

AUSTRALIAN HYMENOPTERA PROCTOTRYPOIDEA.—No. 5.

By ALAN P. DODD.

[Read October 14, 1926.]

This paper deals mainly with the family Scelionidae, and includes a revision of the genera *Mallatelia*, Dodd, *Neuroscelio*, Dodd, and *Mirotelenomus*, Dodd; several species are added to the first-named, and one new species to the last-named. New species are added in the genera *Apegus*, Foerster, and *Acolus*, Foerster, and a new genus is proposed in this family. In the Belytidae one new genus and two new species are described, and in Diapriidae one new species is included.

The author is indebted to the South Australian Museum for the loan of types for re-examination; five new species are described from material received for identification from that institution.

Family BELYTIDAE.

Neobetyla spinosa, n. sp.

♀. Length, 2.65 mm. Head, antennae, and the legs bright orange-yellow; thorax reddish-brown, darker on the metathorax and the sides; petiole of abdomen very deep brown; body of abdomen dusky-brown at base, bright orange for its posterior two-thirds, and with a faint dusky cross-stripe just beyond the middle; eyes black.

Head globular, smooth and shining, with scattered very long hairs; eyes small, not so long as their distance from the posterior margin; ocelli minute; antennal prominence very large and conspicuous. Antennae 15-jointed; scape long and slender; pedicel about twice as long as its greatest width; funicle joints a little narrower than the pedicel, 1 as long as the pedicel and over twice as long as wide, 2 distinctly shorter than 1, 6 as wide as long; club 7-jointed, the joints (except the last) distinctly wider than long, the first not as wide as the others. Thorax slender, narrower than the head, three times as long as its greatest width; smooth and shining, and with scattered long hairs; pronotum densely pubescent anteriorly; scutum longer than its greatest width, much narrowed in front, strongly depressed, the parapsidal furrows distinct; scutellum longer than wide, with a strong basal fovea; postscutellum with a median carina, and carinated margins; propodeum wider than long, with light pubescence, with a strong median carina, its posterior margin deeply concave, carinate, and terminating laterally in acute spined angles. Wings absent. Petiole of abdomen almost twice as long as wide, a little swollen in centre, laterally with fine pubescence and a few long hairs, its dorsal surface smooth and bordered by a light carina on either side; body of abdomen twice as long as its greatest width, much wider than the thorax; depressed at base, the depression margined by obscure carinae; surface smooth, with scattered long bristles; composed of four segments, of which 2 (first body segment) occupies most of the surface, 3 and 4 short and transverse, 5 conical and as long as its basal width.

South Queensland: Blackall Range, one female taken in March by H. Hacker. Type, in the Queensland Museum.

The genus *Neobetyla*, Dodd, formerly contained two species, *N. pulchricornis*, Dodd, and *aurea*, Dodd, from North Queensland. *Spinosa* at once differs in the spined posterior angles of the propodeum, which is more lightly pubescent than in the other two; the antennae, too, are uniform in colour in this species. The

parapsidal furrows appear to be truly absent in *aurea*, faint in *pulchricornis*, and rather distinct in *spinosa*.

Acanthobetyla, n. gen.

♀. Head normal for the family; subglobular, the eyes small, the frontal prominence very large and conspicuous; ocelli absent; in the centre of the vertex between the eyes is a pair of erect short teeth. Antennae normal, 15-jointed, the scape slender, the club 5- or 6-jointed. Thorax strongly narrowed, its sides subparallel; pronotum long, armed on either side in front with a sharp erect tooth; scutum narrow, longer than wide, strongly depressed, the parapsidal furrows absent; scutellum long, narrow, almost as long as the scutum, strongly depressed, its lateral margins raised and carinate; postscutellum short, depressed, its lateral margins raised and carinate; propodeum rather long, armed laterally with dense stiff comb-like setae. Forewings reaching apex of abdomen; broad; without marginal and discal cilia, and quite without venation; not limpid but yellow, opaque, and parchment-like with a transverse fold or impression before one-half its length, and two longitudinal impressions in the distal portion; distal margin concave. Hindwings linear, bristle-like, reaching to the apex of the petiole. Petiole of abdomen somewhat longer than wide, somewhat humped, its sides with stiff setae; body of abdomen of four visible segments, of which the basal segment occupies most of the surface; three times as wide as the thorax, and twice as wide as the head; less than twice as long as its greatest width; sharply incised at base to receive the petiole.

Type, *A. mirabilis*, described herewith.

A very peculiar genus on account of its unique wings, of which it is rather difficult to give an adequate description. The narrowed thorax with its reduced depressed sclerites is typical of wingless genera such as *Betyla*, Cameron, and *Neobetyla*, Dodd.

Acanthobetyla mirabilis, n. sp.

♀. Length, 2.40 mm. Wholly bright ferruginous, including the legs and antennae.

Body smooth, without sculpture. Antennal scape as long as the next six joints combined; pedicel one-half longer than its greatest width; funicle joints smaller and a little narrower than the pedicel, all somewhat longer than wide, 1 a little the longest; apical five or six joints gradually widening to form an ill-defined club, of which the three penultimate joints are plainly wider than long, the apical joint conical and longer than wide.

North Queensland: Cairns district, one female taken among fallen leaves. A. M. Lea. Type, in the South Australian Museum.

Family DIAPRIIDAE.

Propentapria pulchella, n. sp.

♀. Length, 2.40 mm. Black, the abdomen washed with red at apex; coxae dusky-brown, the legs bright red, the apical portion of the femora and tibiae somewhat dusky; antennal scape fuscous, red at base, the pedicel dusky, the next seven joints bright red, the four apical joints black.

Head normal, subglobular; from dorsal aspect twice as wide as long; eyes small, from dorsal aspect not as long as their distance from the posterior margin; surface smooth and shining, with a few scattered small punctures giving off very long fine hairs. Antennae rather shortly pubescent; scape long and slender, somewhat curved; pedicel twice as long as its greatest width; funicle 1 a little narrower and no longer than the pedicel, 2-6 gradually shortening, 6 somewhat longer than wide; club ill-defined, 4- or 5-jointed, gradually widening to the penultimate, the joints as wide as long, the apical joint twice as long as the preceding. Thorax shining.

smooth, with scattered long hairs; pronotum very short medially, long laterally; scutum not as long as its greatest width, its anterior margin strongly convex, the parapsidal furrows rather delicate but complete; parapsides feebly depressed and with a foveate groove along the outer margin; scutellum longer than wide, the basal fovea much wider than long, subdivided by three carinae into four foveae; lateral margins of scutellum with an obscure groove; propodeum long, at base with a short raised tooth, its dorsal surface smooth with a pair of median carinae which join at base; propleurae with a foveate line near the posterior margin; mesopleurae quadrate, with a delicate groove against the dorsal margin; metapleurae with dense white pubescence, smooth at base, coarsely rugose-punctate for the rest. Forewings reaching a little beyond apex of abdomen; broad; subhyaline, with three brown bands as follows: a narrow band at the basal vein, a broad band suspended from the marginal and stigmal veins, and a broad less definite band toward the apex; venation dark; marginal vein linear, one-fifth as long as the submarginal, several times as long as the short stigmal vein. Petiole of abdomen $2\frac{1}{2}$ times as long as wide, with four dorsal carinae, the sides shortly pubescent and with a few long setae; body of abdomen slender, depressed at base, pointed at apex, the oviposital valves protruding for some distance; segment 2 (first body segment) over twice as long as 3-6 combined; 3 and 4 very short and transverse; 5 rather long; 6 one-half as long as 5; 5 and 6 with a row of long hairs at apex, 5 with a few long hairs at base.

South Australia: Mount Lofty, one female, A. M. Lea. Type, in the South Australian Museum.

I have recently (Linn. Soc. N.S. Wales, 1926) discussed the genus *Propentapria*, Dodd. The species described above differs from the three previously known species in the fasciate wings, and in the basal fovea on the scutellum being 4-foveate instead of 5-foveate.

Family SCHELIONIDAE.

Nyleta, n. gen.

♂, ♀. Head, from dorsal aspect, no wider than the thorax, much wider than long, its posterior margin straight; from lateral aspect, the frons is lightly convex, the vertex sharply declivous from a little behind the lateral ocelli; from frontal aspect, wider than deep; frons not or hardly depressed above the antennal insertion, with a median carina running from the frontal ocellus, and dividing in the centre of the frons into two branches, which run to either antennal insertion; eyes large, bare; ocelli large, close together and separated from the eye margins by their own diameter; mandibles tridentate. Antennae 12-jointed in both sexes; bulb long, the scape slender; in the male, the flagellum filiform, the joints long and slender; in the female, with a 6-jointed club, the first two funicle joints very long. Thorax stout, from dorsal aspect slightly longer than its greatest width, from lateral aspect slightly longer than high, convex above; pronotum not visible from above, except as a thin line laterally; scutum stout, convex, its anterior margin truncate, the latero-anterior margins very oblique; parapsidal furrows absent; scutellum large, semicircular, with foveate anterior and posterior margins; postscutellum short, transverse but rather prominent, its posterior margin concave; propodeum declivous, short, its lateral margin carinate, its lateral angles prominent, its posterior margin straight and carinate for some distance, this carina joining a fainter carina which runs obliquely outwardly from the base, the meson depressed and in the female hidden by the abdominal prominence, no true lateral carinae are present; spiracles unusually large and prominent, situated in the anterior angles of the propodeum; mesopleurae large and broad, the depression rather small, the area below and in front of the depression rather well developed; metapleurae much smaller than the mesopleurae. Forewings extending

beyond apex of abdomen; broad; normal; submarginal vein joining the costa at fully one-half the wing length, the marginal vein a little shorter than the long stigmal vein which is a little convexly curved, the postmarginal three times as long as the stigmal; basal and median veins faintly marked. Legs slender, the last two pairs long; meso- and metacoxae close together and widely separated from the anterior pair. Abdomen regularly fusiform, the apex pointed in the female, blunt in the male; somewhat longer than the head and thorax united; segments 2 and 3 longest, 2 a little longer than 3, each a little shorter than its greatest width; basal segment in female with a short blunt prominence at base.

Type, *N. striaticeps*, described herewith.

This genus is erected to contain a species which is not congeneric with any known Australian form, and which I am unable to place in a satisfactory manner. It has no very striking features; the distinguishing characters are the truncate anterior margin of the scutum, the large spiracles of the propodeum, the large ocelli situated close together, and the median carina of the frons. In some respects it resembles *Hoploteloida*, Ashmead, but that genus has a deep margined frontal depression, and the parapsidal furrows are complete. The abdomen is more regularly fusiform than in any of the Australian species of *Baryconus*, Foerster.

Nyleta striaticeps, n. sp.

♀. Length, 2.90 mm. Black; legs, including the coxae, bright golden-yellow, the tarsi dusky; antennal scape and pedicel clear yellow, the first two funicle joints suffused with yellow, the remaining joints black.

Frons on either side with several strong striae that extend from the mouth to the lateral ocelli; surface on either side of the median carina irregularly rugose above, smooth below; between the ocelli the surface is rugose; behind the ocelli are strong transverse striae, between which are dense shallow punctures bearing a conspicuous pubescence of long fine hairs; frons without pubescence; cheeks rather densely punctate and with light pubescence, striate toward the mouth. Antennal scape long and slender; pedicel more than twice as long as its greatest width; funicle 1 more slender and twice as long as the pedicel; 2 two-thirds as long as 1; 3 one-half as long as 2; 4 somewhat longer than wide; club slender, the joints as long or a little longer than wide. Scutum and scutellum densely sub-confluently punctate, the punctures moderately small, and with a pubescence of fine hairs; mesopleurae punctate, the depression smooth centrally, foveate-striate along its margins; metapleurae with a median carina, smooth above the carina, striate below the carina, punctate against the coxae. Forewings lightly stained; venation deep yellow. Segment 1 of abdomen striate, its prominence smooth; 2 at base with strong striae which gradually fail posteriorly, laterally without striae but with numerous small punctures, and there are scattered punctures on the posterior half dorsally; 3-6 with numerous moderately dense punctures, which become smaller apically; all punctures bearing fine setae.

♂. Frons narrowly smooth on either side of the forks of the median carina, laterad of this smooth area with several strong longitudinal striae which curve and join the median carina above the forks; punctures of scutum confluent; striae absent on the metapleurae. Antennal scape clear yellow, the pedicel dusky-yellow, the flagellum black; pedicel fully twice as long as its greatest width; flagellar joints shortly densely pubescent; 1 twice as long as the pedicel, 2-9 gradually decreasing in length, 9 one-half as long as 1. 3 slightly excised on one side towards base.

South Queensland: Mount Tambourine, 2,000 feet, one female, three males, in January and April, A. P. Dodd. Type and allotype, in the Queensland Museum. Paratypes, in the South Australian Museum and the author's collection.

NEUROSCELIO, Dodd.

Archiv. für Naturgeschichte, Berlin, 79, Sept., 1913, p. 170.

♀. Head normal; from dorsal aspect much wider than long; eyes moderately small, bare; ocelli close together in the centre of the frons and far from the eye margins; mandibles near the base on the outer side with a blunt tooth or tubercle, bidentate, the teeth acute. Antennae 12-jointed; scape normal; funicle joints not long; club stout, compact, truly 7-jointed. Thorax, from dorsal aspect, somewhat longer than its greatest width; pronotum very narrowly visible from above; scutum stout, its anterior margin broadly rounded, the parapsidal furrows complete; scutellum with anterior and posterior rows of foveae, its posterior margin almost straight; postscutellum transverse, rugose, not prominent medially; propodeum moderately short, rugose, with a median carina that is raised at base in the form of a tubercle. Forewings rather short, not extending beyond apex of abdomen; stigmal vein long, twice as long as the marginal, the postmarginal hardly developed; basal and median veins represented by thick brown lines, the radial vein represented by a lighter brown line and forming a false closed radial cell. Abdomen broadly oval, narrowed at base, rounded posteriorly; less than one-half longer than its greatest width; segments 1 and 2 longest, 2 somewhat longer than 1 and longer than 3-6 united; 3-6 each short and transverse.

Type, *N. nervalis*, Dodd, by designation.

The striking features of this genus are the long second abdominal segment and very short third segment; this latter character occurs in *Telenomus*, Haliday, and its allies. But *Neuroscelio* is not related to *Telenomus* or to *Hadronotus*, Foerster, the abdomen being much more narrowed at its base. In general appearance the type species suggests a relationship with *Anteris*, Foerster. The truly 7-jointed antennal club is unusual, while the false venation is strongly developed. One species only is known.

NEUROSCELIO NERVALIS, Dodd.

Loc. cit., p. 170.

♀. Length, 1.30 mm. Black, the abdomen deep brown; legs, including the coxae, golden-yellow, also the first five antennal joints.

Antennal scape as long as the next six joints united; pedicel twice as long as its greatest width; funicle 1 a little shorter and narrower than the pedicel, almost twice as long as its greatest width, 2 as wide as long, 3 wider than long; club joints very transverse. Scutum and scutellum with impressed scaly reticulation; parapsidal furrows widening posteriorly. Forewings lightly cloudy, almost hyaline at base; venation fuscous. Segment 1 of abdomen longitudinally striate, the remaining segments smooth and shining.

North Queensland: Cairns district, one female in May, A. A. Girault. Type, in the South Australian Museum.

APEGUS, Foerster.

Up to the present, this European genus has not been recognised as occurring in Australia. However, *Microteleia pulchricorpus*, Dodd, should be transferred here, and a second species is described below. The genus is characterised, *inter alia*, by the antennae of the female having no well-defined club.

APEGUS PULCHRICORPUS, Dodd.

Microteleia pulchricorpus, Dodd, Trans. Roy. Soc. S. Austr., vol. xxxix., 1915, p. 449.

Apegus squamosus, n. sp.

♀. Length, 1.20 mm. Black; legs golden-yellow, the coxae fuscous; antennal scape yellow, the remaining joints fuscous somewhat suffused with yellow.

Head, from dorsal aspect, transverse, the vertex rather thin, the posterior margin gently concave; from lateral aspect the head is situated somewhat below the anterior portion of the thorax, the vertex shortly declivous posteriorly; from frontal aspect wider than deep; frons not depressed above the antennae, but with a short blunt median carina; eyes moderately small, very wide apart, faintly pubescent; ocelli in a curved line, the lateral pair somewhat closer to the eyes than to the median ocellus; vertex and frons with open impressed reticulation, the frons broadly smooth in the centre and with a few minute punctures, against the mouth with fine dense striae. Antennal scape long and slender, as long as the next four joints combined; pedicel slender, three times as long as its greatest width; funicle 1 a little shorter than the pedicel, 2-4 gradually shortening, 4 somewhat longer than wide; club hardly differentiated, the joints slightly wider than the funicle and distinctly, although not greatly, longer than wide. Thorax from lateral aspect, distinctly flattened, situated somewhat obliquely to the head and abdomen, the metathorax projecting below the base of the abdomen, the scutum anteriorly strongly convex, the meso- and metapleurae long and narrow; from dorsal aspect, the thorax is flat and scarcely longer than its greatest width; pronotum situated below the anterior margin of the scutum and not visible from above; scutum stout, flat for most of its surface but strongly convex anteriorly, the anterior margin very broadly rounded, with fine impressed reticulation anteriorly, broadly smooth on the median lobe posteriorly; parapsidal furrows very wide apart, parallel, failing anteriorly; scutellum short, transverse, its posterior margin straight, its surface smooth, the anterior and posterior margins with punctate rows; postscutellum very short and transverse, without a median plate, at base with a line of punctures; propodeum very short at meson, longer laterally, unarmed, finely reticulate at base medially, with very fine lateral carinae, almost smooth laterally; mesopleurae smooth; metapleurae reticulate. Legs slender, the femora unusually so. Forewings reaching apex of abdomen; broadly rounded at apex; hyaline, with a broad light-brown transverse band involving the stigmal and portion of the marginal and postmarginal veins; discal cilia fine and rather sparse, absent; venation pallid; marginal vein twice as long as the stigmal, which is rather short, the postmarginal somewhat longer than the marginal. Abdomen fusiform; somewhat narrowed at base; no longer than the head and thorax united; twice as long as its greatest width; segment 1 short, transverse; 2 almost twice as long as 1; 3 the longest, a little longer than 2, twice as wide as long; 4 slightly more than one-half as long as 3, transverse; 5 shorter than 4; 6 very small; 2 at base transversely depressed as in the genus *Scelio*, Latreille; 1 finely densely striate; 2 with a few fine striae at base; 2-5 with open impressed reticulation; 2 and 3 broadly smooth laterally, 4 and 5 more narrowly smooth; a very few fine short hairs are present along the lateral margins.

South Queensland: Brisbane, one female, A. P. Dodd. Type, in the Queensland Museum.

Pulchricorpus and *squamosus* are certainly congeneric, but are abundantly distinct, and can be separated by means of the following characters:—

Head, thorax, and base of abdomen, orange-yellow; abdomen black;	
antennae varicolored, joints 2 and 3 and 8-12 black, 4-7 pale yellowish-white; forewings with two bands	<i>pulchricorpus</i>
Body wholly black; antennae not varicolored, joints 2-12 dusky-yellow;	
forewings with one band	<i>squamosus</i>

MALLATELEIA, Dodd.

Trans. Roy. Soc. S. Austr., vol. xxxviii, 1913, p. 151.

Mallateleoides, Dodd, *ibidem*, p. 152.

♀, ♂. Head, from dorsal aspect, transverse; from lateral aspect, the frons lightly convex, the vertex sloping sharply to the occiput; from frontal aspect,

subcircular, wider than deep; lower frons rarely noticeably depressed, the depression not margined; eyes moderately large, bare; mandibles tridentate, the outer teeth long and acute, the inner tooth small; maxillary palpi 4-jointed. Antennae 12-jointed in both sexes; in the female the funicle joints short, shorter than the pedicel, the club compact and 6-jointed; in the male the flagellum moniliform, shortly pilose, the joints not much longer than wide, 2 a little shorter than 1 or 3. Thorax rather stout, not much longer than its greatest width; pronotum visible for its entire width; scutum wider than long, the parapsidal furrows usually well marked, absent in one species; scutellum transverse, its posterior margin straight, with anterior and posterior rows of foveae; postscutellum unarmed, transverse, usually rather prominent, its posterior margin straight; propodeum sloping laterally, depressed at meson and margined on either side with a straight carina. Femora normal, or considerably swollen. Forewings not reaching beyond apex of abdomen, the margins almost equally inclined, the discal cilia exceedingly dense; without true veins, but with darker lines of fumation representing submarginal, a short thick marginal or stigmal, basal and median veins. Abdomen pyriform, broad, much narrowed at base, the apex shortly pointed in the female, blunt in the male; segments all wider than long, 3 the longest and as long as 1 and 2 or 4-6 united.

Type, *Mallateleia giraulti*, Dodd.

A curious genus on account of the non-development of the venation. Its nearest ally in Australia is probably *Anteris*, Foerster, which possesses well-developed submarginal, marginal and stigmal veins; the short funicle joints and compact club in the female recall *Anteris*; the abdomen is of much the same type, but is shorter in *Anteris*; the scutellum in *Anteris* is not straight posteriorly, and the postscutellum bears a distinct tooth.

Mallateleoides, Dodd, is a true synonym, the genotype possessing the false venation in a more marked degree than in *M. giraulti*. The genus is a natural one, and is apparently well represented in Australia, the present paper recognising eleven species, of which seven are described as new.

Key to the Species of *Mallateleia*, Dodd.

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| 1. Males | 9 |
| Females | 2 |
| 2. Parapsidal furrows absent, the scutum with large confluent punctures; a black species | <i>kiefferi</i> , Dodd |
| Parapsidal furrows distinct and complete; punctures of scutum smaller and not confluent | 3 |
| 3. Body wholly black, rarely touched with red on sides of thorax | 4 |
| At least the thorax partly reddish or yellowish | 8 |
| 4. Head with a dense rugose sculpture; posterior half of median lobe of scutum with longitudinal grooves | <i>rugosiceps</i> , n. sp. |
| Head punctate or finely reticulate; median lobe of scutum without grooves | 5 |
| 5. Lower frons with conspicuous white pubescence; scutum without stiff white hairs | 6 |
| Lower frons without conspicuous white pubescence; scutum with stiff white hairs | 7 |
| 6. Forewings with a hyaline spot near anterior margin at less than one-half its length, and the base is hyaline; segments 3-5 of abdomen with dense fine reticulation | <i>maculipennis</i> , n. sp. |
| Forewings uniformly clouded; segments 3-5 with rather dense punctures | <i>pilosifrons</i> , n. sp. |
| 7. Head with scattered punctures and dense fine reticulation; segments 4 and 5 of abdomen with fine reticulation | <i>pilosiscutum</i> , n. sp. |
| Head without reticulation; segments 4 and 5 of abdomen smooth | <i>punctatifrons</i> , n. sp. |
| 8. Segment 3 of abdomen rather densely punctate laterally, 4 with numerous punctures | <i>collaris</i> , n. sp. |
| Segment 3 with a very few fine punctures far laterally, 4 with a row of fine punctures near anterior and posterior margins | <i>giraulti</i> , Dodd |

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| 9. Head, thorax, and abdomen black | 10 |
| At least the thorax wholly or in part reddish | 11 |
| 10. Segments 4 and 5 with fine reticulation | <i>westwoodi</i> , Dodd |
| Segments 4 and 5 with fine punctures | <i>pilosifrons</i> , n. sp. |
| 11. Femora much swollen; flagellar joints 3-9 very short and transverse | <i>crassipes</i> , n. sp. |
| Femora not swollen; flagellar joints as long as wide | 12 |
| 12. Segment 2 of abdomen densely striate; punctures of head dense and subconfluent | <i>splendida</i> , Dodd |
| Segment 2 smooth; punctures of head scattered | 13 |
| 13. Head, scutum, and scutellum dark; venation apparent | <i>giraulti</i> , var. |
| Head, scutum, and scutellum clear red; venation not showing | <i>joersteri</i> , Dodd |
| | <i>giraulti</i> , Dodd |

Mallateleia kiefferi, Dodd.

Arkiv für Naturgeschichte, Berlin, 79, 1913, p. 177.

♀. Length, 2.75 mm. Black, the propleurae washed with red; coxae black, the legs reddish-yellow, the femora dusky; antennal scape dusky, the next five joints testaceous, the club black; mandibles red.

Head normal, the vertex sloping gently to the occiput; vertex, upper frons, and cheeks with large rather dense punctures each bearing a long fine hair; lower half of face hardly depressed, impunctate, except for a few scattered punctures laterally; mandibles very long, almost as long as the scape, tridentate, the middle tooth small; maxillary palpi long, 4-jointed. Antennal scape long and slender; pedicel twice as long as its greatest width; funicle joints somewhat narrower than the pedicel, 1 one-half longer than its greatest width, 2 quadrate, 3 and 4 transverse; club compact, 6-jointed, the joints transverse. Thorax stout, from dorsal aspect one-fourth longer than its greatest width; pronotum narrowly visible, reticulate-punctate and with silvery pubescence; parapsidal furrows not indicated; scutum with large coarse confluent punctures with a faint reticulate tendency, and with very fine scattered pubescence; scutellum coarsely reticulate-punctate, the basal row of foveae very large and coarse. Forewings lightly and uniformly tinted, the submarginal, marginal, and median veins very faintly marked. Legs stout, the femora plainly swollen. Abdomen stout, somewhat wider than the thorax, barely twice as long as its greatest width; segment 1 one-half as wide basally as posteriorly, and somewhat shorter than its greatest width; 3 three-fifths as long as wide, a little shorter than 1 and 2 or 4-6 united; 1 strongly striate; 2 smooth, with a few pin-punctures laterally; lateral margins of 1 and 2 with dense silvery pubescence; 3 smooth, with scattered fine punctures laterally bearing fine hairs, and a row of sparse similar punctures toward posterior margin; 4 with about three rows of fine punctures at base, and scattered punctures laterally and posteriorly; 5 with numerous fine punctures; 6 densely, finely punctate and pubescent.

North Queensland: Cairns district, three females in April and June. Type, in the South Australian Museum.

A large species easily recognised by the absence of parapsidal furrows, coarse punctuation of the scutum, and the swollen femora.

Mallateleia rugosiceps, n. sp.

♀. Length, 1.85 mm. Dull black, the abdomen somewhat brownish; coxae fuscous, the legs testaceous, the femora and tibiae washed with brown; antennae black, the scape and pedicel deep brown.

Frons, vertex and cheeks with a dense wavy rugose sculpture which is more or less longitudinal; there are a few scattered punctures, obscure on account of the sculpture, and scattered stiff white setae; lower face and cheeks with strong striae converging to the mouth. Antennae much as in *M. punctatifrons*. Thorax stout; pronotum foveate-punctate and with stiff white setae; scutum with

scattered stiff setae near the anterior margin, the surface shining, with scattered punctures, the median lobe for its posterior half with several irregular longitudinal grooves; scutellum with strong anterior and posterior foveate rows, the transverse disc with numerous punctures and a few short rugae; postscutellum very prominent, one-half as long as the scutellum, strongly foveate; median carinae of propodeum very wide apart, from lateral aspect raised posteriorly in the form of obtuse tubercles. Forewings lightly stained; submarginal and median veins faintly represented, the marginal vein marked by a faint thick stigma. Legs slender, the femora and tibiae not noticeably thickened. Abdomen wider than the thorax, somewhat less than twice as long as its greatest width; segment 1 not one-half as wide basally as posteriorly; 3 as long as 1 and 2 or 4-6 united, two-thirds wider than long; 1 strongly striate; 2 very densely and rather strongly striate, but laterally the striae are sparse; 3 very densely and rather finely striate, the striae somewhat wavy, becoming very wavy and irregular laterally where scattered setigerous punctures are present; sculpture of 4 and 5 of dense fine irregular striae; 3-5 at base with a row of close punctures; 4-6 with a few scattered fine setae; 6 smooth.

South Australia: Owiendana, Northern Flinders Range, one female collected by Hale and Tindale. Type, in the South Australian Museum.

Distinguished by the rugose sculpture of the head, the grooves on the scutum, and the close fine striae of segments 3-5 of the abdomen.

MALLATELEIA WESTWOODI, Dodd.

Proc. Roy. Soc. Q'land, vol. xxvi., 1914, p. 92.

♂. Length, 1.95 mm. Black; femora, tibiae, and antennal scape fuscous; tarsi yellow.

Head with fine scaly sculpture, and moderately dense, not large thimble punctures, also short fine white pubescence. Scutum and scutellum with similar sculpture to the head; parapsidal furrows distinct and complete. Abdomen a little wider than the thorax; segment 1 striate; 2 with striae far laterally, smooth for the rest; 3 smooth medially, for the rest with very fine scaly reticulation; 4 and 5 wholly finely sculptured. Flagellar joints somewhat longer than wide.

North Queensland: Pentland, one male in September, A. A. Girault.

The original description states that the type is in the Queensland Museum, but there is no record of its having been deposited in that institution or in the South Australian Museum; probably it has been lost. The above diagnosis is based on the original description. Evidently closely allied to the male of *M. pilosifrons*, and it might well be the male of the species herein described as *M. pilosiscutum*.

Mallateleia pilosifrons, n. sp.

♀. Length, 1.80 mm. Dull black; coxae fuscous, the legs bright golden-yellow, the femora faintly dusky; antennal scape deep red, the pedicel washed with red; mandibles red, the teeth dusky.

Head normal; sloping sharply from the lateral ocelli to the occiput; lower face lightly depressed medially but without a definite depression; mandibles long, slender, tridentate; lateral ocelli against the eyes; frons with rather numerous small punctures and with a noticeable pubescence of short silvery appressed hairs; vertex with finer pubescence, similar punctuation, and also very finely coriaceous; toward the occiput the punctures are denser, subconfluent, and arranged subtransversely; cheeks with dense punctures and silvery pubescence; against the mouth on the lower cheeks and frons are a few converging striae. Antennal scape moderately long and slender; pedicel one-half longer than its greatest width; funicle joints smaller and narrower than the pedicel, 1 one-half longer than wide, 2 as wide as long, 3 and 4 wider than long; club compact, the joints

transverse. Thorax slightly longer than its greatest width; pronotum densely punctate and with short silvery pubescence; parapsidal furrows well marked and complete, not foveate or punctate; scutum with moderately small punctures, dense but not confluent, without pubescence except for scattered very short and fine hairs; scutellum transverse, its surface with a few punctures; postscutellum prominent, transverse, foveate. Legs slender, the femora not noticeably thickened. Forewings lightly smoky, almost hyaline at extreme base; no sign of venation except for a dark stigmal mark. Abdomen somewhat wider than the thorax, hardly twice as long as its greatest width; segment 1 one-half as wide basally as posteriorly, shorter than its greatest width; 3 as long as 1 and 2 or 4-6 united, two-thirds wider than long; 1 strongly striate, the striae inclined to fail medially; 2 for the most part smooth, striate laterally, and with a row of foveae at base; 3-5 uniformly punctate and without pubescence, the punctures not large, dense but well separated; 6 and posterior margins of 3-5 smooth.

♂. Striae on segment 1 of abdomen strong; 2 with a few short striae at base; 2 and 3 smooth, impunctate, except for light pubescence laterally and a scattered row of fine hairs against posterior margin; 4 and 5 with numerous fine punctures bearing fine pubescence; 6 densely punctate and pubescent. Antennae black, the scape deep brown; flagellar joints each a little longer than wide, 1 a little longer than 3, 2 a little shorter than 3; pedicel a little shorter than funicle 1.

Queensland: Westwood, near Rockhampton, one female, five males, in December, A. P. Dodd. Type, in the Queensland Museum. Allotype, in the South Australian Museum. Paratypes, in the author's collection.

Although all the specimens were taken in the same locality at the same time, the differences in the sculpture of segment 3 of the abdomen suggest that the male may be a distinct species.

***Mallateleia maculipennis*, n. sp.**

♀. Length, 2 mm. Dull black, the thorax ventrally somewhat reddish; legs, including the coxae, orange-yellow; antennal scape yellow, the pedicel and funicle joints dusky-brown, the club black; mandibles yellow.

Head much as in *M. pilosifrons*; upper frons and vertex with numerous small punctures and dense fine impressed reticulation; behind the ocelli the reticulation bears a transverse appearance; lower half of frons with dense subconfluent punctures and a conspicuous pubescence of appressed silvery hairs; cheeks rather densely punctate and with silvery pubescence. Antennal scape slender, longer than the next five joints combined; pedicel one-half longer than its greatest width; funicle joints smaller than the pedicel, 1 one-half longer than wide, 2 quadrate, 3 and 4 wider than long; club compact, the joints transverse. Thorax normal; pronotum densely punctate and pubescent; scutum with moderately dense, rather small punctures and scattered fine pubescence; scutellum transverse, its disc impunctate or nearly so, and finely scaly; propodeum pubescent, the median carinae well apart; mesopleurae with several strong striae above the depression which is smooth except for a row of punctures posteriorly. Forewings definitely smoky, but the base is hyaline, and there is a square hyaline spot against the anterior margin at less than one-half its length; discal cilia exceedingly dense; venation hardly marked. Legs slender, the femora and tibiae not thickened. Abdomen somewhat wider than the thorax, twice as long as its greatest width; segment 1 much wider posteriorly than at base, somewhat shorter than its greatest width; 3 almost as long as 1 and 2 or 4-6 united, two-thirds as long as wide; 1 strongly striate, the striae failing laterally; 2 smooth for the most part, with a few strong striae laterally; 3 with dense fine longitudinal reticulation which changes to fine striation laterally, the median line almost smooth; 4 and 5

with fine scaly impressed reticulation; 6 smooth; 2-5 with a few fine hairs along the lateral margins, and a row of fine scattered hairs along the posterior margin of each segment.

Queensland: Brisbane, one female, A. P. Dodd. Type, in the Queensland Museum.

Very similar to *M. pilosifrons*, but distinguished by the hyaline spot in the wing, and the sculpture of segments 3-5 of the abdomen.

Mallateleia pilosiscutum, n. sp.

♀. Length, 1.75 mm. Dull black; coxae fuscous, the legs testaceous, the femora and tibiae faintly dusky; antennal scape brownish-yellow.

Head normal; with dense, fine, scaly, impressed reticulation, and small scattered punctures; behind the lateral ocelli the reticulation has a distinct transverse tendency; cheeks almost smooth, except for scattered punctures; pubescence very fine and scattered, but rather dense on the cheeks; no pronounced pubescence on lower face. Antennal scape moderately long and stout; pedicel one-half longer than its greatest width; funicle 1 small, barely one-half longer than wide, 2 quadrate, 3 and 4 wider than long. Thorax stout; pronotum with dense punctures and white pubescence; scutum with numerous, rather small, scattered punctures, bearing rather long white setae, the pubescence conspicuous; scutellum smooth except for a row of punctures bearing white setae against the anterior and posterior rows of foveae; median carinae of propodeum wide apart, the area between strongly foveate, the lateral areas punctate around the margins, smooth inwardly, and laterally with dense silvery pubescence; mesopleurae smooth for the most part, striate dorsally, and there is a row of punctures near the posterior border. Forewings lightly stained, almost hyaline at extreme base; venation hardly showing. Legs slender, but the femora and tibiae are a little thickened. Abdomen somewhat less than twice as long as its greatest width; segment 1 barely one half as wide basally as posteriorly, shorter than its greatest width; 3 three-fifths as long as wide, a little shorter than 1 and 2 or 4-6 combined; 1 strongly striate, the striae failing laterally; 2 striate, the striae stronger laterally; 3 with a row of punctures at base, almost smooth medially, laterally with fine wavy impressed longitudinal lines; 4 and 5 with fine scaly reticulation; 6 smooth; sides of 2-5 with fine scattered pubescence; anterior and posterior margins 4 and 5 and posterior margin of 3 each with a row of fine scattered hairs.

Queensland: Biggenden, one female in January, A. P. Dodd. Type, in the Queensland Museum.

The sculpture of the abdomen is much as in *M. maculipennis*, but the striae are present across segment 2, and the scaly appearance of segment 3 is lost. At once differing from *M. pilosifrons* and *M. maculipennis* in the non-pubescent frons and the conspicuous pubescence of the scutum.

Mallateleia punctatifrons, n. sp.

♀. Length, 1.90 mm. Dull black, the abdomen somewhat brownish; coxae fuscous, the legs testaceous, the femora washed with brown; antennae wholly dark.

Head normal; upper frons and vertex smooth, with numerous scattered punctures of moderate size bearing short fine hairs; lower face with a pronounced and rather deep circular depression which is smooth, the area on either side with a few punctures above, smooth ventrally except for a few weak striae against the mouth; cheeks with several rows of punctures and rather long setae; toward the occiput, behind the lateral ocelli, are a few weak oblique irregular striae, and there is a row of short weak longitudinal striae against the occiput. Antennal scape rather stout; pedicel stout, two-thirds longer than its greatest width; funicle joints small, 1 one-third longer than wide, 2 quadrate, 3 and 4 transverse;

club stout and compact. Thorax stout; pronotum strongly densely punctate and pubescent; scutum smooth, with scattered rather small punctures bearing long white hairs; disc of scutellum smooth, but there is a row of small scattered punctures bearing long setae against the anterior row of foveae, and a similar row within the posterior line of foveae; propodeum and mesopleurae much as in *pilosiscutum*. Forewings slightly stained; thick indefinite lines indicate submarginal, basal, and median veins, and there is a faint thick spot to represent the marginal vein. Legs normal, the femora somewhat thickened. Abdomen somewhat less than twice as long as its greatest width; segment 1 not one-half as wide basally as posteriorly, and shorter than its greatest width; 3 almost twice as wide as long, a little shorter than 1 and 2 or 4-6 united; 1 strongly striate, smooth laterally; 2 striate, but the striae fail broadly medially; 3 rather weakly sparsely striate, but broadly smooth medially; 4-6 smooth, hardly sculptured; 3-5 at base each with one or two irregular rows of dense fine punctures; posterior margin of 2 and 3, and anterior and posterior margins of 4 and 5, each with a row of scattered pin-punctures bearing fine setae; sides of 3-5 with scattered setigerous punctures.

Queensland: Upper Burnett River, one female in January, A. P. Dodd. Type, in the Queensland Museum.

Agrees with *M. pilosiscutum* in the non-pubescent lower frons and the pubescent scutum, but differs in the absence of reticulate sculpture on the head and segments 4 and 5 of abdomen, the more definite frontal depression, and the definite striae on segment 3 of abdomen.

MALLATELEIA GIRALTI, Dodd.

Trans. Roy. Soc. S. Austr., vol. xxxvii., 1913, p. 151.

Mallateleia ashmeadi, Dodd, Archiv. für Naturgeschichte, Berlin, 79, 1913, p. 168.

♀. Length, 2.15 mm. Bright orange or reddish-yellow, the margins of the scutellum and the sides of the thorax darker, the abdomen, except the third segment, dusky; eyes and ocelli black; legs wholly clear testaceous; first six antennal joints testaceous, the club black.

Head normal; frons and vertex smooth, with numerous scattered moderately small punctures each bearing a fine hair; a line of close punctures on either side of face against the eyes; punctures behind the lateral ocelli to the occiput sparse; punctures on cheeks dense but not confluent; lower cheeks and face with strong striae converging to the mouth; mandibles large, stout, tridentate, the outer teeth long and acute, the inner tooth small; face hardly depressed above the antennal insertion. Antennae as in *M. collaris*. Thorax stout, from dorsal aspect one-sixth longer than its greatest width; pronotum densely punctate and with fine pubescence; scutum smooth, with rather large and dense punctures bearing fine hairs, the parapsidal furrows very deep and broad; scutellum one-half as long as the scutum, the basal row of foveae large and coarse, its disc with large scattered punctures; postscutellum, propodeum, and mesopleurae much as in *M. collaris*. Femora and tibiae a little thickened. Forewings uniformly lightly stained, the venation not showing. Abdomen not more than twice as long as its greatest width; segment 3 a little less than two-thirds as long as wide, a little shorter than 1 and 2 or 4-6 united; 1 strongly striate; 2 smooth; lateral margins of 1 and 2 with a dense silvery pubescence; 3 smooth except for a few fine setigerous punctures far laterally and a scattered row of similar punctures near the posterior margin; 4 with a row of scattered fine setigerous punctures along anterior and posterior margins; 5 with numerous fine punctures bearing very fine hairs; 6 with rather dense fine punctures and pubescence.

♂. Length, 1.85 mm. Does not differ from the female except in its more slender form; there is a faint scaly reticulation on the vertex of the head, and the

punctures on segments 5 and 6 of abdomen are sparser; abdomen more slender, the basal segment as long as its greatest width and not widening greatly posteriorly; parapsidal furrows deep posteriorly, failing anteriorly. Antennae black, the scape testaceous; pedicel one-half longer than its greatest width; flagellum moniliform, pubescent, joints 3-9 subequal, each one-third longer than wide, 2 a little shorter, 1 a little longer and as long as the pedicel.

North Queensland: Cairns district; Cooktown; Pentland; three females, five males. Type, in the South Australian Museum. I. 1393.

The female closely resembles *M. collaris*, in which species the head, scutum, and scutellum are mostly black, the punctuation on segments 3 and 4 of abdomen is much denser, the legs are more slender, the abdomen is not so stout, and segment 3 is considerably longer in relation to its width, and the thorax is less stout. In *collaris*, the scutum is definitely longer in relation to its width, and its anterior margin is more strongly convex. Moreover, in *M. giraulti* the head slopes precipitously from immediately behind the lateral ocelli to the occiput, while in *collaris* this precipitous portion is much shorter and does not nearly reach the lateral ocelli.

Mallateleia giraulti, Dodd, var. *foersteri*, Dodd.

Mallateleia foersteri, Dodd, Proc. Roy. Soc. Q'land, vol. xxvi., 1914, p. 91.

♂. Length, 1.75 mm. Agreeing exactly with the male of *M. giraulti* except that the head is dark fuscous, the scutum and scutellum are mostly black, and the femora are somewhat dusky; forewings showing definite indication of submarginal, marginal, basal, and median veins; the punctures on the scutum are rather closer and denser.

New South Wales: Upper Tweed River, one male in May. A. P. Dodd. Type, in the South Australian Museum.

I hesitate to sink *M. foersteri* as a synonym of *M. giraulti*; it may represent the male of a female not yet known; on the other hand, it might possibly be the other sex of *M. collaris*.

Mallateleia collaris, n. sp.

♀. Length, 2.30 mm. Head black, around the mouth and mandibles bright red, the cheeks suffused reddish; thorax bright reddish-yellow, the scutum, except the parapsidal furrows, and narrowly along its margins, scutellum, and mesosternum, black; abdomen dusky-brown, the basal two-thirds of segment 3 intense orange; legs wholly clear testaceous; antennal scape testaceous, the pedicel and funicle joints suffused with yellow, the club black.

Head normal; no distinct impression above the antennae; frons and vertex smooth, with numerous scattered moderately large punctures, each bearing a fine hair; a line of close punctures on either side of the frons against the eyes; declivous area toward the occiput with smaller more scattered punctures; cheeks with large dense punctures; lower cheeks and frons against the mouth with converging striae; mandibles large, stout, tridentate, the outer teeth long, the inner tooth small. Antennal scape moderately long and stout; pedicel fully twice as long as its greatest width; funicle joints much shorter and a little narrower, 1 one-third longer than wide, 2 quadrate, 3 and 4 wider than long; club large, compact, the joints transverse. Thorax from dorsal aspect one-third longer than its greatest width; pronotum densely punctate and with fine pubescence; scutum smooth, with rather dense large punctures, each bearing a very fine seta, the parapsidal furrows very deep and distinct; scutellum with a few small setigerous punctures, the basal row of foveae very large and coarse; postscutellum rather prominent; propodeum punctate and with very fine pubescence, the median carinae straight and wide apart; mesopleural depression smooth, with a row of small punctures posteriorly, above with a few strong striae. Legs slender, the

memora and tibiae not noticeably thickened. Forewings reaching apex of abdomen, lightly stained, and with darker marks representing submarginal, basal, median, and marginal veins. Abdomen a little, yet distinctly, more than twice as long as its greatest width; scarcely wider than the thorax; segment 1 one-half as long basally as posteriorly; 3 three-fourths as long as wide, about as long as 1 and 2 or 4-6 united; 1 strongly striate; 2 smooth and shining; lateral margins of 1 and 2 with dense silvery pubescence; 3 smooth and shining, but with moderately dense punctures laterally, with a row of fine scattered punctures bearing fine setae near the posterior margin; 4 and 5 with one or two rows of dense punctures at base, for the rest with a few punctures medially and numerous punctures laterally, each bearing a fine seta; 6 with fine dense punctures and pubescence.

South Queensland: Cainchilla, two females in February, A. P. Dodd. Type, in the Queensland Museum. Paratype, in the author's collection.

This may possibly be the female of *M. foersteri*, but in that species the punctures of the head are smaller, there is a definite fine reticulation on the vertex, and segments 3-5 of the abdomen are without punctures. Closely related to *M. giraulti*, the differences being pointed out in the discussion on that species.

MALLATELEIA SPLENDIDA, Dodd.

Mallateleia splendens, Dodd, Trans. Roy. Soc. S. Austr., vol. xxxvii., 1913, p. 152.

♂. Length, 2.15 mm. Reddish-brown, the head darker, the scutum and scutellum mostly blackish; abdomen brown, the third segment clear orange; eyes and ocelli black; legs testaceous; antennae black, the scape clear yellow.

Head normal; frons and vertex with large confluent or subconfluent punctures, behind the lateral ocelli to the occiput with a transverse arrangement, the pubescence very fine and inconspicuous; cheeks with dense punctures and fine pubescence. Antennae normal; scape rather slender; pedicel a little longer than its greatest width; flagellum moniliform, the joints shortly pubescent, 1 a little longer than the pedicel, 3 slightly shorter than 1, 2 quadrate and a little shorter than 3, 4-9 subequal, each slightly longer than wide. Thorax stout, one-fourth longer than its greatest width; pronotum densely punctate and with fine pubescence; scutum with large dense subconfluent punctures and very fine scattered pubescence, the parapsidal furrows well marked and complete; scutellum rather densely punctate, the basal row of foveae large and coarse. Posterior femora somewhat thickened. Forewings rather deeply brownish, but the infuscation is not regular; submarginal, marginal, basal, and median veins well marked by thickened darker lines. Abdomen stout, hardly twice as long as its greatest width; segment 1 widening posteriorly, hardly as long as its greatest width; 3 less than two-thirds as long as wide, a little shorter than 1 and 2 or 4-6 united; 1 and 2 strongly striate, without dense pubescence along the lateral margins; 3 and 4 smooth, with scattered minute punctures bearing fine hairs, the punctures denser on 5 and 6.

South Queensland: Roma, one male in October, A. A. Girault. Type, in the South Australian Museum, I. 1394.

Differs from *M. giraulti*, *foersteri*, and *collaris* in the dense punctuation of the head, dense striae on segment 2 of abdomen, and the absence of dense pubescence on the lateral margins of segments 1 and 2.

Mallateleia crassipes, n. sp.

♂. Length, 2.40 mm. Head black; thorax rich chestnut-red, the scutellum, most of the scutum, and the pronotum laterally, blackish; pleurae dusky; abdomen deep brown, blackish at base and posteriorly; legs reddish-yellow, the coxae

fuscous, the femora sooty; antennal scape dusky-red, the flagellum reddish at base, becoming fuscous toward apex.

Head normal, from dorsal aspect transverse; vertex sloping shortly to the occiput from some distance behind the lateral ocelli; eyes much smaller than usual and very wide apart; lateral ocelli distant from the eye margins by twice their own diameter; face not noticeably depressed; frons with rather dense small punctures and a noticeable pubescence of fine silky hairs; punctures of vertex larger and closer than on the frons; cheeks broad, rather densely punctate and pubescent. Antennal scape stout and somewhat swollen apically; pedicel stout, one-third longer than its greatest width; funicle 1 shorter than the pedicel, slightly longer than wide; 2 shorter than 1; 3 excised in a sharp point on one side; 4-9 shortly stalked and with short pubescence, each very transverse. Thorax stout, from dorsal aspect one-sixth longer than its greatest width; pronotum densely punctate and finely pubescent; parapsidal furrows distinct and complete; scutum much wider than long, its anterior margin obtusely convex, with dense moderately small non-confluent punctures and a conspicuous fine silky pubescence; scutellum smooth, with a few setigerous punctures at base, the basal row of foveae not coarser than the posterior row; postscutellum shorter than usual and not so conspicuous; propodeum with a light clothing of silky hairs. All femora stout and swollen; tibiae stout, the tarsi short and rather stout. Forewings slightly smoky, but the infuscation is streaky and not regular; darker lines represent submarginal, marginal, basal, and median veins. Abdomen twice as long as its greatest width; segment 1 shorter than its greatest width, one-half as wide basally as posteriorly; 3 two-thirds as long as wide, about as long as 1 and 2 or 4-6 united; 1 strongly striate; lateral margins of 1 and 2 with dense long pubescence; 2 smooth except for an oblique row of a few minute setigerous punctures laterally on the posterior half; 3 smooth, with a scattered row of fine setae at one-half its length, and a similar row near the posterior margin, its lateral margins with scattered fine setigerous punctures; 4 with numerous fine punctures bearing fine hairs; 5 and 6 rather finely densely punctate and pubescent.

South Queensland: Mount Tambourine, 2,000 feet, one male in April, A. P. Dodd. Type, in the Queensland Museum.

Readily distinguished from the known males of other species by the very short antennal joints and thickened legs. It cannot represent the opposite sex of any known female.

MIROTELENOMUS, Dodd.

Trans. Roy. Soc. S. Austr., vol. xxxvii., 1913, p. 173.

♀, ♂. Head from dorsal aspect transverse, a little wider than the thorax, its posterior margin gently concave; from lateral aspect thin, gently convex or almost straight from the posterior margin to the mouth; from frontal aspect much wider than deep, not or feebly depressed above the antennal insertion; eyes rather small, very wide apart, bare or faintly pubescent; ocelli situated in the centre of the vertex, the lateral pair very far from the eye margins; mandibles slender, long, bidentate. Antennae 12-jointed in both sexes; in the female the funicle joints short, the club 6-jointed; in the male the flagellar joints moniliform and rather short. Thorax from dorsal aspect stout, as wide or wider than long, the pronotum not or hardly visible; scutum and scutellum almost flat or gently convex; scutum large, the parapsidal furrows absent; scutellum semicircular; postscutellum very short, unarmed, or with a sharp tooth or spine at meson; propodeum very short and wide, its posterior margin straight or gently convex, its posterior angles sometimes with a stout tooth; from lateral aspect the thorax may be shorter than deep or somewhat flattened. Forewings short, not reaching beyond the apex of the abdomen; submarginal vein with a pronounced downward curve just before joining the margin; marginal vein short, the postmarginal long

or short or more rarely absent; stigmal vein normal or more rarely hardly developed. Abdomen somewhat flattened, very wide at base, not much longer than wide, the second segment the longest but not much longer than 1 or 3, 4-6 very short and transverse.

Type, by designation, *M. abnormis*, Dodd.

This genus was erected to contain one peculiar little species. On reflection, I have decided to widen its scope to contain all the Australian species described in the genus *Hadronotus*, Foerster, in which there is a distinct downward bend in the submarginal vein before it joins the costa; these species are *H. aquaticus*, Dodd, *parvipennis*, Dodd, *spinosus*, Dodd, *splendidus*, Dodd, *nigriceps*, Dodd, *orientalis*, Dodd, *angustipennis*, Dodd, *nigricoxella*, Dodd, *assimilis*, Dodd, *amplus*, Dodd, and *fumosus*, Dodd. Although showing some variation in the wing venation, and the teeth on the postscutellum and propodeum, the genus is a very natural one. It differs from *Hadronotus* mainly in the downward bend of the submarginal vein, and in the position of the lateral ocelli, which are not situated near the eye margins; lesser points of difference are the absence of a frontal depression on the head, the less convex scutum and scutellum, and the shorter wings. Several species of *Hadronotus* have been bred in Australia from heteropterous eggs, but there is no record of the host affinities of any of the species of *Mirotelenomus*; it would seem quite possible that eggs of some other order of insects are attacked. The species are small; the type species, *M. abnormis*, shows the extreme reduction of the venation, and the more flattened type of thorax.

Mirotelenomus armatus, n. sp.

♀. Length, 1.20-1.40 mm. Black; coxae fuscous, the legs bright reddish-yellow; antennal scape reddish-yellow, the remaining joints fuscous.

Head very thin, the frons almost straight; vertex gently concavely margined across from the lateral ocelli, the surface behind this margin sharply depressed to the occiput; frons and vertex with dense fine impressed reticulation and numerous moderate-sized punctures bearing very short fine setae; above the antennal insertion the surface is feebly depressed, finely reticulate and without punctures; on either side toward the mouth with fine dense striae; cheeks smooth except for a few punctures; eyes bare; mandibles long, bidentate, the inner tooth long and acute, the outer tooth short and truncate. Antennal scape moderately long and slender; pedicel one-half longer than its greatest width; funicle joints hardly narrower than the pedicel, 1 as long as its greatest width, 2-4 much wider than long; club 6-jointed, the joints much wider than long. Thorax, from dorsal aspect, no longer than its greatest width; scutum with dense scaly reticulation and numerous scattered punctures bearing very short and fine setae; reticulation of scutellum finer, the punctures more scattered; postscutellum with a short tooth at meson; lateral angles of propodeum produced into a stout sharp tooth or spine. Forewings faintly smoky; marginal cilia short; venation thick and distinct, terminating before one-half the wing length; marginal vein short but longer than the very short stigmal vein, the postmarginal not developed. Abdomen stout; segment 2 a little longer than 1 and somewhat longer than 3; 1-3 with a distinct delicate carina some distance from the lateral margin; 1 strongly irregularly striate at meson, the sculpture gradually giving way laterally to fine raised reticulation; 2-4 with fine reticulation, raised on 2 which shows fine irregular longitudinal striae, impressed on 3 and 4; 1-3 outside the lateral carinae with fine impressed reticulation; anterior and posterior margins of 2-4, and posterior margin of 1, narrowly smooth; 2-4 near posterior margin with a row of fine setae; 5 and 6 very short, 5 with a row of setae.

Queensland: Brisbane, one female, A. P. Dodd; one female without further data collected by A. A. Girault. South Australia: Mount Lofty, one female

taken in moss by R. J. Burton. Type, in the Queensland Museum. Paratypes, in the South Australian Museum, and the author's collection.

Very much like *M. abnormis*, but in that species the stigmal vein is hardly developed, the marginal cilia are rather long, the scutum and scutellum are without punctures, the postscutellum and propodeum are not spined.

Acolus scutellaris, n. sp.

♀. Length, 1.35 mm. Black; coxae black, the legs brownish-yellow and somewhat dusky, the tarsi pale; antennae fuscous.

Head, from dorsal aspect, transverse, the vertex thin; from frontal aspect, plainly wider than deep; eyes moderately large, with short scattered pubescence; ocelli very wide apart, the lateral pair against the eyes; surface very densely finely coriaceous and with a fine pale pubescence; above the antennal insertion there is a smooth area with a median carina. Antennal scape moderately long; pedicel twice as long as its greatest width; funicle joints small, narrower than the pedicel, 1 somewhat longer than wide, 2-4 transverse; club large, plainly longer than the pedicel, twice as long as its greatest width. Thorax stout; from dorsal aspect showing two sclerites only, namely, the scutum and scutellum, which are sculptured like the head; scutellum large, triangular but blunt at apex, not as long as its basal width, projecting over and hiding the postscutellum and propodeum as far as the base of the second abdominal segment; propodeum on either side armed with a sharp erect spine or tooth. Forewings rather short, barely reaching to apex of abdomen; distinctly clouded, the fumation deepest beneath the stigmal vein; venation very dark, terminating at one-half the wing length, the marginal vein short, the stigmal vein long, the postmarginal slightly developed; basal vein not showing. Abdomen stout, very broad at base, not much longer than its greatest width; segment 1 very short, transverse; 2 much longer than 1; 3 over twice as long as 2, and somewhat longer than 4-6 united; 1 and 2 strongly striate, the surface smooth before the striae; 3 less strongly striate, the surface finely coriaceous between the striae; 4-6 densely coriaceous and pubescent, also the lateral margins of 2 and 3.

South Australia: Adelaide, one female in flood debris, A. M. Lea. Type, in the South Australian Museum.

Easily distinguished from other Australian species by the produced scutellum.