

Article XI. — NOTES ON AUSTRALIAN PENTATOMIDÆ, WITH DESCRIPTIONS OF A FEW NEW SPECIES.

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PLATE VIII.

I am indebted to Mr. Wm. Beutenmüller for the privilege of examining the fine series of Australian Pentatomids in the collection of the American Museum of Natural History in New York. Most of this Australian material, I am informed, was purchased from the estate of the actor, Henry Edwards, who at the time of his death in 1891 had one of the finest collections of Lepidoptera in this country. With the approval of Mr. Beutenmüller I have worked over this material in connection with the Australian Pentatomids in the National Museum which Dr. Howard very kindly sent me for study, and the Australian material in my own collection of Pentatomidæ. Among this material of mine are a few species obtained from a small lot collected in 1902 at Townsville, Queensland, by Mr. F. P. Dodd and purchased by me from a London dealer, that was of special interest in that it almost duplicated the material described by Dr. Distant in the 'Annals and Magazine of Natural History,' ser. 7, Vol. XIII, p. 263 *et seq.*, and included all but one of the new Pentatomids there described by him.

In studying this material I have had before me, or available for comparison, about one third of the species thus far recorded as Australian. These with the nearly complete literature of the subject have enabled me to place with reasonable certainty most of the species. Two or three of the fifteen species here described as new (*Dictyotus pallidus*, etc.) do not answer well to the genera in which I have placed them, and it is not impossible that they may have been described already, under some other genus, although I have taken every precaution possible to avoid such a redescription. The accompanying plate has been prepared in the hope that it may be of assistance in placing the new species. Here as elsewhere I use the term Pentatomidæ in its broadest sense and include in it the Plataspidæ, Scutelleridæ, and other subfamilies listed in the first volume of the Lethierry and Sevrin Catalogue.

PLATASPIDÆ.

Coptosoma frontata Montandon (Annals Museum Civ. di Genova, ser. 2, Volume XIV, p. 421, 1894). — Described from New Guinea.

Four examples of this species were in the lot collected by F. P. Dodd at Townsville, Queensland, July 2, 1902. These were kindly determined for me by Dr. W. L. Distant and differ from Montandon's description in being paler, the females especially being yellowish testaceous reticulated and punctured with brown on the posterior portion of the pronotum and the scutellum; the males are almost black, dotted and irrorated with pale; the tip of the tarsi and apical joint of the antennæ are very distinctly embrowned.

The Plataspidæ seem to be but poorly represented in Australia: eleven *Coptosomas* and one *Brachyplatys* having been described from that country.

SCUTELLERIDÆ.

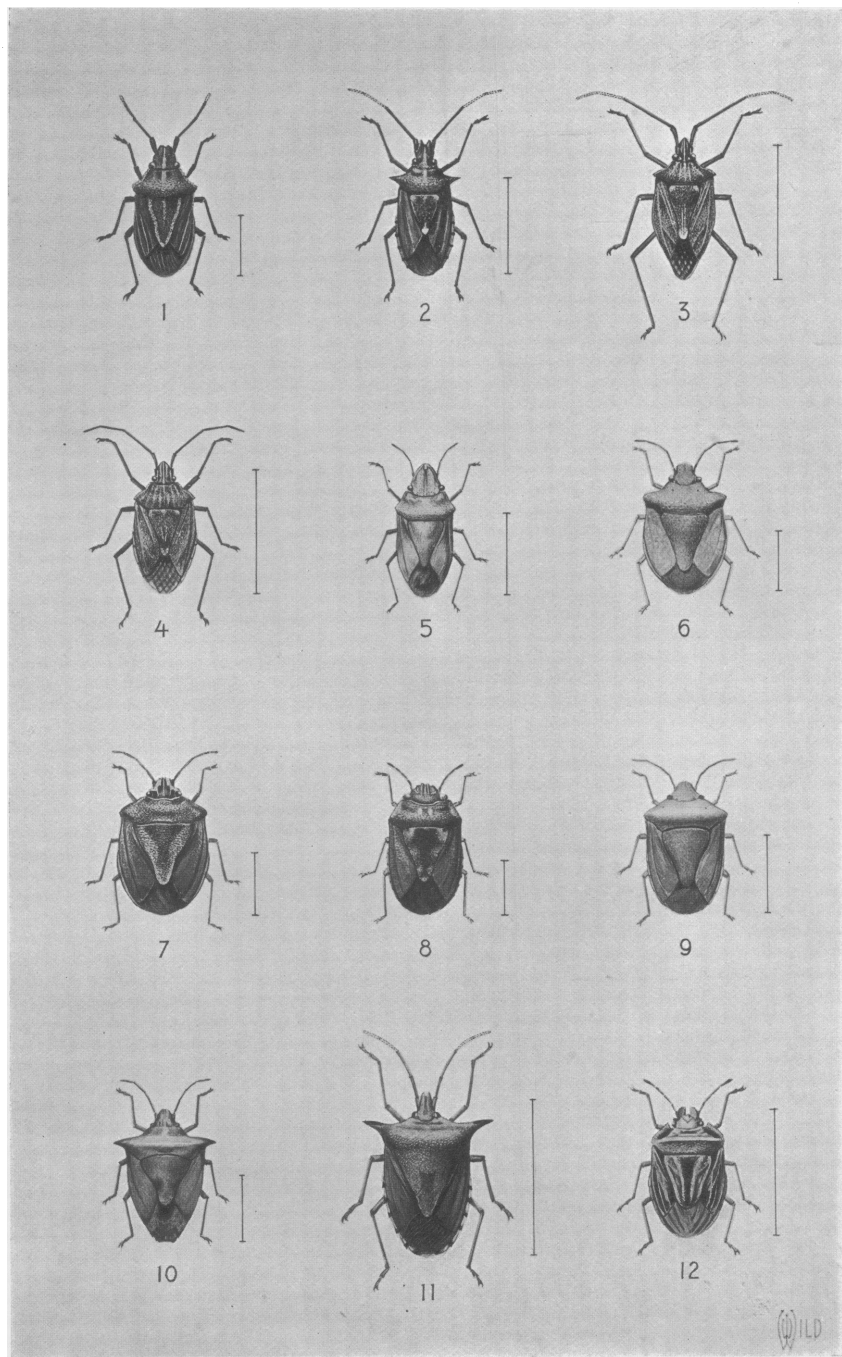
***Coleoticus costatus* Linnæus.** — The American Museum material contains two examples taken in Queensland and numbered 332; in my own collection is an example from Alexandria, Victoria, kindly given me by Mr. G. W. Kirkaldy; and I have received from the National Museum a very clearly marked female labelled "New Caledonia."

***Coleoticus artensis* Montrouzier.** — In the American Museum material is one specimen of this species from Queensland numbered 333. It may be roughly distinguished from the preceding by its shorter and broader form and by its having the punctures brown, omitting a slender longitudinal line.

***Peltophora pedicellata* Kirby.** — The American Museum material contains one example from Brisbane, Queensland, and one from Goulburn, N. S. Wales, and in my own collection are specimens from Launceston and Tasmania.

***Cantao parentum* White.** — Two examples of this species are in the American Museum material. They are labelled "Queensland, 319." This species closely resembles *rudis* but may be distinguished by the impunctate superior surface and the wider and more deflected head.

***Tectocoris lineola* Linnæus.** — This common and widely distributed species is represented in the American Museum material by three varieties, all from Queensland: var. *schönherri* Esch. (No. 322), var. *banksi* Don. (No. 327), and a variety intermediate between these both in size and marking (No. 321). In my own collection are Australian examples from Brisbane, and from the National Museum I have received two small examples of var. *schönherri* Esch., and one of a variety that is almost completely black, all of these from New Caledonia.



1. *Platycoris scutellatus* n. sp.
2. *Platycoris ? rufescens* n. sp.
3. *Pœcilometis stigmatus* n. sp.
4. *Pœcilometis edwardsi* n. sp.

5. *Menestheus brevis* n. sp.
6. *Dictyotus ? pallidus* n. sp.
7. *Antestia oliva* n. sp.
8. *Apines geminata* n. sp.

9. *Cuspicona carneola* n. sp.
10. *Cuspicona beutenmülleri* n. sp.
11. *Birorulus bibax* *Bredt*n.
12. *Phyllocephala tumidifrons* n. sp.

(11)ILD

Pœcilocoris interruptus *Westwood*. — No species of this genus has heretofore been recorded from Australia, but in the material kindly sent me for study by Dr. Howard from the National Museum is one worn example undoubtedly of this species, that is labelled "New Holland." This specimen was determined by Dr. Signoret and sent by him to Dr. Fitch. In this example the sanguineous arcs on the pronotum almost meet before, forming practically a semicircle, and the transverse vitta on the scutellum is continuous. In all other respects it agrees with the published descriptions and figures of this species.

Chærocoris paganus *Fabricius*. — In the American Museum material are several examples of this species from Queensland, numbered 325, 326, and 328, and one smaller male from Victoria that I cannot separate specifically from the larger specimens. This specimen is paler, being mostly rufous, with the head, sides of the pronotum, and two large spots behind the middle of the scutellum blackish; beneath the sides of the pectus, a row of stigmatal spots and the apex of the sixth ventral segment are black; the form of this genital segment does not differ from that of the ordinary *paganus*.

Chærocoris variegatus *Dallas*. — Three examples of this strongly marked species are in the American Museum material labelled "Queensland, 331." One male is much darker than the females with the fulvous markings above reduced to mere lines and dots. In the National Museum are examples taken in Australia by Mr. Koebele.

Philia senator *Fabricius*. — Several Queensland examples of this common insect are in the American Museum material. Some of these (No. 323) have the ground color blue, others are larger and distinctly green in color (No. 324), and two (No. 21) want the orange collar on the base of the scutellum.

Calliphara imperialis *Fabricius*. — The American Museum material contains five examples of this fine insect. Four of these are labelled "Queensland, 318," the other is from Brisbane. This species is of a rich copper-red color above, with the head, submargin of the elytra, and apex of the scutellum metallic green or blue. It is the largest *Calliphara* known to me.

Calliphara regalis *Fabricius*. — Another brilliantly colored species of which the American Museum material contains one pair labelled "Queensland, 320." This species forms a transition between *imperialis* and *eximia*, a smaller species of which I have a long series from New Guinea, Buru, Tomia, and the Key Islands. Of this pair the female agrees in every particular with the female described by

Stal in 'Hemiptera Fabriciana,' I, p. 10. The male is more deeply colored, the head is deep green shading into rufous at the apex, with the base and middle line violet black; the anterior disk of the pronotum is quite widely invaded with metallic green, and the metallic green reflections over the whole surface of the pronotum and scutellum are much more conspicuous than in the female; the genital segment is black and the pectoral pieces in both sexes are quite broadly margined with rufous.

Calliscyta australis *Distant*. — Dr. Distant has very kindly sent me specimens of this that were taken in Queensland. In form, color, and pattern of marking this insect bears a very striking resemblance to *Chærocoris paganus*.

GRAPHOSOMIDÆ.

This subfamily is represented by five genera in the Australian fauna of which three—*Deroploa*, *Testrica*, and *Numilia*—are peculiar to that country. The following species are known to me:

Deroploa curvicornis *Stal*. — Two examples taken in New South Wales by Mr. Macleay are in the American Museum material. These agree with Stal's diagnosis except, that the humeral horns are not at all narrowed toward their apex. This is an odd-looking little bug with its long curved thoracic horns and the projecting spinose cheeks.

Testrica rudis *Germar*. — This is a rough-looking little chap with a superficial resemblance to a *Podops*. A pair in the American Museum material were taken in New South Wales by Mr. Macleay.

Testrica bubala *Stal*. — One pair taken with the preceding is in the American Museum collection. It is a smaller species than *rudis* with the humeri acutely produced like a miniature *Euschistus heros*.

CYDNIDÆ.

Twenty-five or more species of this subfamily have been described from Australia but none of these are in the collection of the American Museum and they are entirely unrepresented in my own collection as well.

PENTATOMIDÆ.

Platycoris scutellatus, sp. nov.

(Pl. VIII, fig. 1.)

Ovate, rather elongate, flavotestaceous, above closely covered with regularly disposed blackish punctures; a longitudinal median vitta, widened from the tip

of the tylus to the middle of the pronotum where it becomes abruptly slender and then obsolete near the middle of the scutellum; the margins of the latter, the narrow outer edge of the pronotum and costa at base, and the longitudinal discal nervure of the elytra are pale, calloused, and impunctate. The pale vittæ are in places bordered with a blackish shade. Beneath paler with three longitudinal rows of black points on the disk of the venter and an incomplete dusky annulus about the pale stigmata, more conspicuous in the females. Antennæ rufous, first joint considerably thickened except at base; second as long as the two apical united; third equal to the first; fourth shortest, subfusiform. Rostrum attaining the hind coxæ, second joint a little longer than the third, the median line and apical joint black. Legs rufescent, base of the femora paler; tarsi blackish at apex. Connexivum rather broadly exposed beyond the closed elytra, black within, pale without. Membrane more or less discolored with the nervures paler. Genital segment of the male with a broad shallow sinus, the outer angles rounded. Length 7-8 mm. Humeral width 4 mm.

I cannot identify this insect with any described species of *Platycoris*. It seems to be rather more elongated in form than is indicated in the generic characters given by Amyot and Serville. The latero-anterior margins of the pronotum are rather deeply sinuated and feebly crenulated anteriorly; the humeri are prominent but obtuse; the cheeks are truncated and slightly oblique at apex where they surpass the tylus but do not approach; the ocelli are distinct and a little nearer the eyes than to one another; the basal joint of the antennæ exceeds the apex of the head by more than one half its length; the scutellum is rather long, reaching for two thirds the length of the abdomen, and is obtuse but scarcely rounded at apex. Beneath the buculæ are a little more elevated anteriorly, reach about to the base of the head, and slightly exceed the first joint of the rostrum; the pleural pieces are closely and coarsely punctured; the osteolar canal is very short, abrupt and strongly elevated at apex; the venter is closely, finely, and rather obscurely punctured, has no indication of a median sulcus or basal tubercle, and has the outer edge smooth.

***Platycoris ? rufescens*, sp. nov.**

(Pl. VIII, fig. 2.)

Larger and more oblong than the preceding and with more acute humeri. Dark rufopiceous becoming more or less blackish on the base of the head, anterior margin, and lateral disk of the pronotum and scutellum; paler beneath. Above closely covered with rather strong and, in places, rugose punctures; a median longitudinal vitta on the head and pronotum, becoming broadest between the callosities, the narrow latero-anterior margins of the pronotum, three spots on the base of the scutellum and a larger one on its apex, pale,

calloused, and impunctate. Elytra rufescent, a little paler on the clavus and costal area where the punctures become slightly embrowned; membrane pellucid; tergum black, connexivum and genital segment above and disk of the sixth tergal segment pale rufous, the former with a black band on the incisures. Antennæ black, first joint short, scarcely passing the apex of the head; second joint more than three times the length of the basal [remaining joints wanting]. Beneath paler or almost flavotestaceous; an indefinite spot on the base of the coxæ, an incomplete lateral vitta from the eye almost to the base of the abdomen, stigmata, and a row of marginal dots placed on the apex of the segments, black. The black pectoral markings show a tendency to become metallic green especially behind the eyes. Punctures on the pectoral pieces strong and irregular, on the venter indistinct and scattering. Legs more rufescent with the tarsi blackish. Rostrum reaching the hind coxæ, the median line and apical joint black; second joint distinctly longer than the third. Buculæ less elevated than in *scutellatus*, shorter than the basal joint of the rostrum and not attaining the base of the head. Genital segment of the male very deeply emarginate, almost falcate. In both sexes the sixth ventral segment has a median longitudinal black dash. Length 11-12 mm., humeral width 5 mm.

Described from one pair in the American Museum collection that were taken in New South Wales by Mr. Macleay. This species differs from the preceding in its generic characters in having the basal joint of the antennæ proportionately shorter, the humeral angles produced in acute prominent spines, and the scutellum shorter, reaching hardly beyond the middle of the abdomen, and more abruptly narrowed to the more slender and rounded apex. The cheeks are somewhat concave above, considerably longer than the tylus, and divergent and subacute at apex. The latero-anterior margins of the pronotum are deeply sinuated and almost smooth, and the humeri are blackish both above and below. With my present knowledge of the allied species I would not feel justified in establishing a new genus for this species although in time such a disposition may have to be made of one or both of the forms here described.

Niarius venosus *Stal.* — In my own collection are two typical examples of this species that were taken at Townsville, Queensland, by Mr. F. P. Dodd. The American Museum has two darker specimens from New South Wales. These differ from the more typical examples in having the head more narrowed and crenulated anteriorly with the pale border narrower and less conspicuous. The pronotum is blacker, with the pale longitudinal line on the anterior lobe only. The scutellum wants the lateral pale points on the base and the apex is narrower, less acute at the tip, and not so broadly pale; the pale veins on the disk of the elytra are scarcely indicated, and the chest wants the pale spots at the base of the feet. These differences

seem too slight to found a new species upon, especially as both examples are badly greased, but a larger series might show it to be distinct.

Niarius illuminatus *Distant*. — The American Museum material contains one pale and one darker example of this species, the former from New South Wales, the latter from Victoria. In the dark specimen the median pale line on the head is nearly obsolete. In neither is the disk of the venter distinctly luteous. Two other Australian species have been described in this genus.

Oncocoris cœlebs *Fabricius*. — I possess three examples of this species taken by Mr. Dodd in Townsville. These show considerable variation in the depth of coloring. One female is particularly pale, with the dark markings described by Stal scarcely indicated, the whole upper surface being quite uniformly punctured with brown. The dark examples show a well-defined pale point on the disk of the elytra.

Notius depressus *Dallas*. — One pair of this species is in the American Museum material and a male taken in Australia is in the National Museum collection. Of the American Museum specimens the male, which is smaller and piceous brown, with scarcely an indication of green, is from Victoria; the female is larger with a deep blackish green ground color and was taken in New South Wales by Mr. Macleay.

Hypogomphus rugosus *Spinola?* — The American Museum possesses a pair of this species that was taken in Queensland. It is of the size of *bipunctatus* Guérin, but differs in having the apex of the scutellum pale and the legs testaceous with the apex of the femora and tibiæ fuscous. From *rotundatus* it differs in having the edge of the pronotum concolorous and the apex of the scutellum rather narrow and feebly bifid in the male, as well as by its larger size.

Omyta cœntrolineata *Westwood*. — In my collection is a single specimen of this species labelled "Tasmania." So far as I can learn it has heretofore been taken only in Australia.

Alcæus varicornis *Westwood*. — Four examples of this conspicuous species are in the American Museum collection, all from Victoria. It may be recognized by the pale spot in the anterior disk of the pronotum and the elevated apical margin of the scutellum. It has much the form and aspect of the North American *Brochymena 4-pustulata*. An allied species, *A. subspinosus* Dallas, differs in having the humeri less prominent, the apex of the head narrower, and the antennæ shorter. It is unknown to me.

Thesus modestus *Stal*. — Two examples taken in New South
[July, 1905.]

Wales by Mr. Macleay are in the American Museum material. I have in my own collection two specimens taken at Townsville, in October, 1902, by Mr. F. P. Dodd, and two from Rockhampton. These six examples vary considerably in their depth of coloring but none is black enough to be placed under Dr. Distant's new species, *nigrescens* (Ann. Mag. Nat. Hist., ser. 7, Vol. XIII, p. 263, 1904).

Spudius latus Walker. — Among the material taken by Mr. Dodd at Townsville are two females of this large handsome species. I feel satisfied with the correctness of this determination although the specimens differ from Walker's description in having from four to six abrupt irregular teeth on the latero-anterior margin of the pronotum. This insect is of a cinereous gray color with four blackish spots or a transverse band across the disk of the pronotum, two similar spots behind the basal angles of the scutellum, another on the anterior disk of each elytron, and an ill-defined bilobed band opposite the apex of the scutellum.

Spudius reticulatus Dallas. — A male and two females of this species are in the American Museum material. These were collected in New South Wales by Mr. Macleay. This is a smaller and narrower species than the preceding and has a group of metallic green punctures on the basal angles of the scutellum, a shorter rostrum which barely reaches on to the third ventral segment, and has but two or three very small teeth on the latero-anterior margin of the pronotum.

Genus *Eumecopus* Dallas.

This is distinctively an Australian genus. So far as I can make out sixteen species have been described of which I have seen but seven. I have, however, been over the descriptions of all the species with care and give here an adaptation of Stal's key to the groups of species in the hope that it may be of some service in placing these closely allied forms.

- A. Angles of the abdominal segments pale.
 - b. Rostrum reaching the third ventral segment.
 - c. Margins of the scutellum pale.
 - longicornis* Dall., *nigricornis* Stal, *pallescens* Dist.
 - cc. Scutellum with the angles only pale.
 - armatus* Fabr., *apicalis* Westw., *callidus* Walk., *ruficornis* Walk., *abdominalis* Dist.
 - bb. Rostrum reaching on to the second ventral segment.
 - d. Ventral margin palé with a dark vitta.
 - vittiventris* Stal.

dd. Ventral margin narrowly yellow or the whole venter pale.

australasiæ Don., *punctiventris* Stal.

ddd. Ventral margin alternated.

cognatus Walk., *conspersus* Walk.

AA. Angles of the abdominal segments black.

patruelis Walk., *acanthopygicus* Stal., *fuscescens* Stal.

Eumecopus pallescens *Distant*. — This is the neatest and most graceful species I have yet seen of this interesting genus. It was described by Dr. Distant in the 'Annals and Magazine of Natural History,' ser. 7, Vol. XIII, p. 264, 1904, from material taken by Mr. F. P. Dodd at Townsville, North Queensland. I possess two females and two nymphs taken by Mr. Dodd at the same locality in February, 1903. It may easily be recognized by its pale gray color, with the scutellum, four rays on the pronotum, and another on the disk of the elytra, ferruginous, and by the pale median line and margins of the scutellum.

Eumecopus callidus *Walker*. — Two examples of this brightly colored species are in the lot received from the American Museum. They are from New South Wales. This species is easily distinguished by its bright reddish tint, the broad blackish submargins and median line of the pronotum, the dark scutellum with imperfect median line and large pale callosities in the angles, and the conspicuous black ray on the disk of the elytra. In the male the venter is almost uniformly castaneous with an indistinct discal vitta on each side which becomes more accentuated posteriorly. In the female a median castaneous vitta on the venter is bisected by the pale sulcus.

Eumecopus abdominalis *Distant*. — This species, which was described by Dr. Distant in the same paper with his *E. pallescens* at page 263, is closely related to *callidus*. It is, however, proportionately broader with a shorter head and wants the black markings above, the venter is uniformly castaneous, and there is a pair of minute pale points on the anterior disk of the pronotum and a larger one on the disk of each elytron. I possess one female taken at Townsville, Queensland, in October, 1903, by Mr. F. P. Dodd, and Dr. Distant's type was from the same source.

Eumecopus australasiæ *Donovan*. — The American Museum material contains one example of this darkly colored species that was taken in New South Wales. The venter is blackish with a series of vague or ill-defined spots on either side of the median line and a smaller one on either side of each of the stigmata, these forming one longitudinal row, and the extreme edge is also pale.

Eumecopus cognatus Walker. — This insect very strongly resembles the preceding but is somewhat smaller and more slender and the venter is pale with the narrow base of each segment and a broad serrated stigmatal vitta on each side, black; the irregularities on the discal side of this vitta are very indefinite, while without they are well defined as a squarish spot on the incisures that touch the edge of the abdomen. One female specimen is in the American Museum material labelled South Australia, and another taken in Australia by Mr. Koebele is in the National Museum. This species and the next belong to a section of the genus not represented in Stal's synopsis. This section is equivalent to his sections "d" and "dd" and may be characterized by having the margins of the venter alternately light and dark.

Eumecopus conspersus Walker. — I place this species with a little doubt. It is of a dark fuscous rather than black color; the second antennal joint is somewhat less than one half the length of the third; the bases of the third and fourth joints are pale as well as that of the second; the pale irrorations on the scutellum do not form "lateral streaks" as indicated by Walker; and the elytra have a distinct pale discal point not mentioned by him. Aside from these points his description fits these specimens perfectly and I can find no reason for considering the species distinct or even for describing it as a variety. Two specimens in the American Museum material are labelled New South Wales.

Eumecopus patruelis Stal. — This species is even larger than *australasia* and somewhat resembles the Asiatic *Erthesina fullo*. I have received two males from Hermann Rolle that were taken at Renmark, South Australia.

Pœcilometis rufescens Westwood. — This is a remarkably neat-looking insect. The upper surface is uniformly reddish ferruginous, very regularly and closely covered with distinct dusky punctures; the narrow latero-anterior margins of the pronotum, the costa at base, a spot at each basal angle of the scutellum and another at its apex, are pale yellowish; elytra with a conspicuous round black dot on the disk posteriorly. Whole lower surface and legs pale fulvous yellow sprinkled with scattering blackish punctures, those on the venter less conspicuous in the female; apex of the posterior femora and tibiæ, tips of the tarsi, stigmata, a round dot on either side of the mesopleura, two smaller ones on the propleura, and the apex of the rostrum black. The sixth ventral segment in the female has an imperfect median black line, and the base of the genital segment of

the male is polished black. Antennæ rufescent, basal joint dusky (fourth and fifth wanting in the specimens before me).

One pair of this pretty species from New South Wales is in the American Museum material.

Pœcilometis gravis Westwood. — This is another neat, pretty species of which one female is in the National Museum material received from Dr. Howard. It closely resembles *rufescens* but is proportionately a little broader and more closely punctate with black, giving the insect a darker appearance, while the ground color is really paler and less reddish than in its ally. The penultimate ventral segment has a longitudinal median black vitta; the stigmata, apex of the tarsi, apical joint of the rostrum, and apical one third of the posterior femora are black; the venter is dotted with scattering ferruginous punctures on a clear almost rufous ground, and the pleural pieces and legs are much paler and are similarly dotted with black punctures. The rostrum attains the middle of the third ventral segment. The antennæ reach to about the apex of the corium; the first joint is blackish, the others are pallid, or those toward the apex may be a little darker. This specimen is labelled "Australia, Koebele."

Pœcilometis strigatus Westwood. — I have one example taken in New South Wales and received from Hermann Rolle that I place here with some doubt. The ground color is pale luteous tinged with ferruginous, closely, and in places confluent, punctured with blackish; these punctures on the pronotum and scutellum are so closely crowded as to give those parts a blackish appearance. On the head these punctures form two longitudinal lines, which become slender and geminate on the posterior one-half, and there is a black vitta behind the red ocelli. On the pronotum the callosities, a slender almost obsolete median line, and the narrow anterior and lateral margins are pale. The scutellum has but two pale basal points, not three as described by Westwood, and there is an irregular blackish cloud on the disk of each elytron. The antennæ are apparently five-jointed although the three basal only remain in this specimen; these three are ferruginous, the basal punctured and the third tipped with black. Beneath pale fulvous, irregularly punctured with dusky, and with the stigmata and about three points on the pleural pieces black. This latter character is not mentioned by Westwood.

This genus differs from *Eumecopus* in having the humeri angulated but not spinous. Of the thirteen species listed by Lethierry and Sevrin, 'Catalogue Général des Hémipteres,' I, p. 96, four must be eliminated: *cognatus*, *conspersus*, and *ruficornis* of Walker belong to

Eumecopus, and *modestus* Stal is an erroneous entry. It is listed on the preceding page under genus *Thesus* where it belongs. I now add two new species having four-jointed antennæ and pertaining to section "bb" of Stal's synopsis of this genus in the 'Enumeratio,' V, p. 42.

***Pœcilometis stigmatus*, sp. nov.**

(Pl. VIII, fig. 3.)

Allied to *strigatus* in form and color. Pale yellowish testaceous, closely and quite uniformly punctured with ferruginous. Head with about seven longitudinal impunctate lines. Pronotum a little clouded with ferruginous near the fore border where there are about three pale longitudinal lines; lateral margins rather strongly sinuated, narrowly pale. Scutellum darker than the rest of the upper surface, three points on the base and the apex pale. Punctures on the elytra more irregular, forming a more or less distinct oblique cloud behind the middle of the disk; membrane fuliginous with the apical margin and the nervures broadly hyaline. Tergum apparently blackish; connexivum pale. Beneath pale yellowish testaceous; stigmata, a round dot on the mesopleura, two smaller ones on the propleura, metasternum, and the median line and apex of the rostrum, black. Legs pale, more or less distinctly irrorated with ferruginous; apex of the posterior femora and tibiæ blackish above; claws black. Antennæ rufescent, apparently of four joints; basal ferruginous, obscurely irrorated with pale; second more than twice the length of the first, others wanting. Length to tip of the membrane 17-18 mm.; humeral width 7 mm.

In this species the rostrum passes the middle of the third ventral segment, the disk of the venter is impunctate but the sides have obsolete concolorous punctures; the propleura, the mesopleura and metapleura in part are coarsely punctate with ferruginous.

New South Wales. Described from one male received from Hermann Rolle and a female belonging to the American Museum of Natural History.

***Pœcilometis edwardsi*, sp. nov.**

(Pl. VIII, fig. 4.)

Broader and shorter than *strigatus*. Pale yellowish, clouded and punctured with fusco-ferruginous. Head rather short; median disk of the cheeks punctured and clouded with ferruginous brown, a longitudinal line on either side of the tylus, a broader arc interior to the eye, and a spot behind the ocelli, black. Base of the vertex with a geminate brown vitta either side of the pale longitudinal median line. Pronotum with a dusky longitudinal vitta either side of the middle, another within the pale latero-anterior margins, and one or two obsolete ones between these brown. Scutellum with the basal angles and apex pale, impunctate; posterior one half with an obsolete double pale longitudinal line. Elytra showing a more or less distinct blackish discal spot. Membrane fuligi-

nous broadly veined with hyaline. Tergum black, connexivum narrowly pale. Antennæ black, four-jointed; apical two joints paler with their bases broadly fulvous; second joint nearly twice the length of the first, third shorter, fourth about equal to the first. Beneath pale yellowish-testaceous, pleural pieces sparsely punctured with dusky. Venter with a few scattering large black punctures; stigmata, a dash on the basal middle of the sixth ventral segment in the female, a round dot on the metapleura, and two smaller ones on the propleura, black. Rostrum reaching only to the base of the second ventral segment, its tip black. Legs pale, femora with coarse blackish punctures, a line on the anterior and intermediate femora toward their apex, apical upper surface of the posterior, tips of the tibiæ, and apical joint of the tarsi, black. Length 16 mm.; humeral width 7 mm.

Described from three female examples in the American Museum material that were taken in Victoria, and one female received from the National Museum bearing the label "Williamston, 22-10-88, Tepper." This insect I would identify with Stal's *Eumecopus punctiventris* were it not that it is smaller and is a typical *Pæcilometis*, and not an *Eumecopus* at all. Stal certainly would not have confused the species in these two genera. *Edwardsi* may be distinguished by its broader form and shorter rostrum.

Aglaophon varius Stal. — The American Museum collection has one pair of this pretty species. The female is a little broader than the male, the pronotum is blackish with a broad median and a narrow lateral vitta pale and black-punctate, the former with two short approximate longitudinal black lines behind the pale anterior margin; the intervening broad black vitta is marked with a few pale dots arranged as a broken longitudinal line. Scutellum mostly black with a few pale marks on the sides and median line. Elytra more cinereous with two blackish patches on the disk and another at the apex. Lower surface yellowish testaceous; a submarginal lateral vitta, mesosternum, and a small spot at the base of each ventral segment either side of the median sulcus, black. Pale base of the apical two joints of the antennæ much broader than in the male. The male agrees very closely with Stal's description except that the color of the venter and of the dark markings above is dark chestnut rather than black. In this species the basal joint of the antennæ scarcely exceeds the tip of the tylus, and the fifth joint is obviously shorter than the third and fourth joints. The connexivum is pale with the incisures and a few punctures blackish. The present specimens are labelled "New South Wales."

Sciocoris indicator Walker? — One example that I hesitatingly identify with Walker's species is in the material sent by Dr. Howard,

from the National Museum. This individual is but 4 mm. in length and agrees quite closely with Walker's description but I would not call the "head much longer than broad," nor would I describe the cheeks as "pointed," although they are oblique at their broad apex and the inner angle is subacute before the apex of the tylus. This specimen is labelled "Burnside, 5-7-84, Tepper."

***Menestheus nercivus* Dallas?** — The American Museum lot contains two examples that I place here with some doubt. Both agree very closely with Dallas's description in form and one has the same subferruginous color, the other is pale or grayish. The brown punctures tend to form an ill-defined vitta within the lateral margins of the head and pronotum, and a median less distinct band on the base of the head; the inner margin of the cheeks, an obsolete median line on the tylus extending to the base of the head, an oval spot between the eye and the ocellus, the callosities, about five indistinct longitudinal vittæ on the scutellum, and the elytral nervures are impunctate and obscurely calloused. Beneath the punctures form a faint longitudinal vitta next the margins and including the black stigmata, and about midway between this vitta and the median line is a similar but fainter vitta including a row of black points—about five on the pectoral pieces and four that are elongated and impressed, situated on segments three to six of the venter. The fourth and fifth joints of the antennæ are elongated and much thicker than the others, and the rostrum attains the posterior coxæ. Most of these characters are obscure and might readily have been neglected by Dallas, but it seems singular that he should have mentioned the black impressed points on the basal angles of the scutellum and have overlooked the equally distinct row interior to the stigmata. In this species about a third of the length of the head projects before the buculæ. Both specimens before me are males and measure 13 and 14 mm. in length, the apex of the genital segment is strongly trisinate with the median sinus broader and deeper than the lateral, and the enclosing angles prominent and subacute. The dorsum of the abdomen is dark ferruginous brown with the margins broadly pale. Taken in New South Wales.

***Menestheus brevis*, sp. nov.**

(Pl. VIII, fig. 5.)

Closely allied to the preceding but proportionately broader and shorter and with the head less attenuated anteriorly. Pale ferruginous, rather closely and coarsely, but irregularly punctured above, these punctures forming three broad blackish vittæ on the head, one medial and two marginal, the former

bisected by an indistinct pale longitudinal line that is distinguishable across the pronotum and on to the tip of the scutellum. Beyond the middle of the scutellum this vitta becomes slightly raised or calloused. Basal angles of the scutellum with an impressed black point within which is a small oblique pale callous. Beneath with two longitudinal vittæ of blackish punctures, one submarginal including the black stigmata and becoming subobsolete on the ventèr, the other interior to this and more pronounced but wanting the black points so conspicuous in *nercivus*. Legs, antennæ, and rostrum concolorous, the last with the median line and apex black and attaining the posterior coxæ. Length 10 mm.; humeral width 4 mm.

This species may be distinguished from the preceding by the form of the head, which is much shorter and more rounded at apex while it exceeds the buculæ by about the length of the basal joint of the antennæ. The edges of the head are very feebly sinuated before the eyes and well rounded toward the apex. The apex of the genital segment of the male has a deep subangular median sinus, with the outer angles obtusely rounded. The genital valves of the female are obtuse at apex.

Described from one pair in the American Museum collection, labelled "New South Wales."

Eribotes australis Dallas. — Two examples of this small obscure species are in the American Museum material. These, which are from New South Wales, agree very closely with Dallas's figure and description but are paler with the dark markings but poorly defined.

Cephaloplatys spurcatus Walker. — Two examples are in the American Museum lot. They are dark brownish fuscous above, but they are badly greased and the color has probably been darkened. This species may be distinguished from its congeners by having the expanded latero-anterior margin of the pronotum serrated. These specimens are from New South Wales.

Dictyotus cænosus Westwood (= *vilis* Walker, = *polystictus* White). — Mr. G. W. Kirkaldy has sent me specimens of this species taken in New Zealand and the present collection contains material from the same country and others from Victoria and New South Wales. It seems to be a common and widely distributed species. It is very uniformly colored but some specimens exhibit a slight gathering of black punctures near the anterior angles of the pronotum; the antennæ have the three last joints black; the rostrum reaches the intermediate coxæ; sometimes the scutellum has three very obscure pale dots on the base, and its calloused apex is paler and bisected by a wedge of black punctures in the darker examples; the lower

surface and femora are more strongly punctured than in some of the species known to me. In this species the head is broad and flat, the cheeks are very feebly sinuated and obscurely whitish on their margins before the eyes, and at their apex they meet or almost meet before the apex of the tylus.

Dictyotus bipunctatus Dallas. — I have received one example bearing this name, from the National Museum. It agrees very well with Dallas's description, except that the antennæ are black, with the first joint and base of the second only pale, and the whitish latero-anterior edge of the pronotum is broad. It is labelled "Karabba, under logs, etc., 9-11-86."

Dictyotus roei Westwood. — According to Dr. Distant this is *Dictyotus affinis* of Dallas. It is a little smaller than *æqualis* and has more prominent humeri. It is more closely related to *cænosus* but the head is broader anteriorly with the sides more deeply sinuated and the apex distinctly emarginated; the antennæ have the fifth joint and the apical three fourths of the fourth only black; the latero-anterior margins of the pronotum are very narrowly pale and sometimes obscurely interrupted with blackish before the humeri; there is a pale point within the impressed black basal angles of the scutellum and its apex is narrowly tipped with pale. The genital and sixth segments have about the same form as in *cænosus*. The base of the venter has a black spot on each side of the second segment, and the sternum is quite broadly black. In this species the veins of the membrane are but little reticulated toward their base.

There are five examples labelled "Victoria" and "South Australia" in the American Museum material.

Dictyotus æqualis Walker. — Dr. Distant informs us that this is the *Dictyotus roei* of Dallas but not of Westwood. It is more regularly oval than any of the other species known to me, and bears a strong resemblance to the North American *Peribalus limbolarius*. The upper surface is roughly punctured and much obscured in places with blackish, especially on the sides of the head and within the lateral margins of the pronotum; the latero-anterior margins of the pronotum, base of the costa, and apex of the scutellum are more conspicuously pale than in the other species known to me, and the two apical joints only of the antennæ are black. Beneath the surface is paler and sprinkled with rufous points and there are three black points on each side of the sternum. The scutellum has three pale points on its base and there is a blackish punctured area on either side bounding the pale apex. In the male the sixth segment is

rounded and scarcely produced anteriorly, not strongly and almost acutely produced as in *cænosus*.

One pair of this species is in the American Museum material. The male is from Victoria and the female from South Australia.

Dictyotus laticeps Walker (*Pentatoma laticeps*, Catalogue Heteroptera, II, p. 308, 1867). — This is a larger species than *cænosus*, and may be at once distinguished by having the veins of the membrane simple or simply forked; the head is broad and short, narrow and rounded before, with the cheeks almost meeting before the apex of the tylus, and marked with a large blackish cloud which sends back a broad vitta enclosing the ocelli. The pronotum is transversely corrugated, especially between the humeral angles, with the sides narrowly pale and bordered within by a blackish cloud; the scutellum has the usual blackish pits at the basal angles and between these three obscure pale points, and the tip is rather narrow, obtuse, and concolorous; elytral costa pale at base, within which is a faint blackish ray; connexivum concolorous with but a narrow vitta on the hind edge of each segment; beneath the color is paler with the stigmata, three dots on the pleural pieces, and the tip of the rostrum black. The antennæ are in poor condition in the only specimens I have seen, but they seem to have the apex of the second and third joints, the fourth except its base, and the fifth, black.

I cannot find that this species has been recognized by recent entomologists, but possibly Dr. Distant has reported on it in his Rhynchotal Notes on the Pentatomidæ of the British Museum, a paper that unfortunately I have thus far been unable to procure.

Two females in the American Museum collection are from Victoria and a male in the National Museum lot was taken in Australia by Tepper, November 20, 1883.

Dictyotus ? pallidus, sp. nov.

(Pl. VIII, fig. 6.)

Form and aspect of the North American *Thyanta rugulosa*. Whitish testaceous, a little darker on the apex of the antennæ and tarsi; tip of the rostrum piceous.

Above finely and rugosely punctate; pleural pieces coarsely punctate, venter almost smooth; punctures concolorous or nearly so. Head long, apex broadly rounded, sides deeply sinuated, cheeks exceeding the tylus and contiguous before its apex; ocelli placed near the eyes. Antennæ, basal joint not attaining the apex of the head, second longest, third little longer than the first, fourth and fifth somewhat thickened, fourth nearly as long as the second, fifth a little shorter. Pronotum broad, sides deeply sinuated, leaving the humeri

prominent but obtuse; scutellum long, apex obtuse, basal angles without the impressed fovæ; elytra broad, but little narrower than the abdomen; membrane closely reticulated. Rostrum reaching the posterior coxæ, second joint distinctly longer than the third. Sternum ecarinate. Osteolar canal long but truncated at its apex, not gradually evanescent. Venter smooth on its disk with a row of large dusky points close to the apical margin of the third and fourth segments, the sides with coarse shallow punctures. Legs obscurely dotted with brown; tibiæ sulcate, second tarsal joint very short. Length 7-8 mm., humeral width $4\frac{1}{2}$ -5 mm.

New South Wales. Three examples are in the American Museum material. This insect is not a typical *Dictyotus*. It wants the impressed fovæ at the basal angles of the scutellum and has a longer osteolar canal. It differs from the American *Thyanta* in the reticulated membrane and the longer contiguous cheeks. From *Liotropis* it differs in the unarmed second ventral segment. Judging from its pale color it probably is an inhabitant of the arid sandy deserts of Central and Southern Australia.

Anaxarchus pardalinus *Stal.* — I have received several examples of this fine species from Hermann Rolle that were captured in New South Wales. They may be recognized by their fulvous color, punctured with black above, and the alternated connexivum. The apex of the scutellum is bright fulvous and the basal angles have a black pit next to a pale callous. The antennæ are black with the apical joint fulvous. The legs and lower surface are orange fulvous with seven rows of black spots on the venter, those of the median row larger.

Eysarcoris sp. — I possess a single example of a species of *Eysarcoris* that I have been unable to determine.

Agonoscelis rutila *Fabricius.* — The American Museum material includes two examples of this common species from New South Wales and two from Darnley Island. My own material is from Tomia and the Key Islands.

Aplerotus maculatus *Dallas.* — The material received from the National Museum contains one example of this species taken in Australia by Mr. Koebele. This specimen is rather pale in color and possibly is not fully developed.

Catacanthus nigripes *Sulz.* — Two examples in the American Museum lot are labelled "Queensland, 341." This species and *carrenoi* are very closely allied. *Stal* distinguishes the latter by its having the apex of the membrane pale beyond the end of the abdomen. *Carrenoi* is represented in my collection by specimens from the

Philippines and the island of Tomia; *nigripes* I have from Java. Both are brightly colored and showy insects.

Commius elegans *Donovan*. — The American Museum lot contains a pair of this very pretty species from Victoria and New South Wales. It has much the aspect of the South American genus *Rumibia*.

Anaxilaus camatulus *Dallas*. — New South Wales. Two examples are in the American Museum material. These agree exactly with the specimen in the Holm Museum described by Stal (*Enumeratio*, V, p. 90). From the National Museum I have received a specimen that is considerably darker, the pronotum and elytra being closely covered with dusky punctures, making a transition from the pale Australian variety mentioned above to the dark form figured by Herrich-Schæffer.

Hyrmine dispar *Westwood*. — New South Wales. Three examples in my collection were received from Hermann Rolle. This insect is intensely black with an orange abdomen.

Plautia affinis *Dallas*. — Four examples of this species in my own collection were taken in Townsville, Queensland, by Mr. F. P. Dodd. This species is most closely related to *fimbriata* but may be distinguished by its paler colors, and its coarser and stronger punctuation. All my specimens have a conspicuous black spot on the disk of each elytron, and the edge of the abdomen is dotted with black as in *fimbriata*.

Plautia brunneipennis *Montrouzier*. — This insect resembles *fimbriata* even more strongly than does *affinis*. It has the same size, form, and color, but it is more strongly punctured, the apical margin of the scutellum is pallid, and the edge of the abdomen is without the black points found in that species and *affinis*. The American Museum material contains two examples from New South Wales and one from Brisbane, Queensland.

Zangis montrouzieri *Lethierry & Sevrin?* — This species was listed as *Rhaphigaster sulcatum* by Montrouzier and Signoret in *Ann. Soc. Ent. Fr.*, ser. 4, Vol. I, p. 65, 1861, but without a word of description, supposing it to be the same as *Pentatoma sulcata* of Montrouzier. Stal, probably by an examination of the type, discovered that it was distinct and lists it so in the 'Enumeratio' (V, p. 93), and distinguishes it from the species of Montrouzier by its being destitute of the black spots toward the apex of the ventral segments and the brown spots on the base of the venter. I have not yet seen the description by Montrouzier, but believe it very probable that the present specimens belong to the form renamed by Lethierry and Sevrin. The

two examples now before me are from the American Museum lot and were taken in Victoria. They are pale olivaceous testaceous with the apex of the scutellum fulvous, the membrane infuscated, and the antennæ fulvous with the apical joint black; the stigmata and tip of the rostrum are also black. The sternal keel reaches the anterior line of the prosternum where it is a little higher. It is a tiny and inconspicuous species when compared with the splendid *Zangis guineensis* from tropical Africa.

Antestia oliva, sp. nov.

(Pl. VIII, fig. 7.)

Allied to *notia* Dallas. Olive green and blackish varied with yellow and obscure orange red. Head yellowish tinged with fulvous with a line on either side of the tylus more or less expanded over the base of the vertex and a spot between the eye and ocellus, black; surface either side of the middle line with irregular large blackish punctures. Antennæ rufopiceous or almost black, basal joint not reaching the base of the head, second and third subequal, fourth longest. Pronotum olive green, regularly and strongly punctured with black, anterior and lateral margins, and sometimes the posterior, narrowly edged with pale; the lateral margins tinged with rufous before the humeri; disk anteriorly with an orange red indefinite spot. Scutellum paler, more closely punctate with black, the base blackish, behind this an oblique orange red ray enters from each basal angle but does not attain the median line, tip pale and impunctate. Elytra pale olivaceous, strongly punctured with black and with a blackish cloud near the inner angle, the costa, at least in part, the apical margin, and a longitudinal calloused ray following the discal nervure and bent inwardly at apex, dark orange red. Membrane fuliginous with the limb pale. Tergum black, narrowly edged with pale. Beneath pale ferruginous yellow tinged with olivaceous along either side, where the surface is sprinkled with strong black punctures, disk and margins of the venter smooth and impunctate. Rostrum reaching the hind coxæ, black at apex. Legs pale, the femora and tibiæ becoming more or less blackish toward their apex, tarsi brown. Length 8 mm., humeral width 5 mm.

Described from two females received from the American Museum, that were taken in New South Wales. This is a very pretty species, with its pale olive surface closely sprinkled with deep black punctures and marked with obscure orange-red on the pronotum, scutellum, and elytra.

Apines geminata, sp. nov.

(Pl. VIII, fig. 8.)

Piceous brown, closely and in places irregularly punctured. Head broad, roundly truncated at apex, the sides rather strongly sinuated before the eyes, lobes of equal length; edges of the cheeks, some vermiculate marks on their

disk and the median line of the tylus pale and calloused. Antennæ somewhat clavate, basal three joints slender, fulvous, fourth and fifth thickened, black, fulvous at base; first joint very short, not attaining the apex of the head, second scarcely longer, third and fourth subequal, fifth longest. Pronotum, sides broadly fulvous, anterior and posterior margins very narrowly pale, disk anteriorly with two roundish white impunctate approximate spots. Scutellum with a broad submarginal vitta reaching from the base to beyond the middle, pale and impunctate; apex with a large pale spot enclosing an irregular black mark. Elytra paler exteriorly with a few fulvous reticulations and a whitish subangular spot close to the middle of the apical margin. Membrane fuliginous. Tergum black, edge of the abdomen both above and below broadly rufous with a conspicuous black point at each incisure. Beneath soiled whitish; pleuræ with a double row of black points and there is a similar point on the base of the embolium; venter a little darker toward the sides, the stigmata and the marginal dots already mentioned black. Legs pale, outer edge of the tibiæ with a row of black points and there are three or four larger dots near the apex of the femora. Length 7 mm., humeral width $3\frac{1}{2}$ mm.

Described from two female examples labelled "New South Wales." This species agrees in all generic characters with *Apines concinna* Dallas, but its specific characters are quite distinct. Perhaps the most important of these are the round dots on the pronotum anteriorly and the triangular ones on the apical submargin of the elytra. Dallas's species inhabits India; the addition of the present form extends the range of this genus to correspond with that of the related genera *Antestia* and *Menida*.

Piezodorus rubrofasciatus *Fabricius*. — In the American Museum material are two examples of this species that were taken in New South Wales and in my own collection are three individuals taken by Mr. Dodd at Townsville, Queensland. This species has a wide distribution, having been recorded from Africa, India, and throughout the islands of the Pacific from Java and Australia to Japan and the Hawaiian Islands.

Cuspicona carneola, sp. nov.

(Pl. VIII, fig. 9.)

Rather broad oval. Head and pronotum quite strongly declinate. Fulvous tinged with rosaceous on the scutellum and elytra, and with a band connecting the humeri, the costa at base and the narrow edge and broader tip of the abdomen rosaceous; a geminate spot on the fifth, the narrow edge of the sixth tergal segment, a minute point on the edge of the abdomen at each incisure, and the tip of the rostrum, black. Membrane slightly fuliginous with the base clearer, and with a round fuscous spot near each inner basal angle corresponding to the black tergal spot; beneath paler, apex of the tibiæ and last joint of the tarsi tinged with ferruginous. Stigmata pale. Length 11 mm., humeral width $6\frac{1}{2}$ mm.

The whole surface of this insect is closely, evenly, and rather deeply punctured except the venter which is obscurely aciculate. The punctures on the head are fewer and disposed in transverse rugæ, and those in the transverse frontal band show a tendency to become fuscous. The callosities and an irregular area between the eyes and the small piceous ocelli are smooth. Second and third antennal joints subequal, fourth and fifth longer and a little thicker. Rostrum very slightly exceeding the posterior coxæ. Sternal carina well elevated and rounded anteriorly where it slightly surpasses the emargination of the calloused anterior edge of the prosternum. Ventral spine short and acute, hardly reaching between the posterior coxæ. In the male the apex of the sixth ventral segment is feebly sinuated across the middle and the apex of the genital segment is deeply sinuately emarginate, with the outer angles obtusely emarginate, the valves are long and straight across their apex, the inner plates are narrow and subacute, and the outer plates are very obtusely angled at apex.

New South Wales. This species answers in many respects to Westwood's description of his *Rhynchocoris roei* (Hope Catalogue, I, p. 30, 1837) but he indicates a shorter third antennal joint and omits to mention certain markings it seems impossible he would have neglected. This new species pertains to section "bb" of Stal's synopsis in the 'Enumeratio,' V, p. 103.

Cuspicona thoracica. Westwood. — In the American Museum lot are three examples of this little insect, two from Victoria and one from New South Wales. The broad band of black punctures connecting the acute humeri will distinguish this species.

Cuspicona beutenmülleri, sp. nov.

(Pl. VIII, fig. 10.)

Form and size of *thoracica* nearly, from which species it differs principally in having the hind margins of the pronotum much more deeply concavely arcuated before the base of the scutellum, in wanting the well defined band of black punctures between the humeri, in having the apex of the scutellum broadly pale and nearly impunctate in place of a median apical pale vitta, and in having the venter quite strongly and distinctly keeled, not broadly and roundedly gibbous. The whole upper surface is of a shining testaceous fulvous with large concolorous punctures which become more or less blackish on and behind the humeral horns, across the posterior disk of the pronotum, and on either side of the scutellum behind the middle. The fourth and fifth antennal joints are obviously longer and darker than the preceding while in *thoracica* they are subequal in length; the venter is paler and the broad margins are darker than

in its ally, and the intermediate and posterior femora are distinctly punctured with blackish. Length 9 mm., humeral width 6 mm.

Described from one female example in the American Museum taken at Victoria. Although very close to *thoracica* I feel no doubt of its being distinct.

Cuspicona rufispina Stal.—Stal described this species from one male example from the Philippine Islands and the American Museum possesses a female from New South Wales that agrees in every particular with this description. In this species the rostrum reaches the base of the third ventral segment; the sternal keel is convexly elevated between the anterior coxæ, before which it is rounded upward, bringing its free apex against the anterior edge of the prosternum; the basal valves of the female genital segment are concavely arcuated either side of their truncated apex, the apical plates are obtuse and abruptly tipped with a minute black tooth as are the apices of the abdominal segments, and the punctuation of the pronotum and venter while large and close is neither deep nor well defined. The punctures of the head show some tendency toward a transverse rugose arrangement anterior to the eyes.

Arvicenna inquinata Westwood. — The American Museum material includes one male and three female specimens of this species from New South Wales. At first sight this species is scarcely distinguishable from *Cuspicona rufispina* but on a closer examination may readily be differentiated by its narrower form, the broader impunctate head, the more obtusely rounded latero-anterior margins of the pronotum, the produced posterior pronotal angles, the shorter scutellum, the darker punctures on the pronotum and scutellum, the shorter rostrum, the more straight and produced sternal keel, the smooth venter, and the very different genital characters. The form of the humeri and the colors are practically identical.

Distant founds this genus in his paper on the Pentatomids of the Hope Collection (p. 815), where he also gives a very good figure of it (pl. LIII, fig. 1). Generally speaking it agrees with *Morna*, its nearest ally, in its smooth head, the shape of the sternal keel, and in the produced apical angles of the sixth ventral segment of the female. It differs from Stal's description of his genus *Morna* by the impunctate venter and the obtuse posterior angles of the pronotum.

Birorulus bibax Breddin.—Ent. Nachr., XXVI, p. 31, 1900.

(Pl. VIII, fig. 11.)

Color a uniform ferruginous testaceous, anterior edges of the humeral spines and a spot at the apical angle of each abdominal segment black.

[July, 1905.]

Head long, narrowed toward its apex, the sides nearly straight, cheeks produced before the tip of the tylus, their apex subacute, hardly contiguous; ocelli very near to the eyes; buculæ little elevated, percurrent, becoming evanescent toward the posterior margin of the head. Antennæ: first joint shorter than the head, second a little longer, third at least twice the length of the second, remaining joints wanting. Pronotum strongly declined anteriorly, sides very oblique, anterior margin short, deeply emarginate for the reception of the head, humeral angles produced in long slender very acute and somewhat upturned spines; posterior margin deeply arcuated leaving the posterior angles prominent but obtuse. Scutellum large, passing the middle of the abdomen, apex rather narrow, rounded. Apical angles of the abdominal segments produced in short acute spines. Rostrum long, reaching onto the sixth ventral segment; first joint attaining the base of the head, second scarcely so long as the third but exceeding the fourth. Sternal keel well elevated, rounded anteriorly, its subacute apex attaining the base of the head, closely appressed to the prosternum. Tibiæ terete, subacute at apex. Osteolar canal long, forming an evanescent channel. Median line of the venter smooth and almost keeled, its base produced in a short tubercle which rests in a notch in the posterior end of the sternal keel. Head, pronotum, scutellum, and pleural pieces, closely, rugosely, and confluent punctured; the elytra finely and closely punctured. Membrane with 12 to 14 parallel and straight nervures. Length 20 mm., humeral width 15 mm.

Described from two female examples in the American Museum lot, labelled "New South Wales, 342." This insect goes directly to genus *Pugione* in Stal's synopsis of 1867 but in part five of the 'Enumeratio' he says "Margine postico pronoti subtruncato," which is hardly true of this species. It is a much larger and very different insect from *Pugione flavescens* Haglund. The latter has the humeral angles triangularly produced, head obtuse, tylus percurrent, joints two and three of the antennæ subequal in length; in all which characters it is hardly congenic with the present species. Dr. Breddin has founded his genus *Birorulus* for this species, placing it near *Rhynchoris* rather than *Pugione*.

ASOPIDÆ.

Cermatulus nasalis Westwood. — The American Museum material contains a series of this common insect from Victoria and New South Wales and from New Zealand and the material in my own collection is from the latter country.

Æchalia consocialis Boisduval. — In the American Museum collection is a good series of this species from Victoria, New South Wales, and New Zealand, and I possess several taken at Townsville, Queensland, by Mr. F. P. Dodd in July, 1903.

TESSARATOMIDÆ.

Oncoscelis sulciventris *Stal.* — Two examples from New South Wales are in my collection and another taken in Australia by Professor Koebele is in the National Museum lot kindly sent me for examination by Dr. Howard.

Stilida indecora *Stal.* — The American Museum has one pair of this species from Queensland. The four-jointed antennæ will distinguish this insect from the preceding, which it greatly resembles.

Axona longitudinalis *Westwood.* — I possess two examples of this pretty insect from New South Wales and in the American Museum are two more from the same country.

Lyramorpha rosea *Westwood.* — I have a fully colored male of this species from New South Wales and the American Museum has an obscurely marked female from the same locality.

Plisthenes merianæ *Fabricius.* — *Stal* includes Australia among the localities for this species but the only specimens I have seen are a few in my own collection that were taken at Obi and the island of Buru.

DINIDORIDÆ.

Megymenum insulare *Westwood.* — A series of this insect, including both young and adults, is in the material taken by Mr. Dodd at Townsville, Queensland. This species seems to want the cupreous reflections so noticeable in *brevicornis*, *subpurpurascens*, *affine*, and *dentatum*, and probably in other species of this genus.

PHYLLOCEPHALIDÆ.

Phyllocephala tumidifrons, sp. nov.

(Pl. VIII., fig. 12.)

Broad ovate; flavotestaceous varied with black. Head large, base of the vertex strongly tumid, tylus nearly vertical; cheeks vertical at base then horizontally expanded before the tylus, subquadrate, distant and straight on their inner margins, their apices irregularly serrated with the outer angles a little rounded off, sides parallel, surface above concave; base expanded and serrated before the eyes with a short acute tooth at the outer angle. Ocelli close to the eyes. Pronotum broad, humeral angles rounded, not at all prominent; latero-anterior margin broadly expanded, reflexed and serrated, almost enclosing the eyes; anterior margin feebly emarginate and elevated on the tumid base of the vertex; behind this is a deep transverse black depression, then a discal transverse carinate line and between the humeri a similar but

stronger carinate line; the hind edge straight. Scutellum large, broad and rounded at apex, sides carinated and a little sinuated, the frenus reaching to about the middle; disk with two carinæ enclosing a black vitta. Elytra narrower than the abdomen with the nervures strongly raised, membrane attaining the apex of the abdomen, semipellucid, with fuscous nervures. Upper surface strongly punctate, rugosely so on the base of the pronotum and the scutellum. Pectoral pieces with strong dusky punctures. Venter obscurely papillate, with some indistinct punctures exterior to the stigmata. Antennæ rather short, the second joint hardly surpassing the apex of the head, third and fifth joints a little the longest, the others subequal. Rostrum reaching the intermediate coxæ, the first joint and about one half of the second concealed within the buculæ which are strongly elevated and a little higher posteriorly. Color pale flavotestaceous, the punctures blackish on the sides of the head, expanded margins and base of the pronotum, sides of the scutellum, and in places on the elytra; a spot behind the eye, a broad vitta within the expanded margins of the pronotum, the transverse depression on its disk anteriorly, a median vitta on the scutellum, a geminate median spot on the fifth and sixth ventral segments, a longitudinal vitta on the elytra, tip of the rostrum, the stigmata and a longitudinal vitta on the connexivum, black. Apex of the fourth and fifth joints of the antennæ, inner surface of the femora, extreme tip of the tibiæ, and a longitudinal vitta on either side of the venter and obscurely indicated on the pleura, brownish. Length 17 mm., humeral width 9 mm.

I have two examples of this species that were taken at Rolburne, Northwest Australia, and received by me from Hermann Rolle. It seems strange that this large conspicuous species should for so long have escaped notice. It is quite likely that a new genus will have to be founded for its reception but I do not care to do this now without having had an opportunity of examining the African species already described in this genus. I have included in this description most of the generic characters necessary to locate the species.

ACANTHOSOMIDÆ.

Anischys luteovarius Westwood. — One pair of this neat little species is in the American Museum material. They agree in every respect with Westwood's short but excellent description except that the stigmata are not black and there is a round black dot on either side of the third ventral segment at base and a similar one on the metapleura on either side. The present specimens are from Victoria.

Duadicus pallidus Dallas. — The American Museum possesses one pair taken in Victoria. The male agrees well with Dallas's description except that the base of the head and front of the pronotum are blackish. The female is a little paler than indicated by Dallas.

Andriscus cinctus, sp. nov.

Pale sea green; head, pronotum before, base of the scutellum, lower surface and base of the femora pale yellowish or tinged with green; base and apex of the antennæ and the tarsi tinged with brownish; base of the scutellum rufescent; slender lateral submargin of the pronotum and elytra and apex of the scutellum black.

Head triangular, apex rounded, surface transversely striated. Pronotum coarsely and sparingly punctured, humeral angles obtuse, not at all prominent; latero-anterior margins straight, carinate, the extreme edge pale; latero-posterior margins quite deeply excavated, posterior margin very feebly arcuated. Scutellum small, sides straight, apex narrow, obtuse, surface coarsely punctured posteriorly. Corium coarsely, sparingly, but evenly punctured. Membrane pellucid. Lower surface almost smooth; ventral spine surpassing the anterior coxæ, green and subacute at apex. Antennal joints subequal, the second and fourth perhaps a little longer. Rostrum attaining the hind coxæ. Apical angles of the sixth abdominal segment subacute. Length 9 mm., humeral width 4 mm.

Described from one female example from Victoria in the American Museum material.

Andriscus terminalis, sp. nov.

Pale yellowish-testaceous slightly tinged with green on the elytra and possibly on the base of the pronotum; apical margin of the elytra broadly sanguineous; antennæ, a small cloud on the anterior margin of the pronotum behind the base of the vertex, costal margin of the elytra and the scutellum obscurely rufous. Apex of the tibiæ and the tarsi a little embrowned.

Head a very little narrower than in the preceding species. Pronotum and scutellum coarsely and rather closely punctured, the latter with a distinct carina behind the middle; elytral punctures rather more distinct, especially on their disk. Ventral spine concolorous, passing the anterior coxæ, a little more slender than in the preceding species. Apical angles of the sixth ventral segment obtuse; pleural pieces and venter quite distinctly rugose. Apex of the genital segment broadly and feebly arcuated. Other characters essentially as in *cinctus*. Length 8½ mm., humeral width 4 mm.

Described from one male taken in Victoria in the collection of the American Museum of Natural History. This insect certainly cannot be the other sex of *cinctus* but like that species it belongs to the group having the humeral angles obtuse and not at all prominent. This group is represented by *bifasciculatus* of Reuter.

Amphaces languida Stal. — Victoria, Australia. Two examples are in the collection of the American Museum. As indicated by Stal this species varies from the generic diagnosis of Dallas in having the second and third joints of the antennæ subequal in length.

Edessa vittata Fabricius, which is apparently a common insect in

New Zealand, certainly pertains to genus *Acanthosoma* and not to *Anubis* where it is placed in the Lethierry and Sevrin Catalogue.

***Stictocarenum subrufescens*, sp. nov.**

Ovate, pale testaceous above, margins beneath, antennæ, and tibiæ, more or less tinged with rufous; upper surface strongly and quite closely punctured with sanguineous, these punctures becoming blackish on the base of the pronotum and apex of the scutellum; tip of the third joint and the fourth and fifth joints except at base, extreme tips of the corium, a round spot on the basal angle of the membrane, and median line and tip of the rostrum, black.

Head rather broad, apex rounded, surface finely punctured between oblique rugæ. Second joint of the antennæ longer than the first, more than twice the length of the third; fourth, fifth, and apex of the third a little thickened, minutely setulose; fourth longer than the fifth, subequal to the first which is much thicker and curved. Pronotum broad, latero-anterior margins nearly straight, humeral angles very obtuse, rounded, not wider than the elytra; callosities smooth and pale. Membrane almost pellucid. Buculæ scarcely elevated, reaching almost to the base of the head. Rostrum nearly attaining the posterior coxæ, basal joint much shorter than the head. Osteolar canal long, toward the apex a little curved anteriorly and elevated free from the surface of the metapleura. Ventral spine reaching almost to the intermediate coxæ and overlapping the end of the sternal keel. This keel not greatly elevated, almost straight beneath, feebly rounded between the anterior coxæ before which it projects about half way to the anterior margin of the sternum. Apical margin of the fifth ventral segment strongly sinuated and marked with a conspicuous round impressed black opaque spot on either side interior to the stigmata. Length 11 mm., humeral width 5 mm.

Victoria, Australia. Described from one female example in the American Museum collection. I feel no hesitation in placing this species in *Stictocarenum* although it differs from Stal's diagnosis in having the opaque ventral spot on the arcuated hind edge of the fifth segment and not on the anterior margin of the sixth segment as described by him.