and it may be appropriately called *Batrachus gigas*. I may hope soon to supplement the following incomplete description by the acquisition of more perfect specimens.

The head is 26 inches broad (between the ends of the gill-covers), 21 inches long from the snout to the end of the opercle, or 16 inches to the occiput. It is depressed, with the eyes directed upwards, as in *Batrachus*, covered all over with comparatively small hard scales, the scale-pouches of the skin being also provided with minute scales. The crown of the head is flat, without ridges; the eyes ($1\frac{1}{2}$ inch wide) are far apart ($5\frac{2}{3}$ inches). The cleft of the mouth is enormous, about 16 inches wide, slightly obliquely directed upwards, with the lower jaw somewhat prominent. The jaws, vomer, and palatine bones are armed with broad bands of villiform teeth. The vomerine teeth form a semicircular disk, well separated from the palatine bands, which are tapering in front and behind, lancehead-shaped. The maxillary bone (10 inches long) becomes gradually broader towards its extremity, where it is 3 inches broad; it is entirely smooth. The præoperculum has its margin irregularly denticulated; and the denticulations at the rounded angle are much the strongest, perhaps the remnants of worn-off spines. The margins of the other opercles are smooth, but there are still traces of two spines on each operculum.

The jaws mentioned above are somewhat larger still than those of the head described; so that some individuals of this species must evidently attain an enormous size.

XXI.—*Descriptions of new Genera and Species of Tenebrionidæ from Australia and Tasmania.* By FRANCIS P. PASCOE, F.L.S. &c.

[Continued from p. 45.]

[Plate XI.]

AFTER the following additions have been made to the genus *Adelium* of Kirby*, there remain a few species, the types apparently of as many genera related to it, but differentiated by characters which will not allow them to be conjoined. We find that there are three characters which seem to belong without exception to the *Adelia*, viz. the tarsi tomentose beneath, their penultimate joints subbilobed, and the eyes transverse, narrow, and more or less impinged on by the antennary ridges; a secondary character, because there are cases in which it be-

* Trans. Linn. Soc. xii. p. 420.

comes scarcely recognizable, is the emarginate apex of the prothorax. The subbilobed form of the tarsi is the most permanent of all, and is absent from none of the new genera here recorded. The mentum and lower lip seem subject to considerable modifications; but, after the examination of those of several species, I think it would be unsafe to depend on them alone for generic characters. The subjoined tabular arrangement will give an idea of the diagnoses of the genera:—

Tarsi tomentose beneath.

Eyes narrow, transverse.

Anterior tarsi with the three intermediate joints transverse. *Adelium*.

Anterior tarsi with the three intermediate joints narrow

and obconic in the female *Apasis*.

Eyes nearly round..... *Brycopia*.

Tarsi pilose beneath.

Prothorax emarginate at the apex *Dystalica*.

Prothorax not emarginate at the apex.

Eyes round..... *Dinoria*.

Eyes transverse, narrow *Licinoma*.

Adelium plicigerum.

A. nigrum, parum nitidum; prothorace late transverso, marginibus foliaceis, disco longitudinaliter plicato; elytris fusco-cupreis, breviter obovatis, interrupte striatis.

Hab. Queensland.

Black, slightly nitid; head irregularly punctured; two transverse wrinkled impressions above the clypeus; prothorax short, the sides strongly rounded, the foliaceous margins very distinct, the disk marked with fine longitudinal, irregular, raised lines; scutellum broadly triangular; elytra of a clear brownish copper-colour, shortly obovate, sharply striate, the striæ interrupted, the alternate intervals between them slightly raised, epipleuræ with scattered punctures; body beneath and legs dark pitchy, impunctate; prosternum and corresponding portion of propectus elevated; antennæ black, the outer joints obconical, the last ovate. Length 8 lines.

A very distinct species, having the outline of *A. auratum*, but at once distinguished from all other *Adelia* by the sculpture of the prothorax.

Adelium cerarium.

A. viridi-aneum, subnitidum; prothorace transverso, marginibus haud foliaceis, disco creberrime punctato; elytris interrupte costatis.

Hab. Darling Downs.

Greenish bronze, rather nitid; head and prothorax closely punctured, the punctures varying in size and shape, and fre-

quently confluent, the latter transverse, well rounded at the sides and without foliaceous margins; scutellum small, triangular; elytra rather short, the sides but slightly rounded, irregularly costate, the costæ more or less interrupted, the intervals irregular but scarcely punctured, epipleuræ strongly punctured; body beneath dark glossy green, nearly glabrous, but the last abdominal segment punctured; legs and antennæ dark green, clothed with short black sparse hairs, the latter with the outer joints obconic. Length 7 lines.

Allied to *A. augurale*, but more glossy, the elytra more regularly striate, without granulations, &c.

Adelium pilosum.

A. fusco-cupreum, subnitidum, pilosum; prothorace creberrime punctato, lateribus angulato-rotundatis, haud foliaceis; elytris subcostatis, irregulariter punctato-impressis.

Hab. Lachlan River.

Brownish copper, slightly nitid, everywhere clothed with short scattered erect hairs, especially on the back; head uneven between the eyes, finely punctured; prothorax transverse, closely and here and there contiguously punctured, the sides forming a rounded angle at the middle, not foliaceous, the apex only slightly emarginate; scutellum indistinct, unicolorous; elytra oblong obovate, subcostate, the intervals with two rows of irregular punctures, one of the rows with much larger and more oblong punctures than the other; epipleuræ of the elytra, and body beneath, glossy purplish black, finely punctate, or nearly impunctate; legs black, the femora glossy, with a greenish tinge; antennæ brown, the outer joints obconic, the last oval. Length 7 lines.

Adelium scutellare.

A. fusco-cupreum, subnitidum, pilosum; prothorace interrupte punctato; scutello nigro; elytris punctatis et punctato-impressis, lineisque subelevatis.

Hab. Darling Downs; Brisbane.

Brownish copper, slightly nitid, clothed with short scattered erect hairs above; head with a few small punctures, uneven between the eyes; prothorax as in the last, but the punctures fewer, scattered, and leaving here and there glabrous patches; scutellum greenish black, broadly triangular; elytra oblong, rounded at the sides, seriate-punctate, many of the punctures (two or three together) in oblong impressions, the intervals between the alternate rows slightly raised; epipleuræ of the elytra, and body beneath, glossy greenish black, the former finely

punctured; legs greenish black, shining, slightly pilose; antennæ brown, with the outer joints elongate obconic, the last obovate. Length 7-8 lines.

These two species belong to the category of *A. angulicolle*, Lap., with which my *A. succisum* is probably identical.

Adelium reductum.

A. fusco-cupreum, nitidum; prothorace subtilissime punctato, haud foliaceo; elytris modice obovatis, leviter seriatim punctatis, punctis inæqualibus, interstitiis impunctatis; antennis linearibus.

Hab. Brisbane.

Brownish copper, shining; head sparingly and rather finely punctured; prothorax transverse, the sides well rounded, not suddenly contracted near the posterior angle, disk very minutely punctured; scutellum small, rounded behind; elytra not broadly obovate, seriate-punctate, the punctures small, unequal in size, some oblong or more deeply impressed, the intervals between the rows rather wide and impunctate, epipleuræ impunctate; body beneath and legs dark copper, smooth; tarsi with bright golden-brown hairs; antennæ linear, the joints elongate-obconic, pitchy black, ferruginous towards the apex. Length $5\frac{1}{2}$ lines.

Adelium geniale.

A. fusco-cupreum, nitidum; prothorace subtiliter punctato, lateribus subfoliaceis; elytris late obovatis, striato-punctatis, interstitiis subtiliter punctatis; antennis linearibus.

Hab. Clarence River.

Brownish-copper, shining; head and prothorax black, finely punctured, the latter short and transverse, well rounded, broadly margined at the sides, but the margin only slightly foliaceous; scutellum transversely triangular, black; elytra broadly obovate, striate-punctate, the striæ well marked, not widely apart, the punctures small and very nearly contiguous, the intervals between the rows slightly convex and rather finely punctured, epipleuræ finely punctured; body beneath and legs pitchy black; tarsi ferruginous beneath; antennæ linear, the joints elongate-obconic, pitchy, ferruginous towards the apex. Length $6\frac{1}{2}$ lines.

This species, as well as the former, belongs to the category of *A. calosomoides*, Kirby. From this the first is distinguished by its narrower form, scarcely punctate prothorax, and the larger and unequal punctures of the elytra; the second, with the same broad outline, has the elytra striated. The next species departs from the *calosomoides*-type in having the antennæ gradually

thicker outward, and with shorter joints. The four species have a short curved impressed line on each side of the prothorax.

Adelium neophyta.

A. fusco-cupreum, nitidum; prothorace subtiliter punctato, haud foliaceo; elytris subanguste obovatis, striato-punctatis, interstitiis subtilissime punctulatis; antennis apice crassioribus, articulis paulo breviusculis.

Hab. Adelaide; Essendon Plains, Victoria.

Brownish copper (much darker in the Victorian example), shining; head and prothorax black, finely punctured, the latter transverse, moderately well rounded at the sides, not foliaceous; scutellum black, broadly triangular; elytra rather narrowly obovate, striate-punctate, the striae broad and shallow, the punctures rather small and not nearly contiguous, the intervals of the striae slightly convex and very minutely punctured, epipleuræ glabrous, nearly impunctate; body beneath and legs smooth, pitchy black, tibiae and tarsi with ferruginous hairs; antennæ a little thicker outwardly, the joints obconic, not elongated, the third equal to the fourth and fifth together, pitchy, with scattered short hairs. Length $4\frac{1}{2}$ lines.

A. brevicorne, Blessig, judging from the figure he has given*, appears to be a much broader species, with the prothorax much less narrowed at the apex; in the description the latter is said to be twice as broad as long.

Adelium ancilla.

A. cupreum, sat nitidum; prothorace subtiliter punctato, angulis posticis productis; elytris irregulariter seriatim impresso-punctatis.

Hab. Darling Downs.

Copper-brown, rather nitid; head sparingly punctured; clypeus rounded at the apex, its suture somewhat indistinct, but the groove at the base of the antennary ridges well marked; prothorax transverse, much narrower than the elytra, finely and rather remotely punctured, broad at the base, the apex narrowed, sides strongly rounded, posterior angles produced directly outwards; scutellum transversely triangular, its apex rounded; elytra broadly obovate, convex, seriate-punctate, the punctures irregularly impressed, oblong or round, here and there one, two, or three together, the intervals of the rows broad, impunctate, and more or less uneven from the impressed sides of the punctures; epipleuræ of the elytra, body beneath, and legs glossy reddish copper, sparingly and finely punctured;

* Horæ Soc. Ent. Rossicæ, fasc. i. p. 101, taf. 3. fig. 2.

antennæ more than half the length of the body, slightly thicker outwards, glossy copper at the base, gradually becoming ferruginous and opaque, third joint nearly as long as the next two together, the last joint a little larger than the preceding one, and somewhat semicircular. Length $5\frac{1}{2}$ lines.

Differs from *A. cisteloides*, Er. (?*A. helopoides*, Boisd.), *inter alia*, in its longer antennæ, and in the greater breadth of the base, and the produced posterior angles of the prothorax.

Adelium repandum.

A. cupreum, subnitidum; prothorace creberrime punctato, punctis magnis rarissime dispersis; elytris seriatim punctatis, interstitiis alternis interrupte subcostatis.

Hab. Brisbane.

Copper-brown, a little nitid; head rather finely punctured; clypeus truncate at the apex, its suture going off near the antennary ridges, no branch groove; prothorax moderately transverse, not so broad as the elytra, sides well rounded, posterior angles not produced, base emarginate, rather close to and slightly overlapping the elytra, closely and minutely punctured, a few large punctures irregularly dispersed among them; scutellum very short and transverse; elytra obovate, irregularly seriate-punctate, punctures small, not crowded, the intervals between the rows broad, the alternate ones with slightly raised interrupted lines, epipleuræ with a few minute scattered punctures; body beneath and legs dark greenish brown, very glossy, the middle of the abdominal segments finely corrugated; antennæ rather short, copper-brown, thicker outwards, third joint a little longer only than the fourth, the last ovate, much longer than the tenth. Length $5\frac{1}{2}$ lines.

A distinct species; in the closeness of its prothorax to the elytra, and also in habit, slightly approaching the genus *Coripera*.

Adelium scytalicum.

A. fusco-cupreum, pernitidum; prothorace nigro, lævissimo; elytris seriatim punctatis, punctis inæqualibus.

Hab. Swan River.

Brownish copper, very nitid; head and prothorax black, the former minutely punctured, the latter very smooth and glossy, rather transverse, the sides well rounded and not foliaceous, the base and apex of equal breadth; scutellum nearly semicircular; elytra oblong, slightly rounded at the sides, seriate-punctate, the punctures unequal in size, the intervals but very slightly convex; epipleuræ of the elytra, legs, and body beneath very smooth and glossy; tarsi ferruginous; antennæ dark

brown, eighth, ninth, and tenth joints triangular, dilated on one side, the eleventh obliquely ovate, larger than the preceding one. Length 5 lines.

I have but one example of this very distinct species; it is probable that the peculiarity of the antennæ is sexual.

Adelium orphana.

A. cupreum, nitidum; prothorace subtiliter punctato; elytris striato-punctatis.

Hab. Yankee Jim's Creek, Victoria.

Glossy copper-brown; head finely punctured; clypeus very slightly emarginate at the apex, its suture moderately arched; prothorax transverse, nearly as broad as the elytra, a little rounded at the sides, minutely punctured, posterior angles not produced; scutellum transversely triangular; elytra subparallel at the sides, punctate-striate, punctures rather small and approximate, intervals of the striae thickly punctured, epipleuræ finely punctured; body beneath and legs glossy copper; tarsi fulvous; antennæ ferruginous, gradually thicker outwards; last joint larger than the tenth, somewhat semi-circular. Length $4\frac{1}{2}$ lines.

Very like an *Amara* in habit; narrower, more parallel at the sides, and more glossy than any of the others.

The three following species have a more slender form than the *Adelia* generally: the prothorax is also less transverse and only slightly emarginate at the apex, and the eyes are broader and less impinged on by the antennary ridges. The third species has the prothorax nearly as broad at the base as at the apex, while in the first two it is very much narrower. They lead to a certain extent to *Apasis*, from which, however, they are separated by the characters of their anterior tarsi.

Adelium steropoides.

A. gracile, æneum; prothorace apice parum emarginato, basi angustiore; elytris punctato-striatis.

Hab. Victoria.

Brassy, nitid; head concave and thickly punctured between the antennary ridges, the front with a slightly bilobed gibbosity; clypeus deeply emarginate; prothorax rather broader than long, the sides well rounded, narrowed at the base, very minutely punctured; scutellum triangular; elytra oblong, slightly rounded at the sides, moderately convex, punctate-striate, the punctures nearly contiguous, the intervals of the striae narrow, convex, and impunctate; epipleuræ of the elytra, body beneath,

and legs glossy copper-brown, with minute scattered punctures; tarsi and outer joints of the antennæ ferruginous. Length $6\frac{1}{2}$ lines.

Adelium ruptum.

A. gracile, piceo-fuscum; prothorace apice parum emarginato, basi angustiore; elytris æneis, striatis, striis interruptis.

Hab. Yankee Jim's Creek.

Pitchy brown, nitid; head concave between the antennary ridges, rather thickly punctured, front slightly raised between the eyes; clypeus tinged with steel-blue, deeply emarginate, the upper lip very short and narrow; prothorax slightly transverse, well rounded at the sides, narrowed at the base, very minutely punctured; scutellum rather narrowly triangular; elytra oblong, slightly rounded at the sides, a little depressed, striate, the striæ more or less interrupted, the intervals of the striæ flattish and nearly impunctate, epipleuræ indistinctly punctured; body beneath and legs dark brown, glossy; tarsi and outer joints of antennæ ferruginous. Length 7 lines.

Adelium commodum.

A. gracile, nigrum; prothorace apice parum emarginato, basi haud angustato; elytris æneis, tenuiter subpunctato-striatis.

Hab. Tasmania.

Black, subnitid; head scarcely punctured, flattish in front and above the eyes; clypeus strongly emarginate, somewhat ferruginous, as well as the upper lip; prothorax as long as broad, apex slightly emarginate, sides moderately rounded, base rather broad, but less so than the apex, the disk very slightly convex and scarcely punctured; scutellum transverse; elytra slightly rounded at the sides, finely striate, the striæ with traces of punctures only, the intervals narrow, with an indistinct punctuation; epipleuræ of the elytra, body beneath, and femora glossy reddish brown, with minute shallow punctures; tibiæ reddish ferruginous; tarsi and antennæ paler, inclining to fulvous. Length 5 lines.

APASIS.

Mentum angulis anticis rotundatum.

Prothorax apice truncatus.

Tarsi ant. in fœm. art. tribus intermediis obconicis; omnes subtus tomentosi.

The type of this genus has a very different appearance from any of the species of *Adelium*; and therefore, in the absence of any very salient differential character, I have been led to

attach some importance to the peculiar form of the intermediate joints of the anterior tarsi of the female; for in the male they are transverse, as in both sexes of *Adelium**, but more dilated.

I owe my specimens, as well as all the new allied forms here described, to my kind friend Dr. Howitt, to whom I dedicate the species.

Apasis Howittii. Pl. XI. fig. 7, ♂.

A. atra, nitida; tarsi palpisque fulvis; elytris striatis.

Hab. Victoria.

Black, shining; head nearly impunctate, very hollow between the antennary ridges in the line of the clypeal suture, a transverse groove in front above the eyes; clypeus strongly emarginate, upper lip large and prominent; prothorax very glabrous, finely and sparsely punctured, about equal in length and breadth, convex, rounded at the sides, the margins with a narrow raised border; scutellum transverse; elytra oblong oval, a little broader than the prothorax, slightly rounded at the sides, striate, the striae and the spaces between them impunctate, scutellar stria nearly obsolete; epipleurae of the elytra, body beneath, and legs pitchy brown, very smooth and glossy; tarsi and palpi fulvous; antennae a little thicker outwards. Length 10 lines.

LICINOMA.

Mentum angulis anticis rotundatum.

Tarsi subtus leviter pilosi.

Prothorax apice haud emarginatus.

In other respects, except that the eye is broader, this genus resembles *Adelium*, with the habit of some of the smaller *Feroniae*.

Licinoma nitida.

L. cuprea, nitida; elytris punctato-striatis; tarsi fulvis; antennis ferrugineis.

Hab. Mount Macedon, Victoria.

Copper-brown, shining, finely punctured; head convex between the antennary ridges, sparsely punctured; clypeus emarginate at the apex; prothorax nearly as long as broad, the sides slightly rounded, a little narrowed at the base; scutellum small and indistinct; elytra oblong, very moderately rounded at the sides, scarcely broader than the prothorax, de-

* The anterior and frequently the intermediate tarsi are more dilated in the males of *Adelium* than in the females.

licately punctate-striate, the intervals of the striæ flattish, sparingly punctured; epipleuræ of the elytra, body beneath, femora, and tibiæ glossy reddish brown, sparsely punctured; tarsi fulvous; antennæ ferruginous, thicker outwards, the last joint large and as long as the two preceding together. Length 4 lines.

BRYCOPIA.

Oculi prominuli, subrotundati.

Mentum angulis anticis rotundatum.

Prothorax apice haud emarginatus.

The principal differentiating character in this genus is the prominent and nearly circular eye. The simple clypeal suture may probably also be taken as a generic character. The tarsi are closely tomentose beneath, as in *Adelium*.

Brycopia pilosella.

B. breviter et sparse pilosa; capite prothoraceque violaceo-nigris; elytris cupreis, punctato-striatis.

Hab. Mount Macedon, Victoria.

Shining above, with short erect scattered hairs; head and prothorax violet-black, coarsely punctured, the clypeal suture not sending a branch along the base of the antennary ridge; sides of the prothorax well rounded anteriorly, then contracting more gradually to the base; scutellum triangular; elytra oblong oval, coarsely punctate-striate, the intervals between the striæ impunctate, epipleuræ scarcely punctured; body beneath reddish pitchy, punctured; legs and antennæ pale ferruginous, the last joint of the latter rounded, a little larger than the preceding one. Length 3 lines.

DINORIA.

Oculi parvi, rotundati.

Tarsi subtus pilosi.

Prothorax apice haud emarginatus.

Very similar to *Brycopia*, and only to be distinguished by the pilose tarsi. The clypeal suture is also simple.

Dinoria picta.

D. cuprea, nitida; elytris marginibus fulvis.

Hab. Tasmania.

Copper-brown, shining; head coarsely punctured, the clypeus forming a prominent fold above; prothorax transverse, roughly and not closely punctured, rounded at the sides, more narrowed behind the middle, the posterior angles prominent,

but not acute; scutellum narrowly triangular; elytra obovate, closely and strongly punctate-striate, the intermediate intervals more elevated, the margins of the disk and apex fulvous; body beneath and femora at the base dark glossy brown, sparsely punctured; rest of the femora, tibiae at the apex, and tarsi clear fulvous; palpi and antennae yellowish ferruginous, the latter a little thicker outwards, the last joint oval, nearly equal to the two preceding together. Length 3 lines.

DYSTALICA.

Oculi angustati.

Tarsi subtus pilosi.

Prothorax apice emarginatus, lateribus crenatus.

In habit resembling *Adelium porcatum* more than anything else in the subfamily.

Dystalica homogenea.

D. subparallela; capite prothoraceque nigris; elytris æneis, fortiter punctato-striatis.

Hab. Swan River.

Head and prothorax closely and rather coarsely punctured; clypeal suture strongly arched, sending back on each side a shallow groove terminating near the upper edge of the eye; prothorax much broader than long, convex, the sides rounded and remotely crenate; scutellum narrowly triangular; elytra oblong, the sides nearly parallel, about the width of the prothorax, strongly punctate-striate, the punctures approximate, intervals between the striae narrow and very convex, epipleurae coarsely and rather closely punctured; body beneath and legs greenish black, glossy, slightly punctured; antennae with the third joint elongate, fourth to tenth equal and obconic, the last oval, not larger nor longer than the tenth. Length 8 lines.

Omolipus laevis.

O. ater, nitidus; antennis tarsisque ferrugineis; elytris subtiliter seriatim punctatis.

Hab. Cape York.

Black, shining; head and prothorax very minutely punctured, the latter transverse, well rounded at the sides, the base broader than the apex; scutellum very small, triangular; elytra shortly ovate, seriate-punctate, the punctures very small and invisible to the naked eye; body beneath and legs very glossy; the antennae, palpi, and tarsi ferruginous; claw-joint very stout. Length 6 lines.

Omolipus gnesioides.

O. ater, nitidus ; prothorace antice gibbosulo ; elytris fortiter seriatim punctatis, punctis oblongis.

Hab. Port Denison.

Black, shining ; head very minutely punctured, punctures somewhat scattered, much more crowded on the clypeus ; prothorax also minutely punctured, somewhat compressed, and becoming slightly gibbous anteriorly, the sides moderately rounded ; scutellum small, transverse, rounded behind ; elytra rather narrowly ovate, seriate-punctate, the punctures oblong and strongly impressed ; body beneath and legs very glossy ; antennæ and tarsi black. Length 4 lines.

Omolipus (Pascoe, Journ. of Entom. i. p. 127) is allied to the European genus *Misolampus*, from which it may be at once distinguished by the presence of a scutellum and the hooked inner maxillary lobe. The species are all of an intense black colour, more or less glossy ; and, in addition to the characters given of the genus, it may be stated that the claw-joint is unusually stout, and the epipleura gradually narrows posteriorly and disappears a little way from the apex. The other two species may be diagnosed as follows :—

Omolipus corvus, Pasc. *l. c.*—*Ater*, nitidus ; prothoracis basi apice angustiore ; elytris fortiter seriatim punctatis.

Hab. Brisbane*.

Omolipus socius, Pasc. (Ann. & Mag. Nat. Hist. ser. 3. ix. p. 463).—

Ater, nitidissimus ; prothoracis basi apice latiore ; elytris fortiter seriatim punctatis, punctis distantibus.

Hab. Lizard Island.

ECTYCHE.

Subfamily AMPHIDORINÆ.

Clypeus a fronte discretus, antice paulo rotundatus.

Tibice antice apice dilatatae, oblique truncatae.

Processus intercoxalis angustatus, apice rotundatus.

Head rather short, inserted into the prothorax as far as the eyes, regularly convex in front ; the clypeus large, a little rounded anteriorly, separated from the front by a strongly arched suture. Eyes narrow, entire. Antennæ slightly thicker outwards, the third joint longer than the others, the fifth to the tenth more or less ovate, submoniliform, the last larger and oblong. Mentum pedunculate, trapezoidal, the anterior border slightly biemarginate ; labium small, membranous, transverse. Maxillary lobes narrow, the inner hooked. Maxillary palpi

* Not Melbourne, as erroneously stated in the 'Journal of Entomology.'

large, strongly securiform; the labial short, thick, approximate at the base. Prothorax transverse, convex, apex rather slightly emarginate, sides rounded but broadly emarginate at the posterior angle, the emargination with a tooth in the middle. Elytra ovate, convex, the shoulders rounded; epipleura broad at the base, gradually narrower and almost obsolete at the apex. Femora strongly clavate; anterior tibiæ toothed along the outer margin, gradually thicker below, the apex obliquely truncate and terminating in a stout spur inwardly, the intermediate and posterior linear, the edges round their cotyloid cavities spinous; tarsi slender, setose beneath; the basal joint of the posterior moderately elongate. Prosternum abruptly elevated, rounded anteriorly and posteriorly. Mesosternum abrupt and a little excavated in front. Metasternum very short. Abdomen with the third and fourth segments membranous at their edges. Body, with the legs and antennæ, covered with long flying hairs.

After Dr. Leconte, I have taken *Amphidora* as the type of a subfamily perfectly distinct from the Adeliinæ, in which M. Lacordaire places it, although with some doubt. The subfamily forms to a certain extent an exception to the cognate groups in regard to the tarsi, the pubescence beneath being "very coarse, sometimes almost spinous;" in *Ectyche* it is completely setose (or spinous). The Amphidorinæ hitherto have been exclusively Californian and Chilian; and, notwithstanding there are so many points of agreement between the latter and the Australian beetle-faunas, it was not until after a long examination that I ventured to consider this genus one of its members. All the essential characters, however, are the same, the intercoxal process, very broad in *Amphidora* itself, is considerably less so in *Stenotrichus*; and we have seen that the vestiture of the tarsi is variable.

I owe my specimen to the Rev. George Bostock, of Freemantle.

Ectyche erebea. Pl. XI. fig. 1.

E. oblonga, nigra, opaca; elytris striato-punctatis, interstitiis crebre punctatis.

Hab. Freemantle.

Black, opaque, everywhere above covered with long, erect, slender, black hairs; head, upper lip, and prothorax closely and finely punctured; scutellum minute, punctiform; elytra about three times the length of the prothorax, striate-punctate, the intervals closely and rugosely punctured; breast glabrous, closely punctured; abdomen coarsely punctured, hairy. Length 2 lines.

The following species is closely allied to *Ectyche*, but differs in the character of the tibiæ, which are all of the same form and toothed (or rather, perhaps, shortly spined) externally. It is a much smaller species; and my specimen, which I owe to Mr. Odewahn, of Gawler, having been carded, the gum (?) used has such a tenacious property that it is impossible to get rid of it so as to be able to examine the different organs satisfactorily. I record it here principally to call the attention of Australian entomologists to the subject. The occurrence of two such closely allied species so far apart suggests the probability that these are by no means such isolated forms as they now appear to be. It is not unlikely that they are ants'-nest insects.

Ectyche? nana.

E.? brevis ovata, nigra, opaca; elytris subnitidis, crebre punctatis, interstitiis rugosis.

Hab. Gawler.

Shortly ovate, opaque black, but the elytra slightly glossy, covered above with long black erect hairs; head and prothorax finely and closely punctured; clypeus not distinct from the front; prothorax transverse, convex, rounded at the sides and anterior angles, the posterior acuminate; scutellum inconspicuous; elytra scarcely broader than the prothorax, subnitid, the punctures mostly irregular, or with slight indications of rows, crowded, the intervals rugose; body beneath dark brown, closely punctured; antennæ and legs ferruginous; tibiæ slightly compressed, gradually dilated downwards, the outer edge shortly spined; tarsi with longish hairs beneath. Length $1\frac{3}{4}$ line.

BRISES.

Subfamily CÆLOMETOPINÆ.

Caput ad oculos retractum.

Maxillæ lobo interiore mutico.

Prothorax lateribus foliaceis.

Head transverse, inserted into the prothorax as far as the eyes; antennary ridges dilated; clypeus broad, separated from the front by a slightly arched line, strongly emarginate in front. Eyes transverse, entire. Antennæ small, thicker outwards; third joint elongate; fourth, fifth, and sixth obconic; seventh to the tenth submoniliform, the last obovate. Mentum, as well as the labium, transverse, broader and truncate anteriorly. Maxillary lobes small, the inner short and unarmed. Palpi gradually thicker outwards; the maxillary with a short basal joint, second as long as the two following together, the last narrowly triangular; the labial with a basilateral inser-

tion. Prothorax transverse, the apex strongly emarginate, sides foliaceous and recurved, disk scarcely convex, the base subtruncate, with the posterior angles narrowly produced. Elytra shortly ovate, broader than the prothorax at their base, shoulders round; epipleuræ gradually narrowing posteriorly. Legs rather feeble; femora slightly thickened, the anterior with trochanters; tibiæ linear, shortly spurred; tarsi clothed beneath with long, stiff hairs, the middle and posterior with the claw-joint as long, or nearly as long, as the preceding joints together. Prosternum elevated, produced above. Mesosternum V-shaped. Metasternum short. Intercoxal process narrowly triangular, obtuse anteriorly. Abdomen with the fourth segment very short, and with the third incurved at the sides.

This is another of those special forms in which Australia is so prolific; and therefore there is little to be said respecting its affinities. As may be supposed, it differs in some respects from the characters of the Cœlometopinæ as laid down by M. Lacordaire. Many species of this subfamily are Californian, where, according to Dr. Leconte, they are found under the bark of trees. We are ignorant of the habits of the Australian species.

Brises trachynotoides. Pl. XI. fig. 5.

B. nigro-fusca, opaca; elytris granulatis, punctatis, singulis bicos-tatis.

Hab. Champion Bay.

Opaque blackish brown; head and prothorax finely and very closely granulate, the granulations more or less confluent; scutellum transverse, pointed at the tip; elytra moderately convex, irregularly punctured, with the intervals granulate, each elytron with two very marked costæ not reaching to the apex; body beneath pitchy brown, finely but obscurely punctured; antennæ and legs dark ferruginous, covered with scattered stiffish hairs. Length $7\frac{1}{2}$ lines.

ASPHALUS.

Subfamily CÆLOMETOPINÆ.

Caput ad oculos retractum.

Maxillæ lobo interiore hamato.

Tarsi omnes art. ultimo cæteris simul sumptis longiore.

Head transverse, inserted into the prothorax as far as the eyes; clypeus separated from the front by an arched line, slightly emarginate anteriorly; labrum broadly transverse, porrect. Eyes transverse, nearly entire. Antennæ rather

short, gradually thicker outwards, the third joint a little longer than the second and fourth, and all, as far as the seventh, obconic; eighth, ninth, and tenth broader and shorter, the last larger than the preceding, round and a little depressed. Mentum shortly pedunculate, hexagonal, winged*; labium very transverse, subtrilobed. Maxillary lobes—inner narrow, gradually terminating in a strong hook; outer short, broad, somewhat triangular. Maxillary palpi stout, the last joint securiform; labial short, last joint large, cup-shaped. Prothorax convex, broader than long, sides rounded, terminating posteriorly in a strongly produced acute angle; apex deeply and broadly emarginate, base bisinuate. Elytra ovate, as broad as the prothorax, convex; epipleuræ entire, gradually narrowing from the shoulder to the apex. Legs stout, the posterior longest; femora gradually thickened, furnished with trochanters; tibiæ shortly spurred, intermediate and anterior arched; tarsi short, entire, the claw-joint longer than the rest together. Prosternum broad, produced behind. Mesosternum broadly V-shaped. Metasternum very short. Intercoxal process small, quadrate. Abdomen with the third and fourth segments strongly incurved at the sides.

In habit resembling *Pedinus*, with which I at first thought this genus might possibly be connected; but its true place is with the *Cœlomelopinae*. Mr. F. Bates has already placed his two Australian genera *Hypaulax* and *Chileone*, dismembered from *Nyctobates*, in this subfamily; but these are very different in appearance from *Asphalus*. There is a considerable depression on the throat of the species here described, which represents the grooves of *Hypaulax* and *Cœlomelopus*. The lower lip is also remarkable, inasmuch as the central lobe appears to be corneous, whilst the lateral ones are membranous.

Asphalus ebeninus. Pl. XI. fig. 3.

A. aterrimus, nitidus, lævis; elytris leviter punctato-striatis.

Hab. Clarence River.

Deep black, smooth and shining; antennæ and tarsi ferruginous; head and prothorax very minutely punctured, the latter with the sides rather more broadly margined anteriorly than posteriorly; scutellum very short, transverse; elytra very convex, faintly punctate-striate, the epipleura at its junction

* Mr. F. Bates (Trans. Ent. Soc. 1868, p. 259) proposes by this word to designate that "peculiar form of mentum composed of a central portion large and convex and two smaller flat pieces (wings) situated on each side at the back." These wings appear to be the "lateral lobes" of Dr. Leconte. The presence of these lobes differentiates *Nyctobates* from *Iphthimus*.

with the disk forming a prominent line, especially anteriorly; body beneath more or less finely corrugated. Length 8 lines*.

PROMETHIS.

Subfamily TENEBRIONINÆ.

Caput exsertum, pone oculos collo cylindrico contractum.

Prothorax angulis anticis productis, rotundatis; marginibus integris.

Tibiæ haud calcaratæ; *tarsi* postici validi, breviusculi.

The type of this genus is "*Upis* (*Iphthimus*) *angulatus*," Er. †, a species remarkable for the bearded mentum of its males—a peculiarity which does not appear to be anything more than specific. This genus is differentiated both from *Upis* and *Iphthimus* by the form of its prothorax, and its entire margins when compared with the latter,—to which, as a secondary character, may be added the sculpture of its elytra. The first of the two species described below has been long known in collections; and in my own it formerly stood as a *Baryscelis*, an unpublished name of Dr. Boisduval. *Iphthimus niger*, Blessig, appears to be in some respects intermediate between the two following.

Promethis lethalis.

P. nigra, subnitida; prothorace basi angustiore; elytris postice latioribus, fortiter punctato-striatis, interstitiis convexis.

Hab. Queensland.

Black, shining; head minutely punctured; clypeus slightly emarginate at the apex, separated from the front by a fine transverse line bent downwards at the sides; prothorax very finely punctured, longer than in *P. angulata*, gradually narrowing towards the base, strongly canaliculate on the disk, with two impressed spots on each side; scutellum semicircular; elytra much broader than the prothorax at the base, and gradually widening posteriorly, rounding towards the apex, deeply punctate-striate, the punctures indistinct, the intervals raised and very convex; beneath glossy black; first three segments

* Mr. F. Bates, as we have already noticed, having withdrawn several species previously placed with *Nyctobates*, to form his two genera *Hypaulax* and *Chileone*, which he places in Cœlomtopinæ, it will be necessary to constitute another for my *N. feronioides*. This genus, which I propose to name *Hydissus*, differs essentially from both the above in having the penultimate joint of all the tarsi subbilobed; it has no grooves behind the mentum; and the epipleural line terminates at the shoulder, this raised and strongly marked line, which in *Hypaulax* is continuous with the basal, being interrupted, the basal line turning backwards and running down for a short distance inside and parallel to the other.

† Wiegmann's Archiv, 1842, i. p. 174. It is found in Victoria as well as in Tasmania.

of the abdomen finely and thickly punctured; legs pitchy; antennæ ferruginous, scarcely extending to the middle of the prothorax. Length 13 lines.

A much larger species than *P. angulata*, but with shorter antennæ proportionally, more nitid, a longer prothorax contracted behind, and strongly striated elytra, which are considerably broader posteriorly. In the following species the elytra are nearly parallel, and the prothorax has the apex and base of the same breadth.

Promethis quadricollis.

P. nigra, subnitida; prothorace transversim subquadrato; elytris subparallelis, punctato-striatis, interstitiis modice convexis.

Hab. Swan River.

Resembles the last, but with head and prothorax much less finely punctured, the latter very much more transverse, not narrower at the base, slightly canaliculate; elytra nearly parallel at the sides, punctate-striate, the striæ broad and shallow, the punctures large, intervals of the striæ moderately convex; abdomen very minutely punctured, the second and third segments with a series of short longitudinal ridges at the base. Length 9 lines.

It will be necessary to form a new genus for the reception of *Upis cylindrica*, Germ.*, which, as M. Lacordaire justly observes, is more related to *Menephilus* than to *Upis*. It is a very distinct form, for which I propose the name of

ÆCTOSIS.

Oculi angustati, infra acuti.

Prothorax angulis posticis rotundatis.

Epipleura postice defecta.

It is a less depressed form than *Menephilus*, and has on each side between the base of the mandible and the eye a prominent fold, as in *Iphthimus*; and it is this apparently which gives the latter its peculiar form. The prosternum is recurved behind, and terminates in a short triangular process. The absence of the epipleura towards the apex is also characteristic of *Dechius*, Pasc.†, another Australian genus of this subfamily, but which is notwithstanding more allied to *Tenebrio*, as it appears to me, on account of its spurred tibiæ. My specimen is from the Darling River.

* Linn. Entom. iii. 198.

† Journ. of Entom. ii. p. 455. Mr. F. Bates (Trans. Ent. Soc. 1868, p. 265) contradicts my statement as to the absence of the hook on the internal maxillary lobe of *Dechius aphodioides*. This part has since been examined by Messrs. Smith and C. Waterhouse, of the British Museum, who agree with me that it does not possess a vestige of such a peculiarity.

MENERISTES.

Subfamily TENEBRIONINÆ.

Tibiæ calcaratæ; femora incrassata.

This genus differs only in the above characters from *Menephilus*, Muls. The type I have received from Dr. Howitt, under the name of "*Baryscelis laticollis*, Boisd." That genus was never published; but, according to a note of M. Lacordaire's, it belongs to the Cœlometopinæ, and therefore cannot be this. In the British Museum the same species is labelled "*Tenebrio australis*, M'L. (Boisd.)." The descriptions of Dr. Boisduval in the 'Voyage de l'Astrolabe' are very short, varying from five Latin words to five-and-twenty, the latter exceptional; and these are followed by a strictly literal French translation. With the vague ideas of genera common thirty years ago, and even later, the generic name affords scarcely any clue, and it is only by a sort of tradition that we are able to accept at all many of Dr. Boisduval's names*. The types, many of them at least, seem to have been lost. I retain the name of "*laticollis*," as it is sufficiently distinctive, and, should it hereafter be found to be the species so designated by Dr. Boisduval, there will be no alteration.

Meneristes laticollis. Pl. XI. fig. 2.

M. niger, nitidus; sutura clypeali valde impressa; prothoracis angulis anticis et posticis productis; tibiæ anticæ valde arcuatæ.

Hab. Victoria.

Black, shining; head glossy, finely and closely punctured; clypeal suture arched, strongly impressed; prothorax minutely punctured, anterior angles produced, subacuminate, posterior terminating in a long acute angular process; scutellum curvilinearly triangular; elytra nearly parallel, coarsely punctate-striate, punctures slightly quadrate, very close together, intervals between the striæ very narrow; body beneath and legs glossy black; anterior tibiæ equal in length to the intermediate, strongly curved. Length 9 lines.

Meneristes intermedius.

M. niger, nitidus; sutura clypeali impressa; prothoracis angulis minus productis; tibiis anticis (♀) vix arcuatis.

Hab. Gawler.

Black, shining; head opaque, finely punctured; clypeal

* Under the name of *Mallodon australis*, Boisd., for example, M. Lacordaire says he found "several species, belonging to different genera, in collections." (Gen. viii. p. 111, note.)

suture arched, moderately impressed; prothorax as in the last species, but the angles, especially the posterior, less produced; scutellum triangular; elytra broader in proportion, less glossy, and less strongly punctured; body beneath black, shining; legs glossy reddish pitchy; anterior tibiæ in the male strongly arched; shorter, and nearly straight, at least on the outer edge, in the female; the former only with the tarsi dilated. Length 8 lines.

A stouter insect comparatively than the last, and differing in the form of the anterior tibiæ. In both species there is a deep fovea on each side of the prothorax at the base.

Meneristes servulus.

M. niger, nitidus; sutura clypeali vix impressa; prothoracis angulis posticis productis (♂); tibiis anticis in mare longioribus, arcuatis, apice penicillatis.

Hab. "Tasmania to Queensland."

Black, shining; head glossy, very minutely punctured; clypeal suture marked by a smooth arched line only; two small impressed curved lines between the eyes; prothorax longer in proportion to the width, very smooth, anterior angles rounded, the posterior narrowly produced in the male; scutellum triangular; elytra narrower anteriorly and not much broader than the prothorax at the base, the greatest width a little distance from the apex in the male, the base broader in the female, punctate-striate as in the last; body beneath and legs pitchy; anterior tibiæ in the males much longer than the rest, strongly arched, and having a tuft of golden hairs at the apex; in the females shorter, less arched, and without the tuft at the apex. Length $6\frac{1}{2}$ lines.

EPHIDONIUS.

Subfamily *TENEBRIONINÆ*.

Caput exsertum, rhomboideum, pone oculos elongatum.

Tibiæ fortiter calcaratæ; *tarsi* subtus subnudi.

Head exserted, rhomboidal, broad in front, gradually narrowed behind the eyes; clypeus widely emarginate at the apex, its suture nearly straight, except at the sides. Eyes small, rather narrow, transverse. Antennæ slender; third joint longest; fourth, fifth, and sixth shorter, obconic, nearly equal in length; seventh to tenth more or less obovate; the last ovate, pointed, scarcely longer than the tenth. Mentum trapezoidal, broadest and truncate anteriorly. Labium corneous in the middle, with two rounded membranous lobes at the sides; its palpi elongate, a little thicker outwards. Maxillæ with two short lobes, the

inner narrow and unarmed; maxillary palpi with the first joint very short, second long, the last obconic, truncate at the apex. Prothorax transverse, slightly emarginate anteriorly, anterior angles not produced, sides rounded, without a raised border, and terminating in well-marked posterior angles, base broad and subtruncate. Elytra ovate, slightly convex, broader than the prothorax. Femora sublinear; tibiæ strongly spurred; tarsi slender, gradually longer from the anterior, nearly naked beneath, except a few setæ at the tips. Prosternum narrow, declivous; mesosternum V-shaped; metasternum moderately elongate. Abdomen with the fourth segment very short, its sutural edge arched.

The general appearance of the insect forming the type of this genus is more nearly that of *Ipthimus italicus* than any other known to me. The vestiture of the tarsi, however, and the presence of spurs to the tibiæ is sufficiently distinctive; the former character, indeed, may lead to the doubt of its belonging to the Tenebrioninæ at all; but in this case I believe it is exceptional.

I am indebted for my specimens to Johannes Odewahn, Esq.

Ephidonius acuticornis. Pl. XI. fig. 6.

E. niger, capite prothoraceque nitidis; elytris opacis, seriatim et leviter punctulatis.

Hab. Gawler, South Australia.

Black; head and prothorax finely punctured, shining, the former from the clypeus backwards smooth and convex; base of the prothorax close to the elytra, but below their level; scutellum triangular; elytra finely seriate-punctate, the suture thickened into a line, three other lines also on each elytron placed on the intervals of every four rows of punctures; body beneath and legs shining pitchy brown; antennæ reddish brown. Length 9 lines.

TANYLYPA.

Subfamily BORINÆ.

Oculi transversi.

Maxillæ lobo interno inermi.

Tibiæ arcuatæ.

Head exserted, small, gradually narrower behind the eyes; clypeus separated from the front by a short arched suture. Eyes rather narrow, transverse. Antennæ a little thicker outwards; the basal joints more or less obconic, the eighth to the tenth transverse, the last rounded. Mentum trapezoidal; labium short, transverse, corneous. Maxillary lobes short, the inner narrow, unarmed, the outer broadly triangular. Maxil-

lary palpi stout, broadly dilated upwards; the labial distant at the base, with the last joint very large, cup-shaped, obliquely truncate. Prothorax longer than broad, narrowed and truncate at the apex, sides rounded, posterior angles acute, the base truncate. Elytra elongate, parallel, not broader than the prothorax, rounded at the apex; epipleura narrow and nearly equal throughout, but expanding as it ascends to the shoulder. Femora stout; tibiæ strongly curved; tarsi short, the last joint as long as the rest together. Anterior coxæ transverse. Prosternum slightly elevated, rounded behind. Mesosternum short, V-formed. Metasternum elongate. Intercoxal space very narrow, short, triangular. Abdomen with five segments, all nearly equal in length and with corneous edges.

Allied to *Boros*, Herbst, a genus placed with the Pythonidæ by Dr. Leconte*, on account of its anterior cotyloid cavities being open behind. The same authority also credits them with conical anterior coxæ. I do not know the American species; but in *B. Schneideri* they are slightly transverse†, and they are still more so in the present genus. Although I cannot agree to separate *Boros* from the Tenebrionidæ, as Dr. Leconte and M. C. G. Thomson have done, yet it seems desirable to keep them apart from *Calcarinæ*, with which they do not appear to be very intimately connected.

Tanylypa morio. Pl. XI. fig. 4.

T. nigra, nitida; prothorace basi trifoveolato; elytris seriatim punctatis.

Hab. Tasmania.

Black, shining; head and prothorax very finely punctured, the latter with three very distinct foveæ at the base; scutellum semicircular; elytra rather strongly punctured in closely approximate rows, the sutural row diverging near the scutellum, a very short one taking its place; body beneath and legs dark pitchy, smooth and shining; antennæ glossy ferruginous; fore tibiæ with a delicate fringe of hairs within. Length 6 lines.

EXPLANATION OF PLATE XI.

Fig. 1. *Ectyche erebea*: *a*, mentum &c.; *b*, maxilla &c.

Fig. 2. *Meneristes laticollis*.

Fig. 3. *Asphalus ebeninus*: *a*, maxilla; *b*, mentum.

Fig. 4. *Tanylypa morio*: *a*, mentum; *b*, maxilla; *c*, fore leg.

Fig. 5. *Brises trachynotoides*: *a*, mentum; *b*, maxilla.

Fig. 6. *Ephidonijs acuticornis*: *a*, mentum; *b*, maxilla.

Fig. 7. *Apasis Howittii* (♂).

* Class. Col. N. Am. p. 255.

† M. C. G. Thomson characterizes them as "ovato-globosæ" (Skand. Col. vi. p. 326).

Pascoe, Francis P. 1869. "XXI.—Descriptions of new genera and species of Tenebrionidæ from Australia and Tasmania." *The Annals and magazine of natural history; zoology, botany, and geology* 3, 132–153.

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