

AUSTRALIAN HYMENOPTERA CHALCIDOIDEA—III.

SUPPLEMENT.*

BY A. A. GIRAULT.

THE following additions to the ELASMIDÆ have been made during the past year.

GENUS ELASMUS Westwood.

1. ELASMUS FLAVIPOSTSCUTELLUM Girault.

One pair, Proserpine, Queensland, November, 1912, sweeping grass in forest.

2. ELASMUS PROSERPINENSIS Girault. Female.

Like *flavipostscutellum* but the abdomen wholly shining black and the legs distinctly more coloured; also the proximal funicle joint is distinctly longer than the pedicel. Mandibles with seven teeth.

Habitat: Proserpine, Queensland. Forest.

Type: No. Hy 1278, Queensland Museum.

3. ELASMUS CYANEILLA Girault. Male.

Like *cyaneus* but the postscutellum has a transverse yellowish stripe across it, the cephalic femora as dark as the others. Fourth funicle joint about twice the length of the club. Mandibles 5-dentate.

Habitat: Proserpine, Queensland. Forest.

Type: No. Hy 1279, Queensland Museum.

4. ELASMUS MINNEHAHA Girault. Male.

Like *impudens* but differing in the coloration of the legs and abdomen, the band of the latter much broader. Caudal femur black at *distal* half.

Habitat: Proserpine, Queensland. Forest.

Type: No. Hy 1280, Queensland Museum.

* See Vol. I, Memoirs of the Queensland Museum, pp. 176-189.

5. ELASMUS CAIRNSENSIS Girault. Female.

Like *flavipostscutellum* but the orange portion of the abdomen much longer, decidedly twice the length of the distal black portion.

Habitat: Cairns District, Queensland.

Type: No. I. 1289, South Australian Museum, Adelaide.

6. ELASMUS DODDI Girault. Female.

Like *formosus* but the scutellum wholly black (except narrowly at middle of side), the vertex wholly yellow, the tip of *postscutellum* black.

Habitat: Nelson (Cairns), Queensland.

Type: No. Hy 1606, Queensland Museum.

7. ELASMUS PALLIDICORNIS Girault. Female.

Like *cyaneus* Girault but entirely dark metallic purplish green, only the tip of the scape and pedicel and remainder of antennæ being yellow brown. Mandibles 5-dentate.

Habitat: Hughenden, Queensland.

Type: No. Hy 1607, Queensland Museum.

8. ELASMUS KURANDAENSIS Girault. Female.

Like *speciosissimus* but lemon yellow, the abdomen deep orange; scutellum wholly greenish; metallic coloration of the scutum is continued caudad along the meson to the scutellum.

Habitat: Kuranda, Queensland.

Type: No. Hy 1608, Queensland Museum.

9. ELASMUS QUEENSLANDICUS Girault. Female.

Like *formosus* but the base of the abdomen with a distinct, moderately broad black stripe across it.

Habitat: Kuranda, Queensland.

Type: No. Hy 1609, Queensland Museum.

10. ELASMUS LIVIDUS Girault. Female.

Like *proserpinensis* Girault but metallic blue-green, the abdomen dark red ventrad except at each end, the coxæ black (hind coxa white at tip), also the femora (hind femur white at base, others toward tip); knees and tibiæ white; tegulæ concolorous. Mandibles with seven teeth.

Habitat: Nelson (Cairns), Queensland.

Type: No. Hy 1610, Queensland Museum.

11. ELASMUS ORIENTALIS Girault. Female.

Like *pallidicornis* but the antennæ concolorous with the body, the scape pale brown and the cephalic tibia and all knees white; the funicle joints are subequal, all distinctly longer than wide.

Habitat: Kuranda, Queensland.

Type: No. *Hy* 1611, Queensland Museum.

12. ELASMUS MARGISCUTELLUM Girault. Female.

Dark metallic green, the distal margins of scutellum and postscutellum margined with lemon yellow; intermediate orange yellow portion of abdomen with a longitudinal row of from 3 to 4 black spots on each side. Mandibles with *eleven* teeth.

Habitat: Nelson (Cairns), Queensland.

Type: No. *Hy* 1612, Queensland Museum.

13. ELASMUS IGNORABILIS new species.*

Female:—Length, 1.75 mm.

At once distinguished by the colour of the abdomen which from above has two rather narrow transverse orange yellow stripes across it at about proximal third and proximal two thirds, otherwise (dorsad) shining black (metallic green proximad of the first transverse stripe). Dark metallic purplish, the abdomen beneath and the legs pale yellow, also the scape; flagellum and hind coxæ above concolorous or blackish. Mesopostscutellum obscurely lemon yellow. Tarsi blackish. Valves of ovipositor black. Tegulae pale yellow. First two funicle joints subequal, each a little longer than the third which is longer than wide, all longer than the pedicel.

Male:—Not known.

Described from one female captured by sweeping along a jungle path, July 13, 1913.

Habitat: Harvey's Creek (Cairns), Queensland.

Type: No. *Hy* 1613, Queensland Museum, the above specimen on a tag.

14. ELASMUS SPLENDIDUS Girault.

A female by sweeping forest, July, 26, 1913. at Meerawa (Cairns), Queensland.

* Magnification of this and following species as previously.

15. ELASMUS MACULATIPENNIS new species.

Female:—Length, 3·15 mm. Robust.

Agreeing in all details with the original description of *splendidus* Girault excepting that the face is lemon yellow below the antennæ only, the abdomen is orange yellow and with four black spots between base and tip, the first two joined, forming a cross-stripe, the second two nearly so; also at tip a rather broad black (metallic) stripe precedes the black at tip; the scutellum is wholly concolorous and all of proximal fourth of hind coxa except a small spot at base of upper margin; the yellow on the pronotum is caudad and just above front coxa; the antennæ the same. Mandibles with five teeth. Characterized principally, however, in bearing on the fore wing a distinct sooty spot distad on the blade which forms a more or less distinct oblique stripe across the blade from beneath the postmarginal and distal half or less of marginal veins.

Male:—Not known.

Described from a female captured by sweeping in forest, August 2, 1913.

Habitat: Nelson (Cairns), Queensland.

Type: No. *Hy 1614*, Queensland Museum, the above specimen on a tag (with the type of the variety described next), the head on a slide (with the type head of the variety).

Later a second female was found, captured in July.

ELASMUS MACULATIPENNIS BIGUTTATUS new variety.

Female:—The same as *maculatipennis* but the abdomen bears only the two proximal black spots which in this case are small and perfectly round dots. Also the hind coxa is as described for *splendidus*.

Described from a female captured with the typical form. *Type*, see preceding. Subsequently, another female of this variety was found, captured in December, 1912, by sweeping grass along a forest streamlet.

16. ELASMUS STELLATUS new species.

Female:—Length, 1·80 mm.

Like *nigriscutellum* but the scutellum margined all round with lemon yellow; the dorsal half of occiput not black but with only a black loop ascending to meson of occipital margin, the central spot of vertex not connecting laterad with the eyes; there is a black spot on each side of axilla confluent with the latter's blackness. First ring-joint large, triangular. Mandibles 5-dentate. On the mesoscutum there is a black dot at each side near edge about centrally; extreme cephalic end of pronotum black; at base of abdomen, the three spots are

wedge-shaped, longer than wide. Wings hyaline. At distal third of abdomen, centrally, dorsal aspect, there is a wedge-shaped black dot. Extreme tip of abdomen black.

Male:—Not known.

Described from a female captured by sweeping in forest, August 3, 1913.

Habitat: Nelson (Cairns), Queensland.

Type: No. Hy 1615, Queensland Museum, the above specimen on a tag, the head on a slide with the type head of *Elasmus maculatipennis* Girault.

17. *ELASMUS DIVINUS* new species.

Female:—Length, 2.75 mm. Slender.

Differing from *maculatipennis* in bearing no yellow on the head, only the postscutellum and a spot in front of the tegulae (crossing the lateral margin of scutum, directly cephalad of the axilla) being lemon yellow; the whole dorsum of the abdomen is concolorous and the distal fourth beneath. Fore wings characterized by bearing a distinct clavate sooty marking which leaves the distal end of the venation and curves directly caudad along the longitudinal axis of the blade to about the midpoint toward base. This marking appears to be the proximal accented boundary of the slight but distinct and uniform fumation of the blade distad of it. Dark metallic blue; trochanters, tibiae, proximal half of hind coxae and femora, distal part of first coxa, white; scape white, the funicle joints equal (each a little longer than first club joint), all much longer than the pedicel; two ring-joints. Scape blotched with dusky along the sides. Mandibles 7-dentate.

Described from one female, August 13, 1913. Sweeping grass along a streamlet in forest.

Habitat: Nelson (Cairns), Queensland.

Type: No. Hy 1616, Queensland Museum, the above specimen on a tag, the head on a slide with the type head of *E. uniguttata* Girault.

18. *ELASMUS UNIGUTTATA* new species.

Female:—Length, 2.00 mm.

Characterized by bearing on the abdomen a moderately large, black, round spot dorso-mesad a little before tip; otherwise coloured like *serenus* but the flagellum is black; black area on vertex wide, leaving the space between it and the eyes a narrow line of yellow; abdomen suffused with reddish; the very short blackish line across base of abdomen accented laterally a short distance down

each edge toward tip; tip of abdomen concolorous, of the ovipositor valves black. Propodeum black mesially, also the occiput dorsad (mesially). Wings hyaline. Mandibles 5-dentate.

Male:—Unknown.

Described from one female captured August 5, 1913, by sweeping in forest.

Habitat: Nelson (Cairns), Queensland.

Type: No. *Hy* 1617, Queensland Museum, the above specimen on a tag, the head on a slide.

19. ELASMUS MANDIBULARIS new species.

Female:—Length, about 1.85 mm. Stout.

Like *cyaneilla* Girault but the mandibles about 12-dentate and long, the cephalic tibiae pale brown. Wings hyaline. Funicle joints shortening in succession, the first a little longer than the second, the third longer than the short pedicel and also than the first club joint, somewhat longer than wide. Scape mostly concolorous. Scutellum reticulated scaly, with only several large setae.

Male:—Not known.

Described from one female captured by sweeping in forest, August 5, 1913 (A. P. Dodd).

Habitat: Nelson (Cairns), Queensland.

Type: No. *Hy* 1618, Queensland Museum, the above specimen on a tag, the head on a slide.

Later another female was found in the same collection; its body was decidedly greenish rather than bluish as with the type specimen. However, I could not distinguish between them otherwise.

GENUS EURYISCHIA Howard.

The encyrtid genus mentioned previously (I., p. 176) as bearing elasmid coxæ and wings was this genus whose position is undoubtedly correct. I have since described the following species. The tarsi are 5-jointed. The antennæ need careful examination, since I believe two ring-joints are present and once suspected three; for several of the Australian species only one is recorded and, I believe, none were found in *sumneri*.

1. EURYISCHIA SUMNERI Girault. Female.

Black-blue with the distal third or more of fore wing embrowned; scutellum finely alutaceous, the scutum the same but clothed with dense, stiff, black bristles. Bristles on proximal part of fore wing as in *inopinata* Masi. Mandibles tridentate, the inner tooth shorter, broad and truncate. First funicle joint subquadrate.

Habitat: Capeville (Pentland), Queensland. Forest.

Type: No. Hy 1619, Queensland Museum.

The sides of the propodeum in the following species and *sumneri* (dorsad) are finely reticulated, glabrous mesially; the large bristles in the wings of *sumneri* as in *inopinata*.

2. EURYISCHIA NIGRA new species.

Female:—Length, 1.35 mm.

Like the following species (*nigrella*) but the head differently sculptured being very finely circularly striate, in the next species finely scaly; the mandibles are 3-dentate but the two inner teeth are formed by the concaved apical margin of a second, broad tooth (same in *nigrella*). Propodeum glabrous, without a carina. Scutellum hairy but not so densely as the scutum (only two or four long setæ in the next species). Antennæ missing. Like *sumneri* but differing apparently in the dentation of the mandibles, the more hairy scutellum. Also differing from the next species in bearing but two large equal setæ in a longitudinal line centrally in the blade under the submarginal vein (as in *inopinata*; in the next species there are two parallel rows, each row with 5 or 6 setæ, decreasing notably in size proximad). Discal ciliation from about proximal third of marginal vein, the fore wing uniformly, slightly embrowned throughout, the hind wing hyaline. A little staining around the stigmal vein.

Male:—Not known.

From one specimen captured by sweeping grass in forest, April 18, 1912.

Habitat: Nelson (Cairns), Queensland.

Type: No. Hy 1620, Queensland Museum, the above specimen on a tag, head and wings on a slide (with type of *nigrella*).

3. EURYISCHIA NIGRELLA new species.

Female:—Length, 1 mm.

Like the preceding species (*nigra*) but smaller and differing as noted above. Differs from *sumneri* in mandibular structure, the shorter first funicle joint which is plainly wider than long and in the wings and much smaller size. A single ring-joint is present.

Male:—Not known.

From one specimen captured with *sumneri*.

Habitat: Capeville (Pentland), Queensland.

Type: No. Hy 1621, Queensland Museum, the above specimen on a slide.

4. EURYISCHIA SHAKESPEAREI new species.

Female:—Length, 1.10 mm.

At once differing from the preceding species in having a distinct fumated area on the fore wing somewhat as in *inopinata* Masi but differing in its shape; fore wing otherwise as figured for that species. Antennæ with one (possibly two) ring-joints and at least three funicle joints, the rest missing. The marking on the fore wing is a conspicuous globular sooty brown area appended from the stigmal vein and distal half or more of the marginal, extending nearly across to the caudal margin but fading somewhat before reaching it; its proximal margin is V- or inverted caret-shaped and the discal ciliation proximad is coterminous with that margin; the wing distad of the marking is fumated as usual (as in the preceding species) but just distad of the distal margin of the more deeply infuscated marking there is a more or less subhyaline path across the wing. At the base of the marginal vein, there are one or two very large cilia or bristles in an oblique caudo-proximal line; close against the venation, the discal ciliation extends proximad same distance nearly to the middle of the submarginal vein and less densely nearly to the base. Pedicel rather long, longer than the three funicle joints which are subquadrate. Mandibles bidentate, the second tooth large, broadly truncate at apex. Costal cell with discal ciliation.

Male:—Not known.

Described from a female captured by sweeping in forest, May 26, 1912.

Habitat: Nelson (Cairns), Queensland.

Type: No. Hy 1622, Queensland Museum, the above specimen on a tag, the head on a slide.

5. EURYISCHIA LESTOPHONI Howard.

This species has been recorded from Sydney, New South Wales, as a parasite of *Icerya rosæ* on the plant *Grevillea*.

6. EURYISCHIA MELANCHOLICA new species.

Female:—Length, 1.50 mm.

Like *nigra* but the scutellum as in *nigrella*. Distal third or more of fore wing embrowned, darker about the stigmal vein, there the proximal margin of the fumation accented to form a rather narrow cross-stripe from the stigmal vein. Scape and pedicel dusky, rest of antenna yellowish; one ring-joint.

Male:—Not known.

Described from one female captured by sweeping in forest, August 4, 1913 (A. P. Dodd).

Habitat: Nelson (Cairns), Queensland.

Type: No. *Hy* 1623, Queensland Museum, the above specimen on a tag, the head on a slide with the type appendages of *shakespearei*.

7. **EURYISCHIA UNMACULATIPENNIS** new species.

Female:—Length, 2 mm.

Characterized by bearing on the fore wing a rounded fuscous spot under the stigmal vein; wholly black, the antennæ black; otherwise as in *inopinata* except that all of the funicle joints are subequal and wider than long. From *lestophoni*, the spot on the fore wings differs in being up against the base of the stigmal vein instead of being appended from the tip of that vein or nearly (judging from the figure of *lestophoni* given by Koebele, 1890). Distal third of fore wing slightly infumated.

Male:—Unknown.

Described from one female captured among herbage, April 6, 1913 (H. Hacker).

Habitat: Brisbane, Queensland.

Type: No. *Hy* 1624, Queensland Museum, the above specimen on a slide.

TABLE TO THE AUSTRALIAN SPECIES OF *EURYISCHIA* HOWARD.

Fore wings with a large distinct round spot near the stigmal vein.	
The round spot farther distad, appended from the stigmal knob; two discal bristles	<i>lestophoni</i> Howard.
The round spot farther proximad, touching the base of the stigmal vein; two discal bristles	<i>unmaculatipennis</i> Girault.
Fore wings with a straight rather narrow stripe across them from the stigmal vein, from thence more lightly embrowned.	
Like <i>nigra</i> but the scutellum as in <i>sumneri</i>	<i>melancholica</i> Girault.
Fore wings with a distinct broad fumated area across them near end of venation followed by a subhyaline path.	
Like <i>inopinata</i> Masi; fumated area globular, appended from the stigmal vein and distal half or more of marginal, its proximal margin inverted caret-shaped; mandibles bidentate; two discal bristles	<i>shakespearei</i> Girault.

Fore wings uniformly embrowned at distal third or more.

Fore wing with two rows of bristles under the submarginal vein (10 or more bristles).

Scutellum with only four setæ; fore wing slightly embrowned throughout; head finely scaly .. *nigrella* Girault.

Fore wing with but one row of large bristles under the submarginal vein (two bristles).

Mandibles tridentate, the inner tooth broad; scutellum with about four setæ; fore wings embrowned uniformly from proximal two thirds to apex .. *sumneri* Girault.

Mandibles bidentate, the inner tooth broad; head finely circularly striate; scutellum with many setæ but not as hairy as the scutum; fore wing slightly embrowned throughout *nigra* Girault.

LITERATURE REFERRED TO.

1890. Koebele, Albert. Bull. No. 21, revised edition, Division of Entomology, U. S. Department of Agriculture, Washington, D.C., U.S.A., pp. 17, 18, fig. 8.