

Alphabetical numbered list of species enumerated or described as new in the present paper, all referred to Xylophilus unless otherwise stated; those marked with an asterisk are treated as new.

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| *accrensis, 22, <i>W. Africa.</i> | *melanostictus, 9, <i>India.</i> |
| angulatus, Pic, 26, <i>Cape Colony.</i> | *patucki, 2, <i>India.</i> |
| *basifasciatus, 12, <i>India.</i> | *pumilio, 25, <i>W. Africa.</i> |
| *bifossulatus, 14, „ | *quadripustulatus (<i>Hylobænus</i>), |
| *breviscopia, 7, „ | 1, <i>Philippines.</i> |
| *capensis, 23, <i>Cape Colony.</i> | ruficeps, Pic, 20, <i>Natal, etc.</i> |
| *fijianus, 18, <i>Fiji.</i> | *rutiventris, 17, <i>Fiji.</i> |
| *flexipes, 19, <i>W. Africa.</i> | *scraptioides, 24, <i>Rhodesia.</i> |
| *haldwanæ, 6, <i>India.</i> | *seminiger, 4, <i>India.</i> |
| *kumaonæ, 10, „ | *sexdentatus, 1, „ |
| *labasæ, 16, <i>Fiji.</i> | *subrufus, 13, „ |
| *latidens, 11, <i>India.</i> | *tetrastictus, 8, „ |
| *luteitarsis, 3, „ | *thomasseti, 21, <i>Natal.</i> |
| *luzonensis, 15, <i>Philippines.</i> | *trapeziderus, 5, <i>India.</i> |

LVIII.—*New or little-known Tipulidæ (Diptera).—XXII. Australasian Species.* By CHARLES P. ALEXANDER, Ph.D., F.E.S., Amherst, Massachusetts, U.S.A.

THE material upon which the present report is based was received from the following sources:—New Zealand, through the kind interest of the collectors, Messrs. Campbell, Hamilton Harris, Morris, and Myers; New South Wales, through Dr. Ferguson and Mr. Robinson; and Victoria, received from the National Museum at Melbourne, through the kindness of the Provisional Director, Mr. Kershaw, and the Entomologist, Mr. Gerald F. Hill. I express my deepest thanks to all of the above-named gentlemen for their co-operation in this matter. The types are preserved in the collection of the writer, except where noted to the contrary.

DICRANOMYIA, Stephens.

ZELANDOGLOCHINA, subgen. nov.

Characters as in *Dicranomyia*, s. s., with the following exceptions:—Rostrum more or less elongate, in some cases longer than the remainder of the head; labial palpi elongate, divergent; palpi relatively elongate, 4-segmented. Antennæ with the flagellar segments produced apically into a slender glabrous pedicel, longer in the males, where the basal enlargement is more or less produced laterally, giving to the

antennæ a moniliform to short-pectinate appearance; all verticils of the flagellar segments borne on the basal swellings. In the females, the terminal pedicels are shorter and the moniliform appearance less marked. Legs, especially the tibiæ, with delicate appressed setæ and scattered elongate, conspicuous, suberect, spinous setæ, on the tibiæ more numerous in a row down the outer face.

Type of the subgenus, *Dicranomyia huttoni*, Edwards (Maorian Subregion).

The known species that are referable to this subgenus are all from New Zealand. Besides the type of the subgenus, the following species are included:—*D. atrovittata*, Alexander; *canterburiana*, Alexander; *circularis*, Alexander; *crassipes*, Edwards; *cubitalis*, Edwards; *decincta*, Edwards; *flavidipennis*, Edwards; *harrisi*, Alexander; *laterospina*, Alexander; *melanogramma*, Edwards; *myersi*, sp. n.; *octava*, Edwards; *paradisea*, Alexander; *sublacteata*, Edwards; *unicornis*, Alexander; and *unijuga*, Alexander.

Edwards states that one additional Australian species belongs here, but the writer cannot confirm this statement from any material that has come to hand. The first mention of a species of this subgenus was by Osten-Sacken (Berlin. Ent. Zeitschr. xxxi. p. 172, 1887) under the naked name of *D. monilicornis*. Hutton misinterpreted Osten-Sacken's conception of the group, and described a member of this subgenus as a species of *Geranomyia*. The group is nearly as well-defined as other Limonine genera, as *Libnotes*, *Peripheroptera*, *Rhipidia*, and others, but it seems best to treat it as one of the rather numerous subgeneric concepts of the great genus *Dicranomyia*, which, in turn, is becoming increasingly difficult to separate from *Limonia*, Meigen.

Dicranomyia (Zelandoglochina) myersi, sp. n.

General coloration brownish yellow, the præscutum with three ill-defined dark brown stripes; pleura yellow, with a conspicuous black longitudinal dorsal stripe; wings pale yellow, the stigma barely indicated; proximal ends of cells R_3 and 1st M_2 lying far proximad of cell R_5 ; abdominal tergites largely black, the caudal margins of the subterminal segments narrowly yellowish.

Female.—Length 7.5 mm.; wing 7.6 mm.

Rostrum and palpi brownish black, the former, excluding the mouth-parts, a little shorter than the head. Antennæ with the scapal segments dark brown; flagellum dark

brown, the proximal ends of the basal segments indistinctly paler. Head grey, the narrow anterior vertex more pollinose.

Pronotum brown, the lateral margins blackened. Mesonotum obscure brownish yellow, the præscutum with three rather ill-defined dark brown stripes, the median one not attaining the suture, the anterior ends of the lateral stripes touching the median stripe; scutal lobes dark brown, the median area paler; scutellum and postnotum brown, sparsely pruinose. Pleura yellow, with a broad black longitudinal stripe, extending from the propleura across the anepisternum, pteropleurite, and postnotal pleurotergite to the base of the abdomen, surrounding the base of the halter. Halteres brown, the knobs more infuscated. Legs with the coxæ and trochanters yellow; femora obscure yellow, each with a narrow and relatively indistinct brown ring more than its length before the tip; tibiæ and tarsi brownish yellow, the terminal tarsal segments passing into brown. Wings with a pale yellowish tinge, the stigma scarcely darker; veins black, *C*, *Sc*, *R*, and *Cu* conspicuously paler. Macrotrichia of veins relatively short. Venation: *Sc* short, *Sc*₁ ending just beyond the origin of *Rs*, *Sc*₂ a corresponding distance before this origin; *Rs* nearly straight, with a very short basal angulation; *r* rather long, feebly arcuated, in one wing of the type with several macrotrichia on the cephalic end, the tip of vein *R*₁ beyond it short and semi-atrophied; inner ends of cells *R*₃ and 1st *M*₂ in approximate alignment and lying far before that of cell *R*₅, *r-m* lying beyond mid-length of cell 1st *M*₂; basal deflection of *Cu*₁ a short distance beyond the fork of *M*.

Abdomen with the basal tergites obscure brownish yellow, broadly margined laterally with brownish black; intermediate segments black, the caudal margins narrowly but conspicuously yellowish; sternites uniformly pale yellow. Ovipositor with the short tergal valves reddish horn-coloured, the bases of all the valves narrowly blackened.

Hab. New Zealand (North Island).

Holotype, ♀, Kaitaia, North Auckland, September 20, 1923 (*J. G. Myers*).

This interesting crane-fly is named in honour of the collector, Mr. John G. Myers. It seems to be most closely allied to *D. (Z.) melanogramma*, Edwards.

Molophilus pæcilonota, sp. n.

General coloration light yellow; mesonotal præscutum

with three brown spots; each scutal lobe with a brown marking; two confluent brown spots at caudal margin of postnotal mediotergite; a conspicuous black spot on pteropleurite; knobs of halteres brownish black; wings yellow with two pale grey cross-bands.

Male and Female.—Length about 3.5 mm.; wing 4 mm.

Rostrum yellow, the palpi conspicuously dark brown. Antennæ of moderate length only, the basal segments light yellow, the flagellar segments more testaceous brown; flagellar segments oval, with erect white setæ. Head pale yellow.

Mesonotal præscutum yellow with three orange stripes, the cephalic ends of which are conspicuously dark brown, giving the appearance of three subcircular brown spots; scutum yellow, the lobes orange, the lateral angle of each with a triangular brown spot; scutellum light brown, the margin more testaceous; mediotergite of postnotum yellow, the caudal margin with two circular dark brown spots that are confluent. Pleura yellow, the dorsal portion of the pteropleurite with a large and very conspicuous black spot that is nearly circular in outline. Halteres yellow, the knobs brownish black. Legs with the coxæ and trochanters yellowish white; remainder of the legs yellow, the terminal tarsal segments passing into dark brown. Wings yellow with two broad, interrupted, very pale grey cross-bands, the first at the level of *Rs* and along vein 1st *A*, the second extending almost across the wing immediately beyond the cord; veins yellow, scarcely darker in the grey areas, the macrotrichia of the grey areas darker. Venation: 2nd *A* extending to just beyond the distal end of the basal deflection of *Cu*₁.

Abdomen yellow. Male hypopygium with the apices of the basistyles produced into a compressed, feebly chitinated blade, the apex suddenly narrowed into a beak. Outer dististyle bifid at apex; basal dististyle with the slightly enlarged base pale, the long apex slender, gradually narrowed to the acute apex which is directed mesad, before this long tip and near mid-length of the style on the lateral face with a few acute teeth, the distal ones larger.

Hab. New South Wales.

Holotype, ♂, Rous, Richmond River, August 23, 1923 (V. J. Robinson).

Allotopotype, ♀.

Austrolimnobia victoriae, sp. n.

General coloration yellow or orange; base of halteres yellow; wings whitish subhyaline, variegated with brown and yellow, cells *C* and *Sc* entirely dark brown; abdomen yellow, the segments ringed caudally with dark brown.

Male.—Length 15 mm.; wing 16.5 mm.

Rostrum brown, the palpi bright reddish brown. Antennæ approximated basally, the rather short basal segment reddish brown; second segment small; basal six flagellar segments yellowish, the seventh darkened; segments beyond the seventh broken; all flagellar segments elongate-cylindrical, with a series of unilaterally arranged bristles along outer face and with two smaller setæ on inner face at tip. Eyes very large, contiguous dorsally or approximately so, the restricted posterior vertex dark brown, brightening on the occiput.

Mesonotum reddish orange, the lateral margins of the scutal lobes above the wing-root with a velvety-black spot. Pleura obscure orange, the dorso-pleural region, the anepisternum, and postnotal pleurotergite infuscated. Halteres dark brown, the base of the stem narrowly yellowish. Legs with the fore coxæ and trochanters reddish brown, the middle and posterior coxæ and trochanters dark brown; femora yellow, the tips rather broadly (2.4 mm.) black; tibiæ yellow, the bases narrowly, the tips a little more extensively blackened; tarsi brownish yellow, gradually deepening to brown. Wings whitish subhyaline, with a handsome brown and yellow pattern, somewhat as in the genotype (*spectabilis*, Alexander), differing as follows:—Cells *C* and *Sc* entirely and uniformly dark brown, sending very small areas over the arculus and origin of *Rs*, and larger seams across the fork of *Rs* and fork of *R*₂₊₃, the yellow stigmal spot enclosed in the latter small and sub-circular; brown apex a little broader; brown washes along the caudal margin of wing more even, the outermost, on *Cu*₂, connecting with the seam on the basal deflection of *Cu*₁, those at the tips of the anal veins not extensive and broadly connected with one another, in cell 2nd *A* extending to the anal angle; veins pale, dark brown in the infuscated areas. Venation: *r* scarcely more than its length from the tip of *R*₁; inner end of cell *R*₂ lying proximad of cell 1st *M*₂, which, in turn, lies a corresponding distance proximad of cell *Cu*₁; *m* longer than the outer deflection of *M*₃; basal

deflection of Cu_1 about two-thirds its length beyond the fork of M .

Abdomen yellow, the caudal margins of the segments rather narrowly but conspicuously dark brown; lateral margins of the segments, especially the sternites, narrowly dark brown; hypopygium dark brown, the tergite a little paler medially at the base.

Hab. Victoria.

Holotype, ♂, Dandenong Range.

Type in the collection of the National Museum, Melbourne.

HORISTOMYIA, gen. nov.

Rostrum short; palpi small. Antennæ 16-segmented, the second scapal segment large; flagellar segments all distinct, oval, with moderately long verticils. Thorax without tuberculate pits; pseudosutural foveæ relatively small, semicircular, black. Tibiæ without spurs but with spinous setæ, with similar setæ at the apices of the tarsal segments; claws small, smooth; empodia present. Wings with Sc long, Sc_1 ending beyond the fork of Rs , Sc_2 not far from its tip, Sc_1 about twice Sc_2 ; Rs arcuated; cell R_2 shorter than its petiole; r lacking; basal deflection of R_{4+5} very short to obsolete; cell 1st M_2 long, the basal deflection of Cu_1 not far from mid-length of this cell; cell M_1 lacking; anterior arculus broken. Male hypopygium of a peculiarly primitive nature; basistyles with the mesal face produced into a flattened lobe; dististyle single, a simple curved arm that is borne on the mesal face of the basistyle just beyond mid-length, the margin with conspicuous spines, at the slightly dilated apex with a group of small spines and a row of about six longer spinous setæ. Gonapophyses and ædeagus very conspicuous, strongly decurved, the elements of approximately equal length; ædeagus split at apex into two divergent arms that are expanded into spatulate blades at tips; gonapophyses gradually narrowed into acute spines, subtending the ædeagus, before the tip of each with a high spinous crest.

Genotype, *Gonomyia leucophæa*, Skuse (Australian Sub-region).

The very curious and isolated fly that is made the type of the above new group is but distantly related to *Gonomyia*, to which genus it was referred by Skuse. The tibial spurs are not evident, yet the fly has a very *Limnophila*-like appearance. The fly may be regarded as being Eriopterine until more evidence to the contrary is forthcoming.

Polymoria pristina, sp. n.

General coloration reddish brown, the præscutum dark brown with lateral yellowish stripes; femora yellowish with a narrow dark brown subterminal ring; wing brownish yellow, the centre of the disc more hyaline, the surface of the wing with a heavy brown-spotted pattern.

Female.—Length about 16 mm.; wing 16.4 mm.

Rostrum and palpi dark brown. Antennæ with the scapal segment dark brown, paler dorsally; second segment brown, paler apically; flagellar segments 1 and 2 black, narrowly yellow at both ends, the remainder of the organ broken; the flagellar segments that remain are cylindrical and of such a length as to indicate a rather long antenna. Head blackened, pruinose, the occipital region paler.

Pronotum reddish brown, the sides darker brown. Mesonotal præscutum dark brown, with three stripes, a broad median brownish vitta, narrowly margined by the ground-colour, and obscure yellow lateral stripes that cross the suture on to the scutal lobes; scutum pale medially, the mesal margins of the lobes greyish brown, the lateral margins narrowly dark brown; scutellum light brown, the caudal margin with two dark brown spots; postnotum largely dark brown. Pleura obscure yellow with a broad dorsal infuscation; sternopleurite ventrally similarly darkened. Halteres elongate, obscure yellow, the knobs infuscated. Legs with the coxæ brownish yellow, the bases more or less infuscated; trochanters obscure yellow; femora brownish yellow; the apices broadly more whitish, including a narrow dark brown subterminal ring at a little less than its length from the tip; tibiæ obscure yellow, the tips narrowly dark brown; tarsi passing into brown. Wings brownish yellow, more nearly hyaline or whitish hyaline in the centre of the disc, the surface with a heavy brown pattern including conspicuous paler brown seams at arculus; origin of R_s ; at stigma, continued across the fork of R_{1+2} and at tips of veins R_1 and R_2 ; the veins in these darkened areas are largely yellow, producing a peculiar ocellate appearance; solid darker brown seams and spots along the cord, outer end of cell 1st M_2 , fork of M_{1+2} , and marginal spots at ends of all the longitudinal veins, smallest in the radial and medial fields, becoming successively larger in the cubital and anal fields, the basal two-thirds of cell 2nd A likewise solidly dark brown; cells R_3 , R_5 , M_1 , 2nd M_2 , M_3 , Cu_1 , Cu , and 1st A with linear dusky washes in the centres of the cells; veins dark brown, yellowish as indicated

above. Venation: *Sc* long, *Sc*₁ ending some distance beyond the fork of *R*₂₊₃, *Sc*₁ and *Sc*₂ subequal; *Rs* angulated and spurred at origin; *R*₂₊₃ about equal to basal deflection of *Cu*₁; *r* about its length from the tip of *R*₁; inner ends of cells *R*₃, *R*₅, and 1st *M*₂ in approximate alignment; petiole of cell *M*₁ about twice *m*; basal deflection of *Cu*₁ long, sinuous, placed shortly beyond the fork of *M*; anterior arcus lacking.

Abdomen greased, the tergites brown, paler basally and laterally; sternites largely yellowish.

Hab. Victoria.

Holotype, ♀, without exact data.

Type in the collection of the National Museum, Melbourne.

Polymoria electa, sp. n.

General coloration reddish brown; legs hairy, the segments tipped with darker; wings light yellow, the anal angle and a large area in the vicinity of the stigma infuscated; remainder of wing-disc with conspicuous brown markings; *R*₂₊₃ and cell 1st *M*₂ long.

Female.—Length about 9.5 mm.; wing 10.4 mm.

Rostrum small, pale brown, the palpi dark brown. Antennæ small, pale brown; basal three flagellar segments enlarged, separated from one another only by indistinct sutures, especially the basal two; remaining flagellar segments cylindrical with conspicuous verticils that are a little longer than the segments. Head pale brown.

Mesonotum uniformly brown, without distinct markings. Pleura similar, but the pteropleurite and postnotal pleurotergite infuscated. Halteres rather short, pale, the knobs infuscated. Legs with the coxæ relatively elongate, pale brown; trochanters yellow; remainder of legs with the femora yellow, the tips rather broadly pale brown; tibiae yellow, the tips very narrowly darkened; basal three tarsal segments yellow, the tips very narrowly and indistinctly infuscated, the terminal two tarsal segments infuscated; segments of legs with conspicuous outspreading setae. Wings light yellow, with a conspicuous brown pattern that is, in part, ocelliform; the cephalic outer portion of the wing surrounding the stigma extensively infuscated, this including cells *R*₁, *R*₂, and *R*₃; anal angle of wing in cells 1st *A* and 2nd *A* likewise extensively infuscated; the ocelliform markings include a very large one at the origin of *Rs*, this being the only darkening that extends into cells *C* and *Sc*; other circles along the cord, outer end of cell 1st *M*₂,

the fork of M_{1+2} and at the tips of veins M_1 , Cu_1 , Cu_2 , 1st A , and 2nd A , the last large and irregular; a small brown spot in cell R mid-distance between arculus and origin of Rs ; cells M , Cu , the caudal portion of R , and the basal half of 1st A and 2nd A with a pale brown wash; veins brown, more yellowish in the flavous areas. Venation: Sc_1 ending opposite the fork of Rs , Sc_2 a short distance from its tip; Rs long; R_{2+3} a little shorter than the very long narrow cell 1st M_2 ; r on R_2 about two and one-half times its length from the fork of R_{2+3} and about three and one-half times its length from the tip of R_1 ; veins R_2 and R_3 gently divergent; inner ends of cells R_3 , R_5 , and 1st M_2 in alignment; cell M_1 about equal in length to its petiole; basal deflection of Cu_1 near mid-length of cell 1st M_2 ; anterior arculus faintly indicated, pale, with a small dark spot immediately distad of it.

Abdomen light brown. Ovipositor with the elongate, almost straight valves horn-coloured.

Hab. New South Wales.

Holotype, ♀, Blue Mts., February 26, 1922 (*E. W. Ferguson*).

Type returned to Dr. Ferguson.

Limnophila luteicauda, sp. n.

Antennæ short; general coloration (in alcohol) dark brown; wings long and narrow, tinged with brown, the stigma a little darker brown; R_{2+3} and basal deflection of R_{4+5} subequal; basal deflection of Cu_1 not far beyond the inner end of cell 1st M_2 ; male hypopygium with the outer dististyle bearing a lateral spine before the apex.

Male.—Length about 5.5 mm.; wing 6.2 mm.; its greatest width 1.45 mm.

Described from alcoholic specimens.

Rostrum and palpi dark brown. Antennæ short, dark brown throughout, the flagellar segments beyond the basal few oval. Head dark brown.

Pronotum and mesonotum uniformly dark brown, any bloom if normally present destroyed by immersion in alcohol. Pleura concolorous. Halteres relatively long and slender, pale, the knobs scarcely darker. Legs long and slender; coxæ and trochanters obscure yellow, the remainder of the legs dark brown, the femoral bases narrowly paler. Wings relatively long and narrow, as shown by the measurements, with a strong brownish tinge, the oval stigma still darker brown; veins dark brown. Venation: Sc_1 ending

just before the tip of the long, gently arcuated R_s , Sc_2 about twice its length from the tip; r faint, bisecting the stigma; R_{2+3} about equal to or a little longer than the basal deflection of R_{4+5} , in alignment with R_s ; veins R_2 and R_3 gently divergent; cell 1st M_2 small, rectangular, the basal deflection of Cu_1 not far from its proximal end; cell M_1 about two-thirds the length of its petiole; anterior arculus preserved.

Abdomen brown, the fourth to eighth segments somewhat darker, the basistyles of the hypopygium conspicuously light yellow. Male hypopygium with the basistyles elongate, narrowed toward the apex; outer dististyle slender, heavily chitinized throughout its length, gently curved, the apex terminating in a stout spine, before the tip on the outer face with a shorter and more slender spine; outer face on apical half with setigerous tubercles; inner style short and fleshy. Gonapophyses slender, the free end of each directed caudad as a slender sinuous rod that is pale horn-coloured. Aedeagus unusually long and stout for a member of this group.

Hab. New Zealand (South Island).

Holotype, ♂, Little River, Banks Peninsula, Canterbury, March 31, 1923 (*J. W. Campbell*).

Paratopotype, ♂.

Limnophila luteicauda is a member of the genus only in the broad sense. It belongs to the small aggregation of New Zealand species that resemble species of *Zelandomyia*, but differ therefrom in the details of venation and hypopygial structure.

Limnophila pauciseta, sp. n.

General coloration dark brown, sparsely pruinose; antennæ black throughout, the segments oval; wings tinged with brown, with slightly darker brown clouds along the cord and outer end of cell 1st M_2 ; stigma conspicuous, dark brown; a few macrotrichia in outer ends of cells R_2 to 2nd M_2 ; cell M_1 lacking.

Male.—Length about 6.5 mm.; wing 7.5 mm.

Female.—Length about 9.5 mm.; wing 9.5 mm.

Rostrum and palpi brownish black. Antennæ of only moderate length, black throughout, the segments with a dense white pubescence, the verticils short; flagellar segments oval or with the ventral face a trifle more bulging than the dorsal face. Head dark brown, the vertex more yellowish in front, the posterior part of the head brownish pollinose.

Mesonotal præscutum with a yellowish pollen, with three distinct blackish stripes; pseudosutural foveæ distinct, but tuberculate pits lacking; scutum and scutellum yellowish brown, sparsely grey-pruinose, the centres of the scutal lobes infuscated; mediotergite of postnotum infuscated, sparsely pruinose, except laterally. Pleura dark brown, grey-pruinose. Halteres yellow, the knobs infuscated. Legs with the coxæ yellow, their outer faces more or less infuscated and sparsely pruinose, more evident on the fore coxæ; trochanters yellow; femora yellow, the tips infuscated, the middle femora more extensively so; tibiæ and tarsi dark brown; tibial spurs distinct. Wings tinged with brown; stigma conspicuous, oval, dark brown; brown washes along the cord and outer end of cell 1st M_2 ; anal angle a little infumed; veins dark brown. A few macrotrichia in the extreme outer ends of cells R_2 , R_3 , R_5 , and 2nd M_2 . Venation: Sc_1 ending opposite the fork of R_s , Sc_2 at its tip; R_s of moderate length, in alignment with R_{2+3} , the latter about one-third longer than the basal deflection of Cu_1 ; r on R_2 less than twice its length from the fork and a corresponding distance from the tip of R_1 ; inner ends of cells R_3 , R_5 , and 1st M_2 in alignment; cell M_1 lacking; basal deflection of Cu_1 from two-thirds to fully its length beyond the fork of M ; m shorter than the outer deflection of M_3 ; anterior arculus present.

Abdomen dark brown, the basal sternites with obscure yellow basal spots; hypopygium and ovipositor obscure brownish fulvous. Ovipositor with long slender valves, the tergal valves only slightly upcurved.

Hab. New South Wales.

Holotype, ♂, Blue Mts., April 2, 1922 (*E. W. Ferguson*).

Allotopotype, ♀.

Type returned to Dr. Ferguson.

Paralimnophila flammeola, sp. n.

Related to *P. aurantiipennis* (Alexander); antennæ longer, yellowish, the basal seven segments with conspicuous pectinations; mesonotal præscutum with four reddish-brown stripes; pleura orange, with a dorsal pale brown longitudinal stripe; legs obscure orange; wings broader, with sparse brown markings; Sc_1 longer than the distal section of R_{4+5} .

Female.—Length 20 mm.; wing 16.8 mm.

Rostrum reddish brown, the palpi darker brown with the basal segment a little paler. Antennæ with the scapal segments brownish yellow, the flagellum light yellow, only

the terminal segments passing into brown; antennæ 16-segmented, the basal seven flagellar segments with conspicuous terminal pectinations, the longest only a little shorter than the segments themselves. Head reddish brown, the centre of the vertex infuscated, pruinose.

Anterior pronotum fiery-orange, the posterior pronotum more whitish yellow. Mesonotal præscutum yellow, with four reddish-brown stripes, the intermediate pair only narrowly separated from one another, the anterior ends of the short lateral stripes confluent with the intermediate stripes, the usual interspaces thus reduced to narrow yellow lines before the suture; pseudosutural foveæ large, pale, the mesal ends a little darker; scutum and scutellum reddish brown; postnotal mediotergite obscure orange, each posterior lateral angle darker. Pleura orange, the dorso-pleural region narrowly yellowish, margined beneath by a narrow, brown, ill-defined, longitudinal stripe, extending from the propleura across the dorsal edge of the anepisternum, becoming obsolete at the wing-root. Halteres dark brown, the base of the stem yellow. Legs with the coxæ and trochanters light orange-yellow; remainder of legs obscure orange, the femora very indistinctly darker before the tips; apices of tibiæ and basal tarsal segments a little darker. Wings broader than in *P. aurantiipennis*, the cells correspondingly wider; cell *C* darker brown, paler distally; stigma oval, rather pale brown; brown clouds in base of cell *R* and at origin of *Rs*, the latter not passing into cell *Sc*; very restricted brown seams along the cord, outer end of cell 1st *M*₂ and at fork of *M*₁₊₂; paler brown washes beyond mid-length of veins 1st *A* and 2nd *A*; anal angle narrowly darkened; veins yellow, darker in the infuscated areas. Venation: *Sc*₁ longer than the distal section of *R*₁; *R*₂₊₃ one-third longer than the basal deflection of *R*₄₊₅; cell 1st *M*₂ much wider than in *aurantiipennis*.

Abdomen orange-yellow, the sternites clearer yellow. Ovipositor with the valves elongate, as in the genus.

Hab. Victoria.

Holotype, ♀, Ferntree Gully, April 16, 1922.

Type in the collection of the National Museum, Melbourne.

Paralimnophila puella, sp. n.

General coloration grey; femora pale brownish yellow, the tips darker brown; wings creamy-white; the base and cells *C* and *Sc* yellowish; a diffuse brown pattern, including a seam that completely traverses the wing at the cord.

Female.—Length 10·9 mm.; wing 9·4 mm.

Rostrum dark brown, grey-pruinose; palpi dark brown. Antennæ with the basal segment testaceous, the second segment yellow; flagellum yellowish brown, the outer segments darker, the inner face of the segments a little produced. Head grey, the anterior vertex and orbits lighter grey; centre of vertex with an indistinct longitudinal brown vitta.

Pronotum light grey. Mesonotal præscutum light grey with three brown stripes, the median one more or less divided; pseudosutural foveæ large and conspicuous, their mesal ends encroaching upon the lateral margins of the median stripe; scutum dark brown, the median area pruinose, the lobes apparently denuded in the unique type; scutellum and postnotum pruinose, the latter with a very delicate and indistinct median brown vitta. Pleura dark, heavily light grey-pruinose, the dorsal regions and sternopleura infuscated. Halteres obscure yellow, the knobs infuscated. Legs with the coxæ brownish testaceous, sparsely pruinose, the fore coxæ more darkened at bases; trochanters yellowish testaceous; femora pale brownish yellow, the tips broadly darker brown; tibiæ pale brown passing into darker brown beyond mid-length; basitarsi infuscated, the apical fourth whitish; tarsal segments 2 and 3 white, the tips faintly darkened; terminal tarsal segments infuscated. Wings creamy-white, the base and cells *C* and *Sc* more yellowish; stigma oval, dark brown; large, paler brown clouds as follows: in cell *R* at mid-distance between arculus and origin of *Rs*; at origin of *Rs*; along the cord and outer end of cell 1st *M*₂, the latter completely traversing the wing and suffusing most of cell *Cu*₁; a darker cloud at tip of vein *R*₂ and conspicuous pale clouds at the wing-tip; fork of *M*₁₊₂; ends of anal cells; near mid-length of cells *M* and *Cu* and along vein *M*, connecting the spot at origin of *Rs* with the seam along the cord; veins dark brown, paler in the subhyaline areas. Venation: *Sc*₁ ending just beyond the fork of *Rs*, *Sc*₂ some distance from its tip and covered by a small brown seam; *Rs* long, angulated at origin; in the right wing of the type with an adventitious cross-vein in the axil of the sector; *r* about twice its length from the tip of *R*₁ and about one and one-half times its length beyond the fork of *R*₂₊₃; cell *M*₁ shorter than its petiole; *m* short, the outer deflection of *M*₃ correspondingly lengthened; basal deflection of *Cu*₁ not far beyond the fork of *M*.

Abdominal tergites dark brown sternites obscure brownish

yellow, the segments margined laterally with dark grey. Ovipositor with the very long valves yellowish horn-colour, the tergal valves a little darker basally.

Hab. Victoria.

Holotype, ♀, Ferntree Gully, December 25, 1917.

Type in the collection of the National Museum, Melbourne.

Paralimnophila fraudulenta, sp. n.

General coloration light grey; antennæ with the ventral apical angle of the basal four flagellar segments very slightly produced; mesonotal præscutum with three dark brown stripes; legs dark brown, the intermediate tarsal segments yellowish white; wings long and narrow, whitish subhyaline, the base and costal region dark brown, the disk with a heavy brown pattern.

Female.—Length about 12·5 mm.; wing 9 mm., their greatest width 1·65 mm.

Rostrum light grey, the palpi short, dark brown. Antennæ dark brown, the basal segment heavily light grey-pruinose; only fourteen antennal segments present; basal four flagellar segments with the ventral face at apex a trifle produced; remaining segments elongate-oval, the three terminal segments short-oval. Head light grey, the centre of the very broad vertex restrictedly infuscated.

Pronotum grey, the scutellum more brownish. Mesonotal præscutum light grey with three conspicuous brown stripes, the broad median stripe further bisected by a capillary darker brown vitta; pseudosutural foveæ very conspicuous, transverse, black; remainder of mesonotum light grey, the scutal lobes and a narrow median line on scutum brown. Pleura light grey, the dorso-pleural region a little darker; meron with a dark spot behind mid-coxa. Halteres pale, the knobs dark brown. Legs with the coxæ pale, sparsely pruinose, the fore coxæ a little infuscated; trochanters yellow, the outer faces infuscated; femora and tibiæ dark brown, the fore femora narrowly paler at base; basitarsi dark brown, the tips narrowly whitish; tarsal segments 2 and 3 yellowish white, the terminal two segments infuscated; on the fore tarsi the tips of tarsal segments 1 to 3 are narrowly infuscated. Wings very long and narrow; whitish subhyaline, rather heavily variegated with brown, the wing-base and cells *C* and *Sc* dark brown; extensive brown clouds at origin of *Rs*; basad of last in *R*, at *r* (stigmal), and tip of *R*₂; less distinct clouds along the cord, outer end of cell 1st *M*₂ and along the wing-margin; veins dark brown.

Venation: R_{2+3} and basal deflection of R_{4+5} subequal; basal deflection of Cu_1 shortly beyond the fork of M ; cell 2nd A long and narrow.

Abdomen brown, the basal tergite and lateral margins of the other segments pruinose. Ovipositor with the tergal valves slender, upcurved, the base dark brown, the tips fading into horn-colour.

Hab. New South Wales.

Holotype, ♀, Blue Mts., April 1, 1922 (*E. W. Ferguson*).

Type returned to Dr. Ferguson.

Closely resembling *Cerozodia minuscula*, Alexander, differing chiefly in the feebly serrate antennal segments, involving only the basal four flagellar segments, and the narrow wings with a slightly different venation.

Gynoplistia patruelis, sp. n.

Head shiny black; antennæ of male 20-segmented, with fourteen branched segments; mesonotum metallic-green, microscopically striate; halteres yellow; legs black, the femoral bases narrowly fulvous; wings yellowish subhyaline, with a very sparse brown pattern; radial and medial veins beyond cord almost destitute of macrotrichia.

Male.—Length 15.5 mm.; wing 11.7 mm.

Female.—Length about 17.5 mm.; wing 13 mm.

Male. Rostrum shiny black, the mouth-parts and palpi dull black. Antennæ black throughout, 20-segmented, the formula being 2+2+12+4, the third flagellar segment about mid-distance between the planes of the basal two and the succeeding branches; pectinations long, the longest (flagellar segment 7) approximately two-fifths the flagellum; branch of the fourteenth flagellar segment about as long as the segment; terminal segment about one-half longer than the penultimate. Head shiny coal-black.

Pronotum coal-black. Mesonotum metallic-green, the præscutum with a very weakly indicated median carina, the surface with microscopic, mostly transverse striæ, the interspaces smooth but with conspicuous setigerous punctures; scutum similarly striate, the posterior margins of the lobes more purplish, smooth, with setigerous punctures; mediotergite of postnotum with a basal central area provided with transverse striæ, the remainder with longitudinal striæ. Pleura dull with a heavy white microscopic pruinosity, this including the postnotal pleurotergite, which is dull with the exception of the extreme cephalic margin which is shiny metallic-blue. Halteres pale yellow throughout. Legs with

the coxæ dull, microscopically pubescent; trochanters black; remainder of the legs black, the femoral bases conspicuously fulvous, broadest on the fore legs where more than the basal third is included, narrowest on the posterior legs where only the narrow base is fulvous. Wings yellowish subhyaline, the extreme base and cell *C* more yellowish; cell *Sc*, except the base, infuscated; stigma small, oval, dark brown; a small, circular, brown cloud at origin of *Rs* and a seam along the anterior cord, extending from the stigma to *r-m*; posterior cord and outer end of cell 1st *M*₂ very faintly seamed with darker; a brown seam behind vein *Cu*; veins brownish black. Macrotrichiae of veins very sparse, none on *Rs*, *R*₂₊₃, *R*₃, *M*₁₊₂, *M*₁, or *M*₂; on *R*₄₊₅ about thirteen along the distal three-fourths of the vein. Venation: *Sc*₁ ending opposite the fork of *R*₂₊₃, *Sc*₂ at its tip; *Rs* angulated and weakly spurred at origin; *R*₂₊₃ a little more than one-half the basal deflection of *R*₄₊₅; tip of *R*₁ beyond *r* faint; petiole of cell *M*₁ less than one-half of the cell; basal deflection of *Cu*₁ at about one-third the length of the cell.

Abdomen dull brownish black, the extreme lateral margins of the tergites indistinctly brightened; basal tergite more glabrous, the distal segments dull, with microscopic appressed yellow setae; tergites with basal transverse impressed lines; hypopygium dark, the basistyles obscure reddish brown.

Female. Generally similar to the male. Antennae with ten branched segments, the formula being 2+2+8+?, the terminal segments broken; branch of tenth flagellar segment minute. Spot at origin of *Rs* larger, subquadrate. Ovipositor with the valves of moderate length only.

Hab. New South Wales.

Holotype, ♂, Kosciusko, December 7, 1922 (*G. Goldfinch*).

Allotopotype, ♀.

Type returned to Dr. Ferguson.

The sculpturing of the thorax would indicate a relationship with *G. fergusoniana*, sp. n.; the trichiation of the wing-veins is much as in *G. vilis*, Walker.

Gynoplistia bella atripes, subsp. n.

Differs from typical *bella* in the uniformly black legs.

Female.—Length 13 mm.; wing 11 mm.

Rostrum and palpi black. Antennae 18-segmented, the formula being 2+2+7+7, the branch of the ninth flagellar segment minute. Head shiny coal-black.

Pronotum and mesonotum shiny coal-black, the præscutum smooth. Pleura covered with a microscopic silvery

pubescence. Halteres entirely black. Legs with the coxæ black, greyish pruinose; remainder of legs entirely black. Wings with the base broadly orange; cell *C* paler than cell *Sc*; the quadrate dark area at origin of *Rs* not connected along *M* or *Cu* with the dark basal area or the seam along the cord; the darkened apex relatively narrow and pale, the subapical white band thus being very broad and complete. Venation: veins R_2 and R_3 divergent.

Abdomen with segments 1 and 6 to 9 black; segments 2 to 5 orange, ovipositor with the dorsal shield black, the valves horn-coloured.

Hab. New South Wales.

Holotype, ♀, Kosciusko, December 7, 1922 (*G. Goldfinch*).

Type returned to Dr. Ferguson.

The close relationship with *bella*, best expressed by a trinomial, is shown by the arrangement of the macrotrichiæ of the veins and the distribution of the microtrichiæ in the darkened areas of the wings. The arrangement of the trichiæ on the veins is as follows: None on *Rs*, R_{2+3} , R_2 , M_{1+2} , or M_2 ; on R_3 about 9, on distal half; on R_{4+5} about 24; on M_1 only 1 or 2. Microtrichiæ arranged in dense clusters of six or eight.

Gynoplistia bimaculata nigrotibialis, subsp. n.

Male.—Length about 8.5 mm.; wing 8.8 mm.

Generally similar to the typical form as described by Skuse, differing as follows:—

Antennæ 19-segmented, the formula being 2 + 2 + 10 + 5; terminal flagellar segment one-half longer than the penultimate, narrowed apically. Pleura with a silvery-grey microscopic pubescence. Halteres brown, the knobs brownish black. Legs with the trochanters black; femora black, the bases broadly fulvous, on the fore legs occupying almost the basal half of the segment; tibiæ and tarsi uniformly black. Wings whitish subhyaline, the base narrowly but conspicuously yellow; cells *C* and *Sc* uniformly dark brown, similar in intensity to the conspicuous spots at origin of *Rs* and on the anterior cord; wing-tip extensively clouded; a brown seam along vein *Cu* and less distinct washes in the anal cells. Short but numerous macrotrichiæ on the veins, as follows: 7 on distal third of *Rs*; 8 on R_2 , 5 beyond *r*; about 37 on R_3 , most of the distal ones paired; about 42 on R_{4+5} , a few of the distal ones paired; 2 on petiole of cell M_1 ; 18 on M_1 ; 2 on distal third of M_2 . Abdomen with the basal segment black; hypopygium deep mahogany-brown,

the eighth tergite and caudal margin of the seventh black ; intermediate segments bright orange-fulvous.

Hab. New South Wales.

Holotype, ♂, Blue Mts., January 29, 1922 (*E. W. Ferguson*).

Type returned to Dr. Ferguson.

Gynoplistia fergusoniana, sp. n.

General coloration metallic-green ; antennæ 19-segmented in the ♂, 18-segmented in the ♀ ; femora fulvous, the tips broadly brownish black ; tibiæ dark brown, the posterior tibiæ with a very broad pale yellow ring before the tips ; wings topazine-yellow with a very sparse brown pattern ; abdomen with the basal segment blue-black, the remainder of the organ largely fulvous.

Male.—Length about 13 mm. ; wing 10·5 mm.

Female.—Length about 14·5 mm. ; wing 12·5 mm.

Rostrum short, black, with yellow setæ ; palpi dark brown. Antennæ 19-segmented, the formula in the ♂ 2+2+11+4, the branch of the thirteenth segment shorter than the segment ; longest branch approximately two-fifths the flagellum ; antennæ dark brown, the apices of the basal four flagellar segments paler. In the ♀ the antennæ are 18-segmented, the formula being 2+2+7+7, the branches long and conspicuous for this sex, the longest approximately three times the length of the segment that bears it. Head brilliantly shiny blue-black, with an orange spot immediately behind each antennal fossa, more conspicuous in the ♂ ; the low vertical tubercle is weakly bidentate.

Pronotum black, the scutellum shiny. Mesonotum metallic-green, the præscutum with a faintly indicated subglabrous median carina, the surface of the sclerite with transverse to oblique microscopic striæ, better indicated on the region occupied by the usual stripes ; scutal lobes with similar transverse and oblique striæ, the lateral region of each scutal lobe elevated into an obscure brown tubercle, the surface of this region with yellow setæ, the median area of the scutum with smaller but similar setæ ; scutellum black, the margin with yellow setæ ; postnotum greenish blue, the base with transverse striæ, the disk of the mediotergite with concentric, chiefly longitudinal striæ ; pleurotergite glabrous, with longitudinal striæ. Pleura black, the sclerites with a dense appressed silvery pruinosity, covering the proepisternum, the anepisternum and dorsal region of sternopleurite, the pteropleurite and the katapisternum.

Halteres brown, the knobs darker. Legs with the coxæ and trochanters black, the coxæ with a conspicuous white microscopic pruinosity; femora fulvous, the tips broadly brownish black, most conspicuous on the posterior legs where there is also an indication in the female of a medial brown ring; tibiæ dark brown, the posterior pair with a broad pale yellow ring immediately before the narrow dark tips, the ring occupying nearly two-fifths of the entire tibia; setæ and integument of this ring pale; tarsi black. Wings with a brownish-topazine tinge, the base and cell *C* clearer yellow; cell *Sc* infuscated, except at base; a tiny brown cloud at origin of *Rs*, a little larger in the ♀; stigma conspicuous, dark brown; a brown seam along vein *Cu* and a narrow seam along the basal deflection of R_{4+5} ; veins dark brown. Venation: *Rs* strongly angulated at origin; cell M_1 a little longer than its petiole; basal deflection of Cu_1 not far from the inner end of cell 1st M_2 , the distance about equal to *r-m*.

Abdomen with the basal segment violaceous blue-black, the remaining tergites fulvous, the hypopygium and tip of the eighth tergite black. In the female the subterminal segments with violaceous reflections.

Hab. New South Wales.

Holotype, ♂, Blue Mts., January 7, 1922 (*E. W. Ferguson*).

Allotopotype, ♀, March 4, 1922 (*E. W. Ferguson*).

This very interesting crane-fly is named in honour of the collector, Dr. Eustace W. Ferguson, to whom I am indebted for many favours. The type has been returned to Dr. Ferguson. *Gynoplistia fergusoniana* is apparently most nearly allied to the smaller *G. viridithorax*, Skuse.

Gynoplistia chalybeia evanescens, subsp. n.

Differs from typical *chalybeia*, Skuse, in the practical obliteration of the white ring on the posterior tibiæ.

Male.—Length about 5.2 mm.; wing 6.8 mm.

Very close to the typical form, differing as follows:—

Head metallic-green. Femoral bases yellow, on the posterior legs very broad, including more than the basal two-thirds; the usual pale ring on the posterior tibiæ is almost obliterated, being represented only by a very narrow, pale brown ring at this point. Venation: *r-m* distinct, longer than R_{2+3} .

Hab. Tasmania.

Holotype, ♂, King Island (*Lea*).

Paratopotype, ♂.

Type in the collection of the South Australian Museum.

Typical *Gynoplistia chalybeia* varies much in the coloration of the abdomen, in some specimens segments 2 to 4 being reddish orange, in others the abdomen entirely steel-blue.

Gynoplistia hamiltoni, sp. n.

Male.—Length about 9 mm. ; wing 8.5 mm.

Described from an alcoholic specimen.

Very closely related to *G. violacea*, Edwards, from which it differs chiefly in antennal and hypopygial characters.

Antennæ 19-segmented, the formula being $2+2+11+4$; longest branch eight to nine times the length of the segment that bears it ; branch of the fifteenth segment about one-half longer than the segment ; four terminal segments distinct. Wings with a heavy brown pattern ; cell *Sc* entirely dark brown ; stigma dark brown, sending an extensive cloud along the cord to cell 1st M_2 ; a large cloud at origin of *Rs*, not quite reaching *M* ; wing-apex extensively clouded with brown, including all of cell M_1 , this colour extending along the wing-margin to beyond vein 2nd *A*. Venation : no supernumerary cross-veins in any of the cells, those in *violacea* very probably adventitious rather than supernumerary ; *r* very faint but located less than twice its length from the tip of R_1 , cell 2nd R_1 being very small ; vein 2nd *A* not strongly curved at tip. Male hypopygium generally similar to that of *violacea*, but the gonapophyses entirely different from Edwards's description and figure ; each appears as a transverse oval chitinated plate, at mid-length of the caudal margin produced into a slender, nearly straight spine ; lateral end of the plate produced into a long, tail-like appendage that is finally directed mesad, the apex spear-like. The basal mesal face of the basistyle is setiferous and produced into a slender curved interbasal process, this directed mesad, caudad, and finally nearly laterad, the surface setiferous, the apex acute.

The coloration and bloom is largely removed by immersion in alcohol, but the mesonotum, as well as the abdomen, shows deep purplish blue ; hypopygium pale brown. Fore coxæ pale apically, the others less extensively so.

Hab. New Zealand (South Island).

Holotype, ♂, Arthur's Pass, Canterbury, altitude 1500–3600 feet, December 1922 (*H. Hamilton*).

This crane-fly is named in honour of the collector, Mr. Harold Hamilton, to whom I am indebted for many interesting species from Arthur's Pass.

Gynoplistia vittinervis, sp. n.

Antennal flagellum and branches black; mesonotal præscutum shining black, the humeral region paler; femora with a pale subterminal ring; posterior tibiæ with a whitish ring near mid-length; wings yellow with a brown pattern that includes seams along the veins that produce a vittate appearance; R_{2+3} equal in length to the petiole of cell M_1 ; abdominal tergites yellowish brown, the lateral margins darker brown.

Male.—Length about 12 mm.; wing 11.5 mm.

Rostrum and palpi brown. Antennæ with at least fourteen branched segments, the terminal segments broken; scapal segments light brown, the flagellum and its branches black; flagellar branches long, including the basal two; the branch of the fourteenth segment is likewise long (about eight times the segment), which would indicate that there are still other branched segments beyond it. Head dark brownish grey.

Pronotum light brown. Mesonotal præscutum shiny black, the humeral region paler, with distinct pseudosutural foveæ; scutal lobes dark, the median area paler; scutellum and mediotergite of postnotum shiny brownish yellow. Pleura dark brown, the anepisternum and pteropleurite grey-dusted; pleurotergite brown, blackened above the base of halter. Halteres yellow, the knobs infuscated. Legs with the coxæ pale brown, sparsely pruinose; trochanters pale brown; only the posterior legs of the type remain; femora obscure yellow, at about one-third the length passing into brown, the tips rather broadly dark brown, preceded by a narrower but conspicuous pale yellow annulus; tibiæ yellowish brown, passing into brown, with a broad whitish ring near mid-length, the setæ of the segment uniformly dark; tibial spurs elongate; tarsi brownish black. Wings tinged with yellow; cells C and Sc more saturated; a rather extensive brown pattern that appears, in part, as seams along many of the longitudinal veins, especially those beyond the cord; besides these narrow seams there is a quadrate area at the origin of Rs ; the stigmal area; a broad cloud on the anterior cord; narrower seams along the posterior cord and outer end of cell 1st M_2 , and a cloud on vein 1st A beyond mid-length; apices of cells 1st A and 2nd A a little suffused; veins dark brown. Venation: Rs long, angulated at origin; R_{2+3} unusually long, about equal to the petiole of cell M_1 ; cell M_1 fully twice as long as its petiole; basal deflection of Cu_1 beyond mid-length of cell 1st M_2 ; vein 2nd A moderately sinuous.

Abdominal tergites light yellowish brown, the lateral margins darker brown; sternites brown, the median area still darker brown. Male hypopygium of approximately similar type to *G. tridactyla*, Edwards; tergite transverse, with a small lateral tooth on either side; apical process of basistyle broken near base and its length not known; mesal face of basistyle with conspicuous projections or lobes, one a chitinized beak-like blade with the margin weakly serrulate; the basal appendage (interbasal process) is a straight slender rod that terminates in a slightly bulbous pointed apex. Dististyles two, slender, the outer straight, the apex a little dilated into a truncated head; inner style a little shorter, the apex dilated and obliquely truncated, the face with microscopic setæ and a few large bristles, including a group of four near apex.

Hab. New Zealand (South Island).

Holotype, ♂, Takaka, Nelson, February 19, 1923 (*C. B. Morris*).

Ischnotoma goldfinchi, sp. n.

General coloration light grey and black; flagellar segments of male antennæ produced into flattened disks; legs black, the femoral bases narrowly fulvous; wings whitish grey, faintly clouded with darker grey; abdomen uniformly dark greyish brown.

Male.—Length 16 mm.; wing 17.5 mm.

Female.—Length about 19 mm.; wing 19 mm.

Frontal prolongation of head grey, the nasus elongate; palpi brownish black. Antennæ black throughout, the basal segment dusted with grey; antennæ of the male with the basal flagellar segment cylindrical, shorter than *I. par* (Walker); segment 2 with the lower face produced; segments 3 to 10 broad triangular, disk-shaped, the lateral angles conspicuous. Head dark brown, the anterior portion of the vertical tubercle obscure fulvous, the broad posterior orbits light grey.

Mesonotal præscutum light grey, with three darker grey stripes that are broadly and conspicuously margined with black, the broad median stripe split by an additional narrow black median line, the black margins of the lateral stripes confluent with the median stripe; scutum with the broad median area light grey, each lobe black with three dark grey spots, the mesal one largest; scutellum brownish black, the median area heavily light grey pruinose; postnotal mediotergite light grey with a median dark brown vitta, the lateral margins narrowly infuscated, and two circular darker grey

spots at caudal margin. Pleura light grey; a brown cloud surrounding the anterior spiracle; a second cloud on the anepisternum; pleurotergite black with a large, oval, light grey centre; mesosternum and meron darker ventrally. Halteres brownish testaceous, the knobs infuscated. Legs with the coxæ light grey; trochanters greyish black; remainder of the legs black, the femoral bases narrowly fulvous, broadest and most conspicuous on the posterior legs where about the basal third is involved. Wings with a pale whitish-grey tinge, the base conspicuously fulvous; cell *Sc* and the proximal half of the stigma brownish fulvous; stigma brown; veins indistinctly seamed with brown; pale brownish-grey clouds on the wing, more distinct at origin of *Rs* and outer end of cell *C*, in centre of cell *R*₂; outer end of cell *R*₃ and all the posterior anal cells, leaving the bases of the cells of the ground-colour; basal cells grey, with a conspicuous oval area of the ground-colour at the outer end of cell *M*; veins dark brown, more yellowish in the fulvous areas. Venation: *R*₃ not so strongly arcuated as in *I. par*.

Abdomen uniformly dark greyish brown, the lateral margins of the tergites grey-pruinose, the basal tergite light grey with a conspicuous brown median oval; sternites similar. Male hypopygium with the caudal margin of the ninth tergite with a conspicuous U-shaped notch. Eighth sternite unarmed.

The female is similar to the male as described, but the flagellar segments are less distinctly disk-shaped though conspicuously produced.

Hab. New South Wales.

Holotype, ♂, Kosciusko, December 7, 1922 (*G. Goldfinch*).

Allotopotype, ♀.

This distinct species of *Ischnotoma* is named in honour of the collector, Mr. G. Goldfinch, to whom we are indebted for many fine Tipulidæ. The type has been returned to Dr. Ferguson.

Macromastix simillima, sp. n.

Male. — Length 7·8–8·5 mm.; wing 12·5–14·2 mm.; antenna 11–14 mm.

Belongs to the *binotata* group and closely related to *M. longioricornis*, Alexander, from which it differs chiefly in the shorter antennæ and the structure of the male hypopygium.

Antennæ approximately one-half longer than the body and shorter than the wing; flagellum testaceous, darkening into brown; flagellar segments gradually lengthening to

the fourth, thence shortening to the end of the organ. Mesonotal præscutum obscure ochreous, the interspaces darker, with four conspicuous dark brown stripes, the intermediate pair very narrowly separated by a capillary vitta, strongly narrowed behind, the two together appearing cuneiform; scutal lobes with dark centres; mediotergite of postnotum a little darkened posteriorly. Pleura pale brown, the dorsal pleurites a little infuscated. Legs brown, the tips of the femora a little darker, the tibial bases a little paler; terminal tarsal segments darker. Wings broader than in *longioricornis*; ground-colour pale salmon-colour, with a relatively heavy ocellate brown pattern; the dark area in the base of cells *R* and *M* is only narrowly separated from the large ocellate ring near mid-length of vein *M*; areas at origin of *Rs* and in the vicinity of the cord more clearly defined. Abdominal segments bicolorous, the bases of the tergites dark brown; a little more than the terminal half brownish ochreous, more extensive on the posterior segments; sternites more nearly uniform in colour; hypopygium brownish ochreous. Male hypopygium with the dististyle terminating in a blunt obtuse apex, the spines at base of style about five in number, becoming smaller distally. In *longioricornis* the dististyle is produced into a long tapering blade, the apex subacute.

Hab. New Zealand (North Island).

Holotype, ♂, Waiouru, Wellington, June 11, 1923 (*T. R. Harris*).

Paratopotypes, 13 ♂♂; *paratypes*, 1 ♂, Owhango, July 1, 1922 (*T. R. Harris*); formerly included as a paratype of *M. longioricornis*; 1 ♂, Ohakune, August 10, 1922 (*T. R. Harris*); 1 ♂, Taumarunui, October 1, 1922 (*T. R. Harris*).

In the Taumarunui paratype the antennæ reach their maximum length, but are still shorter than the wing. The types were taken while crawling about over the ground and climbing fences.

Macromastix monstrata, sp. n.

General coloration dark brown; antennæ moderately elongate; mesonotal præscutum with three confluent brownish-ochreous stripes, the median one narrowed to a point in front; halteres elongate; wings semiatrophied, infuscated, with still darker markings; abdomen dark brown, tergites 5 and 6 with light grey posterior margins.

Female.—Length 6.5 mm.; wing 5.5 mm.

Frontal prolongation of the head relatively slender, dark

brown, nasus small; palpi dark brown. Antennæ moderately elongate, if bent backward extending to mid-distance between the bases of the wings and halteres; scapal segments pale brown, especially the second segment; flagellum dark brown; flagellar segments gradually decreasing in length outwardly. Head brown, a trifle paler adjoining the inner margin of the eyes.

Pronotum narrow, dark brown. Mesonotal præscutum depressed, flattened, dark brown, with three brownish-ochreous stripes, confluent behind, the median stripe narrowed to an acute point in front, the lateral stripes somewhat divergent; scutal lobes brownish ochreous, the median area darker; scutellum large, brownish ochreous; postnotum dark brown. Pleura dark brown. Halteres elongate, the base of the stem and apices of the knobs abruptly pale. Legs relatively short, brown, the femoral tips darkened; terminal tarsal segments dark brown. Wings semi-atrophied, the extreme base dark brown; cells *C* and *Sc* for a distance beyond *h* darkened, almost to their outer ends; base of vein *Cu* darkened, the remainder yellowish; *Cu*₂ and deflection *Cu*₁ infuscated; remainder of wing tinged with brown. Venation distorted, but otherwise distinct.

Abdomen dark brown, the second tergite with a transverse paler area beyond mid-length; tergite 5 light grey, with a median anterior brown spot; tergite 6 with the caudal margin greyish; tergite 7 with the posterior border a little paler than the base. Ovipositor with blunt valves.

Hab. New Zealand (North Island).

Holotype, ♀, Ohakune, altitude 2060 feet, July 17, 1923 (*T. R. Harris*).

This species would seem to find its nearest ally in *Macromastix cubitalis*, Edwards, which is fully winged in both sexes.

LIX.—*Descriptions and Records of Bees*.—XCIX.

By T. D. A. COCKERELL, University of Colorado.

THE Siberian bees recorded below are all from the Maritime Province, and were obtained during the summer of 1923.

Cœlioxyx rufescens nigrescens, subsp. n.

♀.—Like *C. rufescens*, Lepel., from Europe, with the same tridentate last ventral segment, but apical part of last