

New or little-known crane-flies in the Queensland Museum (Tipulidae, Diptera)

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NEW OR LITTLE-KNOWN CRANE-FLIES IN THE QUEENSLAND MUSEUM (TIPULIDÆ, DIPTERA).

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THROUGH the kindness of the Director, Mr. Heber A. Longman, the writer has been enabled to study the collections of crane-flies made in the vicinity of Brisbane by the Entomologist of the Queensland Museum, Mr. Henry Hacker. These collections, though not extensive, include many species of such interest that a special report is deemed necessary.

The types, which are preserved in alcohol, are returned to the Queensland Museum.

At this time, it is well to designate the genotypes of the numerous new genera of Australian crane-flies, proposed in 1889 and 1890 by Skuse:—

Triphana Skuse (subgenus of *Geranomyia*); Proc. Linn. Soc. New South Wales, vol. 4 (ser. 2), p. 777; 1889. Two species. Type, *Geranomyia (Triphana) lutulenta* Skuse, the first species, by present designation.

Tetrphana Skuse (subgenus of *Geranomyia*); l.c., pp. 780, 781. One species. Type, *Geranomyia (Tetrphana) fusca* Skuse, by monotypy.

Leiponeura Skuse (subgenus of *Gonomyia*); l.c., pp. 795, 796. Two species. Type, *Gonomyia (Leiponeura) skusei* Alexander (*gracilis* Skuse, preoccupied); the first species by designation of Alexander, Proc. U.S. Nat. Mus., vol. 44, p. 503; 1913.

Amphineurus Skuse (subgenus of *Ormosia*); l.c., pp. 800, 801. Two species. Type, *Ormosia (Amphineurus) umbratica* Skuse, the first species, by present designation.

Tasiocera Skuse; l.c., pp. 815, 816. Two species. Type, *Tasiocera tenuicornis* Skuse, the first species, by present designation.

Rhabdomastix Skuse; l.c., pp. 828, 829. One species. Type, *Rhabdomastix osten-sackeni* Skuse, by monotypy.

Lechria Skuse; l.c., pp. 830, 831. One species. Type, *Lechria singularis* Skuse, by monotypy.

Clytocosmus Skuse; Proc. Linn. Soc. New South Wales, vol. 5 (ser. 2), pp. 74-76; 1890. One species. Type, *Clytocosmus helmsi* Skuse, by monotypy.

Platyphasia Skuse; l.c., pp. 84, 85. One species. Type, *Platyphasia princeps* Skuse, by monotypy.

Plusiomyia Skuse; l.c., pp. 86, 87. Five species. Type, *Plusiomyia olliffi* Skuse, the second species, by present designation.

Habromastix Skuse; l.c., pp. 93, 94. Three species. Type, *Habromastix cinerascens* Skuse, the first species, by present designation.

Phymatopsis Skuse; l.c., pp. 97, 98. One species. Type, *Phymatopsis nigrirostris* Skuse, by monotypy.

Acracantha Skuse; l.c., pp. 109-111. Three species. Type, *Acracantha sydneyensis* Skuse, the first species, by present designation.

Ischnotoma Skuse; l.c., pp. 114, 115. Three species. Type, *Ischnotoma serricornis* Macquart, the first species, by present designation.

FAMILY TIPULIDÆ.

SUBFAMILY LIMNOBIINÆ.

TRIBE LIMNOBIINI.

GENUS LIMNOBIA Meigen.

1818. Syst. Beschreib., vol. 1, p. 116.

Limnobia bidentata Skuse.

1889. *Limnobia bidentata* Skuse; Proc. Linnean Soc. New South Wales, vol. 4 (ser. 2), pp. 782, 783.

The following records are included in the material at hand:—Brisbane, April 7, 1914 (H. Hacker). Caloundra, Sept. 30—Oct. 28, 1913 (H. Hacker). Sandgate, Jan. 24, 1914 (H. Hacker).

Skuse describes the radial sector as being only one-third longer than the deflection of $R4+5$; in the present material the deflection is proportionately longer but there are no other apparent differences.

TRIBE ANTOCHINI.

GENUS RHAMPHIDIA Meigen.

1830. Syst. Beschreib., vol. 6, p. 281.

Rhamphidia communis Skuse.

1889. *Rhamphidia communis* Skuse; Proc. Linnean Soc. New South Wales, vol. 4 (ser. 2), pp. 788, 789.

A few specimens in poor condition, from the following locality and dates:—Brisbane, July 30, 1914; September 16, 1918 (H. Hacker).

TRIBE ERIOPTERINI.

GENUS GNOPHOMYIA Osten Sacken.

1859. Proc. Acad. Nat. Sci. Philadelphia, p. 223.
Gnophomyia fascipennis (Thomson).
 1869. *Limnobia fascipennis* Thomson; Eugenes Resa, Dipt., p. 447; ♀.
 1887. *Gnophomyia cordialis* Osten Sacken; Berliner Ent. Zeitschr., vol. 31, pt. 2, p. 199; ♂.

There are numerous specimens of this very interesting fly from the following stations:—Brisbane, October 10-17, 1916 (H. Hacker); several Sunnybank, near Brisbane, October 27, 1916 (H. Hacker). Caloundra, October 28, 1913 (H. Hacker). Stradbroke Island (H. Hacker).

The differences between the sexes of this fly are remarkable and quite unequalled in any other member of the genus.

GENUS CONOSIA van der Wulp.

1880. Tijdschr. v. Ent., vol. 23, p. 159, Pl. 10, figs. 5-7.
Conosia irrorata (Wiedemann).
 1828. *Limnobia irrorata* Wiedemann; Aussereur. Zweifl. Ins., vol. 1, p. 574.

Several specimens from the following station and dates:—Brisbane, March 23, 1916; April 23, 1916; December 12, 1915 (H. Hacker).

This species is presumably of wider distribution than any other crane-fly, ranging from Australia to South Africa and northward to Japan.

TRIBE LIMNOPHILINI.

GENUS LECHRIA Skuse.

1889. Proc. Linnean Soc. New South Wales, vol. 4 (ser. 2), pp. 830, 831.

LECHRIA SUBLÆVIS sp. n.

Male.—Length, 6 mm.; wing, 6.6 mm.

Female.—Length, about 6.2 mm.; wing, 7.3 mm.

Generally similar to *L. rufithorax* Alexander (North Queensland), differing as follows:—

Rostrum, palpi, and antennæ brown; flagellar segments of the latter suboval to subcylindrical.

Mesonotum reddish brown, the three usual præscutal stripes entirely confluent, the lateral stripes continued back onto the lobes of the scutum. Halteres pale. Wings with the veins light brown, not so distinct as in *rufithorax*; the costal cell is scarcely darker than the remainder of the wing. Venation: *Rs* considerably longer, the section before *r-m* being about equal to the section of *M1+2* before *r-m*; the section of *Rs* beyond *r-m* longer than this crossvein; *Sc* ends opposite or before the end of *Rs*.

Male hypopygium similar to *L. rufithorax*, but the shape of the pleural appendages different; outer pleural appendage slender, gradually tapering to the acute, curved point, with scarcely any denticles on the inner face before the tip as in *rufithorax*; inner pleural appendage more slender and more strongly arcuated.

Habitat: Queensland.

Holotype, ♂, Caloundra, September 30, 1913 (H. Hacker).

Allotopotype, ♀.

Type in the collection of the Queensland Museum.

The genotype of *Lechria*, *L. singularis* Skuse, differs from all the other species of the genus, as known, in that the radial crossvein connects with *R2+3* at its fork, in the other species connecting with *R2* some distance beyond the fork. Skuse interpreted the genus as having the vein *R1* ending in vein *R2+3* and the crossvein *r* lacking. The writer would interpret the venation as having the extreme tip of *R1* atrophied and the radial crossvein present but oblique in position and simulating a section of vein *R1*. These characters are found in many *Cylindrotominæ*, and it may be that *Lechria* belongs in the neighbourhood of this subfamily rather than in the tribe *Limnophilini* where it is now placed.

GENUS GYNOPLISTIA Westwood.

1835. London and Edinburgh Phil. Mag., vol. 6, p. 280.

Gynoplistia viridis Westwood.

1835. *Gynoplistia viridis* Westwood, London and Edinburgh Phil. Mag., vol. 6.

One male from Sunnybank, near Brisbane, October 27, 1914. One female from Brisbane, October 17, 1916 (H. Hacker).

SUBFAMILY TIPULINÆ.

TRIBE DOLICHOPEZINI.

GENUS DOLICHOPEZA Curtis.

1825. British Entomology, vol. 2, p. 62.

DOLICHOPEZA BREVIFURCA QUEENSLANDICA subsp. n.

Mesonotum reddish brown, the præscutum with three darker brown stripes; pleura yellow; legs light brown; wings pale brown, the stigma darker brown; an obliterative area before and beyond the stigma and across the inner end of cell *1st M2*; abdomen yellow, ringed with brown.

Male.—Length, 9.9-5 mm.; wing, 9.4-10 mm.; antenna, 4 mm.

Female.—Length, 9.4 mm.; wing, 9.3-10.3 mm.

Frontal prolongation of the head short, yellow; palpi pale brown, the

long terminal segment whitish. Antennæ of the male moderate in length, light brown. Head brownish grey, especially on the vertex and occiput; front and genæ more yellowish.

Mesonotal præscutum reddish brown, with three darker brown stripes; scutal lobes marked with this same colour; remainder of the mesonotum yellow. Pleura yellowish. Halteres pale brownish yellow, the base of the knob darker. Legs with the coxæ and trochanters yellow; remainder of the legs light brown. Wings with a faint brownish tinge; cell *Sc* pale brown except at the distal end; an obliterative area before and beyond the stigma and another across the proximal end of cell *1st M2*; stigma large, subrectangular, brown; an indistinct brown cloud at the basal deflection of *Cu1*; veins pale brown, the tip of *Sc* and *R* below it yellowish. Venation: *Rs* transverse, about equal to *r-m*; cell *M1* rather short; vein *M1* about equal to *M1+2*; petiole of cell *M2* from one-half to two-thirds of *M1+2*; basal deflection of *Cu1* about its own length before the fork of *M*.

Abdomen yellowish, ringed with dark brown; on the second segment at about midlength, on the other segments appearing as a basal ring and a narrow ring on the posterior margin of the preceding tergite. Male hypopygium with the ninth tergite bidentate as in the Australian species of the genus; outer pleural appendages relatively short, about twice the length of the small, flattened, more complicated inner appendage; the proximal face of the outer appendage is indistinctly bidentate. Female ovipositor with the valves acicular.

Habitat: Queensland.

Holotype, ♂, Oxley, near Brisbane, September 4, 1914 (H. Hacker).

Allotopotype, ♀.

Paratopotype, ♂; paratypes, 5 ♀'s, Brisbane, May 23, 1916 (H. Hacker); a few dry fragments, Brisbane, September 18, 1914 (H. Hacker).

Type in the collection of the Queensland Museum.

The present form would seem to be a variety of *Dolichozepea brevifurca* Skuse, although the pleural appendages of the male hypopygium are very much smaller than in any other member of the subgenus *Apeilexis* that I have seen, agreeing more nearly with the normal type of the genus. The variety may be told from the typical form by the darker wings and the structure of the hypopygium.

TRIBE TIPULINI.

GENUS PTILOGYNA Westwood.

1835. Zoolog. Journ., vol. 5, pp. 448, 449.

Ptilogyne ramicornis (Walker).

1835. *Tipula ramicornis* Walker; Ent. Mag., vol. 2, p. 469.

A few specimens of this beautiful crane-fly, from the following station:—Caloundra, September 28—October 28, 1913 (H. Hacker).

GENUS LEPTOTARSUS Guérin.

1838. Voyage de la Coquille, Dipt., p. 286.
Leptotarsus (Leptotarsus) macquarti Guérin.
1838. *Leptotarsus macquarti* Guérin; Voyage de la Coquille, Dipt., p. 286, pl. 20, fig. 1.
1848. *Tipula tricincta* Walker; List Diptera Brit. Mus., vol. 1, p. 73.

One female, Brisbane, February 12, 1914 (H. Hacker).

SUBGENUS PSEUDOLEPTOTARSUS subgen. n.

Antennæ with nine segments. Terminal segment of the palpus short. Wings with cell *M1* lacking, there being but two branches of media attaining the wing-margin.

Type of the subgenus: *Leptotarsus (Pseudoleptotarsus) liponeura* sp. n. (Australia).

The presence of but two branches of media is almost unique in the subfamily Tipulinae, the only other case known to the writer being the genus *Idiotipula* Alexander (Natal).

LEPTOTARSUS (PSEUDOLEPTOTARSUS) LIPONEURA sp. n.

Antennæ 9-segmented; last segment of the palpus short; general colouration yellow, the mesonotal præscutum with four brown stripes; mesepisternum and mesosternum plumbeous brown; wings pale brown, sparsely variegated with yellow; cell *M1* lacking; abdominal tergites yellow, the basal four segments ringed caudally with black.

Female.—Length, about 13-13.5 mm.; wing, 13.5-14.6 mm.

Frontal prolongation of the head yellow; nasus broad; palpi brown, the terminal segment darker, shorter than the second and third taken together. Antennæ with but nine apparent segments, the first segment yellow, the remainder of the organ brown; first scapal segment long and slender; second segment subglobular; first flagellar segment oval, the second to fourth produced into a basal pedicel, the terminal three segments nearly cylindrical; the last segment is longer than the penultimate and may be formed by the union of two small segments. Head obscure yellow, very broad behind the eyes.

Pronotum brown. Mesonotal præscutum obscure yellow with four brown stripes, the intermediate pair separated only by a capillary line of the ground-colour, entirely confluent behind; a subtriangular dark-brown area at the humeral angle; remainder of the mesonotum light yellow, each scutal lobe with a conspicuous dark-brown spot at the cephalic lateral angle. Pleura obscure yellow, the mesepisternum and mesosternum plumbeous brown, the latter with a yellow spot immediately cephalo-dorsad of the mesocoxa. Halteres pale, the knobs brown. Legs with the coxæ obscure yellow, the anterior coxæ more infuscated; trochanters dull yellow; femora light brown, gradually darkening to the tips; remainder of the legs dark brown. Wings pale brown, sparsely variegated with yellowish; cells *C* and *Sc* brown; conspicuous brown seams

along the cord and longitudinal veins beyond the cord; the yellow areas are restricted to the basal and anal cells, the first spot basal in position, occupying the inner end of cell *M* and near the base of *1st A* but interrupted in between; the second area lies across cells *R* and *M* immediately before the origin of *Rs*; a similar pale area across the bases of cells *R3* and *R5*; veins dark brown. Venation: Cell *M1* lacking; *m-cu* punctiform, situated at about midlength of cell *1st M2*.

Abdominal tergites yellow, the basal two segments brighter, each with a low triangular black band across the caudal margins, the apex of the triangle being directed cephalad; segments 3 and 4 are narrowly margined caudally with brownish black; remainder of the tergites yellowish; sternites yellow, segments 4 to 8 obscure brownish. Ovipositor with the valves very blunt and fleshy as in the genus.

Habitat: Queensland.

Holotype, ♀, Brisbane (H. Hacker).

Paratopotype, ♀, February 12, 1914.

Type in the collection of the Queensland Museum.

GENUS HABROMASTIX Skuse.

1890. Proc. Linnean Soc. New South Wales, vol. 5 (ser. 2), pp. 93, 94.

There have been three Australian and six Ethiopian species of this genus so far made known. In the present collection, two species are included, neither of which agrees with any of the hitherto known forms.

HABROMASTIX PARALLELA sp. n.

Frontal prolongation of the head elongate, light brown; mesonotal præscutum pale brownish yellow with four darker brown stripes; mesonotal postnotum dark brown posteriorly, including a conspicuous mark in front of the halteres; halteres pale at their apices; legs yellowish, the femora and tibiæ tipped with dark brown; wings hyaline, the basal cells cross-banded with grey, in the cell behind vein *Cu* appearing as four dark-brown spots.

Female.—Length, 23 mm.; wing, 19.3 mm. Hind leg, femur, 13 mm.; tibia, 15.8 mm.; tarsus, 35 mm.

Frontal prolongation of the head very long and slender, light brown, with a narrow, slightly darker lateral line; palpi light brown. Antennæ with the basal segments light yellow, the flagellum broken beyond the basal segment, this latter elongate. Head dark brown; eyes large and protuberant, very narrowly separated beneath, more widely separated above.

Mesonotal præscutum pale brownish yellow with four darker brown stripes; remainder of the mesonotum yellow, only the posterior half of the postnotum dark brown, this including a conspicuous area on the lateral sclerites of the postnotum in front of the halteres. Pleura yellow, a conspicuous brown area on the mesosternum, ventral portions of the mesosternum, and on the outer faces

of the fore-coxæ. Halteres long and slender, brown, the apices of the knobs pale. Legs with the coxæ brown, the fore coxæ darker; trochanters brownish; femora pale brown, the tips broadly dark brown; tibiæ yellow, the tips narrowly dark brown; tarsi yellowish. Wings hyaline, variegated with dark brown and light grey; the costal cell is brown with three conspicuous hyaline spaces, one just beyond the *h* crossvein, the last at the end of the cell; cell *Sc* hyaline; the grey areas appear as about four bands that traverse the wings, being continuations of the brown costal areas; in the space immediately behind vein *Cu* these four bands become dark brown and very conspicuous; the hyaline bands between these grey areas are about one-half the width of the latter; indistinct whitish areas in the base of cell *R2*, bases of cells *M1*, *2nd M2*, and *M4* and in cell *1st M2*; stigma conspicuous, dark brown; a narrow brown seam along the cord; veins dark brown, paler in the hyaline areas. Venation: *Sc2* ending just before midlength of *R2+3*; *Rs* short, scarcely longer than cell *1st M2* and shorter than the basal deflection of *Cu1*; *R3* about one-half longer than *R2+3*, running parallel to *R4+5* except at the extreme tip; cell *2nd R1* narrow; inner ends of cells *R3*, *R5* and *1st M2* in alignment; petiole of cell *M1* less than one-half this cell; *m* and the deflection of *M3+4* subequal; *m-cu* obliterated by the punctiform contact of *Cu1* and *M3*.

Abdominal tergites yellow, the first brown medially; segments 2 to 5 with an oblique dark-brown dash on either side, these marks converging behind, becoming more approximated on the posterior segments, on segments 6 to 8 appearing as confluent median dashes; a triangular brown mark at the anterior lateral angle of tergites 3 to 8 and at midlength of tergite 2; sternites yellowish. Valves of the ovipositor long and straight, the tergal valves longer.

Habitat: Queensland.

Holotype, ♀, Brisbane (H. Hacker).

Type in the collection of the Queensland Museum.

Habromastix parallela is the largest species so far made known. It is most closely related to *H. remota* (Walker) in the long petiole of cell *M1* and other characters but is readily told by the pattern of the body and wings and the venational details.

HABROMASTIX TERRÆ-REGINÆ sp. n.

Antennæ of the male about one-half longer than the body; legs yellow, the tips of the femora and tibiæ dark brown, remainder of the tarsi dark brown; wings light grey, sparsely variegated with brown and subhyaline; petiole of cell *M1* very short to lacking; abdomen obscure yellow, the tergites with two brown sublateral stripes.

Male.—Length, 11.5-12.5 mm.; wing, 14-15.4 mm.; antenna, 17.5-17.8 mm.

Generally similar to *H. parallela*.

Frontal prolongation of the head yellow, with a narrow brown lateral line; palpi brown. Antennæ of the male considerably longer than the body, the

basal four segments yellowish, thence gradually passing into brown. Head with a rather rather small brown area on vertex, the remainder of the vertex and occiput pale buffy.

Mesonotal præscutum brownish yellow, with four brown stripes, the intermediate pair indistinct in front and strongly narrowed behind; postnotum darkened posteriorly but with no conspicuous mark on the lateral sclerites as in *parallela*. Pleura obscure yellow, the mesepisternum and mesosternum dark coloured, with a conspicuous stripe of the ground-colour across the dorsal portions of the latter. Legs with the femora yellow, the tips broadly dark brown; tibiae light brown, narrowly yellowish basally; tarsi dark brown. Wings light grey, sparsely variegated with brown and subhyaline; cells *C* and *Sc* brown, the former with three small yellowish areas, two being basal in position, the last apical; two small areas in the basal cells, one subbasal, the other subapical; a conspicuous whitish area beyond the cord, extending without noticeable interruption from the inner end of cell *R2* across cells *R3*, *R5*, *1st M2* into the base of *M4*; the brown area in the space behind vein *Cu* is almost continuous, but interrupted by small pale spots at midlength and near the end. Venation: *Sc* ending slightly beyond the origin of *R2+3*; *Rs* short, rather strongly arcuated at origin; *R2+3* rather short, about equal to the basal deflection of *Cu1*; inner end of cell *1st M2* slightly more proximad than cell *R3* or *R5*; petiole of cell *M1* very short to entirely lacking, shorter than *m*; cell *1st M2* comparatively large; *2nd Anal* vein comparatively short and straight.

Abdominal tergites obscure yellow with two sublateral brown stripes, the yellow dorso-median stripe thus formed being most distinct on segments 1 to 6, segments 7 to 9 being almost entirely dark brown; these brown marks on the individual segments oblique, with the posterior ends directed proximad, the posterior lateral angles of the tergites pale; basal sternites light yellow, the fifth to seventh sternites dark brown, especially across the posterior margins.

Habitat: Queensland.

Holotype, ♂, Brisbane, May 23, 1916 (H. Hacker).

Paratopotypes, 6 ♂'s.

Type in the collection of the Queensland Museum.

Habromastix terræ-reginæ belongs to the group of *H. cinerascens* Skuse and *H. ornatipes* Skuse. It is the closest to the latter but the description of the details of the wing-pattern of *ornatipes* is very different. It is readily told from *H. parallela* by the short petiole of cell *M1*, the wing-pattern, and other characters.

GENUS MACROMASTIX Osten Sacken.

1886. Berliner Ent. Zeitschr., vol. 30, pt. 2, pp. 185-187.

MACROMASTIX FLAVOPYGIALIS sp. n.

Antennæ short; frontal prolongation of the head very long and slender, dark brown; head dark, the vertical tubercle yellow; mesonotal præscutum

with four dark-brown stripes; scutellum and postnotum obscure yellow; wings pale brown, the costal margin dark brown; abdomen dark brown, the base and hypopygium yellow.

Male.—Length, 12.3-13 mm.; wing, 13-15.5 mm.

Frontal prolongation of the head very long and slender, nearly twice the length of the head, brownish black; palpi dark brown. Antennæ short; scape yellow, flagellum dark brown, the base of the first segment obscure yellow; first flagellar segment not elongated; last segment shortest. Head dark-coloured, the low but conspicuous vertical tubercle yellow; front obscure yellow.

Mesonotal præscutum greyish brown with four darker brown stripes; scutum brown, the scutal lobes dark brown; scutellum and postnotum obscure yellow, the latter narrowly darkened posteriorly. Pleura obscure brownish yellow, the mesepisternum and mesosternum marked with darker. Halteres brownish yellow, the knobs darker. Legs with the fore coxæ dark brown, the remaining coxæ yellow, dark brown basally; trochanters yellow; femora yellow, the apical half passing into brown; tibiæ brownish yellow, tarsi brown. Wings pale brown, the costal and subcostal cells dark brown; stigma pale; veins brown. Venation: *Rs* longer than *R2+3*; petiole of cell *M1* shorter than *m*, sometimes only half its length; *m-cu* punctiform; cell *2nd A* rather narrow.

Abdomen dark brown, the caudal margins of the segments indistinctly paler; segment 1, the base of segment 2, and the hypopygium conspicuously light yellow. Male hypopygium with the pleurites moderately long and slender, with one complicated pleural appendage, the upper lobe of which is produced into a long, slightly curved beak, the crest with several small blackened spicules; lower lobe pale, flattened, oval, the apex rounded.

Habitat: Queensland.

Holotype, ♂, Brisbane, May 23, 1916 (H. Hacker).

Paratopotype, ♂.

Type in the collection of the Queensland Museum.

Macromastix flavopygialis may readily be told from all the described Australian species by the very long, slender, dark-coloured frontal prolongation of the head and the conspicuous colouration of the abdomen.

MACROMASTIX TORTILIS sp. n.

Antennæ short; general colouration light yellow, the præscutal stripes slightly more reddish; wings greyish yellow, the costal and subcostal cells rich brownish yellow; abdomen yellow, trilineate with brown, segments 7 and 8 chestnut brown; ninth tergite of the twisted male hypopygium large and tumid.

Male.—Length, about 10-12 mm.; wing, 12-14.7 mm.

Female.—Length, about 10-11 mm.; wing, 11.55-12.5 mm.

Frontal prolongation of head short and stout, yellowish; palpi brown, the last segment about equal to the basal three taken together. Antennæ shorter than the palpi, the scape yellow, the flagellum dark brown; flagellar segments beyond the third slender, cylindrical. Head light yellow; vertical tubercle low.

Mesonotal præscutum light yellow, with the three usual stripes more reddish yellow; remainder of the mesonotum pale yellow; an indistinct, capillary, median brown line. Pleura yellow. Halteres pale brown, the knobs darker. Legs with the coxæ and trochanters light yellow; femora yellow, the tips narrowly and indistinctly infuscated; tibiæ and tarsi brown. Wings greyish yellow, the costal and subcostal cells rich brownish yellow; stigma yellowish brown; veins brown. Venation: *Rs* scarcely longer than *R2+3*; *R3* long, parallel to *R4+5* except at the tip; petiole of cell *M1* variable in length, from as long as *m* to entirely lacking, cell *M1* being short-petiolate to sessile; *m-cu* punctiform.

Abdomen yellow, the tergites with three brown stripes, the median stripe very broad and conspicuous; segments 7 and 8 chestnut brown; hypopygium yellow, only the ninth tergite brown; sternites yellow. Male hypopygium with the ninth segment twisted around nearly one-half so that the ninth tergite occupies a ventro-lateral position; this latter is large and tumid, with a broad U-shaped median notch, the margins very thick, the conspicuous lateral lobes thus formed stout-triangular. The pleural appendages are two in number, the dorsal one (nearest the tergite though actually ventral in position) a small blackened blade with the inner edge conspicuously serrate; the ventral appendage is larger, pale, flattened, gradually dilated distally, the apical margin set with about fourteen blackened spicules of which the four inner are isolated from one another, the remaining one confluent in a slightly curved row. Ovipositor with the valves short and fleshy as in the genus.

Habitat: Queensland.

Holotype, ♂, Brisbane, July 1, 1913 (H. Hacker).

Allotopotype, ♀.

Paratopotypes, 18 ♂ ♀ 's, July 1 (1913) and May 23 (1916)

Type in the collection of the Queensland Museum.

Macromastix tortilis is readily told from the other described species of the genus by its light-yellow colour, the trilineate abdomen, and especially the large, twisted male hypopygium.

MACROMASTIX HACKERI sp. n.

Antennæ short; general colouration yellow; wings brownish yellow, the costal margin more saturated; stigma darker brown; cell *2nd A* very narrow; male hypopygium semi-inverted, the ninth tergite pale; ninth sterno-pleurite with a pencil of about seven powerful bristles near the dorso-caudal angle.

Male.—Length, about 11 mm.; wing, 12.5 mm.

Generally similar to *M. tortilis*.

Frontal prolongation of the head short and stout, obscure yellow; palpi brown. Antennæ short, pale brownish yellow, the distal flagellar segments long-cylindrical. Head yellow.

Mesonotum and pleura dull yellowish, the præscutum without distinct stripes. Halteres pale brown. Legs with the coxæ and trochanters dull yellow, the remainder of the legs pale brown, the tips of the femora narrowly darkened. Wings with a strong brownish yellow tinge, the costal and subcostal cells more saturated; stigma conspicuous, darker brown. Venation: Basal deflection of *Cu1* at about one-third the length of cell *1st M2*; cell *2nd A* very narrow.

Abdomen obscure yellow, the lateral margins of the tergites narrowly and indistinctly dark brown; the dorso-median stripe of *tortilis* is lacking; segments 7 and 8 brown; hypopygium entirely pale yellow, including the ninth tergite. Male hypopygium of the semi-inverted type of *M. tortilis*. Ninth tergite not so tumid as in *tortilis*, with a broad and deep U-shaped notch, the dorsal surface provided with numerous stout setæ, the free ends of the tergite produced caudad and slightly inward into a subspatulate, flattened lobe. Ninth sterno-pleurite with a large, square median notch; near the dorso-caudal angle with a pencil of about seven powerful bristles that are directed dorsad and caudad.

Habitat: Queensland.

Holotype, ♂, Brisbane (H. Hacker).

Type in the collection of the Queensland Museum.

This interesting species is named in honour of the collector, Mr. Henry Hacker, Entomologist of the Queensland Museum. It is closest to *M. tortilis* but is readily separated by the diagnostic characters listed above.