsal structure is nearest to that of Niphobolus (of known genera), but that genus has considerably larger claws and very different rostral and antennal characters. The apical mucro of the front tibiæ is very small and little noticeable but I think I am right as to its presence,—though in so minute an insect it is difficult to be quite certain without breaking a specimen.

E. clauda, sp. nov. Nigro picea, pube albida maculatim minus perspicue vestita; rostro capite et pronoto crebre subtilius subaspere punctulatis; elytris subfortiter punctulato-striatis, interstitiis manifeste elevatis subtiliter coriaceis. Long. (rostr. excl.), 1 l. (vix); lat., $\frac{3}{10}$ l.

Victoria (Dividing Range).

CRYPTORRHYNCHUS.

I have before me the types of two species which Erichson referred to this genus.

As Mr. Lea is at present engaged on a Revision of the Cryptorrhynchides it would be inopportune for me at the present moment to propose any new names for members of that group. I therefore merely supply the following notes.

- C. solidus, Er. A new generic name will be required for this species (and another in my collection evidently congeneric with it). Its very short metasternum inter alia multa is inconsistent with its standing in Cryptorrhynchus. Its generic characters are as follows:—Pectoral canal ending in the mesosternum and cavernous at apex; pronotum not distinct from the flanks of the prosternum; scape of antennæ reaching (or very nearly so) the front of the eye; tibiæ unarmed externally; hind femora not abnormally dilated; third tarsal joint dilated and bilobed; metasternum very short, its episterna distinct; second ventral segment a little shorter than third and fourth together; scutellum very well defined; first ventral suture enfeebled in the middle; femora feebly toothed beneath. Its specific characters are well described by its author.
- C. infulatus, Er. Distinct from Cryptorrhynchus by inter alia its short pectoral canal, which does not reach back so far as to the level of the front of the intermediate coxæ. Its structural characters are as follows:—Similar to the preceding (C. solidus) in respect of the first six characters attributed (above) to it: metasternum moderately elongate, about same length as the basal ventral segment; claw joint not clothed with large erect scales; tibiæ not longitudinally ribbed (as they are in Tyrtæosus); femora not (or but feebly) sulcate beneath; eyes strongly and not particularly finely granulate; pectoral canal comparatively short and wide; all the femora armed beneath with a single tooth, which is placed at or about the middle; under surface of all the femora much depressed though scarcely sulcate; elytra tuberculate and fasciculate; rostrum considerably flattened above in all its length; second ventral segment much shorter than the first and shorter than the third and fourth together. Erichson's description of the specific characters is a good one.

ACALLES.

A. rubetra, Er. The type of this species differs from European species of Acalles (e.g., roboris, Curtis) inter alia by its hind femora being very strongly and suddenly claviform in their apical portion, the dilatation entirely on the upper outline. Its general characters are as follows:—Similar to Crypt. solidus in respect of the first four characters attributed above to that species—third tarsal joint dilated and bilobed; metasterum very short, its epimera not distinctly visible; femora unarmed, somewhat sulcate or at least flattened beneath (not evenly convex as in Poropterus); the basal two ventral segments with a strong common longitudinal median sulcus in which the first ventral suture is effaced; pectoral canal not quite reaching back to the level of the front part of the intermediate coxæ; elytra tuberculate; scutellum invisible.

ANTHRIBIDÆ.

CACEPHATUS.

C. sericeus, Blackb. This species was taken in Victoria. The record of the place of capture was omitted when the insect was described (T.R.S., S.A., 1900, p. 152).

TROPIDERES.

T. musivus, Er. I have the type of this species before me-There is no need to add anything to its author's excellent descrip. tion from a specific point of view. I do not think, however, that it can stand as a Tropideres, inter alia on account of its antennæ so long as to reach the base of the elytra and its small widely separated eyes. In my tabulation of the genera of Australian Anthribidæ (Tr. R.S., S.A., 1900, p. 143) it stands beside Cacephatus,—its antennæ however being scarcely longer than the head and prothorax together. I cannot, however, refer it to that genus on account of its depressed form, its anterior coxæ quite widely separated from each other, its eyes comparatively small and widely separated from each other, and its much longer and narrower rostrum not forming with the head a continuous plane surface. Its depressed form and style of markings are very suggestive of my Entromus dorsoplagiatus with which (loc. cit.)
I conjectured that it might be congeneric; but inter alia multa its entirely different antennæ and rostral scrobes show that conjecture to have been very wide of the mark. I regard it as the type of an undescribed genus.

LONGICORNES.

PHACODES.

P. medicus, sp. nov. Subelongatus; sat robustus; obscure ferrugineus, piceo - variegatus, antennis (articulorum apice excepto) palpis coxis pedibusque rufescentibus; pube grisea et fusca intermixta vestitus; prothorace quam longior vix latiori, crebre aspere punctulato, carina longitudinali mediana interrupta et tuberculis opacis discoidalibus nonnullis instructo, antice quam postice haud angustiori, lateribus leviter arcuatis; elytris inæqualiter punctulatis, sparsim granuliferis (granulis a basi retrorsum gradatim minoribus), ad apicem fortiter emarginatis; antennarum articulis 3°—5° ad apicem breviter spiniferis, 3° quam 1^{us} manifeste (quam 4^{us} multo) longiori.

Maris antennis quam corpus vix (feminæ manifeste) breviori-

bus. Long., 8—9 l.; lat., $2\frac{3}{5}$ l.

The pubescence of the head and pronotum is of a somewhat uniform fuscous color with a tendency to be paler on the sides and tubercles of the latter. The derm itself of the elytra is variegated being in general dull reddish but with an interrupted blackish vitta on a wide feebly elevated longitudinal space traversing the disc. The blackish parts of the elytra are glabrous or nearly so; the reddish parts are clothed (neither very closely nor very evenly) with pale brownish pubescence; the evenness of the pubescence is also much interrupted by the granules and punctures of the elytra. The punctures of the elytra vary greatly in size some of them being very large and coarse. The previously described species of Phacodes having the apex of the elytra emarginate are bella, Blackb., and tenuitarsis, Pasc.; of these the former inter alia has the basal part of the elytra very much more strongly and closely granuliferous; the latter is much smaller, with joints 3 and 4 of the antennæ almost equal.

N.W. Australia (Masters).

NOTOCERESIUM (gen. nov. Callidiopsidarum?)

Mas. Palpi maxillares sat elongati, articulo ultimo sat elongato vix triangulari; palpi labiales brevissimi; caput transversum subrotundatum, antice sat fortiter declive, pone oculos subite angustatum; antennæ quam corpus multo longiores, articulis 1° 5° que inter se sat æqualibus, 3° quam 5^{us} et 4° quam 3^{us} paullo brevioribus; oculi fortiter granulati, intus sat fortiter emarginati, inter se latissime remoti; prothorax fortiter transversus, supra æqualis, antice et postice sat æqualiter angustatus, lateribus ad medium angulatis et tuberculo minuto armatis (hinc antice et postice recte convergentibus); scutellum modicum; elytra valde elongata sat parallela, postice inermia; pedes sat elongati, femoribus sat compressis leviter clavatis (posticis abdominis apicem nullo modo attingentibus), tarsorum posticorum articulo basali quam 2^{us} 3^{us} que conjuncti paullo longiori; coxæ antice

contiguæ prominentes, ad latera paullo angulatæ; mesosterni epimeris coxas intermedias haud attingentibus; corpus elongatum sat parallelum, sat glabrum.

This is one of the most anomalous Longicorns I have seen. It will not fit into any of M. Lacordaire's "Groupe's" satisfactorily but I think it is best regarded as an aberrant Callidiopsid. is certainly a "Cerambycid vrai" (according to Lacordaire's classification) and its strongly granulated eyes place it in the first "section" of that aggregate. The epimera of its mesosternum not nearly reaching the intermediate coxæ, its very short head widely transverse and as broad as the prothorax, nonspinose antennæ, non carinate tibiæ, the even surface of its elytra, and its very inconspicuous antenniferous tubercles refer it, without any hesitation, in the tabulation of that aggregate, to the groupe Callidiopsides; but the form of its front coxe is very different from the form of those organs in any previously described Callidiopsid known to me. It is true that Lacordaire mentions a tendency to abnormal prominence of the front coxæ in Diatomocephala, &c., which he nevertheless places in the "groupe" in question, but in the present insect the coxæ are much more prominent than in Diatomocephala and moreover are contiguous.

N. impressiceps, sp. nov. Mas. Elongatum, sat angustum, parallelum; sat nitidum; testaceo-brunneum, elytris non-nihil obscurioribus; sat glabrum, capite quam prothorax haud angustiori, inter oculos lato sat plano, linea longitudinali mediana fortiter impresso, sparsim leviter sed vix subtiliter punctulato, clypeo a fronte sutura manifesta diviso; pronoto ut caput punctulato, æquali; elytris quam prothorax parum latioribus, puncturis sat parvis crebre fortiter impressis; corpore subtus sparsim inæqualiter punctulato. Long., 2—3 l.; lat., ½—½ l.

Tasmania (Lake District).

OPSIDOTA.

O. sculpticollis, sp. nov. Rufo-fusca, pilis griseis (in elytris pedibusque sparsim, in ceteris partibus sat dense) vestita; capite quam O. albipilosæ, Pasc., paullo minus brevi, sat inæquali, crebrius subtilius punctulato; antennis quam corpus paullo longioribus, articulis (basalibus 2 exceptis) manifeste compressis apicali appendiculato; prothorace leviter transverso, supra vermiculato-ruguloso sed areis minus concinne definitis subconvexis lævibus nitidis ornatis, lateribus subrectis, latitudine majori prope apicem sita; elytris lineis vix elevatis 2 minus perspicue instructis, basin versus crebre subrugulose sat fortiter (hinc retrorsum

gradatim minus fortiter minus rugulose,—apicem versus sublævibus) punctulatis; tarsis sat latis (ut O. albipilose, Pasc.). Long., $9\frac{1}{2}$ — $11\frac{1}{2}$ l.; lat., $2\frac{1}{2}$ — $2\frac{4}{5}$ l.

The basal joint of the antennæ is quite as strongly arched as in O. albipilosa, the first, third, and fourth joints about equal in length, the following joints longer. The nitid spaces on the pronotum are a wide median continuous vitta, a round spot on either side close to the front, and a basal fascia (ill developed) which is conspicuously produced forward and obliquely outward to the front margin but becoming ill-developed in front. species can be at once distinguished from all the previously described Opsidotæ by, inter alia, the large and conspicuous nitid spaces on its pronotum. I am uncertain of the sex of the two specimens before me but I judge them to be males from the strong appendiculation of the apical joint of their antennæ and the shortness of their apical ventral segment. The antennæ are less strongly compressed than in the male of albipilosa and the head is not quite so short as in that species, but it is very much shorter than in Strongylurus.

N. Queensland (Port Mackay; sent by Mr. French).

PROSOPLUS.

P. (Niphona) torosa, Pasc. There is a specimen from N.W. Australia in the S. Australian Museum agreeing so well with the description of this species that I cannot doubt its identity. Mr. Pascoe gives "S. Australia" as the habitat. I have never, however, seen an example taken in S.A., nor do I know of any Coleoptera (except some well-known to be found all over Australia) common to S.A. and N.W.A. I suspect therefore that Pascoe's statement of habitat is incorrect unless it designates "the Northern Territory" under the term "South Australia."

ANCITA.

A. dispar, sp. nov. Picea, tomento cinereo ochraceo et fusco variegata, labro antennis pedibusque plus minusve rufescentibus; capite prothoraceque dense subgranulose punctulatis; hoc ante medium transversim sulcato, utrinque in dorso sat fortiter gibboso et ad latus tuberculo magno acuto armato, linea mediana plus minusve impressa et granulis magnis nitidis nonnullis instructo; elytris costulis discoidalibus binis tuberculis binis parvis anticis (his oblique paullo pone basin positis) et tuberculis 4 vel 5 posticis (his transversim sat longe pone medium positis) ornatis, fortiter sat crebre punctulatis; antennis 11-articulatis.

Maris antennis quam corpus sat longioribus, feminæ elytrorum apicem vix attingentibus. Long., $5\frac{3}{5}$ — $6\frac{1}{2}$ l.; lat., $2\frac{1}{3}$ —3 l.

This species is easily recognisable by the arrangement of the

tubercles on its elytra. A small conical and very conspicuous tubercle stands just within and behind the humeral callus, and there is another similar to it between it and the suture but further from the base of the elytra. At the summit of the hind declivity of each elytron is a transverse row of four or five tubercles, which in the two females before me (one of which I regard as the type of the species) are similar to the subbasal tubercles, but in the unique male (attributable I think to this

species) are much smaller.

The disposition of the variegated pubescence is very intricate and difficult to describe. It produces the following arrangement of colors;—the head is dark fuscous with the cheeks and a broad stripe down the middle whitish; the pronotum is of a more or less pale brown with on either side of the middle line a large dark brown subbasal blotch edged externally by some very pale pubescence. The elytra in the two females are intricately mottled with dark and pale brown,—the latter in one of them very pale, in the other strongly ochraceous. In the male example the external portions of the elytra are mottled as in the female while the rest of their surface is almost entirely ochraceous. The undersurface and legs are of ashy color thickly peppered with small black spots. Joints 3-7 of the antennæ are whitish except near the apex (much more conspicuously in the male than in the female), and the close and somewhat elongate hairs fringing the antennæ beneath are of the color of the pubescence from which they spring.

It is just possible that this insect is A. crossotoides, Thoms., but the description under that name is too slight for confident identification, and moreover (even such as it is) does not agree with the present species. It describes the elytra as having four fasciæ of black pilosity and also some black tubercles. If these four fasciæ be taken as "two on each elytron" their number would seem to suggest the idea of their referring to the series of tubercles mentioned above as present in this insect, but in that case their color does not agree, nor can I find any way of counting the tubercles so as to make four transverse rows and some

tubercles besides.
N.W. Australia.

A. didyma, sp. nov, Nigricans, tomento griseo ochraceo et nigricanti variegata, labro testaceo, antennis pedibusque picescentibus; capite prothoraceque dense subgranulose punctulatis; hoc ante medium transversim sulcato, utrinque in dorso sat fortiter gibboso et ad latus tuberculo magno acuto armato; elytris inæqualibus (sc. puncturarum interstitiis irregulariter elevatis, certo adspectu lineas varie

dispositas formantibus), basin versus cristas binas (altera

oblique, altera sat transversim, posita) pone medium lineam fortiter contortam (hac quam lineæ ceteræ magis perspicua) ferentibus, fortiter sat crebre punctulatis; antennis 12-articulatis.

Maris antennis quam corpus multo (feminæ paullo) longioribus. Long., 5—7 l.; lat., 2—3 l.

Distinct from previously described species by inter alia the rugulosities of the elytra. These organs present an unusually coarse appearance owing to the interstices of the punctures being much raised and here and there running together into transverse or oblique wrinkles among which the longitudinal costulæ (usual in the genus) are little apparent. Within and behind the humeral callus is an oblique crest; close to it but not touching it (and nearer to the suture) is another similar one placed more transversely. These crests are not pilose and have a sharply carina-like contour. About the summit of the posterior declivity an elevated line leaves the suture and runs obliquely forward and away from the suture till it reaches the inner one of the longitudinal costulæ where it turns at a sharp angle and runs obliquely hindward a short distance and then turning again runs obliquely forward to the external one of the longitudinal in which it loses itself. These crests and lines are blackish and form the darkest part of the elytra. There are no defined pubescent markings on the upper surface, pale and dark pubescence (with a preponderance of the latter) shading off into each other in a variable manner. The under-surface and legs are piceous more or less reticulated with pale pubescence. Joints 3-12 of the antennæ are cinereopubescent at the base with the apex dark (successively less widely dark, joint by joint).

N.W. Australia.

ZYGOCERA.

Z. concinna, sp. nov. Nigro-picea, labro palpisque testaceis; pube cinerea nigraque variegata, hac fasciam postmedianam flexuosam formanti; capite cinereo-villoso, postice nigro-4-maculato; antennis quam corpus multo longioribus, articulo 3° quam 1^{us} 2 que conjuncti paullo longiori, articulis 3° ad apicem et 4°—11° ad basin apicemque albidis; oculorum lobo inferiori fere ut Z. bifasciatæ, Pasc. (i.e., sat magno sat late ovali minus oblique posito) sed paullo magis subtiliter granulato; prothorace transversim trisulcato, haud nigro-lineato sed maculis nonnullis nigris ornato, fortiter transverso, utrinque ante basin tuberculo sat conspicuo et ad latus tuberculo magno acuto (quam Z. bifasciatæ majori magis acuto) armato; elytris ad basin tuberculo sat magno nigro armatis, in disco manifeste bicostulatis, ad apicem emarginatis et bispinosis, cinereo-pubescentibus, pube nigra macu-

latim vix seriatim (et pone medium fasciatim) variegatis; pedibus cinereo-pubescentibus, nigro variegatis (præsertim posticis); sternis ut Z. bifasciatæ conformatis; segmentis ventralibus cinereo-pubescentibus, in medio et utrinque maculatim nudis. Long., 6 l.; lat., $2\frac{2}{5}$ l.

This species differs inter alia from those previously described as follows; from metallica, Westw., and pruinosa, Boisd., by the presence of transverse impressed lines on the pronotum, from bifasciata, Pasc., by the presence of basal tubercles on the elytra, from luctuosa, Pasc., and plumifera, Pasc., by the elytral tubercles not being clothed with long soft pale pilosity, from lugubris, Pasc., cuneata, Pasc., and Mastersi, Pasc., by the presence of dorsal tubercles on the pronotum, from pentheoides, Pasc., by the emargination of the apex of the elytra, from pumila, Pasc., by the very large and acute lateral tubercles of its prothorax. Z. canosa, Er., is very differently colored, and has very different markings (if I am right in my identification of Z. canosa with a species I collected in Tasmania it differs also in structure, -e.g., the form of the prosternum). I have not seen the description of Z. niveosignata, Jord., but the name would be an impossible one for the present species, which has no white markings on either its upper or under surface. As I am not certain of my identification of some of Pascoe's species being correct I have not mentioned, in distinguishing the present species from them, any of their characters that are not mentioned in their descriptions. I am doubtful as to the sex of the type. I may mention here that valuable specific characters in the Zygoceræ (not mentioned by Pasc.) are to be found in the structure of the eyes and of the sterna.

N.W. Australia; sent to me by Mr. Masters.

Z. bifasciata, Pasc. Mr. Masters has sent me a specimen taken in N. Queensland in which the ante-median dark fascia of the elytra is wanting, but which in other respects seems to be identical with Z. bifasciata.

PENTHEA.

P. tigrina, sp. nov. Fem. Robusta; pube albida ochraceaque maculatim et vermiculatim variegata; capite supra sat convexo-elevato, subtilius sparsissime punctulato, longitudinaliter impresso, clypeo antice lato truncato; tuberibus antennariis (ut P. sannionis, Newm.) magnis prominulis subapproximatis; antennis quam corporis dimidium paullo longioribus, subtus disperse ciliatis, articulis 3°—9° basin versus niveo-pubescentibus, articulo 3° quam 1^{us} et quam 4^{us} parum longiori; oculis ut P. sannionis granulatised multo minoribus; prothorace fortiter (quam P. sannionis multo magis) transverso, fortiter granulatim et transversim

ruguloso, ad latera 4-gibbosis (gibbis medianis 2 quam ceteræmulto majoribus); elytris 3-costatis (costis plus minusve granula conjuncta simulantibus), inter costas granulis (his inter se magnitudine valde diversis) in parte basali dimidia ornatis, ad apicem rotundatis vel vix subtruncatis. Long., $11-12\frac{1}{2}$ l.; lat., $4-4\frac{1}{2}$ l.

The pubescence of the upper surface is almost identical with that of *P. Saundersi*, Pasc., except in nearly all the pubescent patches being (instead of entirely white) white variegated with bright ochraceous colour, and there being an irregular space behind the middle on which there is very little pubescence, so that an ill defined dark fascia (interrupted or nearly so at the suture) can be traced. The under surface and legs are very uniformly mottled with black and white much as in *P. intricata*, Pasc., but with the black spaces larger and more conspicuous.

This species differs from those resembling it in colour, size and style of marking as follows, inter alia;—from costata, Pasc. (according to description,—I am not sure that I know the insect), by the ochreous colour of the markings of the upper surface and by the markings on the elytra being vermiculate (as in Saundersi, Pasc.) in form,—no continuous pubescence along the sides or elsewhere;—from Saundersi by its differently coloured pubescence and non-rugulose head;—from intricata, Pasc., by its antennal tubers much larger and more prominent and placed nearer to each other and by the very much larger and more numerous granules of its elytra,—from solida, Pasc., by the granulate character of its elytral costa,—from vermicularia, Don., by the ochreous colour of its pubescence, the very much stronger prominences on its prothoracic lateral outline, &c., &c.

W. Australia (Coolgardie; Mr. French).

SYMPHYLETES

S. lentus, sp. nov. Sat elongatus, sat parallelus; piceus; pube pallide fulva dense vestitus, hac pube magis ochracea vix perspicue marmorata, pube latera versus plus minusve dilutiori, pedibus antennisque pube pallida indistincte variegata; capite haud convexo-elevato, linea longitudinali subtili impresso, clypeo antice sinuato; oculis modicis (quam S. nodosi, Newm., paullo magis convexis paullo magis fortiter granulatis); antennis quam corpus paullo brevioribus (maris quam feminæ parum magis elongatis), subtus modice ciliatis; prothorace sat fortiter transverso, tuberculis parvis 2 medianis in disco transversim positis (his inter se sat remotis) et 2 basin versus inter se approximatis instructo, margine laterali inæquali (quasi 2 vel 3 tuberculato); elytrissat æqualibus, longitudinaliter 3-seriatim granulatis (seriebus, externa ultra medium continua, ceteris gradatim brevioribus), ad apicem rotundato-subtruncatis et dense pilosis.

Maris segmento ventrali 2° antice area transversim parallela segmentum medium haud attingenti dense pilosa instructo. Long., 7—9 l.; lat., 2\frac{1}{4}—3 l.

An extremely uniformly coloured species appearing to a casual glance of a continuous pale fulvous tone everywhere except that the elytra are gradually and more or less distinctly paler towards the sides (in one example almost whitish at the palest part), the pale colouring being usually somewhat dilated inward in a subtriangular form slightly in front of the middle. The pubescence is extremely close entirely concealing the derm everywhere and when closely examined is seen to be closely mottled with two slightly different shades,—one nearly pure brown, the other more reddish. Distinctive characters are (a) the tubercles,—or rather granules scarcely larger than those of the elytra,—on the pronotum (two widely separated and placed transversely on the middle of the disc and two similar ones placed transversely close together considerably behind the other pair, also several on the lateral outline); (b) the regular longitudinal rows of granules on the elytra,—the subsutural row very short, the next longer, the external row passing the middle of the elytra,—these granules being glabrous; (c) the antennæ shorter than the body in both sexes; (d) the unusual form of the pubescent area on the (apparently) second ventral segment of the male which appears like a mere transverse band of pilosity not nearly reaching the middle of the segment,—its hind margin straight. The apex of the elytra is so densely pilose that it is difficult to be sure of its shape; and from one point of view it seems to be rounded, from another feebly truncate.

I cannot make this species fit the description of any of Mr. Pascoe's species of *Symphyletes*, but they are so brief and vague that certainty is scarcely possible. The species that seem to be most like it, however, have elytra either crested or spinose at the base, or at the apex very different from those of the present

insect.

N.W. Australia (in S.A. Museum; also sent by Mr. Masters).

S. fasciatus, sp. nov. Sat robustus; piceus, pube cinerea et ochrea sat dense (sed in elytrorum partibus basalibus et apicalibus sparsim maculatim) vestitus, pedibus rufis; capite haud convexo-elevato, linea nigra longitudinali impresso, sparsim punctulato, clypeo antice truncato; oculis sat magnis (quam S. nodosi, Newm., perspicue majoribus); antennis subtus sat dense ciliatis; prothorace inæquali (pone apicem transversim late concavo, in disco medio tuberculis parvis 2—his linea subtili connexis—et postice inque lateribus tuberculis subobsoletis nonnullis munito); elytris in parte dimidia antica subseriatim granuliferis sed haud cristatis, sat crebre minus

fortiter punctulatis, ad apicem fortiter emarginatis et

bispinosis.

Maris antennis quam corpus sublongioribus, articulo apicali curvato-appendiculato; segmento ventrali basali ad apicem et segmenti 2ⁱ area angusta basali subparallela (hac segmentum medium haud attingenti) dense ochreo-pilosis.

Feminæ antennis quam corpus brevioribus, articulo ultimo vix

appendiculato. Long., 12 l.; lat., 4 l.

Over the whole surface except the elytra there is an even clothing of ashy pubescence vaguely intermingled with ochreous. The antennæ are clothed with ashy fine pubescence the joints beyond the second having their apices (successively less widely) The elytra are pubescent across the base to about the distance of the apex of the scutellum; then comes a nearly glabrous zone bearing only a few small pubescent spots and reaching back to about the apex of the basal one-fifth of the elytra; the next zone is densely pubescent (nitid granules however protruding through the pubescence and a somewhat triangular subglabrous space interrupting the pubescence on the lateral margin), its front margin being nearly straight, its hind margin strongly concave; the apical zone (not much less in length than half the elytra measured on the suture, and about one-third measured on the lateral margin) is sparsely studded with small pubescent spots on the almost glabrous derm.

The pubescent variegation of the elytra is much like that in S. cinnamomeus, Pasc., and Rhytiphora latifasciatus, Pasc.,—from the first of which this species differs inter alia by the elytra not being crested at the base and from the other—independently of generic characters—by the deeply emarginate and biapiculate apex of each elytron. If I am correct in my identification of the two species just mentioned they also differ from S. fasciatus in

their sexual characters.

N. Queensland; sent by Mr. French from Port Mackay.

RHYTIPHORA.

S. uniformis, sp. nov. Fem. Minus elongata; sat parallela; picea plus minusve rufescens, antennis palpis pedibusque manifeste rufescentibus; pube albido-cinerea dense vestita, hac (? exemplis abrasis) in partibus nonnullis carenti sicut maculæ glabræ apparent; capite sparsim subtilius punctulato, supra sat elevato-convexo (fere ut R. latifusciatæ, Pasc.), linea longitudinali impresso, clypeo antice angusto triangulariter emarginato; oculis modicis sat fortiter granulatis (fere ut R. latifasciatæ); antennis quam corpus sublongioribus, plus minusve pube albida subtili vestitis, subtus pilis sat elongatis sat dense fimbriatis, articulo 3° quam 1^{us} fere

duplo longiori; prothorace sat cylindrico, ut caput punctulato, subtiliter transversim rugato, lateribus apicem versus tuberculo armatis; elytris ad apicem truncatis, antice granulis sat numerosis instructis, postice puncturis sparsis impressis. Long., $8\frac{1}{2}$ —9 l.; lat., $2\frac{3}{5}$ l.

I have two specimens of this insect before me. It is distinguishable from most of its congeners by its pubescent clothing being all but entirely of a pale ashy colour (the only variegation consisting in a faintly ochreous tone on some parts of the sterna). Probably in a perfectly fresh specimen this pubescence covers the derm everywhere except where it is interrupted by small granules and small sparse punctures. In both the examples before me, however, the humeral region of the elytra and some blotches somewhat behind the middle of the elytra are more or less denuded, but I suspect that this is due to abrasion. very distinctive character consists in the form of the clypeus the front of which is much narrowed, its apex being less than half the width of the interval between the lower lobes of the eyes, and being triangularly emarginate,—the sides of the emargination acute. I do not think there is any other intelligibly described species combining the characters of Rhytiphora (e.g., head strongly convex above the antennal tubers, eyes not finely granulated) with a clypeus of the form just specified, the basal part of the elytra (as in R. latifasciata, Pasc.) without any basal crest or other conspicuous elevation, vestiture of a uniform colour and antennæ strongly and thickly (even more so than in R. Argus, Pasc.) fringed beneath with pilosity.

N.W. Australia.

R. Simsoni, sp. nov. Robusta; ferruginea vel rufopicea, antennis (articulo basali excepto) obscurioribus; pube cinerea fulvaque variegata; capite sparsim subobsolete punctulato (sed juxta oculorum lobum superiorem puncturis nonnullis profundis impresso), linea mediana longitudinali impresso, supra sat elevato-convexo (fere ut R. latifasciatæ, Pasc.), clypeo antice lato truncato; oculis modice granulatis (quam R. latifasciatæ minus fortiter); antennis (articulo basali excepto) pube nigra albidaque variegatis, subtus pilis subtilibus sparsis fimbriatis, articulo 3° quam 1^{us} 2^{us} que conjuncti parum longiori; prothorace quam longior ut $4\frac{3}{4}$ ad 4 latiori, sat cylindrico, vix manifeste punctulato, sat fortiter transversim (et pone medium confuse) rugato, lateribus fere inermibus; elytris longitudinaliter late leviter bisulcatis, in partibus anticis tribus costis brevibus obliquis vel transversis granulisque nitidis inordinatim instructis, sparsim minus fortiter punctulatis, ad apicem subtruncatis.

Maris antennis quam corpus vix brevioribus; segmenti 2i ven-

tralis parte antica dimidia ad latera pilis elongatis pallidis dense vestita.

Feminæ antennis manifeste brevioribus, segmento 2° ventrali normali. Long., 8— $10\frac{1}{4}$ l.; lat., $2\frac{3}{5}$ — $4\frac{1}{4}$ l.

In a perfectly fresh specimen the upper surface is covered with a very fine grey pubescence scarcely noticeable by the naked eye. On this, markings are formed by longer and denser pubescence of intermingled whitish and ochreous colour, presenting on the head variable spots and lines, on the pronotum numerous small specks, on the elytra a kind of network of spots and blotches which arrange themselves most conspicuously behind the scutellum, on the lateral margin behind the shoulder, in a flexuous fascia behind the middle, and in an aggregate filling up the apex. The markings however are little to be relied upon as they are variable and very easily rubbed off and an even slightly rubbed example does not look as if its markings had ever been as described above. The species, however, is easily recognisable by structural characters,—especially its head almost punctureless but having a few very deep punctures close to the inner margin of the upper lobe of the eye,—its elytra each with two very wide shallow longitudinal impressions not nearly reaching either the base or apex (best seen in abraded specimens), -its elytra studded on the whole front three quarters of their area with strong and somewhat coarse shiny granules and short ridges (not unlike those on the front part of the elytra of Penthea sannio, Newm.) which are not at all concealed by the pubescence,—and the male characters on the second ventral segment. These consist of a space on each side extending along the front margin of the segment from the lateral margin nearly to the middle and limited hindward by a curved line joining the extremities of the front of the space and reaching hindward to about the middle of the segment,—the part of the segment not occupied by this space being pubescent and marked uniformly with the other segments, but the space itself being densely clothed with long soft pale hairs.

This insect is very likely to be the Rhytiphora referred to by Mr. Gahan (Tr. E.S., Lond., 1893) as possibly identical with caprina, Newm., or mista, Newm., neither of which is intelligibly described,—or (judged by Mr. Gahan's remarks) recognisable by comparison with the types. The former seems to be much smaller than the smallest specimen I have seen of the present insect and is described as having "dentiform tubercles near the base of the elytra" (very different from the sculpture of the present species), and the latter I take to be an allied but very distinct species widely distributed in Southern Australia of which

I have seen many examples.

Tasmania; given to me by Mr. Simson. It is found on Casuarina.

CORRHENES.

C. pauxilla, sp. nov. Picea plus minusve rufescens; pilis subtilibus erectis sat crebre instructa et pube grisea vestita, hac pube fusca et albida intermixta; antennis minus robustis, quam corpus vix brevioribus, articulis singulis pube pallide fusca albidaque confuse variegatis, articulo 3° quam 1^{us} sat longiori; oculis sat fortiter granulatis; prothorace parum transverso, supra sat æquali (longitudinaliter obsolete carinato), lateribus antice dente perspicuo armatis; elytris sat crebre sat fortiter punctulatis, ad apicem rotundatis. Long., $4\frac{2}{5}$ l.; lat., $1\frac{3}{5}$ l.

This species differs in some structural characters from *C. paulla*, Germ. (the type of *Corrhenes*), but I cannot ascertain that any other genus has been founded in which it could be placed and its divergence from *Corrhenes* is scarcely sufficient to justify making it the type of a new genus. Its antennæ are evidently less robust than those of *C. paulla*, its eyes are more strongly granulate, and the lateral tubercles of its prothorax (though similarly situated) are notably better defined.

Unfortunately the descriptions of nearly all the Australian species attributed to *Corrhenes* are of the slightest and most unsatisfactory kind and there is comparatively little in them except loose diagnoses of colour and markings. As, however, these seem to be but little subject to variety (judged by *C. paulla*, Germ.,—the only *Corrhenes* of which I have seen numerous examples) it is perhaps fairly safe to assume that a *Corrhenes* differing markedly in these respects from all previous descriptions is a good new species.

The present insect is covered on the upper surface with close and somewhat coarse pale brown pubescence variegated with dark brown and whitish. The dark brown pubescence forms a line running backward from the inner margin of each eye and continued on the pronotum to about its middle, the two lines being curved in such fashion as almost to meet on the front margin of the pronotum; the dark pubescence also forms a large ill-defined common blotch behind the scutellum. The whitish pubescence is chiefly along the base of the elytra, along the middle part of the suture, and (somewhat behind the middle) on the disc of the elytra where it forms a somewhat wide fascia (with its front and hind margins strongly zigzagged) running obliquely forward from the lateral margin but not reaching the suture. This fascia is much more sharply defined in some examples than in others. The under surface is uniformly covered with pubescence of a whitish brown colour. The antennæ femora tibiæ and tarsi are variegated with dark and light brown pubescence.



Blackburn, Thomas. 1901. "Further notes on Australian Coleoptera, with descriptions of new genera and species." *Transactions of the Royal Society of South Australia* 1901, 15–44.

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