

ON A COLLECTION OF PARASITIC HYMENOPTERA  
(CHIEFLY BRED), MADE BY MR. WALTER W.  
FROGGATT, F.L.S., IN NEW SOUTH WALES,  
WITH DESCRIPTIONS OF NEW GENERA AND  
SPECIES. PART iii.

By P. CAMERON.

(Communicated by W. W. Froggatt.)

ICHNEUMONIDÆ.

ORTHOGNATHELLA Szép.

ORTHOGNATHELLA LONGICEPS, sp.n.

Black; second and following segments of abdomen red; face, space between the antennæ, clypeus, trophi, basal half of mandibles, a medium-sized line on upper half of inner orbits, a narrower one on the lower three-fourths of the outer, tegulæ, tubercles, a squarish smaller mark below them, and a short, broad curved line in front of hind coxæ, bright lemon-yellow. Four front legs lemon-yellow, femora and tibiæ tinged with fulvous, the hinder rufous, their coxæ except broadly in the middle below, base of femora, their apex slightly more broadly and regularly, apical half of tibiæ and tarsi except the joints narrowly at the base, black; calcaria and tarsal spines testaceous, the large claws dark rufous. Wings hyaline, costa, stigma and nervures black; areolet twice wider behind than in front, nervures straight, oblique; recurrent nervure received near the base of apical third, transverse median nervure interstitial. Transverse cubitus in hind wings broken very shortly below the middle.

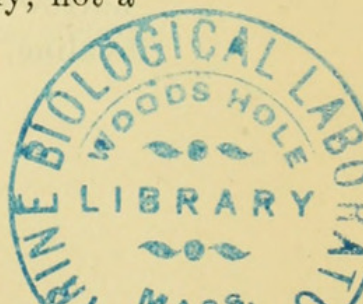
♂. Length, 13 mm.



Como, N.S.W.: in November; (caught on the wing; W. B. Gurney).

Head, pro- and mesothorax smooth, furrow in middle of propleuræ striated, the apex and that of the mesopleuræ crenulated. Base of metanotum with a large central area, twice longer than wide, the basal third of equal width, the apex slightly, gradually narrowed, a closed outer basal, a little longer than wide, the inner side rounded, the outer straight, oblique; and a larger apical one, not closed on outer side; the central smooth at the base, the centre closely punctured, the apex irregularly longitudinally reticulated; the basal lateral finely irregularly punctured, the apical coarsely reticulated, as is also the spiracular from the stigma. Upper third of metapleuræ finely, closely punctured, the lower more coarsely punctured on upper half; the rest closely, strongly, longitudinally striated. Abdominal petiole slender, long, as long as second and third segments united, its basal third wider than the middle third, the apex roundly dilated, the middle part not quite so long as the post-petiole; the spiracles at the base of the latter prominent; two keels run down the top from the basal projections to the middle of post-petiole. Gastracæli smooth, shallow. The ventral keel extends to the apex of the fourth segment; there are nine dorsal segments, the penultimate eighteenth, short, the last large, semicircular, with prominent, black, pilose cerci.

The genus *Orthognathella* was described by Szépligeti in "Die Fauna Südwest-Australiens" (Michaelsen and Hartmeyer), 1908, p. 320-322, the type being *O. superba* Szép., Taf. 111, f. 1. It has toothless mandibles, as in the *Heresiarchineæ*. It has the head lengthened in front, pretty much as in the Pimplid genus *Echthromorpha*, but with the labrum more prominent. Mr. Szépligeti, however, calls, what seems to be to me the labrum, the apex of the clypeus, which he states is divided into two parts by a furrow, the labrum, according to him, being hidden. I have, unfortunately, not a spare specimen for dissection.





**Ichneumonini.****PROBOLUS ALBOCINCTUS** Cam.

"The Entomologist," 1906, 181.

A female from Swansea, Tasmania (A. M. Lea), not differing from the type from Australia.

**PROBOLUS VARILINEATUS**, sp.n.

Black; second abdominal segment red, as are also the third ventral and the keel on the fourth; face except for a black line in the centre, the top part narrowed, narrower above than below, the lower part dilated into almost a square which projects into the clypeus, where it is rounded; clypeal foveæ, a semicircular mark on apex of clypeus, a short line on inner orbits opposite the antennæ, an oblique mark in middle of mandibles, sides and undersurface of antennal scape, tegulæ, a short line in front of them on the pronotum, tubercles, scutellum, apical half of postscutellum, a large mark on either side of apical slope of metanotum, longer than wide, slightly narrowed below, slightly incised above and below, a semicircular, oblique mark on sides of apex of postpetiole, a short longitudinal line on sides of second at apical fourth, a broad line on apex of third, laterally dilated to the centre of the segment; a narrower line, slightly dilated laterally, on the fourth, a line on outer third of the fifth, a slightly broader one, of almost uniform thickness on the sixth, and a broad mark, dilated backwards narrowly to the base, on the sides of the sixth, whitish-yellow. Four front legs fulvous-yellow, coxæ and basal joint of trochanters black, apex of coxæ laterally yellow, more broadly so on the outerside; hind legs red, femora of a brighter red than the tibiæ, coxæ, basal joint of trochanters, apical fourth of femora, apex of tibiæ slightly more broadly, apex of metatarsus, and the whole of the other tarsal joints, black; coxæ with a large yellow mark, obliquely narrowed from apex to base in front; spurs testaceous. Wings hyaline, stigma testaceous, costa and nervures black; trans-



verse median nervure received shortly beyond the transverse basal; recurrent nervure shortly beyond the middle flagellum of antennæ rufous, apical half black above. ♂. Length, 12mm.

Richmond, Sydney, Noundoc, etc., N.S.W.; bred from moth-pupæ(W. W. Froggatt).

Head and thorax densely covered with white pubescence, closely punctured; metanotum rugosely punctured, almost reticulated, the areola longer than wide, of equal width, transverse at base and apex, the lateral keels bulging out slightly, inside closely, irregularly, longitudinally striated, the striæ intertwining. The puncturation on the pleuræ runs into reticulations. The raised central part of postpetiole closely, longitudinally striated, the striæ intertwining, the sides more strongly striated, reticulated on the inner edge; the other segments closely punctured, the puncturation becoming gradually finer. Gastracœli wide, deep, obliquely widened outwardly, the centre with two stout striæ, roundly bulging outwardly.

Comes near to *P. albocinctus* Cam., but is not, I consider, its male.

### CRYPTINÆ.

#### Mesostenini.

##### POLYCYRTUS(?) CURVILINEATUS, sp.n.

Black; an ovalish mark in middle of face, united to a similar but wider one in centre of clypeus, reaching close to apex, a moderately wide line on inner and upper orbits, a wider one, but narrowed above, on lower three-fourths of the outer, extending on to the malar space, but not uniting with the inner line; a broad line on pronotum, slightly, broadly narrowed below, a spot, slightly narrowed behind, where it is rounded, the base slightly dilated in the middle, tegulæ, almost the apical half of scutellum, apex of postscutellum narrowly, a broad line on either side of it, a broad curved line on either side of centre of metanotum ending on the pleuræ



in a squarish dilation in the middle of their apical half; tubercles, an irregular, large, oval, vertical spot in the centre of basal half of mesopleuræ, a mark on lower apical half, narrowed into a triangle at the base, the apex above obliquely widened into a triangle, lower edge slightly narrowed in middle, a narrow line, narrowed below, on the suture between meso- and metapleuræ on the upper three-fourths, and narrow lines on the apices of all the abdominal segments, the lines becoming gradually narrower, yellow; legs red, base of coxæ broadly, apex narrowly on outer side pallid yellow; almost the apical half of hinder femora, base of tibiæ narrowly, almost their apical third, first joint of hind tarsi and basal three-fourths of second black, the rest white. Wings hyaline, stigma and nervures black, areolet moderately large, larger along the radius and cubitus than along the transverse cubitals, slightly narrowed behind, recurrent nervure received near apex, second transverse cubital not faint, transverse median received shortly behind transverse basal. ♀. Length, 12 mm.; terebra, 2 mm.

Merriwa, N.S.W.; "parasitic upon many lepidopterous larvæ, but more particularly upon the cup-moths, *Doratifera* and *Limacodes*" (W. W. Froggatt).

Front depressed, irregularly transversely striated; a single, stout, longish conical tooth, dilated at the base above, immediately over the antennæ. Face and clypeus strongly, closely punctured, closely covered with short white pubescence. Mesonotum closely punctured, with distinct parapsidal furrows on the basal three-fourths. Scutellum as strongly, but not so closely punctured; post-scutellum smooth. Base of metanotum with a narrow, smooth, curved band, beyond this it is punctured to the basal keel, which is not very distinct, and roundly curved; it does not end in distinct teeth, nor is it dilated laterally; central region finely and closely, apex more strongly and less closely, longitudinally reticulated. Pleuræ strongly punctured, metapleuræ more closely than the rest;



the depressions on the pro- and mesopleuræ strongly striated. Abdomen (including postpetiole) smooth.

This species is hardly typical *Polyænus*, as compared, for example, with *P. spiniferus* Cam., from Borneo; the abdominal petiole is longer and more slender; in the Bornean species, it becomes gradually widened from near the base, while, in the Australian, the petiole is long, slender to the post-petiole, which is triangular and not much dilated; the areolet is larger, almost square, the transverse median nervure is not interstitial, but received shortly behind the transverse basal; there are no spines on the metanotum as in *P. spiniferus*; in that species they are narrower. It may form the type of a new genus. The Malay species are hardly typical as compared with the American. Possibly the discovery of a male may help to settle definitely the generic location of the Australian form, which cannot well be referred to *Suvalta* either.

MESOSTENOIDEUS STIROCEPHALUS, sp.n.

Black; eighth to thirteenth antennal joints white, pedicle brownish; face, the white above, roundly dilated on either side of middle, leaving a triangular incision between them, the lower edge roundly trilobate, the middle lobe slightly larger and more rounded than the lateral, an oval spot in upper half of the middle clypeus, basal half of mandibles, palpi, inner orbits from the antennæ, where the line is obliquely narrowed, a line on the outer, commencing at the end of the upper fourth, becoming gradually widened below, where it is oblique and extends to the middle of malar space, a broad line on sides of pronotum; rounded at both ends, nearer the base than the apex, tegulæ, tubercles, a conical spot, not much longer than wide, on the apex of middle lobe, scutellum-keels, scutellum, a conical spot, a little longer than it is wide, the narrowed end at the base; the spines, a large irregular rounded spot near the centre of the base of mesopleuræ, a much smaller, widely conical one on the apex near the middle coxæ, a curved line, about four times longer than wide in the centre of the outer



edge of mesosternum, close to the furrow, a large mark below the hind wings, almost square below, the apex above projecting obliquely, and not much longer than wide, and a large conical spot on the lower apical part of the metapleuræ and the apices of the abdominal segments, the lines on fifth and sixth broken, on the others complete; on the ventral segments they are all complete. ♀. Length, 12 mm.; terebra, 5 mm.

Tweed River, N.S.W.; in November; (W. W. Froggatt).

Vertex strongly, obliquely striated, front almost entirely smooth, a stout keel down it from the ocelli. Base of mesonotum transverse, sides rounded; puncturation close, moderately strong, scutellum sparsely punctured, the sloping sides strongly striated. Metanotum closely, strongly reticulated, weakly at the base, becoming stronger towards apex. Pleuræ strongly punctured, the puncturation running into reticulations on mesopleuræ and metapleuræ.

#### MESOSTENUS POMONELLÆ, sp.n.

Black; face, clypeus, mandibles at base, palpi, orbits except near the centre of the top of the eyes, a broad, longish oval line, the narrowed end at the base, on the sides of pronotum, tegulæ, tubercles, a large oblique mark, twice longer than wide, the edges rounded, on the lower apical part of the mesopleuræ, a wide, conical mark on the apex of the middle lobe of mesonotum, scutellum, sides of apical slope of metanotum widely, the yellow extending on to the pleuræ, the apices of the abdominal segments—the basal broadly, the bands becoming gradually narrower—pallid yellow. Legs reddish-yellow, the posterior deeper in tint, the four coxæ and trochanters whitish-yellow; more than apical third of hind femora, more than apical half of hind tibiæ and the metatarsus, black, the rest of the hind tarsi and of the tibiæ white; wings hyaline, stigma and nervures black, areolet small, twice longer than wide, narrowed towards apex, recurrent nervure interstitial with the second transverse cubital,



transverse median nervure interstitial. Length, 6 mm.; terebra, 1 mm.

Glen Innes, N.S.W.; in January (W. B. Stokes); bred from Codling Moth (*Carpocapsa pomonella*).

Antennæ longer than body, flagellum densely pilose, apex of twelfth, and the thirteenth to seventeenth joints white, this band being near the base of the apical third. Head smooth, a stout keel down the front. Mesonotum strongly, but not closely punctured, a striated band on apex of middle lobe, which is bluntly rounded. Metanotum, except at base, strongly, closely transversely reticulated, metapleuræ more closely than metanotum; both transverse keels are present, but there are no spines. Propleuræ, except in the centre above, strongly striated, the striæ clearly separated, the basal vertical, the apical transverse. Mesopleuræ strongly irregularly striated, the centre at the base smooth. Hind coxæ strongly punctured. Abdomen smooth and shining.

MESOSTENUS VICTORIÆ, sp.n.

Black; inner orbits from near the top of the eyes, the part on the face roundly dilated, the lower three-fourths of the outer, malar space, a curved line slightly roundly dilated in the middle on the top of the clypeus, labrum, base of mandibles broadly, the mark broadly conical, palpi, a broad line in the centre of the base of pronotum, a broad line on sides of pronotum, not reaching to the tegulæ and longer than the central black part, tegulæ, tubercles, a longish oval mark, twice longer than wide, its base irregular, scutellum, a large wide mark, narrowed above, more than twice longer than wide, on the centre of apical slope of metanotum, an irregular oval mark on basal upper half of mesopleuræ, a slightly smaller, conical one on the lower apical part, the usual triangular mark under hind wings, a mark, twice longer than wide, the top sharply pointed, the bottom transverse, on the middle of metapleuræ, and lines on the apices of all the abdominal segments, whitish-yellow; legs red, apical third



of hind femora, apical fourth of hind tibiæ, base of basal joint of hind tarsi, black, the rest of hind tarsi white; wings hyaline, stigma and nervures black; areolet punctiform, recurrent nervure received at its apex; the transverse median received behind the transverse basal. ♀. Length, 12 mm.; terebra, 30 mm.

Gippsland, Victoria (W. W. Froggatt).

Antennæ longer than body, the middle with a broad white band. Face strongly, but not closely punctured; front and vertex smooth, shining, neither punctured, nor striated. Mesonotum closely, strongly punctured, the lateral lobes more finely and closely than the middle one; scutellum with the punctures larger and sparser, its apex irregularly striated. Base of metanotum smooth, the rest strongly, closely transversely striated; there is only the basal keel. Propleuræ smooth, the centre broadly striated. Mesopleuræ irregularly striated, striæ more or less curved and longitudinal, the lower part more closely striated, the striæ intertwining and forming almost reticulations; the centre has a large quadrangular smooth space. Metapleuræ closely, strongly obliquely striated. Postpetiole strongly, second abdominal segment much more closely and regularly, and the third still more closely and finely punctured, the others smooth.

### **Cryptini.**

#### **GAMBRUS STOKESII, sp.n.**

Black; abdominal petiole red except at apex; face, clypeus, basal half of mandibles, palpi, the orbits all round, more broadly on the malar space, the yellow there extending to the base of mandible, a broad line on sides of pronotum, inwardly extending to shortly beyond the base of the parapsidal furrows, a mark on apex of middle lobe, twice longer than wide, the base round, the apex transverse, scutellum, the apical slope of metanotum, the top gradually narrow from the outside, tubercles, a longish triangular line on lower basal half



of propleuræ, a large spot on base of mesopleuræ, the top bluntly rounded, thence becoming, on the apical side, gradually widened to near the bottom, which projects into a square, the usual mark below the hind wings, a large triangular mark, the narrowed end above, on the metapleuræ and the apices of all the abdominal segments, whitish-yellow. The eighth to fourteenth antennal joints white. Wings hyaline, stigma and nervures dark fuscous, the former darker in front, areolet narrowed in front, as wide there as that bounded by the recurrent and second transverse cubital nervures, the recurrent received at the base of the apical third. Pro- and mesothorax smooth, furrows crenulated, the parapsidal weakly so, sternal more strongly, the part immediately below tegulæ to the yellow mark striated, the striæ continued down the upper half of the furrow. Base of metanotum weakly, sparsely punctured, the rest rather strongly, weakly reticulated; second transverse keel weaker than the basal. Abdomen smooth and shining, except the second segment, which is opaque and aciculated. ♀. Length, 7 mm.; terebra, 1.5 mm.

“Captured laying eggs in larvæ of small weevils (*Euthyrhinus meditabundus*), which were breeding in the stems of some Bangalow palms that had been killed in a bush-fire. Codling moth; Narara and Gosford (L. Gallard); “Codling Moth parasite”, Glen Innes (W. B. Stokes); in January.”

#### PANISCINÆ.

#### PANISCUS Gr.

#### PANISCUS PRODUCTUS Bé.

Hymen. iv., 156.

#### PANISCUS TESTACEINERVIS, sp.n.

Rufo-luteous; head, except occiput, pallid yellow, outer orbits narrowly yellow, head and thorax densely covered with a white pile, which is longer on the face, and, more particularly, on the metanotum; wings hyaline, stigma rufo-testace-



ous, darker-coloured along hinder margin, costa and nervures rufo-testaceous, basal nervures darker than apical; disco-cubital nervure with an indication of a stump, areolet longish, narrow, oblique, nervures meeting in front, outer nervure more obliquely sloped, posteriorly, paler and bent backwards towards the base, the recurrent nervure broadly rounded outwardly, in front more distinctly rounded than it is behind, the centre almost straight; transverse median nervure straight and bent slightly outwardly in front, the rest are bent towards the base, the two divisions forming, at their junction, a rounded angle. Stemmaticum rufous. Front stoutly striated, striæ roundly curved, separated in the centre by a smooth triangular space. Face closely punctured, the centre above with the punctures more widely separated, the lower central part almost smooth. Clypeus more sparsely punctured than face, especially below. Mesonotum almost smooth in the centre, sides closely, minutely punctured. Scutellum blackish, keels stout, raised, not meeting at apex. Base of metanotum smooth, the rest closely transversely striated, the basal striæ finer than the others. Propleuræ with a triangular, closely punctured space on the upper apical part, the rest closely, irregularly obliquely striated, to near the bottom, which is closely, distinctly punctured. Mesopleuræ closely, distinctly punctured, the central oblique hollow more or less weakly striated. Metapleuræ finely, closely punctured above, the rest rather coarsely, irregularly striated; temples broad, rounded, not much narrowed. First abscissa of radius in hind wings four times longer than transverse cubital. Length, 8 mm.

May be known from *P. productus*, by the fourth and following segments not being black, by the alar nervures not being black, by the areolet not having a nervure on the outer-side of the transverse cubital at its juncture with the lower pale abscissa, and by the recurrent nervure forming one curve, not two broadly rounded ones, a long anterior and a shorter posterior curve.



## PIMPLINÆ.

**Pimplini.**

## RHYSSA TUBERCULICOLLIS, sp.n.

Yellow tinged with fulvous; basal abdominal segment except narrowly at apex, the sides of the other dorsal, the apical broadly and the apical ventral, white, flagellum of antennæ, upperside of scape, stemmaticum; a mark in centre of occiput, broad and rounded above, narrowed below, with the sides roundly incised, a small, broad transverse mark on the apex of pronotum in centre, a slightly larger round spot in centre of basal half of mesonotum, a mark in the scutellar depression, narrowed at base, claws and apical joint of hind tarsi, with the whole of the ovipositor, black; second to fourth joints of hinder tarsi fuscous; wings hyaline, nervures and stigma black, areolet oblique, triangular, the nervures meeting in front, second transverse cubital nervure clearly longer than first, recurrent nervure interstitial; it is dilated backwards and angled shortly above; both branches are straight, oblique; disco-cubital nervure with a distinct stump of a nervure. The pronotum laterally becomes gradually widened from the base to the base of the apical fourth, then obliquely narrowed, so that a triangular tubercle is formed. Gastracœli shallow, the base finely striated, the rest fulvous, and there is a fulvous small round mark on the sides at the apex; the fourth and fifth segments have a fulvous mark, in the centre of the apical half, the sixth and seventh have broad fulvous lines, dilated at the apex, down the middle, that on the seventh the larger, and almost triangular.

Gosford, N.S.W. A common parasite of the cup-moth (*Doratifera vulnerans*); bred (L. Gallard).

## NEOTHERONIA TEIÆ, sp.n.

Luteous; face, clypeus, mandibles except the teeth (which are black), and the orbits narrowly, pallid yellow; stemmaticum black; upper side of antennal scape and flagellum



black; legs coloured like the body, hind tarsi black; wings hyaline, stigma testaceous, nervures black, areolet oblique, 4-angled, nervures almost meeting in front, recurrent nervure received shortly beyond middle, broadly rounded outwardly; transverse median nervure received very shortly beyond transverse basal. ♂. Length, 7 mm.

Tenterfield, N.S.W.; bred from *Teia anartoides*; in April (W. W. Froggatt).

Smooth and shining, sparsely covered with white pubescence. Metanotum with a large central area, which is narrow and of equal width at the base, then becoming roundly widened to the apex, where it reaches the outer edge; at the base, on either side, is an area, which becomes roundly narrowed towards the apex; the sides are bordered by a keel. First abdominal segment about twice and one-half longer than wide, and about one-half longer than second, which is almost square, and depressed at the base.

#### NEOTHERONIA ANTHERÆ, sp.n.

Luteous, smooth and shining; antennæ, mandibular teeth and hind tarsi black, oral region and mandibles pallid yellow; wings hyaline, stigma dark testaceous, nervures black, areolet oblique, four-angled, narrowed in front, recurrent nervure received at base of apical third, roundly, broadly curved; transverse median nervure received shortly beyond transverse basal. Metanotum with a large, longish triangular area on either side, inner keel gradually, roundly curved from base to apex, the outer more distinctly roundly curved into two parts, the basal being longer and more distinctly curved than the apical; from its apex, a keel runs down to the bottom, uniting with one which descends from the spiracles. Ovipositor as long as the hind tarsi. ♀. Length, 11 mm.; terebra, 4 mm.

Richmond River, N.S.W.; in April; bred from *Antheræa simplex* (W. W. Froggatt).



First abdominal segment about twice longer than wide; second wider than long. Antennæ longer than body, densely covered with short, stiff pile.

# ECHTHROMORPHA Holm.

## ECHTHROMORPHA INTRICATORIA Fabr., Ré.

Krieger, Bericht der Naturf. Gesell. zu Leipzig, 1898, 59.  
*Pimpla excavata*, Le Guillou, Ann. Soc. Ent. Fr., 1841, 312.

Hay, N.S.W., in November; Woolomin, N.S.W., "parasitic on cut-worm"; Tenterfield, N.S.W., bred from *Teia anartoides*, in April (Agric. Gaz. N.S.Wales, June 2nd, 1910, p. 466). It is said by Mr. Froggatt to be a parasite of the Banded Saltbush Moth, *Anthela (Darala) denticulata*.

A variable species in size, varying from 8 to 22 mm., in length; there is a variability, too, in the size and number of the yellowish-white markings, and the face and orbits may be clear yellow or fulvous. Such variation in size as I have indicated in this species, is not uncommon in the *Pimplinæ*.

# LISSOPIMPLA, Kriechbaumer.

## LISSOPIMPLA SEMIPUNCTATA Kirby.

*Rhyssa semipunctata* Kirby, Trans. Ent. Soc., 1883, 202.

*Lissopimpla semipunctata*, Cam., Mem. and Proc. Phil. and Ent. Soc. Manchester, xlv., 27; Krieger, Zeits. f. Hymen. u. Dipter. 1907, 206.

*Lissopimpla 10-notata*, Kriechb., Entom. Nachr. xv., 310, 2.

*Lissopimpla hæmorrhoidalis* Kriechb., *op. cit.* 310, 3.

Sydney, in November; National Park, in November.

A species variable in size, in the number and size of the whitish markings, and in the amount of red colour on the apical abdominal segments. It seems to be now established (as an introduction from Australia) in New Zealand. Mr. W. W. Froggatt thinks that it is a parasite of the "Army worm." *Leucania semipunctata* (cf. Agric. Gazette of N. S. Wales, Miscell. Publ., No. 732, p. 3.). In Agric. Gaz., 1910,



p. 466, it is said to be parasitic on the Banded Saltbush Moth, *Anthela* (*Darala*) *denticulata* Newm.

PHILOPSYCHE Cam.

PHILOPSYCHE ANNULIPES.

Black; shining; the parts bordering the scutellum and the metathorax densely covered with long white hair, the pubescence on the rest of the body shorter and sparse, apical abdominal segments fringed with white hair; underside of the scape and pedicle of antennæ, palpi, tegulæ, a raised point at their base and the four anterior legs lemon-yellow, their coxæ and trochanters paler; hind legs black, their trochanters, basal three-fourths of tibiæ except for a black band of the length of the yellow basal part, near the base, the spurs and the basal two joints except at apex, yellow; wings hyaline, stigma and nervures black; areolet triangular, shortly appendiculated, recurrent nervure interstitial with the second transverse cubital; transverse median nervure also interstitial; transverse cubitus in hind wings broken near the bottom. There are whitish yellow bands on the apices of all the abdominal segments, dilated laterally; those on the basal four have the dilatations clearly separated and of equal width, the other bands becoming gradually widened outwardly. The basal five ventral segments are white, with large black oval spots on the sides. ♀. Length, 16 mm.: terebra, 7 mm.

Mittagong; bred from "Case-moth."

Eyes very large, projecting, the incision deep, wide; the malar space very short. Face sparsely, weakly punctured, the rest of the head smooth. Thorax closely punctured, propleuræ smooth; mesonotum closely punctured, more sparsely at the apex in the middle; scutellum closely, and more strongly punctured, metanotum still more strongly punctured, the upper part of the metapleuræ similarly punctured, the lower basal half smooth, the apical distinctly, but not closely punctured. Mesopleuræ less strongly and more irregularly



punctured than the metapleuræ, the apical slope smooth. Basal five abdominal segments closely, rather strongly punctured, the puncturation becoming gradually weaker, especially towards the apex of the segments; there is a small black spot on either side of the apex of the second, third, and fourth segments on the apical slope. The usual furrows are more distinct on the fourth segment, forming a large, oval transverse mass on either side. Apices of tarsal joints spinose.

This is a larger species than *P. pilosella* Cam.; the two may be separated thus:—

- |                                                                                                                        |                              |
|------------------------------------------------------------------------------------------------------------------------|------------------------------|
| Hind tibiæ with a black band near base, basal two abdominal segments with the black bands dilated in the middle ... .. | ... .. <i>annulipes</i> Cam. |
| Hind tibiæ without a black band on the basal yellow part; bands on basal two abdominal segments transverse ... ..      | ... .. <i>pilosella</i> Cam. |

The type of *Philopsyche* (from Ceylon) was bred from the larva of a *Psyche*; it is interesting to find that the Australian species here described, has a similar host.

## OPHIONINÆ.

### Campoplegini.

#### AMORPHOTA EPHESTIÆ, sp.n.

Black; head and thorax densely covered with silvery pubescence; antennal scape lemon-yellow, black above, flagellum brownish, black above, mandibles except the teeth and the palpi yellow; four front legs yellow, femora fulvous, tibiæ slightly tinged with fulvous, the middle more deeply so than the anterior; hind coxæ black to near the apex, which is yellow, as are also the trochanters, the femora of a dark red, blackish on the basal upper half, tibiæ and tarsi blackish, the former tinged with dark testaceous below; spurs yellow. Wings short, hyaline, iridescent, nervures and stigma black, areolet petiolated, pedicle nearly as long as the transverse



cubital nervures; the areolet itself small, four-angled, receiving the recurrent nervure shortly beyond the middle; transverse median nervure interstitial, the apical nervures in hind wings obsolete. Abdomen twice longer than head and thorax united; the greater part of the basal three segments black, the rest rufo-testaceous, paler on the ventral surface; the ovipositor half its length. ♀. Length, 8; terebra, 2.5 mm.

Common in flour mills in Victoria and New South Wales. Parasitic on the introduced Flour-moth, *Ephestia kuhniella* (C. French, Junr., and W. W. Froggatt).

Head closely punctured, face and clypeus more strongly than the vertex. Pro- and mesothorax more closely and strongly punctured; a broad striated belt down the middle of propleuræ, a broad oblique one, becoming narrowed below, running down from the tegulæ to the middle and bordered by a smooth, shining space; apex crenulated. Metanotum with a small basal area and a large one extending to the apex in the centre, the latter with the base obliquely narrowed above, the rest from the end of the upper third becoming gradually widened, the whole being closely transversely striated; there is an almost semicircular basal lateral area, followed by a longish triangular one, the narrowed end below, not reaching to the apex; the inner keel bordering this is rounded, the outer straight; there is a large wide spiracular area, extending from the base to near the apex, where it is closed by a waved keel; the spiracles are about twice wider than long. Legs and sheaths of ovipositor densely covered with short white pubescence.

This parasite has been recently found in a number of flour-mills in New South Wales (Sydney, Wellington, etc.), where they infest the larvæ of the Mediterranean Flour-moth. It is also known in England, and the King Flour Mills, Limited, Ellermen Point, proposed to introduce them into Australia before it was discovered that they were well known in this country.



## CAMPOPLEX(?) CALAMÆ, sp.n.

Black ; legs red, the anterior paler in tint than the hinder, apex of hinder femora narrowly, base of hind tibiæ about twice longer, apex with a band almost twice the length of the basal, basal joint of the hind tarsi for the basal three-fourths all round and more prolonged below, black, the rest of it and the other joints pale yellow ; underside of antennal scape and a broad band on the middle white ; mandibles yellow to near the base of the teeth ; palpi of a paler yellow. Wings hyaline, nervures and stigma black, areolet oblique, twice longer than wide, first transverse cubital nervure short, one-quarter of the length of second ; apex of areolet acutely pointed, receiving the recurrent nervure near the apex. Tegulæ pale yellow. ♀. Length, 11 ; terebra, 6 mm.

Brisbane ; bred from Moth, *Calama expressa* Lucas (W. W. Froggatt).

Head and thorax opaque, abdomen shining ; head, pro- and mesonotum closely, finely, distinctly punctured, scutellum with punctures stronger and more distinctly separated, its apex with a band of rather strong, longitudinal striæ. Post-scutellum strongly aciculated, its apex striated. Basal half of posterior part of metanotum strongly aciculated, the apical in the centre strongly transversely striated, the rest irregularly, longitudinally and more closely striated, the striæ more or less curved ; the apical slope in the centre transversely striated, sides more strongly obliquely striated. Spiracular area at the base strongly, longitudinally striated, the rest strongly reticulated. Base of propleural furrow striated, the rest reticulated. Mesopleuræ finely, closely striated, the hollows more or less striated. Metapleuræ closely, distinctly but not very strongly vertically striated. Base of second, its apex and apex of third ventral segments pale lemon-yellow. Metapleural furrows twice and one-half longer than wide. There are distinct parapsidal furrows on the basal half of mesonotum,



*BOSMINA RAPI*, sp.n.

Black, shining; legs rufo-fulvous, middle coxæ to near the apex, the hinder entirely and the base of the hind trochanters and of the hind femora narrowly black; fore coxæ, apex of middle and all the trochanters, yellow; as are also the under-side of antennal scape, mandibles, palpi and tegulæ; hind tarsi slightly infuscated, spurs white, second and third ventral segments pale yellow; wings hyaline, stigma and nervures dark fuscous; the recurrent nervure is received at two-thirds of the length of the transverse cubital beyond the latter; transverse median nervure interstitial; radius forming a broad rounded curve, and issuing from the centre of the stigma. ♂. Length, 4 mm.

Gosford, N.S.W.; bred from "Turnip-moth" (L. Gallard).

Metanotum regularly areolated, there is a small but distinct petiolar area; areola is twice longer than wide, the basal third broadly rounded, the sides beyond that straight, apex transverse, posterior median area large, obliquely widened from the base to near the middle; it is transversely striated, the striæ more or less curved. Head, pro- and mesonotum, and pleuræ closely, distinctly punctured, densely covered with white pubescence, which is denser and closer on the face. Legs densely covered with white pubescence. The eyes when fresh had probably a greenish tinge; the incision or curvature on their inner side is slight, but distinct. Antennæ 26-jointed, shortly, densely pilose.

## TRYPHONINÆ.

**Tryphonini.***PHILOGALLERIA*, gen. nov.

Areolet large, five-angled, narrowed in front, receiving the recurrent nervure in the centre; the transverse median nervure received more than its own length beyond the transverse basal; disco-cubital nervure broken by a distinct stump of a



nervure; anal nervure issuing from shortly below the middle; transverse cubital nervure in hind wings broken near the top. Eyes incised on inner side, large, the malar space small. Clypeus separated, wide, broadly bilobate at the apex. Occiput margined. Mandibles unequally bidentate. Parapsidal furrows distinct, ending at the apical fourth, where they are united by a semicircular broad furrow. Scutellum roundly convex, the basal slope with a wide shallow furrow. Metanotum without keels; base with a large semicircular depression; spiracles prominent, longish-oval, raised into tubercles, below them is a large longish-oval tubercle; the sides at the apex project into a distinct triangular tooth. Abdominal basal segment long, but not so long as the following two united; spiracles prominent, and united to the base of the segment by a keel; they are placed at the apex of the basal third; second and third segments longer than wide. Legs longish, slender, hind coxæ four times longer than wide; there are two spurs on middle tibiæ; claws simple; basal joint of anterior tarsi roundly incised. Antennæ fully longer than the body, full 50-jointed [the apical joints are broken off].

A distinct and peculiar genus, of which unfortunately, at present, only the male is known. It should be readily separated from the described genera by the bilobate clypeus; by the large, clearly separated U-shaped middle lobe of mesonotum; by the prominent metanotal and abdominal spiracles, and by the sides of the metanotum, at the apex, projecting into triangular teeth.

The only species known may prove to be of economic importance, being a parasite of the destructive hive wax-moth, *Galleria mellonella* L.

PHILOGALLERIA SEXTUBERCULATA, sp.n.

Black, shining: head and thorax densely pilose, the pubescence on the head denser and longer than elsewhere; clypeus, mandibles, to near the teeth, inner orbit, the line dilated on the face, narrow above, becoming gradually widened below,



a line on the outer, commencing near the top, becoming widened below and extending on to the outer half of the malar space, a line on the pronotum, on the lateral lobe of pronotum, with a small spot on the outer side of the middle, tegulæ on the inner two-thirds, the rest brown with a darker spot in the centre, tubercles, a conical spot below them, transverse above, rounded below, a transverse oval mark on the apex of the mesonotum, scutellar keels, two large marks on the sides of scutellum, rounded at the base, obliquely narrowed at the apex, the apex narrowly, the keel running from it to the wings, postscutellum and its lateral keels, a conical mark in the centre of the metanotum, a line, about thrice longer than wide, almost transverse at the base, rounded at the apex, on the sides of apical slope, a conical spot on the mesopleuræ below the tubercles, a similar one, but more sharply pointed above, on the apex below in front of the middle coxæ and three marks, somewhat conical in shape, on the base of the metapleuræ, the lower more widely separated from the upper than these are from each other; and the apices of the abdominal segments—the line on the first broad, triangularly incised at the base; that on the second incised to near the apex; the others are entirely separated, obliquely widened from the outer basal side to the inner apical—the ventral segments with marks on the central keel and on the sides, all pale yellow, Legs bright red, the hind tarsi fuscous except at base and apex. Wings clear hyaline, stigma and nervures black. ♂. Length, 12 mm.

Victoria; bred from the bee-moth, *Galleria mellonella* (C. French, Junr.).

Front irregularly reticulated, vertex smooth, face and clypeus sparsely punctured. Pro- and mesothorax distinctly, but not very closely or strongly punctured, mesopleuræ more strongly than mesonotum, metanotum more strongly and closely punctured, metapleuræ almost smooth. Fore coxæ almost yellow, apices of the tarsal joints spinose.



## BRACONIDÆ.

**Braconinæ.**

BRACON, F. SEC. Foer. Szép.

BRACON AUSTRALASICUS, sp.n.

Black; pro- and mesothorax red, sides of first abdominal segment narrowly, second except for a narrow line down the middle, sides of third, fourth and fifth, and the ventral surface yellowish-white; apex of anterior femora, their tibiæ and tarsi testaceous; wings hyaline, stigma fuscous, costa and nervures black; first abscissa of radius one-quarter shorter than second, which is about one-fourth of the length of third, recurrent nervure faint; ovipositor longer than the body. ♀. Length, 4; terebra, almost 5 mm.

Reedy Creek, near Inverell. Caught on the wing, 9th November (W. W. Froggatt).

Smooth, shining; thorax sparsely covered with white pubescence. Mesonotum almost trilobate, but without distinct parapsidal furrows. Furrow at base of scutellum closely crenulated; there is an indistinct keel down the apical three-fourths of the metanotum. First abdominal segment as long as it is wide at the apex; second with a stout keel, not much dilated at the base, down the middle. Sutureform articulation closely, strongly crenulated. Third and following segments narrowly lined with white.

BRACON PILITARSIS, sp.n.

Black; head red, apices of third and following abdominal segments narrowly lined with pale yellow, basal ventral segments white; wings fuscous, highly iridescent, stigma and nervures black, recurrent nervure received in the first cubital cellule; second cubital cellule about four times longer than wide. Smooth and shining, the area on second abdominal segment large, longish-triangular, bordered by wide furrows,



separated at the apex by a short wide keel; it occupies the basal three-fourths of the segment. Sutureform articulation smooth, narrow. Legs densely pilose, hind tarsi with a dense, longish, stiff, black pile; base of fore-tarsi and fore tarsal joints broadly testaceous. ♀. Length, 6; terebra, 1 mm.

Reedy Creek, near Inverell, N.S.W. Caught on the wing. (8th November; W. W. Froggatt).

Abdomen longer than the head and thorax united. Pubescence white, sparse, denser on metanotum. First abdominal segment twice longer than it is wide at the apex. Hind tibiae densely pilose.

*BRACON LEVISULCATUS*, sp.n.

Black; head and thorax red, the head of a deeper, darker red than the thorax; sides of first abdominal segment and its ventral surface, and apices of fourth and fifth dorsal white; second and third with a semicircular mark on the basal half, testaceous; legs black, four hinder tibiae and tarsi fuscous-black, apex of femora, tibiae and tarsi rufo-testaceous; wings hyaline, costa and basal nervures black, apical and the stigma testaceous; second cubital cellule about thrice longer than wide, recurrent nervure received in first cubital cellule close to first transverse cubital nervure. ♂. Length, 4 mm.

Reedy Creek, near Inverell, N.S.W. (September 8th; W. W. Froggatt).

Smooth and shining; first abdominal segment twice longer than it is wide at apex, lateral keels stout; the area on second segment longish-triangular, reaching to the base of the apical fourth, the bordering furrows wide, smooth, separated at the apex, but not by a keel, the area becoming gradually narrow, the furrow smooth. There is not a distinct scutellar furrow. Stemmaticum darker-coloured than the rest of the vertex. First abdominal segment one-half longer than wide at the apex; second square.



## RHOGADINÆ.

**Doryetini.**

SYNGASTER LEPIDUS Brullé, Hymén. iv., 459.

New South Wales: Narrabeen (W. B. Gurney); Kenthurst (W. W. Froggatt)—Van Dieman's Land (Brullé).

*Syngaster* Bé., is a composite genus, which is split up by Szépligeti into four. Brullé's Section 3 of *Syngaster* (that containing *S. lepidus* and *S. annulicornis*, both from Australia) he does not define. As it seems to be a good genus, I give a generic and specific description of it. In form and general colouration, the species is not unlike *Hecabolus quadricolor* Cam.; in fact, if the obliteration, by the bullating, of the second transverse cubital nervure had gone slightly farther, the species might be referred to the *Hecabolini*.

Head cubital, temples longer than eyes, rounded, the occiput margined. Eyes comparatively small, oval; the malar space as long as these. Wings with three cubital cellules, the basal two small, first longer and wider than second, which is narrowed in front; basal two abscissæ of radius short, equal in length, the third fully four times longer than both united; recurrent nervure received at apex of first cubital cellule, transverse median interstitial. Anal nervure interstitial, radius issuing from shortly beyond the middle of stigma; the three transverse nervures in hind wings are all united. Base of metanotum with a short longitudinal keel. Mesonotum trilobate; mesosternum bordered by a distinct smooth furrow. Abdomen sessile, the first segment of almost equal width, about one-half longer than wide; there is a curved, crenulated furrow shortly beyond the middle of second segment; beyond it, is a straight crenulated furrow; and beyond this, a straight smooth one; penultimate segment more than twice the length of the last, and slightly longer than the preceding. Legs stout, moderately long; spurs and calcaria short and stout. Front not excavated. Fore tarsi twice as long as the tibiæ.



Black; head red, mandibles reddish-yellow, the apex broadly black, palpi rufous; scutellum tinged with red, metanotum, metapleuræ and basal segment of abdomen yellowish-white; fourth and following segments with broad dark rufous bands, the last segment entirely red, ventral surface sordid white, hypopygium fuscous, broad; legs dull red, densely covered with longish white pubescence, the outer side of the fore coxæ, the four posterior and their trochanters black; hind tarsi fuscous. Wings fuscous-violaceous, paler to the parastigma, stigma and nervures black. ♀. Length, body and ovipositor, 13 mm.

Narrabeen (W. B. Gurney); Kenthurst (W. W. Froggatt).

Head, pro- and mesothorax smooth; propleural furrow striated. Scutellar depression large, deep, of equal width, with seven stout striæ. Apex of scutellum punctured in the centre of apex. The depression bordering the postscutellum strongly striated. Metanotum strongly punctured, the punctures irregular, strongest in the middle of basal half; there is a strong, longitudinal keel on the basal fourth. Abdomen smooth, first segment with some punctures and striæ on the centre, the two basal furrows closely crenulated, the third almost smooth.

#### MICROGASTERINÆ.

##### APANTELES TASMANICA, sp.n.

Black; ventral surface of abdomen rufo-fulvous, legs rufo-testaceous, coxæ black, hind femora broadly above and below, more than the apical half of the hind tibiæ, and the hind tarsi black, the extreme base of the latter and the spurs whitish; wings hyaline, stigma and nervures dark fuscous; the radius nervures form a broad, rounded curve. Palpi white, mandibles rufo-testaceous.

♀. Launceston, Tasmania (F. M. Littler).

Densely covered with short white pubescence, that on the eyes being also white. Head almost smooth, thorax above finely, closely punctured, pleuræ bare, smooth and shining.



The first abdominal segment is almost square. The hypopygium is prominent, cultriform, black. The fulvous colour on the ventral surface is broader on the basal half. The ovipositor is slightly longer than the abdomen. In the male, the abdomen is black on the ventral surface. The metanotum has no keel, but has a shallow furrow down the middle; its sides are bordered by a keel, which, at the apex, runs on to the central part; the metanotum is strongly aciculated and densely pilose. Coxæ closely, distinctly punctured, except at the base below. There is a distinct furrow down the basal three-fourths of the mesosternum, ending at the apex in a fovea.

#### APHIDIINÆ.

##### LIPOLEXIS RAPÆ Curtis.

Ashmead, Proc. Linn. Soc. N.S. Wales, 1900, 353.

Albury, New South Wales. Bred from cabbage-aphis (W. W. Froggatt; in May). A common parasite in Australia, upon the cabbage-aphis. Found in Victoria and New South Wales, in most cabbage-gardens (W. W. Froggatt).

It is, no doubt, an introduction into Australia, along with its host. It is to be hoped that it may help to reduce the number of the latter, as it does in Europe and the United States.

#### OPIINÆ.

##### OPIUS EUTHYRRHINI, sp.n.

Ferruginous; antennæ and head black, clypeus dark rufous, palpi rufo-testaceous; ovipositor black, its tip narrowly white; wings hyaline, stigma and nervures dark testaceous; second cubital cellule narrowed towards the apex; first transverse cubital nervure about one-third longer than the second, bullated at its junction with the cubitus, recurrent nervure received in the apex of first cubital cellule, transverse median nervure received shortly beyond the transverse basal; anal nervure issuing from near the bottom; at the apex of the



basal third and the base of the apical third of the posterior nervure is a short stump of a nervure. Face closely, somewhat strongly, longitudinally punctured, the punctures running into each other. Front deeply excavated in the middle, sides of the depression straight, the centre keeled, irregularly transversely striated; lower half of the sides of the front transversely, closely, slightly obliquely striated, the upper part sparsely punctured, more closely so on the lower inner part. Vertex, occiput and upper part of outer orbits smooth, lower part of the outer orbits closely punctured. Pro- and mesonotum smooth, pronotum with two rounded keels united at the apex. Lateral lobes of mesonotum and a semicircular space on the basal third of the central smooth, the rest of the central longitudinally reticulated; it is deeply depressed; lateral lobes on the outside bordered by a rounded, stout keel. Scutellar depression stoutly striated. Scutellum sparsely punctured, gradually narrowed towards the apex; the sides below are stoutly striated. Metanotum stoutly, irregularly reticulated, with two irregular areas on the apical slope, the upper the larger. Pro- and mesopleuræ rugosely punctured and striated, the lower part irregularly reticulated; metapleuræ more strongly and regularly reticulated. Mesosternum almost smooth, its furrow crenulated. First abdominal segment strongly, irregularly striated to near the middle, the central part bordered by a stout keel on either side. Abdomen shorter than thorax; its second segment is the longest, being longer than all the following united. Legs densely covered with white pubescence, coxæ closely punctured. ♀. Length, 6; terebra, 4 mm.

Gosford, N.S.W. Bred from the palm-weevil (*Euthyrhinus meditabundus* (L. Gallard).

Head wider than the thorax; occiput roundly incised, margined. Legs stout, hind tarsi infuscated; the legs are densely covered with white pubescence.

The Opiines are mostly parasitic on Diptera: one Australian species, *Diachasma carpocapsæ*, has been doubtfully



recorded as a parasite of the destructive Codling Moth (*cf.* Ashmead, Proc. Linn. Soc. N.S. Wales, 1900, 357); but Ashmead suggests that it may really have fed on the fruit-fly, *Dacus tryoni*.

## CYNIPIDÆ.

### Eucælinæ.

#### HEPTAMEROCERA LONCHÆÆ, sp.n.

Black, smooth and shining; mandibles and legs red, antennal scape and the basal two or three joints of the flagellum of a darker red, metapleuræ tinged with piceous; abdominal hair fringe slightly dull rufous; wings hyaline, nervures dark fuscous, first abscissa of the radius about one-third shorter than second; areolet open, the cubitus traced near to the end. Antennal scape thicker and slightly longer than the third joint, which is thrice longer than wide; the fourth is not twice its length, is slightly curved and narrowed at the base, and is fully one-quarter longer than the third, and double the length of the fifth, which is shorter than the third. ♂. Length, 3 mm.

Gosford, N.S.W. (W. B. Gurney). Bred from the Tomato-fly (*Lonchæa splendida*).

In one specimen, the ventral surface is piceous-red. I can only refer this species to Ashmead's genus *Heptamerocera*, but having only a male, I cannot be certain about its generic location. I cannot make out, too, if there is an abdominal hair-fringe or not.

## CHALCIDIDÆ.

### Chalcidinae.

#### CHALCIS TEGULARIS, sp.n.

Black; hind femora except the teeth black, the four anterior knees, fore tibiæ in front and at the base and apex behind, testaceous; middle tarsi except the apical joint, which is fus-



cous, a band the length of the black basal part, near the base of the hind tibiæ, and the basal four joints of the hind tarsi, white; wings hyaline, nervures black; the apical three-fourths of the tegulæ grey, base with a semicircular black spot. Hind femora with at least ten teeth, the basal small and closely pressed, the apical larger, more clearly separated and rounded; the teeth are almost hidden by dense white pubescence. ♀. Length, 5 mm.

Sydney; in February; bred from pupa of butterfly, *Miletus hecalmus* (G. A. Waterhouse).

Head and thorax coarsely umbilically punctate, metanotum widely reticulated. Propleuræ coarsely aciculated, the lower part with two or three oblique striæ, bordered below by an oblique longitudinal one. Mesopleural furrow striated on the upper three-fourths; the lower basal part irregularly reticulated. Metapleuræ closely, regularly reticulated. Abdomen with the third and following dorsal segments punctured, and densely covered with silvery pubescence. Flagellum of antennæ opaque, densely covered with a white pile.

ANTHROCEPHALUS POMONELLÆ, sp.n.

Black; tegulæ, legs and basal four abdominal ventral segments red; wings hyaline, stigma and nervures black; a cloud at the marginal nervure extending to the stigmal branch, faint at the posterior part, which extends to the apex of the anterior third, the dark-tinted part wider than long, widened on either side at the apex, which is covered inwardly; there is a fainter irregular cloud in the centre, at the end of the post-marginal nervure, placed nearer the anterior than the posterior margin; the lower part of the orbits, malar space, metapleuræ, and the apical abdominal segments densely covered with silvery pubescence. Apex of scutellum bluntly, triangularly bilobate. Metanotum closely reticulated; an area down its centre, about four times longer than wide, of equal width, but slightly roundly narrowed at the base and apex,



irregularly transversely striated; at the base, on either side, is a deep crenulated furrow, slightly narrowed on the inner side, and bounded on the outer side by a stout, raised keel; beyond this are two roundly curved, oblique keels, uniting before the metanotum, then forming a small triangular area: the space between the two bears seven or eight keels. Mesonotum more widely and strongly punctured than pronotum, scutellum than the mesonotum. Propleuræ above coarsely, umbilically punctured; below, with some stout, irregular keels. Mesopleuræ with the centre stoutly, closely, longitudinally striated; this part, at the base, is bordered by a smooth, flat, shining keel, which bends shortly above the middle, to the middle coxæ; the space behind this is irregularly reticulated; the apex above is rugosely punctured, below smooth, the top part at the apex bordered by six foveæ in two rows of three each. Metapleuræ closely, coarsely, umbilically punctate. Abdomen not much longer than thorax, the terminal segments opaque, shallowly reticulated. The apex of the fore femora and the tibiæ broadly in the middle are black; the underside of the hind femora densely covered with white pubescence. ♀. Length, 4 mm.

Narara, N.S.W.; bred from the codling moth, *Carpocapsa pomonella* (W. B. Gurney).

The inner orbits are bordered by a stout keel which, at the top, runs round the anterior ocellus, this part being narrower than the rest; the space between the keel and the eyes is crenulated; the hinder ocelli are placed outside the keel; the top of the antennal scape reaches to the ocelli. The malar space is slightly shorter than the eyes.

Mr. J. C. Crawford (Proc. U.S. Nat. Mus., fig. 41, 271), describes *Halticella stokesi*, bred at Glen Innes, N.S.W., from the codling moth, which agrees very closely in colouration with the species described. My species, however, is not a *Halticella*, which genus has the hind femora armed with about twelve small teeth. *A. pomonellæ* is not unlike *A. carpocapsæ*; but it is larger, has entirely black antennæ, and the lobes on



the apex of the scutellum more distinct; and the base of the metanotum has a crenulated lateral border at the base.

### EURYTOMINÆ.

#### LISSEURYTOMA, gen. nov.

♂. Marginal vein thrice longer than stigmal, postmarginal shorter than the latter, the stigmal branch as long as the latter, its apex slightly thickened, oblique. Head and thorax not umbilically punctate, smooth, parapsidal furrows distinct; scutellum large. Metanotum flat, triangular, its sides stoutly keeled, flat, the middle with two fine keels. Scutellum large, narrowed towards the base, the apex broadly rounded, margined by a keel. Abdomen with the basal segment sessile, longer than any of the others, the second to fifth of almost equal length. Eyes ovate, the lower side more sharply pointed than the upper; malar space two-thirds of their length. Antennæ 12-jointed, stout, third joint conical, longer than wide, fourth and fifth as wide as long, the others wider than long. Legs stout, hinder tibiæ with one spur.

The thorax is longer than usual, but not the pronotum; it is fully one-half longer than the abdomen; the flattened, only slightly sloped metanotum adds to its length. The head is transverse behind; the temples are very slightly developed. The ocelli are in a wide triangle, in almost a curve.

A distinct genus. The single spur on the hind tibiæ separates it from all the other described genera, except *Phylloxeroxenus*, but that has the thorax umbilicately punctate. The pronotum is not quite so largely developed as it is in *Eurytoma*, and is more distinctly narrowed at the base.

#### LISSEURYTOMA VIOLACEITINCTA, sp.n.

Black, abdomen distinctly violaceous, base and apex of tibiæ obscurely, and tarsi, testaceous; wings hyaline, nervures black, an obscure cloud, of transversely oval shape,



before the stigmal branch. Pro- and mesothorax opaque, pro- and mesonotum very finely, closely, transversely striated in front. Metanotum smooth, shining. ♂. Length, 4 mm.

Gosford, N.S.W. Bred from she-oak galls (*Casuarina* sp.); in November (W. W. Froggatt).

The hair on the legs and metapleuræ is longer than elsewhere; that on the legs is long, white and sparse. Hind tibiæ flattened, broader than the others; metatarsus as long as second and third joints united, and a little shorter than the apical. The apex of the antennal scape does not reach much beyond the middle of front, nor do the antennal depressions.

*EURYTOMA TASMANICA*, sp.n.

Black; flagellum of antennæ, including the pedicle, testaceous; legs yellowish-testaceous, paler than the antennæ; coxæ and hinder femora (more broadly in ♂ than in ♀) black; wings hyaline, nervures pale testaceous. Mandibles in both sexes rufo-testaceous, their teeth black; in ♀ there is a longish conical mark on either side of the clypeus; in ♂ this mark extends slightly obliquely up on either side of the centre of the face to near the antennæ, the clypeus being entirely rufo-testaceous. The antennæ in ♂ are black, except the pedicle, and the narrowed part of the flagellar joints are testaceous; the hairs are stiff, black, and longer than the joints. Pubescence of head, thorax, and legs white, moderately dense. Abdominal petiole in ♂ as long as hind coxæ. ♂ ♀. Length, 2 mm.

Launceston, Tasmania (F. M. Littler).

Head above opaque, the face more shining. Thorax aciculated, pronotum sparsely, umbilically punctate. Basal third of mesonotum finely, closely, transversely striated; the rest strongly aciculated, sparsely punctured, the scutellum finely, closely punctured, and with some scattered punctures. Pro- and base of mesopleuræ opaque, alutaceous; the apex of the latter finely, closely reticulated. Metapleuræ finely rugose, opaque. Pedicle of antennæ in ♀ twice longer than wide,



the second joint roundly narrowed at base, as long as wide, the others to the club wider than long. Abdomen very smooth and polished, the pedicle in ♀ short; fourth segment much longer than the others, fully one-half the total length of the body. Stigmal branch with the knob longish, semicircular, projecting at the apex above.

TEPPERELLA TRILINEATA, sp.n.

Fulvous-yellow, mesonotum darker in tint; antennæ, tips of mandibles, occiput except the orbits, basal slope of pronotum broadly, a line, dilated at the base, down the middle of mesonotum, commencing near the base and extending to the apex, a broad curved line on the sides of the apical three-fourths, scutellar depression, metanotum except a triangular mark in the centre, a large triangular mark on the mesopleuræ, the narrowed end at the base, sternum, metapleuræ except at the base, base of first abdominal segment, a line down the centre, two oblique lines, united at the base, on the second, penultimate and the greater part of the ventral surface, black. Legs coloured like the body, hinder trochanters marked with black. Wings hyaline, iridescent, margins ciliated, nervures black. ♀. Length, 3 mm.

Melbourne Botanic Gardens, from galls on *Acacia decurrens* (C. French). Launceston, Tasmania (F. M. Littler; from galls).

Smooth, sparsely covered with white pubescence, legs with the pubescence longer and denser, antennæ with the basal four or five joints of the flagellum covered, moderately thickly, with stiff blackish hair. The centre of the mesonotum appears to be finely transversely striated.

This species differs from *T. maculiscutis* Cam., in its main features thus:—

Head black, mesonotum immaculate, scutellum maculate, back of abdomen entirely black .....	<i>maculiscutis</i> .
Head fulvous, mesonotum trimaculate, scutellum immaculate, back of abdomen not entirely black.....	<i>trimaculata</i> .



**Decatomini.****CRATODECATOMA, gen. nov.**

Antennæ apparently 11-jointed, placed in the middle of the head, malar space two-thirds of the length of the eyes; antennal scape not reaching to the ocelli; antennal depression shallow, not clearly defined, narrowed above. Ocelli in a curve. Occiput not margined. Pronotum moderately large, roundly narrowed from the apex to the base, its apex wider than its length. Parapsidal furrows present. Scutellum large, narrowed to a point at the base, the apex broadly rounded, margined. Metanotum triangular, with a rounded slope, the sides and centre keeled, and with three or four striæ on either side. Abdomen shorter than thorax, the back flat, with the sides rounded; the first segment is the largest, not quite so long as the following three united, the fourth and fifth longer than the preceding two; the ovipositor short, broad, projecting upwards. Wings with a large cloud in front shortly beyond the middle; marginal vein twice the length of the post-marginal, which is not quite so long as the stigmal branch; the latter cleft at the apex; the lower division the larger, it is thicker and triangular. Legs stout, the hinder longer and thicker than the others; middle tibiæ with one spur, the hinder apparently without any. Pronotum and base of mesonotum finely punctured, the rest of the latter finely, closely transversely striated.

The hind tibiæ appear to have some bristles behind, but they are not very distinct, and, if really such, are confused with the hair. The antennæ are thickened towards the apex; the pedicle is narrowed towards the base, and is twice longer than it is wide at the apex; the third joint is longer than wide, the fourth and fifth as wide as long, the others wider than long. I am not sure as to the number of joints, not being certain as to the number in the club; counting the club as being composed of two and not counting the ring-joint, there are eleven.



The pronotum is shorter and narrowed in front as compared with *Decatoma*; it also differs in the mesonotum and scutellum not being umbilically punctate, in the marginal vein being longer and not thickened, and the abdomen sessile, not with a distinct peduncle as in *Decatoma*. When the male has been discovered, the species may have to be removed from the *Decatomini*, of which it has hardly the facies.

CRATODECATOMA RUFICEPS, sp.n.

Black; head, apex of pronotum, almost the basal half of mesonotum, basal abdominal segment entirely and the sides of the second and third, red; antennal scape and the following two joints of a paler red; legs black, tarsi rufo-testaceous, their last joint black; wings hyaline, a large fuscous cloud at the middle, extending from the base of the marginal to the end of the postmarginal vein and enclosing the stigmal vein; it is narrowed at the costa, becomes slightly roundly widened to the apex, *n.e.*, posteriorly, which is roundly transverse and extends shortly beyond the middle. Head closely, finely punctured, occiput more finely punctured than the rest. Pronotum finely, closely, transversely punctured, mesonotum more strongly transversely striated, the centre more strongly than the sides. Basal half of scutellum finely, closely striated, the striæ broadly rounded; the apical more strongly transversely striated, except at the extreme apex, which is smooth. The raised, broadly rounded, central part of the metanotum smooth, the basal lateral part aciculated. Propleuræ distinctly closely striated, the striæ roundly curved. Meso- and metapleuræ smooth, at the most faintly aciculated, and shining. Hind coxæ shining, aciculated, striated. Basal half of abdomen smooth, the apical aciculated. ♀. Length, 5 mm.

Gosford, N.S.W. Bred from galls on sheoak (*Casuarina* sp.); in November (W. W. Froggatt).

The pubescence is short and very sparse; it is longer and denser on the tibiæ. Ovipositor broad, obliquely directed



upwards from the ventral to the dorsal surface, its apex projecting shortly above the back.

CLEONYMIDÆ.

**Cleonyminæ.**

ARESSIDA ANNULICORNIS, sp.n.

Dark bronzy-red tinged with green; on top, the pleuræ and sternum blue, more or less tinged with indigo above, the upper part of the meso- and the metapleuræ purple, the basal four dorsal segments of the abdomen fiery red; the apical, the sides and ventral surface, dark purple, the sides of the second to sixth above with emerald-green spots; that on the fourth longish, oval, extending from the top to the bottom, much larger than the others; these spots are densely covered with silvery pubescence. Legs red, coxæ to near the apex blue, tinged with violaceous, hind coxæ with a fiery red spot on the apex above; apex of the fourth front femora, the hinder for the greater part and the base of the tibiæ, dark bronzy green and blue, base of the hinder femora of a brighter blue; knees pale testaceous. Wings hyaline, nervures dark fuscous; a longish pyriform cloud at the end of the submarginal vein and touching it, the narrowed end in front; a smaller, transverse, triangular cloud beyond it, a much larger cloud at and touching the stigmal vein, narrow at it, commencing near the base, and extending a little beyond its apex; thence it becomes gradually roundly widened, more so at the base than at the apex. ♀. Length to end of ovipositor, 12 mm.

Gosford, N.S.W. Parasitic on a weevil, *Euthyrrhinus meditabundus*, from the stems of Bangalow palm (L. Gallard).

Head behind the ocelli with fine, close, rounded transverse striæ, below with stronger longitudinal striæ, the striæ more or less striated; the outer orbits somewhat similarly striated. Malar space as long as the eyes; there is a fine furrow down its centre. Eyes distinctly converging above, separated there.



by the length of the fifth antennal joint. Anterior ocellus larger and paler than the others, and separated from them by double the distance these are from each other. Pro- and mesonotum, and scutellum closely covered with roundly curved striæ; those on the base of the pronotum stronger and more widely separated than on the rest; apex of scutellum with a rounded projecting border. Metanotum smooth, the centre with stout diverging striæ, the outer longer than the inner; the sides densely covered with silvery pubescence. Abdomen shining, smooth; the basal two segments larger than the others; not much longer than wide. The third and fifth longer than wide, the sixth still longer, of equal width, tubular; beyond it, is a much longer segment above and closely pressed to the ovipositor, which is broad, of equal width, and projects one-third of its length beyond it. There is a smooth keel down the centre of the pronotum; its apex becomes gradually widened from the middle. Scutellum obliquely narrowed at the base, which is transverse, and one-fourth the width of the broadly rounded apex. Mesopleuræ above the furrow closely, regularly reticulated, below vertically, more or less obliquely striated, as are also the metapleuræ, the basal (and larger) part more strongly so. Parapsidal furrows distinct, curved. The fore and posterior femora are thickened, the anterior with a curved incision on the lower part of apex; the middle thinner and narrowed at the apex. There are some longish, scattered, white, weak spines on the hind tibiæ; the tarsi have shorter and more numerous spines; the shorter spur of the hind tibiæ is longer than the width of the apex of tibiæ.

*ARESSIDA NIGRICORNIS*, sp.n.

Length, 6; terebra, 2 mm.

Belmore, near Sydney, N.S.Wales (F. Taylor).

The difference between this species and *A. annulicornis* may be shown thus:—



Antennæ entirely black, the knees not pale, the basal cloud in forewings of equal width, the apical not roundly curved and narrow, its base oblique; the upper part of ovipositor shorter than the preceding two segments united, longer than the apex of the projecting lower part.....*nigricornis*.

Antennæ with the base of flagellum annulate, the knees pale, the basal cloud in forewings narrowed at the base, the apical roundly gradually widened from the base; the upper part of ovipositor longer than the preceding three segments, nearly two-thirds of the length of the lower part .....*annulicornis*.

Almost similar as regards colouration and sculpture to *A. annulicornis*. The antennal scape is metallic green, the basal joint of flagellum is dark purple; the upper part of the antennal depression dark purple. Parapsidal furrows shallow. Metanotum strongly, irregularly striated, the striæ more or less oblique, of equal length. Stigmal vein oblique, not projecting in front at the apex. The apex of scutellum strongly, regularly crenulated behind the keel.

It is probable that *Aressida* may be the same as *Thaumasura* West., but there are, apparently, some structural differences.

#### TORYMINÆ.

##### CALLIMOME GRAMINIS, sp.n.

Green with blue and brassy tints, flagellum of antennæ black; the four anterior knees, tibiæ and tarsi, and the base and apex of hind tibiæ, and hind tarsi, pale straw-yellow; palpi of a paler yellow; wings hyaline, their apex ciliated, nervures black. ♂.Length nearly 2 mm.

Boggabri, N.S.W.; in January; bred from seeds of grass, *Panicum* sp.(W. W. Froggatt).

Flagellum of antennæ fuscous on the apex and under side, closely covered with a microscopic pile; its second joint twice longer than wide, clearly longer than the third. Head minutely punctured, and with scattered punctures. Middle lobe of mesonotum closely, distinctly punctured, and with some indications of minute striæ; parapsidal furrows distinctly curved; the lateral lobes almost smooth, the puncturation much finer than it is on the middle lobe. Scutellum finely, closely, regularly punctured,



more so than the mesonotum. Central part of metanotum finely, closely punctured, somewhat more strongly so than the scutellum; the sides are smooth, and are bounded by a distinct, clearly defined, oblique furrow, which makes the sides triangular. Upper part of mesopleuræ smooth, this smooth part forming an irregular curve; the centre is depressed, closely, finely striated; this striated part is roundly curved above; below bounded by an oblique straight margin. In the wings, the stigmal vein is of the same length as the postmarginal, while with some, at least, of the European species, it is shorter. I do not know that any species of *Callimome*, like some, at least, of *Megastigmus*, have been shown to be phytophagous. (See my paper in "The Entomologist," April, 1910, pp. 114-115). The present species fits in better with *Callimome* than with *Torymus*, but I am unable to examine the mandibles properly.

CALLIMOME RETICULATUS, sp.n.

Green, abdomen largely tipped with blue, probably almost entirely so in some specimens, antennal scape and pedicle green, flagellum bronzy-brown, covered with a microscopic pile. Head aciculated, sparsely punctured. Mesonotum finely, closely reticulated, the lateral lobes more finely and closely than the central; the furrows distinct, curved, not very deep; a shallow furrow down the middle of the basal half. Scutellum more finely and closely reticulated than the mesonotum, its apex broadly rounded. Centre of metanotum finely, closely reticulated, the sides smooth. Pleuræ smooth, apex of mesopleuræ with a steep slope, which forms almost a furrow. Legs dark green, tinged with blue, apex of femora and tibiæ and the greater part of the tarsi yellow. Wings hyaline, nervures black, postmarginal branch distinctly longer than the stigmal, the knob of the latter with the apex broadly rounded, the base triangular. ♂. Length, 2 mm.

Boggabri, N.S.W.; in January; bred from seeds of *Panicum*.

This species was gummied on the same card with *C. graminis*, both species represented by males only. They are, I consider, good species; *C. reticulatus* should be known by the closely reticulated mesonotum, of which the lateral lobes are not smooth, as



in *C. graminis*, but reticulated; the mesopleural furrow is narrower, and more clearly defined; *C. graminis* has no furrow on the centre of the mesonotum. Its abdomen is longer, compared with the thorax; and the flagellum of the antennæ has a more distinctly metallic tinge.

#### ELACHERTINÆ.

##### Elachertini.

##### CLUTHAIRA, gen.nov.

Eyes large, pilose, malar space one-fourth their length. Pronotum moderately large, roundly narrowed from the apex to the base. Parapsidal furrows more distinct on the apical half than on the basal. Scutellum broad at the base, of equal width without the dorsal grooves, large. Metanotum not much sloped, semi-circular; bounded laterally by a furrow, its centre with a narrower furrow. Abdomen with a distinct petiole, about twice longer than wide, sloping downwards; second segment nearly as large as all the others united; apical segments forming a triangle, being gradually narrowed from the second to the apex. The long spur of the middle tibiæ is two-thirds, the hinder one-half the length of the metatarsus. Marginal nervure very long, more than twice the length of the submarginal; postmarginal short, stigmal short and thickened towards the apex. The submarginal vein is faint on the apical half, and is united to the marginal above its base, the two forming, with the projection of the latter, a sharp angle. The head is narrowed below in front, forming a triangle. Ocelli in an equilateral triangle. Head wider than the thorax. Temples short, occiput broadly rounded, incised. The abdomen is turned up in all the specimens examined, pretty much as in the ant-genus, *Crematogaster*. The mesonotum is wider than long; there is an oblique furrow on either side of the middle at the apex. The last antennal joint may be composed of three; it forms a longish, conical mass. Body and legs metallic.

Belongs, or at any rate comes closest to *Elachertini*. In Ashmead's System (Mem. Carn. Mus., i., 354) it comes near *Elachertus*. Characteristic are the pilose, large eyes.



## CLUTHAIRA AGARISTÆ, sp.n.

Dark blue, second segment of the abdomen of a bright blue; legs dark blue, hind femora bright metallic blue; hind tibiæ dark blue or black, the four anterior, for the greater part, black; the base and apex of the femora and tibiæ may be testaceous; tarsi white, except the last joint; wings clear hyaline, nervures pallid testaceous. Smooth, shining, mesonotum transversely striated. ♀. Length, 2 mm.

Sydney. Parasitic on *Agarista glycine* (W. W. Froggatt).

## EUPLECTRUS AGARISTÆ Crawford.

This species is stated, by Mr. Froggatt, to feed on the outer surface of the larvæ of the vine-moth (*Agarista glycine*), and to form their cocoons in company, enveloping them in a mass of dark greyish, coarse, woolly hair, on the remains of the devoured caterpillars.

*E. australiensis* Ashm., (Proc. Linn. Soc. N. S. Wales, 1900, p.347) is a closely allied species; it may be known by the hind coxæ being black, and by the mesonotum not being striated, but sparsely punctured in front, smooth behind.

*E. agaristæ* has been recently described from examples sent by Mr. W. W. Froggatt, in 1900, by Mr. J. C. Crawford, in Proc. U.S. National Mus., Vol. xli., 281(1911). This species is probably common and somewhat variable, both in colouration and sculpture; e.g., there may, or may not, be a keel down the middle of mesonotum.

## ENCYRTIDÆ.

## Eupelminæ.

## EUPELMIS TESTACEIVENTRIS, sp.n.

Blue with brassy tints on the base and sides of the mesonotum, antennal scape dark green, flagellum black; the second and following dorsal, and the whole of the ventral surface, yellowish-testaceous; sides of second blue, base of the basal segment yellow, ventral keel black; ovipositor almost one-half the length of abdomen, its basal third black, the rest yellow; legs pale strami-



neous-yellow, coxæ blue to near the apex; tarsi with the apex black, wings hyaline, nervures pale yellowish-testaceous. Length, 2; terebra, 5 mm.

Boggabri, N.S.W.; bred from seeds of grass, *Panicum*? (Fry; 29th January).

Face finely, closely aciculated; malar space with a distinct, curved furrow. Palpi pale testaceous; mesonotum closely, finely, almost transversely, striated; the middle lobe clearly separated, longer than it is wide at the base, the apex broadly rounded, the lateral lobes with a distinct transverse furrow at the base; the middle one surrounded by a wide furrow, which is widest at the apex, where it is transverse. Scutellum pyriform, roundly narrowed to a blunt point at the base, where it is bounded by a furrow, which is more distinct on the sides than in the middle. There is an irregular black spot near the apex of the middle femora, a more distinct line or band near the base of the tibiæ, and a broad, black line on either side of the basal half of the hind femora; base of the hind tibiæ infuscated.

Probably the blue varies in tint, changing to green or brassy. Allied to *E. antipoda* Ashm., which may be known by the abdomen being entirely æneous-black, and the femora and tarsi, for the greater part, æneous-black.

#### PTEROMALINÆ.

##### PTEROMALUS STIRONOTUS, sp.n.

Dark coppery-green, abdomen dark bronzy-violaceous, antennal scape yellow, flagellum fuscous; legs yellow, darker at the base, tarsi paler; wings hyaline, slightly tinged with fuscous in the middle, nervures black. Metanotum with a distinct keel down its centre, the sides distinctly margined, narrowed obliquely towards the apex, depressed inside the lateral keels. Head and thorax not very shining, smooth, front and vertex with some minute punctures. Vertex rather deeply, widely, roundly emarginate. Antennal scape separated from the ocelli by one-third of their length. Ocelli in a curve, the hinder separated from each other by double the distance that they are from the eyes. Palpi



yellow. Apex of clypeus slightly, roundly incised. Mandibles fuscous. ♂♀.Length, 1.5 mm.

Under a high magnifying glass, the thorax is seen to be finely, closely punctured, and sparsely haired; the abdomen is much more shining. The under side of the base of the antennal flagellum may be testaceous; the coxæ may be blackish. The stigmal vein is as long as the postmarginal; the two form, at their junction, a sharp angle. Thorax roundly narrowed at the base; the furrow at the base of the scutellum is straight, transverse at the scutellum; the lateral furrows are narrower, and slope slightly towards the tegulæ. Scutellum large, longer than wide, the apex broadly rounded. Abdomen shorter than the thorax, and wider than it, broadly oval. In some specimens, the apical three joints of the antennæ appear to be flattened, and, therefore, dilated laterally.

Hay, N.S.W. Bred from moth pupæ(*Agrotis* sp.), the larvæ of which were destroying saltbush; in November. Probably a common species.

#### TRICHOGLENES(?) BRACONOPHAGUS, sp.n.

Head and thorax dark bronzy-black, closely reticulated; abdomen smooth and shining, violaceous-black; metanotum slightly more finely reticulated than the scutellum, its sides bordered by a distinct, roundly curved furrow; its apex is much more strongly reticulated than the rest; pronotum less strongly than mesonotum; apex of metanotum with a rounded slope. Antennal scape and legs rufo-fulvous. Wings hyaline, nervures rufo-testaceous; stigmal branch longish, curved, as long as postmarginal, dilated at the apex; the two forming a longish triangle, longer than it is wide at the apex; apex of wings shortly ciliated. ♂♀.Length, 1.5 mm.

Sydney; "parasitic on a Braconid parasite"; 21st June.

From the appearance and structure of the cocoons, I have no doubt that they are those of an *Apanteles*, which, from their spinning their cocoons in company, are preyed upon by various Parasitic Hymenoptera, *Ichneumonidae* (e.g., *Hemiteles*), *Bracnidae*, *Chalcididae* and *Proctotrypidæ*.



The abdomen in the ♂ is broadly oval, in the ♀ it is longer (but still shorter than the thorax), and much more sharply pointed at the apex; the ovipositor shortly projects. The femora and tibiæ are darker-coloured, more infuscated, in the ♀ than in the ♂. There is a broad, smooth keel on the apex of propleuræ, and a shorter, narrower one on the base of the mesopleuræ. The second abdominal segment is slightly shorter than all the following united, the third is about one-half its length. Flagellum of antennæ densely pilose; antennæ inserted opposite the end of the eyes.

I am not certain about the generic position of this species, owing to my not being able to make out, with certainty, if the eyes are pilose or bare. If pilose, the species might be referred to *Trichoglenes* Thomas.

#### APHELINÆ.

##### **Aphelini.**

##### MARLATTIELLA ALEYRODESII, sp.n.

Yellow, a broad stripe on vertex between and united to the eyes, mesonotum and back of abdomen reddish-orange; wings hyaline, nervures pale testaceous, basal nervure distinctly longer than the marginal, narrower than it, and, if anything, darker-coloured; the hair-fringe on the wings long. Eyes large, black, prominent, oval, if anything, a little longer than the malar space. Antennal scape narrowed towards the apex, thinner than the long apical joint, and a little shorter than it. ♀.Length, 75-80 mm.

Broken Hill, N.S.W.; 25th May; on Saltbush *Aleyrodes*.

Smooth, bare and shining; legs of a paler yellow than the antennæ, which are as long as the body. The apical joints of the antennæ, viewed from the sides, are roundly narrowed towards the base and apex. The four anterior tarsi are not much shorter than the tibiæ: the hinder are clearly shorter; the tibiæ and tarsi are shortly, sparsely haired.

The genus *Marlattiella* was described by Dr. L. O. Howard, the well-known Chief of the Bureau of Entomology, U.S. Depart.



ment of Agriculture (Technical Series, No.12, Part iv., 1907, p.37) on a species (*M. prima* How.) bred from *Leucaspis japonica* Cock., collected at Tientsin, China, by Mr. C. L. Marlatt. The present species should be known from the Chinese species, by the latter having the basal nervure distinctly shorter than the median, and the scape shorter, compared with the fourth joint. The amount of the reddish-orange colour varies; it may be owing to discolouration of the specimens when killed by cyanide of potassium; in that case, the colour of the body would be uniformly yellow. In some specimens the eyes are lead-coloured.





Cameron, Peter. 1912. "On a collection of parasitic Hymenoptera (chiefly bred), made by Mr. Walter W. Froggatt, F.L.S., in New South Wales, with descriptions of new genera and species. Part iii." *Proceedings of the Linnean Society of New South Wales* 37, 172–216. <https://doi.org/10.5962/bhl.part.22341>

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