

XXXIV.—*New or little-known Tipulidæ (Diptera).*—XXIV.
Australasian Species. By CHARLES P. ALEXANDER, Ph.D.,
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THE species described at this time are all from New Zealand, where they were collected by my friends, Messrs. Campbell, Hamilton, Harris, Howes, Jensen, Myers, and Oliver, in various parts of the main islands and in Stewart Island. The types of the novelties are preserved in the writer's collection.

Dicranomyia acanthophallus, sp. n.

General coloration dark grey; antennæ black throughout; halteres pale, the knobs infuscated; wings subhyaline, stigma oval, vein *Cu* faintly seamed with darker; male hypopygium with the ædeagus provided with small spines and tubercles.

Male.—Length about 4 mm.; wing 6.8 mm.

Rostrum and palpi black. Antennæ black, the flagellar segments oval. Head blackish, pruinose, the anterior part of the vertex lighter grey.

Pronotum dark grey. Mesonotum dark brownish grey, the latter shade being produced by a pruinosity, the præscutum without distinct stripes; median area of scutum, the scutellum, and postnotum light grey. Pleura light grey. Halteres pale, the knobs infuscated. Legs with the coxæ infuscated, pruinose basally, the apices pale; trochanters brownish testaceous; femora brownish testaceous, the tips passing into dark brown; remainder of the legs brown, the tarsi passing into black. Wings subhyaline, the stigma oval, rather pale brown; a very vague pale seaming along the cord and outer end of cell 1st M_2 ; vein *Cu* in cell *M* seamed with brown; veins dark brown. Venation: Sc_1 ending opposite the origin of *Rs*, Sc_2 some distance from its tip, Sc_1 alone being a little shorter than the basal deflection of Cu_1 ; *Rs* weakly angulated and slightly spurred near origin; basal deflection of R_{2+3} subequal to or a trifle longer than the basal deflection of R_{4+5} ; cell 1st M_2 rectangular; basal deflection of Cu_1 immediately beyond the fork of *M*.

Abdomen brown. Male hypopygium with the basistyles relatively small with a conspicuous mesal fleshy lobe. Ventral basistyles large and fleshy, the rostrum relatively short, with two relatively long, nearly straight spines, situated close together near mid-length of the caudal face

of the rostrum, one spine a little shorter than the other. Dorsal dististyle not strongly curved, bent subangularly, the long apex suddenly narrowed, acute. Gonapophyses with the mesal apical lobe relatively slender, curved, the extreme tip directed laterad, the lateral margin before the apex slightly roughened or subspinose; the lateral edge of each apophyse slopes rapidly basad, with a powerful chitinized rod running from near mid-length to the base of the ædeagus. Ædeagus broad, feebly dilated beyond mid-length, the surface set with numerous sharp microscopic spines, larger near the postmedial dilated portion, becoming smaller and more tuberculate before the tip; base of ædeagus with a few powerful setæ.

Hab. New Zealand (South Island).

Holotype, ♂, Glenorchy, Otago, altitude 1200 feet, December 27, 1923 (*F. S. Oliver*).

In its general appearance, *Dicranomyia acanthophallus* is not unlike a small *D. cinerella*, Alexander, but differs from all New Zealand species of the genus so far described by the spinous ædeagus.

Dicranomyia otagensis, sp. n.

Allied to *D. annulifera*, Alexander; mesonotal præscutum dull; wings yellowish subhyaline, the stigma pale; abdominal segments bicolorous, the apex of each infuscated; basistyles of hypopygium with a small setiferous tubercle on mesal face at base.

Male.—Length about 7 mm.; wing 7.6–8.2 mm.

Female.—Length 7–8 mm.; wing 8–9 mm.

Rostrum and palpi black. Antennæ black, the scapal segments pruinose; flagellar segments oval. Head dark grey medially, the anterior part of the vertex silvery grey, the sides of the vertex behind more or less infuscated.

Pronotum brownish black, pale laterally. Mesonotal præscutum varying from pale to darker brown, opaque, pruinose, the lateral margins brighter-coloured, yellowish; remainder of mesonotum light brown, the scutellum somewhat more pruinose. Pleura brownish testaceous, sparsely pruinose. Halteres greenish white, the base of the stem paler, the knobs more or less infuscated. Legs with the coxæ pale, sometimes strongly greenish, the fore coxæ a little infuscated basally; trochanters greenish; femora brownish yellow; remainder of the legs dark brown. Wings pale yellowish subhyaline, the stigma unusually pale, only a little darker than the ground-colour; veins brownish black,

the costa paler; obliterative areas at end of *Rs* and across both ends of cell 1st *M*₂. Venation: *Sc* short, *Sc*₁ ending opposite or extending a short distance beyond the origin of *Rs*, *Sc*₂ just before this origin; *Rs* long, more than twice the basal deflection of *R*₄₊₅; basal deflection of *Cu*₁ at or close to the fork of *M*.

Abdominal segments bicolorous, the basal half or more of the segments yellowish, the apical half or less dark brown, the extreme caudal margins of the segments a little paler; the colours of the sternites less contrasting than those of the tergites; ventral dististyles of hypopygium tinged with greenish. Male hypopygium with the ninth tergite having a very gently concave caudal margin. Basistyle with a small setiferous lobe at base on mesal face in addition to the usual large fleshy lobe. Ventral dististyle large and fleshy, the rostrum unusually long and projecting, the two spines borne far out toward the tip which is infuscated beyond them, the spines situated close together at base, gently curved, long and slender, one a very little longer than the other; face of style at base of rostrum with a low tubercle. Dorsal dististyle moderately curved, the long tip acute. Gonapophyses with the mesal lobe long and slender, only gently curved or almost straight, the margins smooth, the apex obtusely rounded and a little infuscated.

Hab. New Zealand (South Island).

Holotype, ♂, Junction Creek, Glenorchy, Otago, altitude 3000 feet, January 5, 1924 (*F. S. Oliver*).

Allotopotype, ♀.

Paratopotypes, 7 ♂ ♀.

"Swept from *Cassinia* scrub."

Dicranomyia arthuriana, sp. n.

General coloration light yellow; basal segment of antenna long, pale, the second segment globular, darkened; wings tinged with yellow, the costal region more suffused; male hypopygium with the rostral spines elongate, placed close together; dorsal dististyle only slightly curved, the apex long and slender.

Male.—Length about 6–6.5 mm.; wing 6–7 mm.

Rostrum yellow, the palpi brown. Antennæ with the basal segment of the scape long, pale; second segment enlarged, subglobular, dark brown; flagellum brown, the segments short-oval. Head yellow.

Thorax light yellow, the centre of the præscutum very indistinctly darker. Halteres pale, the knobs infuscated.

Legs with the coxæ and trochanters yellow; femora brownish yellow; remainder of legs broken. Wings tinged with yellow, the costal region and a seam along vein *Cu* a little more suffused; stigma very pale, barely indicated; veins yellow, those beyond the cord a little more infuscated. Venation: *Sc* short, *Sc*₁ ending a short distance before the origin of *Rs*, *Sc*₂ lacking; *Rs* short, not longer than the basal deflection of *R*₄₊₅ but a little more arcuated; basal deflection of *Cu*₁ at the fork of *M*.

Abdomen yellow. Male hypopygium with the caudal margin of the tergite slightly concave, the median area sparsely setiferous. Basistyles small, the mesal lobe very large. Ventral dististyle large and fleshy, rostrum relatively small, the two spines long and slender, pointed, considerably longer than the apex of the rostrum beyond them, placed very close together. Dorsal dististyle a slightly curved blade, slightly widened beyond mid-length, thence gradually narrowed to the long straight apex. In *D. sulphuralis* and allies this style is strongly curved, sickle-shaped.

Hab. New Zealand (South Island).

Holotype, ♂ alcoholic, Arthur's Pass, Canterbury, altitude 3000 feet, December 28, 1923 (*J. W. Campbell*).

Paratopotype, ♂ alcoholic.

Dicranomyia arthuriana is generally similar to *D. sulphuralis*, Edwards, from which it differs chiefly in genitalic characters.

Molophilus recisus, sp. n.

Male.—Length about 4.5 mm.; wing 6 mm.

Belongs to the *quadrifidus* group and is very closely related to *M. ohakunensis*, Alexander (North Island), from which it differs in genitalic characters.

Basal dististyle of male hypopygium with the flattened lateral blades about intermediate in breadth between *quadrifidus* and *ohakunensis*, the notch between the mesal arms and the lateral blade larger than in *ohakunensis*, but sub-circular in outline; the basal appendage on the mesal face is here reduced to a small chitinized tooth or appressed spine that is sparsely setiferous. In *M. ohakunensis*, this region is very tumid and is densely and conspicuously setiferous.

Hab. New Zealand (South Island).

Holotype, ♂, Woodbaugh Valley, Dunedin, Otago, October 14, 1923 (*W. Geo. Howes*).

Paratopotypes, 2 ♂♂.

Molophilus stewartensis, sp. n.

Closely related to *M. luteipygus*, Alexander, and *M. pictipleura*, Alexander; pleura not striped with dark and light markings; basal dististyle only about one-half the length of the ædeagus.

Male.—Length about 2.5 mm.; wing 3.3 mm.

Most closely allied to *M. pictipleura*, Alexander (South Island). Rostrum and palpi brownish black. Antennæ short, dark brown, the verticils conspicuous. Head grey, the centre of the vertex a little darker.

Pronotum obscure yellow. Mesonotal præscutum light brown, without distinct stripes, the anterior lateral margin yellow; posterior lateral margin of præscutum and of the scutum darker brown; postnotal mediotergite dark brown. Pleura dark brown, the dorso-pleural region obscure yellow; ventral pleurites pruinose in certain lights. Halteres obscure brownish yellow, the base of the stem paler. Legs with the coxæ and trochanters brownish testaceous; femora and tibiæ concolorous, clothed with dark brown setæ; tarsi dark brown, especially the terminal segments. Wings with a faint grey tinge, the veins dark brown. Venation: vein 2nd *A* relatively short, gently sinuate, ending in a very short distance beyond the base of the petiole of cell *M*₃.

Abdomen black, the hypopygium a very little paler, brown. Male hypopygium with the basistyles almost as in *M. luteipygus*, Alexander, the apical beak relatively long and slender. Basal dististyle almost as in *M. pictipleura*, Alexander, very short, relatively stout and straight, dark-coloured, but not blackened, throughout its length and provided with a few weak denticles at the extreme tip. Outer dististyle with the lateral arm not so dilated as in *M. luteipygus*. Ædeagus nearly twice as long as the basal dististyle.

Hab. New Zealand (South Island, Stewart Island).

Holotype, ♂, Half-moon Bay, Stewart Island, altitude 110 feet, November 20, 1923 (*N. J. Jensen*).

Paratopotypes, 3 broken ♂♂; *paratypes*, 2 ♂♂, Glenorchy, Otago, altitude 1200 feet, December 23, 1923 (*F. S. Oliver*); on tutu (*Coriaria*) scrub in open; ♂, Arthur's Pass, Canterbury, altitude 3000 feet, December 28–31, 1923 (*J. W. Campbell*).

Molophilus submorusus, sp. n.

General coloration light reddish brown, the postnotum and thoracic pleura dark brown; head yellow; wings greyish

yellow basally, the apex clearer yellow; male hypopygium with the basal dististyle straight, tapering gradually to the acute apex, the surface with a few scattered denticles.

Male.—Length about 4 mm.; wing 5 mm.

Rostrum and palpi black. Antennæ short, the scapal segments brown, the flagellum pale yellowish or testaceous brown, the outer segments darker; flagellar segments oval. Head yellow, the centre of the vertex subinfuscated.

Pronotum obscure yellow. Mesonotum light reddish brown, the margins clearer; postnotum and pleura dark brown; dorso-pleural membranes obscure yellow. Halteres obscure yellow, the knobs clear light yellow. Legs with the coxæ yellowish brown, darker basally; trochanters obscure brownish yellow; remainder of legs yellow, the terminal tarsal segments infuscated. Wings greyish yellow basally, the apex (beyond the cord) clearer yellow; veins yellow; macrotrichia brown. Venation: petiole of cell R_4 longer than the basal deflection of Cu_1 ; vein 2nd A long, extending to just before the end of the petiole of cell M_3 .

Abdomen dark brown, the hypopygium paler. Male hypopygium with the apical beak of each basistyle moderately stout, heavily chitinized, the tips acute and directed cephalad. Basal dististyle a relatively short straight rod that tapers very gradually to the acute apex, all except the base blackened, the surface and apex with a few scattered subobsolete denticles. Ædeagus about one-third longer than the basal dististyle.

Hab. New Zealand (South Island).

Holotype, ♂, Junction Creek, Glenorchy, Otago, altitude 3000 feet, January 5, 1924 (*F. S. Oliver*).

Paratopotype, ♂; *paratypes*, 20 ♂ ♀, mostly alcoholic, Arthur's Pass, Canterbury, December 28, 1923–January 1, 1924 (*J. W. Campbell*).

“Swept from *Cassinia* scrub.”—*Oliver*.

Molophilus campbellianus, sp. n.

Male.—Length 3–3.3 mm.; wing 4.2 mm.

Very similar in general appearance to *M. pulcherrimus*, Edwards, differing strikingly in the structure of the male hypopygium.

Mesonotal præscutum with the lateral margins narrowly dark brown, the usual intermediate stripes being developed only on the anterior half of the sclerite. Wings with the brown spot in cell R beneath the origin of R_s larger, dash-like; white marginal spots larger, those in cells R_4 and R_5

small; anal cells more extensively infuscated. Male hypopygium with the terminal beak of the basistyle slender, black. Basal dististyle very tumid, the base slender, swollen into a subglobular mass, the outer or lateral margin of which is weakly denticulate. Fork of the outer dististyle not so deep as in *M. pulcherrimus*.

Hab. New Zealand (South Island).

Holotype, ♂, Arthur's Pass, Canterbury, altitude 3000 feet, December 28, 1923–January 1, 1924 (*J. W. Campbell*).

Paratopotypes, 5 ♂♂, mostly alcoholic.

This handsome crane-fly is named in honour of my friend, Dr. James W. Campbell, to whom the writer is vastly indebted for help and co-operation in making known the fascinating Tipulid fauna of New Zealand.

Molophilus verecundus, sp. n.

General coloration yellow; wings bright yellow, the veins a little darker; male hypopygium with the basal dististyle profoundly bifid beyond mid-length, the arms slender, acute.

Male.—Length about 3 mm.; wing 4–4.2 mm.

Rostrum yellow; palpi dark brown. Antennæ of moderate length; basal segments brownish yellow; flagellar segments pale brown with conspicuous white setæ. Head yellow.

Mesonotal præscutum fulvous yellow, unmarked, the lateral margins narrowly sulphur-yellow; remainder of mesonotum yellowish testaceous. Pleura concolorous. Halteres pale, the knobs yellow. Legs with the coxæ and trochanters yellow; remainder of the legs yellow, gradually passing into brown on the tarsi. Wings with a bright yellow suffusion, the veins darker yellow. Venation: vein 2nd *A* long, slightly variable in its relation to the petiole of cell *M*₃, in some ending opposite mid-length of this vein, in others not so far from the end.

Abdomen pale brownish yellow. Male hypopygium with the basistyle terminating in deep, moderately chitinized blades, the apex acute. Basal dististyle a powerful rod that is profoundly bifid to just beyond mid-length, one arm continued caudad as a direct prolongation of the base but much narrowed and acutely pointed; the other arm is about two-thirds the length of the apical spine, on one style bent gently toward the apex of the terminal spine, on the opposite style bent gently away from it. Outer dististyle with the mesial branch reduced to a short blunt tubercle, the lateral branch being very broad, blade-like.

Hab. New Zealand (South Island).

Holotype, ♂, Arthur's Pass, Canterbury, altitude 3000 feet, December 28, 1923–January 1, 1924 (*J. W. Campbell*).

Paratopotypes, 2 alcoholic ♂♂.

Molophilus verecundus is related to *M. denticulatus*, Alexander.

Tasiocera bituberculata, sp. n.

General coloration dark brown; wings pale brown; cell M_3 about equal in length to its petiole; male hypopygium with the phallosome broad, the caudal margin on either side with a small blunt tubercle.

Male.—Length about 3.2 mm.; wing 4 mm.

Generally similar to *T. tridentata* (Alexander).

Rostrum, palpi, antennæ, and head uniformly dark brown.

Mesonotum dark brown, the pleura similar, the posterior pleurites a little paler. Halteres relatively long, pale, especially at base. Legs with the coxæ and trochanters brown; remainder of legs broken. Wings with a pale brown tinge, the veins slightly darker brown. Venation: Sc_1 ending opposite r , Sc_2 opposite three-fifths the length of Rs , the latter of moderate length, angulated at origin; R_{2+3} a little longer than the basal deflection of R_{4+5} ; inner ends of cells R_3 , R_5 , and M_2 in oblique alignment, the last more basad; cell M_3 about equal to its petiole which is longer than vein Cu_1 beyond it but shorter than the distal section of M_3 ; basal deflection of Cu_1 about two-thirds of its length before the fork of M ; vein 2nd A short, ending just before the origin of Rs . Wings cuneiformly narrowed, the prearcular cells relatively large.

Abdomen dark brown. Male hypopygium with the dististyles slender, dark-coloured, the setæ small and scattered. Phallosome appearing as a broad transverse mass, the caudal margin obtusely rounded, near mid-distance of each side with a blunt tubercle; ædeagus small, curved.

Hab. New Zealand (South Island).

Holotype, ♂, Glenorchy, Otago, altitude 1500 feet, January 5, 1924 (*F. S. Oliver*).

“On rushes along water-course.”

The following New Zealand species, described in the genus *Molophilus* before the male hypopygial characters of the genus *Tasiocera* were known, should be referred to this latter genus: *T. gourlayi* (Alexander), *T. paulula* (Alexander), and *T. tridentata* (Alexander).

Amphineurus (Amphineurus) bicorniger, sp. n.

Related to *A. (A.) campbelli*, Alexander; antennæ short, the flagellar segments oval; general coloration pale brownish testaceous; male hypopygium with the basal outer dististyle, the basal dististyle, and each gonapophyse bifid at tips.

Male.—Length about 4.5 mm.; wing 4.8 mm.

Related to and resembling *A. (A.) campbelli*, differing conspicuously in the short antennæ and the structure of the male hypopygium.

Rostrum and palpi brown. Antennæ relatively short, brown throughout, the flagellar segments oval, clothed with abundant erect white setæ.

Mesonotum pale brownish testaceous, the median area of the præscutum slightly darker; humeral region brighter. Pleura infuscated, the colour passing on to the lateral margins of the postnotal mediotergite. Halteres dark brown, the base of the stem brighter. Legs with the coxæ and trochanters pale, the former a little infuscated; femora and tibiæ obscure yellow, the colour concealed by abundant dark setæ; tarsi dark brown. Wings brownish subhyaline, the macrotrichiæ conspicuous, dark brown; veins paler brown. Venation: *r* a little more than its length beyond the origin of R_2 ; R_{2+3} a little shorter than the basal deflection of R_{4+5} .

Abdomen dark brown; tufts of very long setæ at the posterior lateral angles of the abdominal segments. Male hypopygium of the general type of *A. campbelli*, the basistyles being greatly prolonged beyond the outer dististyle. Basal outer dististyle deeply bifid, the outer style conspicuously dilated at base. Basal dististyle slender, the apex produced into two conspicuous acute horns that are directed from one another in the form of a broad U. Gonapophyses with the subterminal fusion that has begun in *A. (A.) nox*, Alexander, very extensive, the outer angle or bend produced into an acute pale spine, the free or mesal apex slender, the tip gently curved.

Hab. New Zealand (South Island).

Holotype, ♂, Greymouth, Coal Creek Track, Westland, February 13, 1923 (*T. R. Harris*).

Amphineurus (Amphineurus) tumidus breviclavus, subsp. n.

Male.—Length about 4.6–4.8 mm.; wing 6 mm.

Female.—Length about 4.8 mm.; wing 5.8–6 mm.

Generally similar to typical *tumidus*, Alexander, from which it differs as follows:—

Lateral margins of præscutum not darkened. Pleura less

extensively infuscated, the dorsal anterior part of the post-notal pleurotergite pale. Male hypopygium with the gonapophyses having the stems relatively elongate, the swollen apices correspondingly short and broad, the tips suddenly narrowed into an acute slender spine, the apical margin of the club with abundant long setæ. In the typical form the enlarged club is longer, not much shorter than the basal stem. Basal dististyle shorter than in *tumidus*, the basal half more enlarged, the slender apical portion weakly toothed and setiferous.

Hab. New Zealand (South Island).

Holotype, ♂, Paradise, Otago, altitude 1200 feet, December 30, 1923 (*F. S. Oliver*).

Allotopotype, ♀.

Paratopotypes, 10 ♂ ♀.

"Swept from ferns and other undergrowth in beech forest."

Amphineurus (Amphineurus) operculatus, sp. n.

General coloration grey; antennæ elongate, brownish black; wings light grey with a sparse darker pattern; male hypopygium with a conspicuous flattened plate that appears to represent the ninth tergite; both outer dististyles simple and untoothed.

Male.—Length 4.3 mm.; wing 5.5 mm.

Rostrum and palpi black. Antennæ elongate, brownish black throughout, if bent backward extending at least to the base of the abdomen; flagellar segments elongate-cylindrical to fusiform, with conspicuous erect white setæ. Head dark grey.

Mesonotal præscutum light grey, the median stripe broad, pale brown, constricted opposite the pseudosutural foveæ; lateral stripes obsolete or nearly so; pseudosutural foveæ elongate, black, conspicuous; remainder of mesonotum black, sparsely pruinose. Halteres obscure yellow. Legs with the coxæ and trochanters obscure yellow, the posterior coxæ a little darkened; remainder of legs yellow, covered with dark scales and setæ in un-rubbed specimens, the terminal tarsal segments dark. Wings light grey, the basal region more yellowish grey, the disk with a pale brown pattern, including the stigmal area that is confluent with a conspicuous seam along the cord; a seam at origin of R_s ; outer ends of anal cells extensively darkened; veins yellow, brown in the infuscated areas. Venation: R_s square at origin; R_{2+3} about equal to the basal deflection of R_{4+5} ; cell 1st M_2

elongate-rectangular, gently widened distally, *m* about one-half the arcuated outer deflection of M_3 ; basal deflection of Cu_1 at the fork of *M*.

Abdomen dark brown, the tergites indistinctly variegated with paler; basal sternites pale. Male hypopygium with the apices of the basistyles produced caudad into fleshy lobes of moderate length; outer dististyles both simple, the basal one slender, edentate, the outer style broader; basal dististyle a pale, slender, slightly curved rod, the tip acute and slightly darkened. *Ædeagus* slender, straight, blackened. What appears to be the ninth tergite is a large, flattened, conspicuous plate that extends caudad to the outer dististyles, the lateral margins thickened.

Hab. New Zealand (South Island).

Holotype, ♂, Junction Creek, Glenorchy, Otago, altitude 3000 feet, January 5, 1924 (*F. S. Oliver*).

Paratopotype, ♂.

"Swept from *Cassinia* scrub."

Gonomyia (Lipophleps) bispina, sp. n.

Male.—Length about 3.5 mm.; wing 4.5 mm.

Very closely allied to *G. (L.) nigrohalterata*, Edwards, from which it differs chiefly in the structure of the male hypopygium. Brown pleural stripes narrowed behind but connected across the posterior margin of the postnotal mediotergite by a narrow line. Male hypopygium asymmetrical as in the group; one dististyle terminates in two powerful curved spines, the more lateral one longer and larger at base, the mesal or subapical spine with several setæ in its axil, the extreme mesal end of this style terminating in a powerful seta. The distal prolongation of the basistyle of this side is more slender than the one of the opposite side.

Hab. New Zealand (North Island).

Holotype, ♂, Wellington, December 30, 1923 (*H. Hamilton*).

Gonomyia (Lipophleps) oliveri, sp. n.

Male.—Length about 3.5 mm.; wing 4.5–4.6 mm.

Closely related to *G. (L.) nigrohalterata*, Edwards, from which it differs as follows:—

Rostrum orange. Vertex infuscated, the centre of the vertex behind with an orange spot. Knobs of the halteres extensively sulphur-yellow. Wings with *Rs* about two-thirds the length of R_{2+3} ; inner end of cell *1st M*₂ narrowed but

not pointed, the basal deflection of M_{1+2} being preserved. Abdomen dull orange, the sternites brighter-coloured. Male hypopygium with the dististyles asymmetrical, one terminating in a rather long, gently curved spine that is gradually narrowed from the base to the acute tip; apex of the style obtusely rounded.

Hab. New Zealand (South Island).

Holotype, ♂, Junction Creek, Glenorchy, Otago, altitude 3000 feet, January 5, 1924 (*F. S. Oliver*).

Paratopotypes, 4 ♂♂.

"Swept from *Cassinia* scrub."

This handsome little *Gonomyia* is named in honour of the collector, Mr. F. S. Oliver, to whom I am very greatly indebted for numerous Tipuloidea from the vicinity of Lake Wakatipu.

Polymoria argus stewartiae, subsp. n.

Generally similar to the typical *argus* (Hutton), differing as follows:—

Anterior pronotum dark brown. Anterior margin of præscutum narrowly dark brown, the colour continued around the sclerite; scutellum dark grey, the centre dark brown. Dorsal pleural stripe broad, including the base of the fore coxa, broadening out behind, to include the post-notal pleurotergite. Femora with the subterminal yellow annulus broader than the postmedial brown ring. Wings with a pale brown tinge, producing a much darker ground-colour than in the typical form; ocelliform markings virtually all marginal, the spots at *m* and the fork of M_{1+2} small to subobsolete, in any case not conspicuously ocelliform. Male hypopygium with the outer dististyle bent almost at a right angle at tip, the terminal horn directed mesad, acute, at its base with the style produced caudad into a small, apical, setiferous tubercle. Inner dististyle relatively short, only a little longer than the outer, the apical half flattened and glabrous.

Hab. New Zealand (Stewart Island).

Holotype, ♂, Half-moon Bay, altitude 100 feet, November 17, 1923 (*N. J. Jensen*).

Paratopotypes, 2 ♂♂, December 14, 1923.

The relationships of the above fly to typical *argus* are not quite certain, and it may very possibly prove to be a valid species.

Zelandomyia pallidula, sp. n.

Male.—Length about 4 mm.; wing 4.5–4.7 mm.

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

Generally similar to *Z. ruapehuensis* (Alexander).

Size smaller. Mesonotum uniformly pale yellow with a scarcely apparent brown tinge; pleura concolorous, the sternopleurite somewhat infuscated. Wings pale yellow, the veins pale brown. Venation: Sc_1 ending before the fork of R_s ; R_{2+3} longer than the basal deflection of R_{4+5} ; r indistinct; cell M_1 small, not exceeding one-half its petiole; cell 1st M_2 small, the basal deflection of Cu_1 a short distance beyond the fork. Abdomen with the segments uniformly coloured, brownish testaceous, the basal sternites more yellowish. Male hypopygium with the outer dististyle relatively short and stout, the apex darkened and rather obtuse; setiferous tubercles on face of style near mid-length more numerous than in *ruapehuensis* (about six).

Hab. New Zealand (South Island).

Holotype, ♂, Greymouth, Coal Creek Track, February 13, 1923 (*T. R. Harris*).

Allotype, ♀, Ross, Westland, February 23, 1923 (*T. R. Harris*).

Paratypes, ♂, Ross, February 21, 1923; ♂ ♀, Rewanui, Paparoa Range, altitude 600–800 feet, February 15, 1923 (*T. R. Harris*).

Ischnothrix confluenta, sp. n.

General coloration fulvous yellow, the abdomen dark; wings light yellow; cell 1st M_2 open by the atrophy of the outer deflection of vein M_3 , cell 2nd M_2 being a little shorter than its petiole.

Female.—Length about 8 mm.; wing 8.2 mm.

Rostrum and palpi dark brown. Antennæ with the scapal segments fulvous, the flagellum dark brown. Head fulvous brown.

Mesonotum shiny fulvous yellow with vague darker markings, especially on the postnotum. Pleura brownish testaceous, paler ventrally. Halteres pale yellow. Legs with the coxæ and trochanters yellowish testaceous; remainder of the legs yellow, the terminal tarsal segments infuscated. Wings with a strong light yellow tinge, the veins beyond the cord pale yellowish brown, the veins basad of the cord yellow. Venation: R_2 perpendicular to the end of R_{2+3} , pale and

entirely without macrotrichiæ, the distance on costa between it and the tip of R_1 a little more than one-half its length; cell 1st M_2 open by the atrophy of the outer deflection of M_3 ; cell 2nd M_2 subequal to or a little shorter than its petiole; basal deflection of Cu_1 a short distance beyond the fork of M .

Abdomen dark brown, the caudal margins of the segments narrowly pale, the subterminal segments nearly black. Ovipositor with the elongate tergal valves slender, straight, the tips gently upcurved.

Hab. New Zealand (North Island).

Holotype, ♀, Wainui State Forest, Wellington, October 21, 1923 (*J. G. Myers*).

Ischnothrix confluenta is readily told by the open cell 1st M_2 , in conjunction with the short cell 2nd M_2 . The other New Zealand species of the genus often have the outer deflection of M_3 very weak to subobsolete, but if this vein was entirely atrophied cell 2nd M_2 would be very deep, at least three to five times as long as its petiole.

Gynoplistia aculeata, sp. n.

Allied to *G. submaculata*, Walker; wing-pattern heavy: outer dististyle of male hypopygium with a conspicuous dilation on mesal face at base.

Male.—Length about 10 mm.; wing 11.5 mm.

Rostrum grey-pruinose, the palpi brownish black. Antennæ 17-segmented, the formula being 2+3+8+4, the longest branch being about four times the length of the segment; scapal segments dark brown, paler beneath; two basal segments of flagellum pale at base and apex, the remainder of the organ black. Head dark grey, the vertex at its narrowest point infuscated.

Pronotum dark, pruinose, the lateral ends of the posterior pronotum brighter. Mesonotal præscutum dark brown with three faintly indicated dark grey stripes, the median one indistinctly bisected; pseudosutural foveæ very large, shiny black; scutum grey, the lobes dark; scutellum and post-notum light grey-pruinose, the latter with a delicately elevated median line. Pleura light grey-pruinose. Halteres obscure yellow, the knobs infuscated. Legs with the coxæ yellow, the outer faces light grey-pruinose; trochanters obscure yellow; femora dark brown, their bases broadly yellowish, each femur with a conspicuous yellow ring more than its length from the tip, the dark apex a little paler near the articulation; tibiæ brown, the tips dark brown; tarsi black. Wings subhyaline, the base and costal region yellowish; a

heavy brown pattern, distributed as follows: stigma oval, dark brown; a circular brown spot at origin of *Rs*; a broad brown seam along the cord, completely traversing the wing; outer end of cell 1st M_2 more narrowly seamed; wing-tip broadly infuscated; veins *M* and *Cu* and the veins issuing from cell 1st M_2 seamed with brown; a conspicuous brown seam along vein 1st *A*, on the basal two-thirds lying in cell *Cu*, on the outer third lying in cell 1st *A*; veins yellow, a little darker in the infuscated areas. Venation: Sc_1 ending opposite the fork of *Rs*, Sc_2 longer than Sc_1 ; *Rs* long, angulated and weakly spurred at origin; R_{2+3} longer than the basal deflection of Cu_1 ; cell M_1 about one-half longer than its petiole; basal deflection of Cu_1 near two-thirds the length of the cell.

Abdomen brown, the dorsal median area broadly dark grey; sternites dark brown, their bases a little paler. Male hypopygium with the ninth tergite densely setiferous, terminating in a long aculeate median process; hypopygium relatively large, reddish; basistyles relatively stout, the mesal face of each near apex with a conspicuous flattened lobe that is clothed with long yellow setæ; opposite side of basistyle with another low setiferous tubercle; no chitinized interbasal process. Outer dististyle depressed-flattened at apex, on outer face at base of depressed area with a long, slender, acute spine; base of style on mesal face dilated into a conspicuous flattened spinous lobe. Inner dististyle slender. \bar{A} edeagus relatively stout, the apex subtended on either side by a small flattened blade. No evident chitinized gonapophyses.

Hab. New Zealand (South Island).

Holotype, ♂, Paradise, Otago, altitude 1200 feet, December 30, 1923 (F. S. Oliver).

Gynoplistia dilatata, sp. n.

General coloration shiny coal-black, including the head; wings faintly tinged with brown, with a nearly complete, darker brown fascia at the origin of *Rs*; male hypopygium with the gonapophyses sublyriform, the tips of each expanded into irregular blades.

Male.—Length about 5 mm.; wing 6 mm.

Rostrum dull black, the palpi brownish black. Antennæ broken beyond the scape, the latter black. Head shiny coal-black.

Pronotum and mesonotum shiny coal-black, the median area of the scutum and the scutellum dusted with

grey. Pleura shiny coal-black, the dorso-pleural region duller; pteropleurite, hypoepimeron, meron, and metapleural katepisternum with a dense silvery pubescence. Halteres obscure yellow, the knobs dark brown. Legs with the coxæ dark brown, sparsely pruinose, the fore coxæ a little darker; trochanters obscure brownish yellow; only one leg (posterior) remains; femora brownish yellow, the tips rather broadly and conspicuously blackened; tibiæ brown, the tips narrowly blackened; tarsi broken. Wings with a faint brown tinge; costal region a very little darker; dark brown markings, distributed as follows: a barely interrupted band at the level of the origin of *Rs*, including large areas at origin of *Rs*, in cell *M*, and in cell 1st *A*; stigma large, oval, confluent with a large area on the anterior cord, chiefly in the base of cell *R*₃; remainder of cord and outer end of cell 1st *M*₂ narrowly seamed with brown; veins dark brown. Venation: *Sc*₂ longer than *Sc*₁, extending to just beyond the edge of *Rs*; *r* and tip of *R*₁ subobsolete; *Rs* angulated and spurred at origin; *R*₂ sinuous; cell *M*₁ shorter than its petiole; basal deflection of *Cu*₁ beyond mid-length of cell 1st *M*₂.

Abdomen black, the centres of the sternites somewhat paler. Male hypopygium with the basistyles stout, the mesal face produced into various lobes, the longest a flattened finger-like lobe directed mesad and slightly cephalad; apex of style produced caudad and mesad into a conspicuous lobe of peculiar shape, the apex truncate, the surface with a few long setæ. Outer dististyle a little longer, the apical fourth suddenly narrowed and gently curved; inner style very broadly dilated at base, near mid-length suddenly narrowed, very gradually and evenly expanded into a flattened obtuse blade, the surface with a few large and many smaller setæ. Gonapophyses taken together appearing sublyriform, the apex of each expanded into an irregular blade. *Æ*deagus small.

Hab. New Zealand (Stewart Island).

H. lotype, ♂, Half-moon Bay, altitude 110 feet, November 20, 1923 (*N. J. Jensen*).

MACROMASTIX, Osten-Sacken.

The extensive genus *Macromastix* is almost, if not quite, Antipodal in its distribution and reaches its maximum of species in New Zealand, to the virtual exclusion of other Tipuline genera. In this complex of species there occurs three groups of forms that are so distinct from other members

of the genus that their characters seem to warrant the erection of new subgeneric groups to include them. These new groups, which are proposed herewith, include all the familiar orange and black and the green Tipulidæ so characteristic of the New Zealand fauna.

AUROTIPULA, subgen. nov.

Characters as in the typical subgenus. Antennæ short in both sexes, 12-segmented in the *tenera* group, 13-segmented in the other species. Wings with *Rs* nearly straight, elongate, fully one-half longer than R_{2+3} , shortest in the *tenera* group; *r* present, except in *M. aperta*; cell M_1 always present. Ovipositor with the valves short and fleshy. Coloration orange or orange-yellow, variegated with black.

Type of subgenus, *Macromastix flavoscapus*, Alexander (Maorian Subregion).

This group of orange and black *Macromastix* is confined to New Zealand, where it includes the following additional species: *M. aperta*, Edwards, *M. atroflava*, Alexander, *M. auroatra*, Edwards, *M. brevitarsis*, Edwards, *M. bivittata*, Edwards, *M. clara* (Kirby), *M. dux* (Kirby), *M. ferruginosa*, Edwards, and the variety *ruapehuensis*, Alexander, *M. occlusa*, Edwards, *M. orion* (Hudson), *M. subtenera*, Alexander, and *M. tenera* (Hutton).

CHLOROTIPULA, subgen. nov.

Characters as in the typical subgenus. Antennæ short in both sexes, 13-segmented. Wings with *Rs* subequal to or shorter than R_{2+3} ; R_3 fully three to four times R_2 alone and extended strongly towards the wing-apex, so cell R_2 at wing-margin is much wider than cell R_3 . Ovipositor with the valves slender and pointed but not heavily chitinized, the surface clothed with delicate erect setæ. Coloration green, except in *M. elongata*.

Type of the subgenus, *Macromastix viridis* (Walker) (Maorian Subregion).

This group of green *Macromastix* is confined to New Zealand, where it includes the following additional species: *M. albistigma*, Edwards, *M. holochlora* (Nowicki) and the variety *angustior*, Alexander, and *M. virescens*, Edwards. Despite its lack of green colour, *M. elongata*, Edwards, is almost certainly a member of this group. On the other hand, the small species of *Macromastix* showing green body tints (*M. campbelli*, Alexander, *M. pallidistigma*, Alexander, and *M. tapleyi*, Alexander) are better referred to the typical subgenus.

MAORITIPULA, subgen. nov.

Characters as in the typical subgenus. Antennæ short in both sexes, 12-segmented. Wings with *Rs* elongate, fully twice R_{2+3} , arcuated at origin; a conspicuous spur near mid-length of vein *M*, jutting caudad and distad into cell *M*.

Type of the subgenus, *Macromastix maori*, Alexander (Maorian Subregion).

The species described as *Tipula nebulosa*, Hudson (1920), likewise belongs here. Unfortunately the name is homonymous with *Tipula nebulosa*, Bellardi (1859), and is here renamed *Macromastix (Maoritipula) hudsoni*, new name.

XXXV.—Some new or noteworthy Madagascar and African *Heterocera*. By Lord ROTHSCHILD, F.R.S.

Amatidæ.

(1) *Thyrosticta octopunctata*, sp. n.

♀. Antennæ black; frons orange; vertex brown; collar and front edge of patagia orange, rest of patagia and tegulæ chocolate-brown, thorax orange; abdomen orange-brown.

Fore wing chocolate-brown, base of costal area orange; a buff spot on vein 1 below cell, a creamy-white spot in cell, and a similar one on veins 3 and 7. Hind wing orange with black margin.

♂ similar to ♀, but smaller and only basal $\frac{1}{3}$ of hind wing orange, the rest of hind wing being thickly clothed with buffish-grey androconial scales.

Length of fore wing, ♂ 8, ♀ 11 mm.; expanse, ♂ 18, ♀ 24 mm.

Hab. 1 ♂, 1 ♀, Diego Suarez, Feb. 1917 (*G. Melou*).

♀ type.

(2) *Thyrosticta obliquipuncta*, sp. n.

♂. Antennæ black; frons dull orange-yellow, rest of head and thorax dark brown; abdomen dull orange.

Fore wing dark brown, with a large white spot in cell and one obliquely below it on vein 2. Hind wing dull orange-yellow, with black margin broader than in preceding species.

♀ similar to ♂, but has extra white spot on vein 6 and occasionally also on vein 1.