

LIII.—*New or little-known Tipulidæ (Diptera).*—VII. *Australasian Species.* By CHARLES P. ALEXANDER, Ph.D., Urbana, Illinois, U.S.A.

THE species of crane-flies discussed in this instalment are mainly from North Queensland, and were received through the kindness of Mr. Alan P. Dodd and Dr. James F. Illingworth. Mr. Edwards has sent me for study a few specimens from Fiji, presented by the Imperial Bureau of Entomology, and a few additional species from Tasmania. I am very deeply indebted to the above-named gentlemen for the privilege of studying these specimens. The types are preserved in the collection of the writer, except where stated to the contrary.

*Dicranomyia (Thrypticomyyia) microstigma*, sp. n.

General coloration dark brown; vertex silvery grey; legs dark brown, the tarsi white, the basal third of the metatarsi dark brown; wings nearly hyaline, very slightly darkened apically; stigma very small; *Sc* short, *Sc*<sub>1</sub> terminating a distance before the origin of *Rs* that is approximately as long as the basal deflection of *Cu*<sub>1</sub>.

*Female.*—Length about 5.5 mm.; wing 5 mm.

Rostrum obscure yellowish testaceous; palpi dark brown. Antennæ dark brown, the terminal pedicels of the flagellar segments conspicuous, nearly one-half as long as the basal enlargement. Head with the vertex clear silvery grey.

Mesonotum brown, the humeral regions and lateral margins of the præscutum slightly paler. Pleura obscure brownish yellow. Halteres elongate, brown. Legs with the coxæ and trochanters testaceous; femora and tibiæ dark brown; tarsi white, the basal third or slightly less of the metatarsi dark brown. Wings nearly hyaline, the apex beyond cell 1st *M*<sub>2</sub> very faintly clouded; stigma small, brown; veins dark brown. Venation: *Sc* very short for a member of this subgenus, *Sc*<sub>1</sub> ending far before the origin of *Rs*, the distance being as long as or longer than the basal deflection of *Cu*<sub>1</sub>; *Sc*<sub>2</sub> some distance from the tip of *Sc*<sub>1</sub>, the latter alone from one-half to two-thirds the basal deflection of *Cu*<sub>1</sub>; *Rs* strongly arcuated to subangulate at origin; supernumerary cross-vein in cell *Sc*<sub>1</sub> rather indistinct, slightly variable in position; inner end of the elongate cell 1st *M*<sub>2</sub> about in alignment with the inner end of cell *R*<sub>3</sub>; cell 1st *M*<sub>2</sub> about as long as the longest veins issuing from it; basal deflection of *Cu*<sub>1</sub> beyond mid-length of cell 1st *M*<sub>2</sub>.

Abdominal tergites dark brown; sternites greenish testaceous.

*Hab.* North Queensland.

*Holotype*, ♀, Kuranda, Cairns District, altitude 1100 feet, April 1921 (*A. P. Dodd*).

*Paratype*, ♀, Gordonvale, March 1921 (*A. P. Dodd*).

"Holotype on tree-trunk; paratype on spider-web."

*Dicranomyia whitei*, sp. n.

General coloration dark brownish black, the thoracic pleura pruinose; wings nearly hyaline, the stigma conspicuously dark brown;  $Sc_1$  ending a short distance beyond the origin of  $Rs$ ; abdomen dark brown, this colour including the hypopygium.

*Male*.—Length about 6.5 mm.; wing 8 mm.

Rostrum and palpi dark brownish black. Antennæ brownish black throughout; flagellar segments oval, becoming more elongate toward the end of the organ. Head brownish grey.

Thorax very deep, the mesonotum unusually convex and gibbous. Mesonotal præscutum dark brownish grey, without distinct stripes, the median area more brownish, these passing into grey on the sides of the sclerite; remainder of the mesonotum more pruinose. Pleura dark with a grey pruinosity. Halteres not unusually elongated, dark brown, obscure yellow at base. Legs with the coxæ brown; trochanters obscure yellow; remainder of the legs broken. Wings nearly hyaline; stigma conspicuous, dark brown; veins dark brown. Venation:  $Sc_1$  ending a short distance beyond the origin of  $Rs$ ,  $Sc_2$  far from the tip of  $Sc_1$ , the latter alone only a little shorter than the basal deflection of  $Cu_1$ ;  $Rs$  gently arcuated, about twice the deflection of  $R_{4+5}$ ; cell 1st  $M_2$  closed; basal deflection of  $Cu_1$  at the fork of  $M$ .

Abdomen dark brown, including the hypopygium. Male hypopygium with the ventral pleural appendage very large, dark brown, the rostriform appendage on the inner face reddish brown, provided with two spines; dorsal pleural appendage comparatively small, gently arcuated, terminating in a long straight point.

*Hab.* Tasmania.

*Holotype*, ♂, Mangalore, September 25, 1912 (*A. White*).

Type in the collection of the British Museum (Natural History).

This species is dedicated to the collector, the late Mr. Arthur White.

*Dicranomyia cairnensis*, sp. n.

Mesonotal præscutum obscure yellow, the median area broadly shiny brownish black; a dorsal brown pleural stripe; wings tinged with brown; stigma a little darker brown, small, subcircular; *Sc* long, cell 1st  $M_2$  closed.

*Male*.—Length (excluding head) 4 mm.; wing 5 mm.

Head broken in the type.

Mesonotal præscutum shiny obscure yellow, the median area broadly shiny brownish black; remainder of the mesonotum crushed in the type, appearing to be almost uniform brown, the scutellum a little paler. Pleura whitish testaceous, the dorsal region infuscated to produce a brown, dorsal, longitudinal stripe. Halteres brown. Legs with the coxæ and trochanters pale whitish testaceous; femora dark brown; remainder of the legs broken. Wings with a strong brown tinge; stigma small, subcircular, dark brown; veins dark brown. Venation: *Sc* long,  $Sc_1$  ending about opposite four-fifths the length of the long *Rs*,  $Sc_2$  at its extreme tip; *Rs* arcuated at origin; cell 1st  $M_2$  relatively small, closed, pentagonal; basal deflection of  $Cu_1$  immediately before the fork of *M*.

Abdomen dark brown, the sternites a little paler. Male hypopygium with the pleurites moderately stout, the pleural appendage of each side produced proximad into a long, slender, chitinized arm, the tips decussate across the median line; penis-guard yellow.

*Hab.* North Queensland.

*Holotype*, ♂, Kuranda, Cairns District, altitude 1100 feet, April 1921 (*A. P. Dodd*).

“Ex scrub.”

*Dicranomyia cairnensis* bears a considerable resemblance to *D. sedata*, Alex. (North Queensland), differing chiefly in the wing-pattern and structure of the hypopygium.

*Dicranomyia amacula*, sp. n.

General coloration pale brownish yellow; legs light yellow, the terminal tarsal segments darkened; wings nearly hyaline, stigma pale brown; *Sc* long; cell 1st  $M_2$  open by the atrophy of the outer deflection of  $M_2$ .

*Female*.—Length 3.6 mm.; wing 4.2 mm.

Rostrum and palpi light brown. Antennæ brown; flagellar segments oval. Head grey.

Mesonotum obscure yellow, the median area of the præscutum brown; scutum and postnotum sparsely pruinose;

scutellum yellowish apically. Pleura whitish, more plumbeous on the mesepisternum. Halteres pale, the knobs a little darker. Legs with the coxæ and trochanters pale; remainder of the legs light yellow, only the terminal tarsal segments infuscated. Wings nearly hyaline; stigma short-oval, pale brown; veins dark brown. Venation: *Sc* long, *Sc*<sub>1</sub> ending about opposite two-thirds the length of *Rs*, *Sc*<sub>2</sub> close to its tip; *Rs* straight, slightly bent near the extreme base; cell 1st *M*<sub>2</sub> open by the atrophy of the outer deflection of *M*<sub>3</sub>; basal deflection of *Cu*<sub>1</sub> about one-third its length beyond the fork of *M*.

Abdomen light brown; sternites more yellowish. Ovipositor with the valves yellowish horn-colour; bases of the sternal valves conspicuously blackened.

*Hab.* North Queensland.

*Holotype*, ♀, Kuranda, Cairns District, altitude 1100 feet, April 1921 (*A. P. Dodd*).

“Ex scrub.”

*Dicranomyia opima*, sp. n.

General coloration dark brown; mesonotal præscutum light clove-brown; pronotum and a narrow dorsal pleural line yellow; front and anterior part of vertex silvery; wings faintly tinged with brown, heavily spotted with dark brown; *Sc* very long.

*Male*.—Length 4–5 mm.; wing 4·8–6 mm.

Rostrum and palpi dark brown. Antennæ dark brown throughout; basal flagellar segments large, nearly globular, the segments gradually passing into oval-cylindrical toward the end of the organ; verticils long and conspicuous. Head brown; front and anterior part of vertex conspicuously silvery white.

Pronotum conspicuous light yellow. Mesonotal præscutum clear light clove-brown without markings, the lateral margins narrowly light yellow; remainder of mesonotum dark brown. Pleura dark brown, this including the propleura; dorsal pleural region narrowly yellow. Halteres dark brown, the base of the stem yellow. Legs with the fore coxæ brown; mid-coxæ brown, the tips slightly yellowish; posterior coxæ yellow; trochanters yellowish testaceous; remainder of the legs brown. Wings with a faint brown tinge, heavily marked with dark brown as follows: a blotch before the pale arcular region; bases of cells *R* and *M* occupied by a large blotch; large areas at origin of *Rs*, tip of *R*<sub>1</sub>, and at the ends of the anal veins; a conspicuous

band across the wing along the cord, extending from the end of vein *Sc* to the end of *Cu*<sub>2</sub>; outer end of cell 1st *M*<sub>2</sub> similarly seamed; wing-tip broadly darkened; a similar brown seam along vein *Cu*; veins dark brown. Venation: *Sc* very long, *Sc*<sub>1</sub> ending beyond the fork of *Rs*, *Sc*<sub>2</sub> at tip of *Sc*<sub>1</sub>; *Rs* very strongly arcuated at origin; *r* from one to one and one-half times its length from the tip of *R*<sub>1</sub>; cell 1st *M*<sub>2</sub> relatively large, closed; basal deflection of *Cu*<sub>1</sub> at the fork of *M*; *Cu*<sub>2</sub> from two-thirds to four-fifths of the basal deflection of *Cu*<sub>1</sub>; anal veins strongly curved proximad at tips.

Abdominal tergites dark brownish black; sternites black, the segments ringed caudally with yellowish or greyish; hypopygium dark.

*Hub.* North Queensland.

*Holotype*, ♂, Gordonvale, Cairns District, January 1921 (A. P. Dodd).

*Paratopotypes*, 4 ♂♂.

"On fungus in scrub."

*Dicranomyia opima* belongs to the peculiar group of the genus typified by the West African *D. recedens*, Alex., and *D. recurvans*, Alex., and the Sumatran *D. trigonia* (Edw.). The collector's notes would suggest that the larvæ might be found in fungi.

*Limnobia emacerata*, sp. n.

General coloration yellow; thoracic pleura with a conspicuous, longitudinal, brown stripe; legs brownish yellow throughout; wings with a faint grey tinge, stigma subcircular, dark brown; abdominal segments yellow, the apical half of the tergites dark brown; hypopygium yellowish.

*Male*.—Length 5 mm.; wing 6.3 mm.

Rostrum and palpi yellow. Antennæ dark brown throughout, flagellar segments oval. Head greyish brown; eyes of male large.

Mesonotal præscutum yellow, the median area behind a little darkened; scutum yellow, the scutal lobes suffused with brown; remainder of mesonotum yellow. Pleura yellow with a conspicuous, brown, longitudinal stripe beginning at the cervical sclerites, passing above the fore coxæ and beneath the halteres to the base of the abdomen. Halteres pale, the base of the knob a little infuscated, the apices of the knobs conspicuously yellow. Legs with the coxæ and trochanters yellow; remainder of the legs pale brownish yellow. Wings with a faint grey tinge; stigma subcircular,

dark brown; veins dark brown. Venation: *Sc* long, *Sc*<sub>1</sub> ending about opposite two-thirds the length of *Rs*, *Sc*<sub>2</sub> at the tip of *Sc*<sub>1</sub>; *Rs* long, gently arcuated; *r* at the tip of *R*<sub>1</sub>; cell 1st *M*<sub>2</sub> elongate, slightly widened distally; *m* and the outer deflection of *M*<sub>3</sub> subequal; basal deflection of *Cu*<sub>1</sub> a short distance beyond the fork of *M*; *Cu*<sub>2</sub> a little shorter than the basal deflection of *Cu*<sub>1</sub>.

Abdominal tergites with the basal half of the segments obscure yellow, the apical half dark brown to give the organ an annulated appearance; sternites somewhat similar, but the colours less distinct; hypopygium and penultimate segment yellowish.

*Hab.* North Queensland.

*Holotype*, ♂, Gordonvale, Cairns District, February 1921 (*A. P. Dodd*).

“Ex leaf in scrub.”

*Limnobia semiermis*, sp. n.

General coloration yellow; mesonotal præscutum with three brown stripes; femora light brown with a darker brown subterminal ring; wings subhyaline; stigma elongate, brown; *Sc* long; abdominal segments brown, the apical fourth of each segment yellow.

*Male*.—Length 6·8 mm.; wing 8 mm.

Rostrum and palpi dark brown. Antennæ with the basal segment dark brown basally, the apical half pale brown; flagellar segments dark brown, short-oval, each segment clothed with conspicuous white pubescence. Front narrow, light cream-yellow; vertex brown and obscure yellow interspersed.

Pronotum yellow, dark brown medially. Mesonotal præscutum obscure yellow with three dark brown stripes; remainder of mesonotum brownish testaceous. Pleura yellowish testaceous, indistinctly variegated with darker. Halteres pale. Legs with the coxæ and trochanters yellow; femora yellow basally, gradually passing into light brown; a conspicuous brown subterminal ring preceded by a very indistinct pale annulus, the extreme tips very narrowly yellow; tibiæ and tarsi light brown; posterior tibiæ longer than the tarsi. Wings subhyaline, cells *C* and *Sc* indistinctly yellow; stigma large, elongate, brown; origin of *Rs* and the cord very indistinctly seamed with pale brown; veins brown. Venation: *Sc* long, *S*<sub>1</sub> ending nearly opposite *r-m*, *S*<sub>2</sub> a short distance from the tip of *S*<sub>1</sub>; *Rs* gently arcuated; *r* at tip of *R*<sub>1</sub>, strongly angulated near mid-length; deflection of

$R_{4+5}$  about equal to  $m$ ; cell 1st  $M_2$  elongate, rectangular;  $m$  arcuated, longer than the outer deflection of  $M_3$ ; basal deflection of  $Cu_1$  at about two-fifths the length of cell 1st  $M_2$ .

Abdominal segments dark brown with about the apical quarter of each conspicuously yellow; hypopygium yellow. Male hypopygium armed with four partly chitinized appendages, the genital chamber open.

*Hab.* North Queensland.

*Holotype*, ♂, Kuranda, Cairns District, altitude 1100 feet, April 1921 (*A. P. Dodd*).

"Ex leaf in scrub."

*Limnobia* (?) *dactylolabis*, sp. n.

Antennæ black; mesonotal præscutum obscure orange; pleura whitish testaceous with two narrow brown longitudinal stripes; wings hyaline, stigma oval, dark brown;  $Sc_1$  ending before mid-length of  $Rs$ ; cell 1st  $M_2$  closed; male hypopygium with a single pleural appendage appearing as a long, slender, curved, blackened rod.

*Male*.—Length about 4.6 mm.; wing 5.2 mm.

Rostrum and palpi dark brown. Antennæ moderately elongate for a member of this genus; first segment pale, remainder of organ black; flagellar segments oval with a short, shiny pedicel. Head brownish orange, darker adjoining the margin of the eyes.

Pronotum orange-brown. Mesonotal præscutum obscure orange, unmarked; remainder of the mesonotum orange-brown. Pleura whitish testaceous with two narrow, brown, longitudinal stripes, the more dorsal passing beneath the root of the halteres, the ventral stripe occupying the sides of the mesosternum and extending from fore to the middle coxæ. Halteres long and slender, dark brown, the base of the stem paler. Legs with the coxæ testaceous, the outer faces slightly infumed; trochanters testaceous; remainder of the legs broken. Wings hyaline; stigma small, oval, dark brown; veins dark brownish black. Venation:  $Sc$  moderately long,  $Sc_1$  ending before mid-length of  $Rs$ ,  $Sc_2$  some distance from its tip,  $S_1$  alone about two-thirds the basal deflection of  $Cu_1$ , a little longer than the first section of  $M_{1+2}$ ;  $Rs$  long, strongly arcuated at origin;  $r$  at tip of  $R_1$  and near two-fifths the length of  $R_{2+3}$ ; cell 1st  $M_2$  closed, rather small, pentagonal; basal deflection of  $Cu_1$  at, or a short distance before, the fork of  $M$ ; vein 2nd  $A$  close to the wing-margin, cell 2nd  $A$  being linear.

Abdominal segments dark brown, paler caudally; basal

sternites more extensively pale. Male hypopygium with the pleurites broad-based, narrowed apically; a single pleural appendage that is longer than the pleurite, appearing as a pale broad base that narrows into a long, slender, black rod that is bent proximad. On the inner face of each pleurite is a small blunt lobe set with abundant setæ.

*Hab.* Fiji.

*Holotype*, ♂, Mountain, Laütoka, 11. 4. 1920 (*H. Greenwood*).

Type in the collection of the British Museum (Natural History).

*Limnobia* (?) *dactylolabis* is an aberrant member of the genus, and might well be considered as representing a distinct subgeneric group.

*Limnobia* (?) *teucholabina*, sp. n.

Head yellow; antennæ obscure yellow, four intermediate flagellar segments dark brown; mesonotal præscutum with three confluent obscure orange-yellow stripes; pleura dark brown; legs yellow, femora narrowly tipped with white and with a broad brown subterminal ring; wings subhyaline, sparsely spotted with brown, this including a series of spots along the margin at the ends of the longitudinal veins; *Sc* long, *Sc*<sub>2</sub> at the tip of *Sc*<sub>1</sub>.

*Female*.—Length 3.8 mm.; wing 4.3 mm.

Rostrum a little pronounced, about two-thirds the remainder of the head; rostrum and palpi black. Antennæ apparently with fourteen segments; basal flagellar segments obscure yellow, terminal two or three segments yellow, the four intermediate segments before this yellow apex conspicuously dark brown. Head bright yellow, the centre of the vertex shrunken, apparently slightly darker in colour.

Pronotum pale yellow. Mesonotal præscutum with three confluent obscure orange-yellow stripes, narrowly margined laterally with silvery; humeral region and lateral margins obscure yellow; scutum obscure testaceous, the centres of the lobes brown; scutellum obscure yellowish testaceous; postnotum pale with two dark spots at the posterior margin. Pleura dark brown. Halteres brown, the knobs broken. Legs with the coxæ dark brown, the tips conspicuously whitened; trochanters white; femora yellow, the tips rather narrowly but conspicuously white; a broad dark brown subterminal ring, about four times as broad as the pale apex; tibiæ and tarsi yellow, the terminal tarsal segments darkened; tarsal claws long, simple; empodia distinct. Wings subhyaline,



sparsely spotted with brown; a conspicuous brown area at the stigma, continued caudad along the cord as a seam; a brown seam at  $m$ ; conspicuous brown spots at the wing-margin at the ends of veins  $R_{2+3}$ ,  $R_{4+5}$ ,  $M_{1+2}$ ,  $M_3$ ,  $Cu_1$ ,  $Cu_2$ , and the anal veins; small brown spots at arculus, origin of  $Rs$  and  $Sc_2$ ; veins pale yellow, brown in the infuscated areas. Venation: somewhat as in the genus *Teucholabis*;  $Sc$  long,  $Sc_1$  ending a little beyond mid-length of  $Rs$ ,  $Sc_2$  at the tip of  $S_1$ ;  $Rs$  long, gently arcuated;  $r$  about its length beyond the fork of  $Rs$ ;  $R_1$  beyond it about one-half of  $r$ ; deflection of  $R_{4+5}$  feebly angulated at mid-length;  $R_{2+3}$  and  $R_{4+5}$  diverging at wing-margin, so cell  $R_3$  is trumpet-shaped; cell 1st  $M_2$  very long, longer than  $Rs$  or any of the veins beyond it;  $m$  less than one-half the outer deflection of  $M_3$ ;  $r-m$  on  $M_{1+2}$  about its own length beyond the fork of  $M$ ; basal deflection of  $Cu_1$  just beyond the fork of  $M$ .

Abdomen dark brown, the subterminal tergites conspicuously yellow. Ovipositor with the valves yellow, flattened, upcurved to the acute tips.

*Hab.* Fiji.

*Holotype*, ♀, Mountain, Laütoka, 11. 4. 1920 (*H. Greenwood*).

Type in the collection of the British Museum (Natural History).

*Limnobia* (?) *teucholabina* is a species of very doubtful generic position. The type-specimen is a female in indifferent condition. Mr. Edwards had arranged the fly in the genus *Teucholabis*, which it resembles in a rather striking manner, but there seem to be but fourteen antennal segments. Until more material is available, it seems best to place this very interesting fly as an aberrant *Limnobia*, with the indication that it will probably be found to represent a new generic or subgeneric group when more specimens come to hand.

*Libnotes subæqualis*, sp. n.

General coloration yellow, pronotum and mesonotal præscutum with a median darker stripe; tips of femora pale; wings greyish yellow, the costal and stigmal regions more strongly yellowish;  $Rs$  short, straight, in alignment with the remaining elements of the cord; abdominal tergites bicolorous.

*Male*.—Length 8 mm.; wing 9 mm.

Rostrum and palpi brown. Antennæ dark brown. Head

dark brown, narrowly yellowish silvery adjoining the margin of the eyes.

Pronotum yellow, dark brown medially. Mesonotal præscutum with a narrow brown median stripe, the lateral margins broadly obscure yellow; remainder of mesonotum sunshiny yellowish brown. Pleura reddish yellow. Halteres yellow, the knobs dark brown. Legs with the coxæ and trochanters testaceous; femora brownish testaceous, passing into a darker subterminal ring, the apices narrowly obscure yellow; tibiæ and tarsi brown, the terminal segments of the latter darker. Wings greyish yellow, cells *C*, *Sc*, 1st *Sc*<sub>1</sub>, 2nd *Sc*<sub>1</sub>, 1st *R*<sub>1</sub>, and along vein *Cu* strongly yellowish; stigma and a seam along the supernumerary cross-vein in cell *Sc*<sub>1</sub> strongly seamed with brown; an indistinct and narrow infuscation along cord; veins brown. Venation: *Sc* short, *Sc*<sub>1</sub> extending to just beyond the fork of *Rs*, *Sc*<sub>2</sub> a short distance from the tip of *Sc*<sub>1</sub>, beyond the origin of *Rs*; a supernumerary cross-vein in cell *Sc*<sub>1</sub> more than its length before *r*; the veins forming the cord (*Rs*, deflection of *R*<sub>1+5</sub>, *r-m*, and deflection of *M*<sub>1+2</sub> all subequal in length); veins *R*<sub>2+3</sub> and *R*<sub>4+5</sub> both turned strongly caudad beyond two-thirds their length; cell 1st *M*<sub>2</sub> elongate, subrectangular; *m* about one-half longer than deflection of *M*<sub>3</sub>; basal deflection of *Cu*<sub>1</sub> before mid-length of cell 1st *M*<sub>2</sub>.

Abdominal tergites indistinctly bicolorous, the basal half of each segment dark brown, the broad caudal margin obscure yellow; sternites obscure brownish yellow.

*Hab.* North Queensland.

*Holotype*, ♂, Green hills near Cairns, December 7, 1920 (*J. F. Illingworth*).

"In scrub on leaves near stream."

*Libnotes subæqualis* is closest to *L. samoënsis*, Alexander (Samoa), differing chiefly in the venational details, *i. e.*, the longer *Sc*<sub>1</sub>, short and straight *Rs*, position of the supernumerary cross-vein in cell *Sc*<sub>1</sub>, the small cell 1st *M*<sub>2</sub>, and the stronger caudal deflection of the branches of the sector.

*Amphineurus minusculus*, sp. n.

Size small (wing, ♂, under 4 mm.); head grey; thoracic pleura with two broad, brown, longitudinal stripes that enclose a slightly wider light grey area; knobs of the halteres whitish; femora and tibiæ yellow; wings tinged with brown, the macrotrichiæ white and dark brown.

*Male*.—Length 3–5 mm.; wing 3.8 mm.

Rostrum and palpi brown. Antennæ comparatively short for a member of this group, if bent backward not attaining the wing-root; scapal segments brown, basal flagellar segments obscure yellow; intermediate segments indistinctly bicolorous, the basal half of each segment being infuscated; terminal flagellar segments uniformly infuscated; flagellar segments subcylindrical. Head dull grey.

Mesonotum light greyish brown, unmarked. Pleura clear grey, bordered above and beneath by a broad, dark brown, longitudinal stripe, the dorsal stripe beginning at the cervical sclerites, passing above the root of the halteres to the abdomen; ventral stripe occupying the sides of the mesosternum; the dark stripes only a little narrower than the grey stripe enclosed. Halteres dark brown, the base of the stem yellowish, the knobs whitish. Legs with the coxæ pale, the basal half infuscated; trochanters yellowish testaceous; femora and tibiæ yellow, the femoral bases a little darkened; tarsi brown. Wings with a strong brown tinge, the stigmal region darkened; veins brown; macrotrichæ on wing-surface mostly pale, those along the cord, at origin of  $R_s$  and less distinctly elsewhere on wing dark brown, the effect produced being a very indistinct mottling. Venation:  $Sc_1$  ending opposite  $r$ ,  $Sc_2$  immediately beyond the origin of  $R_s$ ;  $R_{2+3}$  at a marked angle to the end of  $R_s$ , about twice as long as the deflection of  $R_{4+5}$ ;  $r$  immediately before the fork of  $R_{2+3}$ .

Abdomen light brown, the lateral margins of the tergites broadly and conspicuously velvety black; sternites pale brownish yellow. Male hypopygium large and complicated.

*Hab.* North Queensland.

*Holotype*, ♂, Kuranda, Cairns District, altitude 1100 feet, April 1921 (*A. P. Dodd*).

"Ex scrub."

### *Gnophomyia gloria*, sp. n.

General coloration black with steel-blue reflections; head and thoracic pleura with a blue-grey bloom; legs dark brown, the bases of the tarsi yellow; wings dark brown, cross-banded with whitish hyaline, the extreme wing-tip narrowly darkened; cell 1st  $M_2$  sessile to short-petiolate.

*Male*.—Length 4.4–5 mm.; wing 4.7–5 mm.

*Female*.—Length 5.4–6.2 mm.; wing 4.8–5.5 mm.

Coloration generally similar in the two sexes, in this respect differing from the two other members of this group, *G. fascipennis* (Thoms.) and *G. cyanoceph*, Alex.

Rostrum and palpi dark brownish black. Antennæ dark brown, first scapal segment pruinose above; second scapal segment elongate-pyriform, pale basally. Head with a clear blue-grey pruinosity.

Mesonotum black with brilliant steel-blue reflexions. Pleura with a shimmering blue-grey pruinosity. Halteres dark brown. Legs with the coxæ black, sparsely pruinose; trochanters obscure yellow; femora and tibiæ dark brown, the former pale basally; first and second segments of the tarsi obscure yellow, narrowly tipped with dark brown; remainder of the tarsi dark brown. Wings dark brown, conspicuously cross-banded with whitish hyaline, these pale areas arranged as follows: Wing-base to the level of the arculus; a large quadrate area in cells *R* and *M* before the origin of *Rs*, together with a similar but smaller isolated area near the outer end of cell 2nd *A*; a conspicuous band immediately before the cord, this extending entirely across the wing, although more yellowish in cell *Sc*<sub>1</sub>, of nearly equal width throughout; the terminal band is lunate with the convexity lying distad, this band being close to the wing-apex, extending from cell *R*<sub>2</sub> through cell *M*<sub>3</sub>; wing-tip in cells *R*<sub>2</sub>, *R*<sub>3</sub>, *R*<sub>5</sub>, and 2nd *M*<sub>2</sub> narrowly darkened; veins dark, paler in the white areas. Venation: *Sc*<sub>1</sub> ending about opposite mid-length of *Rs*, *Sc*<sub>2</sub> some distance from the tip of *Sc*<sub>1</sub>; *Rs* long, almost straight; *R*<sub>2+3</sub> about twice *r-m*; cell 1st *M*<sub>2</sub> closed, comparatively small, rectangular; *m* very short to lacking, so cell 2nd *M*<sub>2</sub> is narrowly sessile to short-petiolate; basal deflection of *Cu*<sub>1</sub> at near two-fifths the length of cell 1st *M*<sub>2</sub>.

Abdomen black with conspicuous blue and purple reflexions. Valves of the rather elongate ovipositor reddish horn-colour.

*Hab.* North Queensland.

*Holotype*, ♂, Gordonvale, Cairns District, February 1921 (*A. P. Dodd*).

*Allotopotype*, ♀.

*Paratopotypes*, 6 ♂ ♀ January 1921, 4 ♂ ♀ February 1921. "On foliage along edge of stream."

*Gonomyia (Leiponeura) terræ-reginæ*, sp. n.

General coloration dark brown, variegated with yellow; thoracic pleura striped brown and white; legs brown; wings rather broad, strongly tinged with greyish; *Sc* long, *Sc*<sub>2</sub> near tip of *Sc*<sub>1</sub>; cell 1st *M*<sub>2</sub> closed; male hypopygium with

two fleshy pleural appendages; gonapophyses and penis-guard forming a complicated mass that projects beyond the level of the pleural appendages.

*Male*.—Length about 4 mm.; wing 4 mm.

Rostrum whitish; palpi brown. Antennæ dark brown; flagellar segments elongate, clothed with a long erect pubescence and a few long verticils. Head dark grey.

Pronotum white. Mesonotal præscutum dark brown with a sparse pollen; scutal lobes dark brown, the median area and caudal margin of the lobes yellow; scutellum dark brown anteriorly, broadly margined with light yellow; postnotum dark brown, sparsely pruinose. Pleura with a broad white ventral stripe; a conspicuous greyish-brown area on the mesepisternum, the mesepimeron pale. Mesosternum brown, sparsely pruinose. Halteres pale brown, the extreme base of the stem paler. Legs with the coxæ obscure yellow, the fore coxæ and base of middle coxæ darker; trochanters brownish testaceous; remainder of legs brown, the tips of the femora indistinctly darker. Wings rather broad, strongly tinged with greyish, the stigma very faintly indicated; veins brown. Venation: *Sc* of moderate length, *Sc*<sub>1</sub> extending to about opposite two-fifths the length of the long sector, *Sc*<sub>2</sub> a little more than its own length from the tip of *Sc*<sub>1</sub>; *Rs* long, straight, with four macrotrichæ, only the extreme base arcuated; cell *R*<sub>3</sub> trumpet-shaped; cell 1st *M*<sub>2</sub> closed; basal deflection of *Cu*<sub>1</sub> immediately before the fork of *M*.

Abdomen dark brown; sternites paler. Male hypopygium with the pleurites stout, the caudo-lateral angles produced caudad into stout fleshy lobes; two pleural appendages, both pale; the largest appendage is fleshy, a little longer than the pleural lobe but more slender, the surface with a few strong setæ, the tip with a very strong and powerful bristle; second pleural appendage small, triangular or conical in outline. Penis-guard and gonapophyses forming a large complicated mass that projects beyond the level of the pleural appendages, the guard curved, the extreme tip running out into a spine, the apophyses forming a large shield at the apex, the angles produced laterad into obtuse triangular points.

*Hab.* North Queensland.

*Holotype*, ♂, Gordonvale, September 1920 (*A. P. Dodd*).  
"Ex scrub."

*Gonomyia terra-regina* is closest to the type of the subgenus, *G. (L.) skusei*, Alex. (*gracilis*, Skuse, preoccupied), differing in the small size and broad wings.

*Trentepohlia (Trentepohlia) media*, sp. n.

*Male*.—Length about 6 mm.; wing 5.3 mm.

Belongs to the group of *T. trentepohliæ*, in most of its characters intermediate between *trentepohliæ* (Wied.) and *speiseri* (Edw.).

Mesonotum shiny brownish yellow without distinct darker markings. Wings with the cord distinctly seamed with brown, this not including the extreme base of *Rs* or the base of cell 1st *R*<sub>1</sub> as in *speiseri*; cells *C* and *Sc*, together with their veins, yellow. Wing-apex darkened, this including the entire cell *R*<sub>2</sub> as in *speiseri* and the distal part of cell 2nd *R*<sub>1</sub>; cells *R*<sub>3</sub>, *R*<sub>5</sub>, and *M*<sub>2</sub> of a slightly paler shade of brown, but still plainly infuscated. Petiole of cell *R*<sub>5</sub> indistinctly seamed with brown, dividing the broad yellow antepical cross-band. Venation: *Rs* shorter than the deflection of *R*<sub>4+5</sub>.

*Hab.* North Queensland.

*Holotype*, ♂, Gordonvale, Cairns District, February 1921 (*A. P. Dodd*).

*Paratopotype*, ♂, January 1921.

“On foliage in scrub.”

*Lechria sublævis*, Alexander.

1920. *Lechria sublævis*, Alexander; Mem. Queensland Mus. vol. vii. pt. 1, pp. 64, 65.

This interesting species was based on alcoholic material. The following details of coloration may be added from a series of five dried specimens [Gordonvale, North Queensland, January 1921 (*A. P. Dodd*); resting on trunks of *Eucalyptus* in forest]. Head and thorax with a clear blue-grey pruinosity, more brownish on the mesonotal præscutum. Femora yellow, the tips conspicuously and abruptly dark brown. Abdomen bicolorous, the segments dark brown basally, yellowish ochreous apically. This small series shows the following considerable range in size:—

*Male*.—Length 5.2–5.5 mm.; wing 6.5 mm.

*Female*.—Length 6.5–8 mm.; wing 6.4–8 mm.

## GENUS LIMNOPHILA, Macquart.

## PARALIMNOPHILA, subgen. nov.

Antennæ with sixteen segments, the basal segments of the flagellum slightly enlarged at apex. Coxæ large; legs and tibial spurs bicolorous. Prosternum between fore coxæ very

narrow. Wings with arculus semiobsolete;  $R_1$  conspicuously arcuated before tip; basal deflection of  $Cu_1$  at or before the fork of  $M$ ; 2nd *Anal* vein sinuous.

Type of the subgenus:—*Limnophila leucophæta*, Skuse (Australia).

This new group is apparently related to *Dactylolabis*, Osten-Sacken, but shows some affinities with *Pseudolimnophila*, Alexander. The discovery of the male sex will be of interest.

*Limnophila (Paralimnophila) leucophæta cairnensis*, subsp. n.

*Female*.—Length 10 mm.; wing 8·7 mm.

Similar to *L. leucophæta*, Skuse, differing as follows:—

Size slightly smaller. Pronotum and humeral region of præscutum yellowish. Thoracic pleura largely dark brown. Wings pale yellowish subhyaline, the costal cell brown, more yellowish at the tip; cell *Sc* largely yellowish; veins and cells conspicuously clouded with brown, distributed as follows:—Two subhyaline areas in cell *R* before the origin of *Rs*, these a little smaller than the dark area between; a pale area before the stigma; cell 1st  $M_2$  pale. Venation:  $Sc_1$  extending to just beyond the fork of  $R_{2+3}$ ,  $Sc_2$  some distance from the tip of  $Sc_1$ , lying far before the fork of *Rs*,  $Sc_1$  alone longer than the basal deflection of  $Cu_1$ ;  $R_1$  arcuated opposite *r*; *r* about twice its length before the tip of  $R_1$  and on  $R_2$  a distance about three times  $R_{2+3}$ ; *Rs* very long;  $R_{2+3}$  shorter than the basal deflection of  $R_{4+5}$ ; cell 1st  $M_2$  very small; basal deflection of  $Cu_1$  before the fork of *M* a distance about equal to *r-m*.

*Hab.* North Queensland.

*Holotype*, ♀, Babinda, November 10, 1920 (*J. F. Illingworth*).

“On scrub leaves.”

It is probable that more material will give the present form full specific rank.

*Gynoplistia claripennis*, sp. n.

General coloration shiny coal-black; thoracic pleura grey pruinose; femoral bases broadly yellow; a broad yellowish-white ring before the tips of the posterior tibiæ; wings hyaline, stigma brown; a faint brown cloud along the cord and at the wing-tip; hypopygium black, concolorous with the remainder of the abdomen.

*Male*.—Length 8·7 mm.; wing 8·3 mm.

Head, with appendages, black. Antennæ with seventeen

segments, all flagellar segments but the terminal two being pectinate.

Mesonotum shiny black. Pleura black, grey pruinose. Halteres obscure brownish yellow, the knobs dark brown. Legs with the coxæ black, greyish pruinose; trochanters black; remainder of the legs black, the femoral bases broadly yellow, on the fore legs including about the basal half, on the posterior legs including about the basal two-thirds; a broad yellowish-white ring before the tip of the tibia. Wings hyaline; cell *Sc* yellowish; stigma brown; a very faint brown clouding along the cord; wing-tip indistinctly darkened; veins dark brown. Venation: *Sc* long, *Sc*<sub>1</sub> ending opposite the fork of *Rs*, *Sc*<sub>2</sub> at the tip of *Sc*<sub>1</sub>; *Rs* long, strongly arcuated at origin; *R*<sub>2+3</sub> short, a little longer than *r-m*; cell *M*<sub>1</sub> present; petiole of cell *M*<sub>1</sub> about equal to the basal deflection of *Cu*<sub>1</sub>, the latter at about one-third its length beyond the fork of *M*.

Abdomen shiny black, including the hypopygium.

*Hab.* Tasmania.

*Holotype*, ♂, Mt. Wellington, altitude 1300–2300 feet, January 15–February 6, 1913 (*R. E. Turner*).

Type in the collection of the British Museum (Natural History).

*Gynoplistia doddi*, sp. n.

Antennæ with twenty-four segments, all flagellar segments except the terminal two with long flabellate branches, basal three branches directed outward; tarsi black; wings grey, marked with dark brown; abdomen black, cross-banded with orange-yellow; a subterminal black ring; hypopygium orange.

*Male*.—Length 8.5 mm.; wing 8.4 mm.

Rostrum and palpi brown. Antennæ of the male large with very long flabellate pectinations; flagellum with twenty-two segments, of which all but the terminal two are pectinate; pectinations of the basal three segments directed outward (as in *G. vilis*); longest pectinations about one-half the length of the entire antenna; the 21st flagellar segment has a small spur near mid-length; scape and basal flagellar segments obscure yellow, the terminal segments and all the pectinations black. Head broad, dark brown.

Mesonotum and pleura brownish yellow without distinct markings. Halteres short, yellow, the knobs dark brown. Legs with the coxæ and trochanters yellow; femora yellow with a broad (1.5 mm.) black subterminal ring, the extreme apex pale; tibiæ black, the extreme base pale; tarsi black.



Wings with a faint grey tinge, marked with dark brown; cell *Sc* brown; a faint brown cloud in the base of cell *R*; a conspicuous quadrate area at the origin of *Rs*; a broad band occupying the space between the ends of vein *Sc*<sub>1</sub> and *R*<sub>1</sub>, extending caudad to cell 1st *M*<sub>2</sub>; both ends of cell 1st *M*<sub>2</sub> and the basal deflection of *Cu*<sub>1</sub> broadly seamed with brown; wing-apex broadly but indistinctly darkened, this coloration continued around the wing-margin into the anal cells; veins dark brown. Venation: *Rs* strongly angulated at origin, and more than twice its length from tip of *R*<sub>1</sub>; inner end of cell *R*<sub>3</sub> far proximad of cell *R*<sub>5</sub>; cell 1st *M*<sub>2</sub> relatively small, roughly quadrate in outline; basal deflection of *Cu*<sub>1</sub> at near three-fourths the length of cell 1st *M*<sub>2</sub>.

Abdominal tergites black, the extreme base of each segment narrowly, the apex more broadly, orange-yellow; segments 6 and 7 entirely black; hypopygium orange; sternites obscure brownish yellow, the sixth and seventh segments black.

*Hab.* North Queensland.

*Holotype*, ♂, Yungaburra, Cairns District, altitude 2500 feet, April 11, 21 (*A. P. Dodd*).

"On leaf in scrub."

This very distinct *Gynoplistia* is dedicated to the collector, Mr. Alan P. Dodd, to whom I am indebted for many interesting Tipulidæ from North Queensland.

*Ctenacroscelis fijiensis*, sp. n.

General coloration yellow, heavily marked with brown; antennal flagellum fulvous; thoracic pleura variegated with brown; a pale dorso-pleural stripe continued caudad across the postnotum; femora with a conspicuous yellow sub-terminal ring, the tips broadly dark brown.

*Female*.—Length about 21 mm.; wing 23 mm.

Frontal prolongation of head obscure yellow above, the sides darker brown; palpi dark brown. Antennæ short; first scapal segment brown; second segment light yellow; flagellum fulvous. Head dark brown, narrowly yellow adjoining the inner margin of the eyes; vertical tubercle brown, margined with yellow.

Pronotum dark brown, narrowly yellowish medially. Mesonotal præscutum obscure yellow, this colour almost entirely hidden by conspicuous brown stripes; intermediate pair almost confluent; sublateral stripes elongate but considerably constricted on the outer margin opposite the pseudosutural foveæ, the anterior ends confluent internally with the intermediate stripes; lateral margins of præscutum

of a darker brown than the four discal stripes, deflected strongly proximad at the pseudosutural foveæ, their anterior ends confluent with the sublateral stripes; extreme lateral and anterior margin of præscutum pale; scutal lobes dark; scutellum pale basally, the caudal margin dark; postnotum with a basal dark triangle, the apex directed backward, followed posteriorly by a pale yellow transverse stripe; caudal margin of postnotum narrowly darkened. Pleura grey, conspicuously variegated with brown, this not appearing as a distinct dorso-pleural stripe as in *C. conspicabilis*; a conspicuous light yellow dorso-pleural stripe passing beneath the wing-root across the postnotum as described above. Halteres broken. Legs with the coxæ grey; anterior coxæ with two longitudinal brown lines; mid- and hind coxæ with a single conspicuous brown blotch; trochanters yellow; femora brownish yellow, the apices broadly dark brown; a broad, conspicuous, yellow subterminal ring; tibiæ and tarsi brownish yellow. Wings with a strong brownish suffusion; stigma brown; a brown cloud at the fork of *Cu* and at *r-m*; veins brown. Venation as in the genus; the tip of *R*<sub>3</sub> bent strongly cephalad, so that cell *Rs* is abruptly widened outwardly.

Abdomen with the tergites dark brown, the lateral and caudal margins very narrowly pale yellow. Ovipositor with the valves horn-coloured.

*Hab.* Fiji.

*Holotype*, ♀, Labœa, October 1914 (*R. Veitch*).

Type in the collection of the British Museum (Natural History).

*Ctenacroscelis fijiensis* differs from the Australian *C. conspicabilis* (Skuse) in the stouter and differently coloured legs, the fulvous antennæ, and the pale dorso-pleural stripe that continues caudad across the mesonotal postnotum.

LIV.—On some new small Mammals from East Africa.

By P. S. KERSHAW.

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*Elephantulus ocularis*, sp. n.

A member of the *rufescens* group, with sternal gland, bicoloured short-haired tail of moderate length, and short sleek fur.

Colour of the head and back light fawn, between "ecru-drab" and "vinaceous cinnamon" (Ridgway), similar to