

460
With the Author's Compliments

FROM REC. CANT. MUS., VOL. IV, No. 5

PP. 219-230, PLATE XXVIII

9TH MARCH, 1939

New or Little-known
Tipulidae from New Zealand
(Order Diptera)

Part III.

By Charles P. Alexander, Amherst, Massachusetts, U.S.A.

CHRISTCHURCH, N.Z.

PRINTED BY THE CHRISTCHURCH PRESS COMPANY LIMITED

1939

NEW OR LITTLE-KNOWN TIPULIDAE FROM NEW ZEALAND (ORDER DIPTERA)

PART III.

By CHARLES P. ALEXANDER, Amherst, Massachusetts, U.S.A.

The preceding parts under this general title were published in 1930 and 1932.* The species discussed at this time are chiefly contained in the collection of the Canterbury Museum, having been collected by Messrs. Lindsay and Tonnoir. Other important series were from the Hen and Chicken Islands, North Auckland, collected October 1925, by Mr. Harold Hamilton, and from Stewart Island, collected by Mrs. M. Jensen and her son, Norman J. Jensen, these two lots being preserved in my collection of Tipulidae through the friendly interest of the persons named.

In my voluminous notes on the distribution of the Tipulidae of New Zealand are contained some thousands of records that well warrant publication if the geographical and seasonal distribution of these flies is to be better understood by Dipterologists. At this time I am publishing lists of the species that bear on two of the localities further mentioned in the report.

Hen Island (Hen and Chicken Islands), North Auckland, collected Oct. 25, 1925, by Mr. Harold Hamilton.

- Holorusia (Zelandotipula) fulva* (Hutton).
- Macromastix (Chlorotipula) holochlora* (Nowicky).
- Dolichopeza (Dolichopeza) parvicauda* Edwards.
- Limonia (Discobola) ampla* (Hutton).
- Limonia (Discobola) gibbera* (Edwards).
- Limonia (Discobola) tessellata* (Osten Sacken).
- Limonia (Idioglochina) fumipennis* (Butler).
- Limonia (Dicranomyia) multispina* (Alexander).
- Limonia (Dicranomyia) repanda* (Edwards).
- Austrolimnophila crassipes* (Hutton).
- Amphineurus (Amphineurus) hudsoni* Edwards.
- Amphineurus (Nothormosia) edentulus* sp. n.
- Erioptera (Empeda) hamiltoni* sp. n.

*Alexander, C. P. — New or little-known Tipulidae from New Zealand (Order Diptera). *Rec. Cant. Mus.*, 4: 281-288; 1930.
The same, Part II. *Ibid.*, 4: 459-467; 1932.

Cass, Canterbury, altitude 1,850 feet, collections made in 1924 and 1925 by Dr. André L. Tonnoir.*

Holorusia (*Zelandotipula*) *fulva* (Hutton); Nov. 30, 1924; Feb. 1925

Macromastix (*Macromastix*) *greyana* Alexander; Nov. 30, 1924.

Macromastix (*Macromastix*) *minutissima* Alexander; February 1925.

Macromastix (*Macromastix*) *rufiventris* Edwards; February 1925.

Macromastix (*Macromastix*) *vulpina* Hutton; February 1925.

Dolichopeza (*Dolichopeza*) *parvicauda* Edwards; Nov. 30, 1924.

Limonia (*Zelandoglochina*) *flavidipennis* (Edwards); Feb. 1925.

Limonia (*Zelandoglochina*) *sublacteata* (Edwards); Nov. 30, 1924, Feb. 1925.

Limonia (*Dicranomyia*) *hemimelas* (Alexander); Feb. 1925.

Limonia (*Dicranomyia*) *hudsoni* (Edwards); Feb. 1925.

Limonia (*Dicranomyia*) *luteipes* (Alexander); Feb. 1925; Nov. 28, 1924.

Limonia (*Dicranomyia*) *pendulifera* (Alexander); Nov. 27, 1924.

Limonia (*Dicranomyia*) *tenebrosa* (Edwards); Feb. 1925.

Limonia (*Dicranomyia*) *vicarians* (Schiner); Feb. 1925.

Austrolimnophila *hudsoni* (Edwards); Feb. 1925.

Austrolimnophila *nigrocincta* (Edwards); Nov. 30, 1924.

Notholimnophila *exclusa* (Alexander); Feb. 1925.

Metalimnophila *palmata* Alexander; Feb. 18, 1925.

Metalimnophila *unipuncta* (Alexander); Dec. 1, 1924.

Zelandomyia *pygmaea* Alexander; Feb. 1925.

Gynoplistia (*Paralimnophila*) *skusei*, (Hutton); Feb. 1925.

Gynoplistia (*Gynoplistia*) *magnifica* Edwards; Feb. 1925.

Gynoplistia (*Gynoplistia*) *nebulosa* Edwards; Feb. 1925.

Gonomyia (*Lipophleps*) *oliveri* Alexander; Nov. 30, 1924, Feb. 1925.

Aphrophila *neozelandica* (Edwards); Feb. 1925.

Rhabdomastix (*Sacandaga*) *callosa* Alexander; Nov. 30, 1924, Feb. 1925.

Rhabdomastix (*Sacandaga*) *otagana unilineata* sub. sp. n.; Nov. 30, 1924.

Rhabdomastix (*Sacandaga*) *otagana trilineata* sub. sp. n. ; Feb. 1925.

* The various articles entitled "Notes from the Canterbury College Mountain Biological Station,"—in *Trans. N.Z. Inst.*—should be consulted.

- Erioptera* (*Trimicra*) *confluens* (Alexander); Feb. 1925.
Amphineurus (*Amphineurus*) *senex* Alexander; Dec. 1, 1924, Feb. 1925.
Molophilus basispina Alexander; Nov. 27, 1924, Feb. 18, 1925.
Molophilus flagellifer Alexander; Nov. 30, 1924, December 1, 1924.
Molophilus gladiator sp. n.; Feb. 18, 1925.
Molophilus luteipygus Alexander; Feb. 1925.
Molophilus morosus Alexander; Feb. 18, 1925.
Molophilus multicintus Edwards; Feb. 1925.
Molophilus picturatus Alexander; Dec. 1, 1924.
Molophilus pulcherrimus Edwards; Feb. 1925.
Molophilus stewartensis Alexander; Nov. 27, 1924, Feb. 1925.
Molophilus sublateralis Alexander; Nov. 30, 1924.
Molophilus submorosus Alexander; Nov. 29, 1924.
Tasiocera (*Tasiocera*) *divaricata* Alexander; Nov. 28, 1924, Feb. 18, 1925.

MACROMASTIX (*MACROMASTIX*) *PEDESTRIS* sp. n.

Subapterous in both sexes, the wings being shorter than the halteres; antennae short, 9-segmented; mesonotal praescutum flattened, with four brownish black stripes; legs very long, especially the tarsi.

Male—Length about 15 mm.; wing, 2.5 mm.; antenna about 2.3 mm.

Fore leg, femora, 12.5 mm.; tibia, 14.5 mm.; tarsus about 24 mm.

Middle leg, femora, 14.1 mm.; tibia, 13.8 mm.; tarsus about 28 mm.

Hind leg, femora, 16 mm.; tibia, 16.5 mm.; tarsus about 38 mm.

Frontal prolongation of head moderately elongate, dark brown above, paler laterally, without a distinct nasus; palpi black. Antennae short, as shown by the measurements, dark brown throughout; flagellum only 7-segmented; scape elongate; flagellar segments cylindrical, gradually decreasing in length from the first to the fifth, the sixth longer, about equal to the third, the terminal segment again short. Head dark brown, the anterior orbits broadly rich chestnut-brown, wider and more conspicuous at the narrowest point of the vertex; posterior orbits narrowly pruinose; no evident vertical tubercle.

Mesonotum strongly flattened, flush with the level of the very narrow, plate-like pronotum, the latter blackened. Praescutum light yellowish gray, with four velvety brownish-black stripes, the intermediate pair broadly separated by a reddish line; lateral and intermediate stripes subconfluent; praescutum clothed with relatively long but subappressed setae; scutum yellow, each lobe largely brownish black; scutellum large, blackish, with a yellow pollinosity; postnotum relatively reduced, grayish brown, the pleurotergite with a vague pale stripe. Pleura light brown, variegated with patches of darker brown and whitish. Halteres long and slender, dark brown, the knobs paler brown. Legs very long and slender, especially the tarsi, as shown by the measurements; fore femora shorter than tibiae; middle femora longer than tibiae; femora and tibiae of hind legs nearly equal; coxae elongate, brown; trochanters brown, darker beneath; femora dark brown, a little paler basally, the tibiae conspicuously yellowish brown, the tips narrowly infuscated; tarsi pale brown, passing into darker. Wings very reduced, shorter than the halteres, strongly infuscated, the veins blackish; costal margin with strong dense black trichia on basal two-thirds; a large patch of trichia in the radial field. Venation greatly distorted.

Abdomen light brown, the tergites with darker median and lateral stripes that are narrowly connected with one another across the caudal margins, the terminal segments more extensively darkened; sternites paler.

Habitat.—New Zealand (Stewart Island).

Holotype, ♂, Halfmoon Bay, altitude 60 feet, July 6, 1924 (N. J. Jensen).

Paratopotypes, a few additional males at subsequent dates.

This is the first species of *Macromastix* to be described in which the male sex is nearly apterous. The fly is so different from all hitherto described species that it is difficult to point out affinities.

MACROMASTIX (MACROMASTIX) SUBVITTATA sp. n.

Male.—Length about 10 mm.; wing, 16 mm.

Fore leg, femora, 8 mm.; tibia, 9.4 mm.; tarsus, 18 mm.

Hind leg, femora, 9.2 mm.; tibia, 10.8 mm.; tarsus, 23.5 mm.

Bearing a resemblance to *M. (M.) vittata* Edwards, differing in the body-coloration and details of structure.

Frontal prolongation of head dark gray, the nasus conspicuous. Head light gray, the vertex largely occupied by a triangular brownish black area that restricts the ground-color to rather narrow

orbital lines, the dark area further divided by a scarcely evident capillary pale vitta. Anterior vertex broad, fully one-half the width of head, including the eyes. Antennae short, 12-segmented, the terminal three segments very small, shorter than the preceding two taken together.

Mesonotal praescutum blue-gray, with a faint bluish tinge, with four conspicuous black stripes, the intermediate pair separated by a narrow but conspicuous line of the ground-color; lateral praescutal stripes interrupted at the suture; scutum gray, the lateral portions of the scutal lobes much paler; each scutal lobe with a small cephalic and a very large posterior black mark, entirely confluent, the marks further confluent posteriorly across the median line; scutellum infuscated; mediotergite dark gray, with a vague circular dark mark on either side of the median line behind. Pleura clear blue-gray, the ventral half of the pleurotergite paler; dorso-pleural membrane pale brownish ochreous; a circular velvety black spot on extreme dorsal margin on anepisternum and another near the position of the fusion of the sternopleurite and anepisternum, the suture between the latter two entirely lacking. Halteres dark brown, the extreme base of stem obscure yellow. Legs with the coxae concolorous with pleura; trochanters brownish yellow; femora brownish yellow, the tips conspicuously blackened; remainder of legs brownish black, the tibial bases broadly paler; tarsi nearly twice the length of the tibiae. Wings almost as in *vittata*, with the pale prearcular region and very narrow cell *2nd A*, but differing as follows: Dark marking in cell *R* just before origin of *Rs* continued caudad across cell *M*, interrupting the extensive white marking in that cell and breaking the vittate appearance; pale areas in bases of cells *R*₂ and *R*₃ less evident.

Abdomen with light pruinosity on segment two and the lateral portions of the tergites beyond the third; abdomen orange-yellow, on the basal ring of tergite two completely obscured by whitish pruinosity, darker orange on the posterior ring and on tergite three; a continuous, black, dorso-median, tergal stripe, broadest on segment two, suddenly narrowed there at the level of the impressed foveae, thence very gradually widened behind, covering much of the posterior segments. Male hypopygium small, dark-colored, telescoped.

Habitat.—New Zealand (South Island).

Holotype, ♂, Lake Brunner, Westland, February 2, 1922 (A. L. Tonnoir); Collector's No. 21.

Macromastix (*Macromastix*) *subvittata* agrees with *M.* (*M.*) *vittata* Edwards in the very narrow cell *2nd A* of the wings and in the general wing pattern. It differs in the details of coloration,

especially the head and pleural pattern, the differentiated pruinosity on certain of the abdominal segments, and in structure, especially of the legs, where the tarsi are approximately twice the length of the tibiae.

GYNOPLISTIA (PARALIMNOPHILA) SKUSEI KUMARENSIS subsp. n.

Generally similar to typical *skusei*, differing as follows:

Basal flagellar segments with the incisures conspicuously yellow, especially the apical portions of the segments. Humeral region of praescutum suffused with reddish. Wing-pattern strongly suffused, the dark areas in the radial field solid, not horseshoe-shaped; pale areas beyond the cord restricted to a small post-stigmal and a subequal nearly apical spot; remaining cells of wing suffused. Male hypopygium with the outer dististyle slender, the apex slightly hooked. Inner dististyle narrower than in the typical form.

Habitat.—New Zealand (South Island).

Holotype, ♂, Kumara, Westland, October 20, 1929 (J. W. Campbell); in my collection.

G. (P.) skusei (Hutton) is either highly variable, as indicated by Edwards (*Trans. N.Z. Inst.*, 54; 307; 1923) or there are several distinct races, or perhaps closely allied species, confused. It seems desirable to differentiate such forms so they may be discussed in geographical or ecological distribution.

GYNOPLISTIA (GYNOPLISTIA) PHILPOTTI sp. n.

General coloration of thorax greenish black; antennae 16-segmented, with eleven branched segments; femora yellow, the distal fourth or less blackened; posterior tarsi yellow; wings with the basal third pale, the remainder almost uniformly darkened.

Male.—Length about 8 mm.; wing, 7.2 mm.; posterior basitarsus, 1.5 mm.

Rostrum black, with long yellow setae; palpi black. Antennae black throughout, 16-segmented, the formula being $2 + 2 + 9 + 3$; longest branch (about flagellar segment four) less than one-half the length of the flagellum and approximately seven or eight times the length of the segment alone; last branch subequal in length to the segment; terminal segment elongate, nearly twice the length of the penultimate and larger in diameter. Head black, with purplish reflections.

Mesonotum polished black, with vague greenish tints. Pleura with a heavy yellow pollen. Halteres pale yellow, the base of stem narrowly blackened. Legs with the coxae and trochanters black; femora yellow, the apical fourth or less blackened; tibiae and tarsi

black, the posterior tarsi obscure yellow with only the terminal segment darkened. Wings (Pl. XXVIII, fig. 1) with the basal third pale, the distal two-thirds almost uniformly dark brown, especially beyond the cord; cell *Sc*, stigma and a seam on anterior cord slightly darker brown; veins brown. Trichiation of veins as in the *violacea* group, *M* being without trichia. Venation: Cell R_3 sessile; course of vein $R_2 + 3$ as in *G. violacea persimilis*, that is, parallel with R_4 , beyond the level of R_2 with veins R_3 and R_4 more strongly diverging.

Abdomen violaceous black. Male hypopygium much as in *violacea*.

Habitat.—New Zealand (South Island).

Holotype, ♂, Rotorua, Nelson, December 2, 1925 (A. Philpott).

Named in honor of the late Mr. Alfred Philpott, whose untimely death was a great loss to New Zealand Entomology. The species, together with *G. (G.) hamiltoni* Alexander and *G. (G.) violacea* Edwards, form a natural group that is characterized by the violaceous coloration of the abdomen, the extensively yellow posterior tarsi and the biramous gonapophyses. The present fly is told by the reduced number of antennal segments, with proportionately shorter branches, the peculiar pattern of the wings, and the uniformly pale posterior basitarsi.

RHABDOMASTIX (SACANDAGA) OTAGANA UNILINEATA subsp. n.

As in the typical form but the mesonotal praescutum with a broad, dark brown, median stripe extending from the cephalic margin of the sclerite, ending abruptly a short distance before the suture.

Habitat.—New Zealand (South Island).

Holotype, ♀, Cass, Canterbury, altitude 1,850 feet, November 30, 1924 (A. L. Tonnoir).

RHABDOMASTIX (SACANDAGA) OTAGANA TRILINEATA subsp. n.

As in the typical form but the praescutum with three dark brown stripes, the lateral pair crossing the suture and extensively suffusing the scutal lobes, the median area of the scutum broadly pale; sternopleurite more or less infuscated.

Habitat.—New Zealand (South Island).

Holotype, ♂, Cass, Canterbury, altitude 1,850 feet, February 1925 (A. L. Tonnoir). Allotopotype, ♀. Paratopotype, ♂.

In general appearance, the various forms of *Rhabdomastix otagana* differ greatly from one another and their exact relationships are still not well understood.

AMPHINEURUS (NOTHORMOSIA) EDENTULUS sp. n.

Size large (wing about 7 mm.); male hypopygium with the middle branch of the tripartite dististyle nearly smooth.

Male.—Length about 5.5 mm.; wing, 7 mm.

Female.—Length about 6 mm.; wing, 7 mm.

Rostrum yellow; palpi brownish black. Antennae (♂) elongate, as in the subgenus; flagellar segments weakly bicolored, black, the incisures conspicuously yellow, the degree of the latter more restricted on outer segments.

Mesonotum reddish brown, the humeral triangles yellow. Pleura reddish brown, the dorsopleural region dusky. Legs brownish yellow, the terminal tarsal segments infuscated. Wings (Pl. XXVIII, fig. 2) almost as in *insulus*. Male hypopygium (Pl. XXVIII, fig. 5) with the blackened lobes of the tergite, 9t, slender, slightly divergent, separated by a V-shaped notch. All branches of the tripartite outer dististyle pale in color, slender, the inner branch nearly straight, the central branch slender, sinuous, the margin nearly smooth or merely microscopically denticulate, not conspicuously toothed as in *insulus*. Inner dististyle, id, pale, bifid at apex into an obtuse pale lobe and a small blackened spine. Gonapophyses, p, long and slender, not conspicuously dilated at base as in *insulsus*, very gradually narrowed to the acute blackened tips. The elongate pale outer lobe of the basistyle is not shown in the figure.

Habitat.—New Zealand (North Island).

Holotype, ♂, Hen Island, Hen and Chicken Islands, North Auckland, October 25, 1925 (Harold Hamilton). Allotopotype, ♀.

Amphineurus edentulus is closest to *A. insulsus* (Hutton), differing especially in the smaller size and structure of the male hypopygium.

ERIOPTERA (EMPEDA) HAMILTONI sp. n.

General coloration dark brown; wings with a faint brown tinge; cell 1st M₂ closed; male hypopygium with the outer dististyle deeply bifid, the arms expanded into blades; gonapophyses terminating in acute spinous hooks.

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

Female.—Length about 3.4 mm.; wing, 3.8—4 mm.

Rostrum and palpi dark brown. Antennae relatively short, dark brown throughout; flagellar segments oval, the verticils (♂) relatively elongate. Head brownish black.

Pronotum dark brown, the lateral pretergites testaceous. Mesonotal praescutum dark brown, the humeral region paler; scutal lobes darker; remainder of mesonotum dark brown. Pleura

brown, the dorsal pleurites darker brown. Halteres brown, the extreme base of stem paler. Legs with the coxae and trochanters brownish testaceous; remainder of legs brown, the tarsi only a little darker; legs relatively long and slender for an Eriopterine crane-fly. Wings (Pl. XXVIII, fig. 3) with a faint brownish tinge, the stigma scarcely darker; veins darker brown. Venation: Sc_1 ending about opposite two-thirds the length of R_s , Sc_2 a little more than its own length from the tip; R_s nearly straight; $R_2 + 3 + 4$ and R_2 subequal; veins R_3 and R_4 generally parallel to one another, cell R_3 deep; cell 1st M_2 closed; distal section of vein M_4 strongly sinuous; $m-cu$ close to for, of M ; vein 2nd A nearly straight.

Abdomen dark brown. Male hypopygium (Pl. XXVIII, fig. 6) with the bastistyle, b , relatively short, at apex with two small lobes. Outer dististyle, od , very slender at base, the apical half bifid, each arm widely expanded into pale blades. Inner dististyle, id , a slender, nearly straight rod. Gonapophyses, p , flattened, terminating in sinuous chitinized hooks, their tips acute.

Habitat.—New Zealand (North Island).

Holotype, ♂, Hen Island, Hen and Chicken Islands, North Auckland, October 25, 1925 (Harold Hamilton). Allotopotype, ♀. Paratopotype, ♀.

I take unusual pleasure in naming this distinct species in honor of the collector, Mr. Harold Hamilton. Additional specimens are preserved in the Dominion Museum, Wellington. The subgenus *Empeda* had not been recorded from the Australasian Region.

MOLOPHILUS SPEIGHTI sp. n.

Belongs to the *plagiatus* group; general coloration dark brownish gray; antennae short; halteres dusky, the knobs abruptly light yellow; legs blackened, the femoral bases restrictedly pale; wings with a brownish tinge, the costal region brighter; vein 2nd A long; abdomen, including hypopygium, dark brownish gray; basal dististyle a simple blackened rod, the apical fourth a slender glabrous spine, the remainder with sparse setulae.

Male.—Length about 2.7—2.8 mm.; wing, 4—4.2 mm.

Female.—Length about 3.5 mm.; wing, 4 mm.

Rostrum dark gray; palpi black. Antennae short, black throughout; flagellar segments oval, with long verticils that greatly exceed the segments in length. Head dark brownish gray.

Mesonotum dark brownish gray, variegated only by the conspicuous yellow anterior lateral pretergites and a similar spot beneath the wing-root. Pleura dark gray. Halteres dusky, the knobs abruptly light yellow. Legs with the coxae brown; trochanters yellowish brown; remainder of legs blackened, the femoral bases

restrictedly obscure yellow. Wings with a brownish tinge; prearcular and costal regions more yellowish; macrotichia and veins dark. Venation: R_{2+3} angulated and sometimes weakly spurred at near midlength; vein *2nd A* long, extending about to opposite two-thirds the length of the petiole of cell *M*.

Abdomen blackish gray throughout. Male hypopygium (Pl. XXVIII, fig. 7) with the apical beak of the basistyle, *b*, relatively stout and strongly decurved. Basal dististyle, *bd*, a simple straight rod, moderately blackened throughout its length, the distal fourth a simple acute glabrous spine; cephalic or mesal margin of style on basal three-fourths with a series of four or five small setae from notch-like incisions of the style.

Habitat.—New Zealand (South Island).

Holotype, ♂, Mount Peel, Canterbury, altitude 3,000 feet, November 17, 1930 (Stuart Lindsay). Allotopotype, ♀, November 14, 1930. Paratopotype, 1♂, altitude 3,500 feet, November 14, 1930; paratypes, 2♂♂, Peel Forest, November 15-20, 1930.

I am very pleased to name this interesting species in honor of my long-time friend, Mr. R. Speight, former curator of the Canterbury Museum, to whom I express my deep indebtedness for many favors during the past eighteen years. The species belongs to a section of the group having the basal dististyle of the male hypopygium a simple slender rod. In the New Zealand fauna there are about a score of species in this section, these differing among themselves in the coloration of the body, legs and halteres; wing-coloration and pattern; relative length of vein *2nd A* of the wings, and the structure of the male hypopygium, especially the shape and armature of the basal dististyle. The present fly is most nearly allied to *Molophilus analis* Alexander, *M. morosus* Alexander, *M. submorosus* Alexander and *M. sylvicolus* Alexander, differing in the uniformly dark coloration, which is so deep as to appear almost blackish, and in the structure of the basal dististyle, as described.

MOLOPHILUS GLADIATOR sp. n.

Belongs to the *plagiatus* group; dark pleural stripe very distinct; wings not conspicuously variegated with patches of dark setae; male hypopygium with the basal dististyle very long, slender, gently curved to the acute tip, the margins with appressed spines.

Male.—Length about 2.6 mm.; wing, 3.2—3.4 mm.

Female.—Length about 2.8 mm.; wing, 3.3 mm.

Rostrum and palpi dark brown. Antennae relatively short, pale, the basal segments slightly darker, testaceous brown; flagellar segments with relatively elongate verticils. Head light brown.

Mesonotal praescutum pale brown to yellowish brown, the humeral region and lateral margins obscure yellow; scutal lobes brown, the median area somewhat paler; scutellum brownish yellow; postnotum dark brown. Pleura brownish yellow, with a very broad and conspicuous, dark brown, longitudinal stripe occupying the dorsopleural region and dorsal pleurites, extending caudad to the postnotum. Halteres dark brown, the base of stem a little paler. Legs with the coxae and trochanters yellowish testaceous; femora yellow, with darker trichia, the fore femora with the latter long and black; tibiae and tarsi more yellowish, the terminal tarsal segments passing into brown. Wings (Pl. XXVIII, fig. 4) with a grayish tinge, clouded with dusky along *Rs*, *Cu* and the Anal angle; macrotrichia darker brown; veins brown. Venation: Vein *2nd A* ending about opposite the caudal end of *m-cu*.

Abdomen dark brown, the hypopygium obscure yellow. Male hypopygium (Pl. XXVIII, fig. 8) with the apical beak of the basistyle, *b*, heavily blackened, relatively deep at base, the apical half slender and directed dephalad. Outer dististyle, *od*, with the stem long and slender, the apex bifid, as in the group. Basal dististyle, *bd*, a very long, slender, chitinized rod, gently curved to the acute tip, the margins with conspicuous appressed spines. Aedeagus slender, about four-fifths as long as the basal dististyle.

Habitat.—New Zealand (South Island).

Holotype, ♂, Cass, Canterbury, altitude 1,850 feet, February 18, 1925 (A. L. Tonnoir). Allotopotype, ♀. Paratopotypes, 5 ♂♂; paratypes, 10 ♂♂, Hilltop, Banks Peninsula, Canterbury, January 14-16, 1925 (A. L. Tonnoir).

This fly is distinguished from allied forms by the structure of the male hypopygium.

MOLOPHILUS IMPROCERUS sp. n.

Belongs to the *plagiatus* group; mesonotum pale brownish ochreous to testaceous, the dorsal pleurites dark brown; male hypopygium with the basal dististyle straight, the apical third blackened, expanded into a rounded head.

Male.—Length about 2.6 mm.; wing, 3.8 mm.

Rostrum brownish testaceous; palpi dark brown. Antennae short, dark brown; flagellar segments with relatively long and conspicuous verticils. Head brownish testaceous.

Mesonotum pale brownish ochreous to testaceous. Pleura dark brown, the ventral pleurites passing into obscure yellow. Halteres dark brown, the base of stem narrowly obscure yellow.

Legs densely covered with dark setae; hind legs elongate. Wings with a grayish tinge, the veins pale, ill-defined against the ground-color; trichia dark brown. Venation: Vein 2nd *A* relatively short, ending about opposite the caudal end of the oblique *m-cu*.

Abdomen yellowish brown, the sternites paler in some specimens. Male hypopygium (Pl. XXVIII, fig. 9) with the basistyle, *b*, terminating in a slender beak that is only moderately chitinized. Outer dististyle relatively stout, the mesal arm obtuse at apex. Basal dististyle, *bd*, a conspicuous straight rod, pale on basal two-thirds, the apical third blackened, its apex dilated into a shiny rounded head, the lateral edge produced into two small chitinized points. Aedeagus a trifle shorter than the basal dististyle. Phallosomic plate, *p*, with the caudal margin rounded convex, each outer lateral angle produced into a short blunt lobe.

Habitat.—New Zealand (South Island).

Holotype, ♂, Hilltop, Banks Peninsula, Canterbury, January 14, 1925 (A. L. Tonnoir). Paratopotypes, 3 ♂♂.

As usual in the group, the most distinctive specific features of the present fly are found in the structure of the male hypopygium.

DESCRIPTION OF FIGURES IN PLATE XXVIII

b = basistyle; *bd* = basal dististyle; *id* = inner dististyle; *od* = outer dististyle; *p* = phallosome; *t* = tergite.

Fig. 1.—*Gynoplistia* (*Gynoplistia*) *philpotti* sp.n.; wing.

Fig. 2.—*Amphineurus* (*Nothormosia*) *edentulus* sp.n.; wing.

Fig. 3.—*Erioptera* (*Empeda*) *hamiltoni* sp.n.; wing.

Fig. 4.—*Molophilus gladiator* sp.n.; wing.

Fig. 5.—*Amphineurus* (*Nothormosia*) *edentulus* sp.n.; male hypopygium.

Fig. 6.—*Erioptera* (*Empeda*) *hamiltoni* sp.n.; male hypopygium.

Fig. 7.—*Molophilus speighti* sp.n.; male hypopygium.

Fig. 8.—*Molophilus gladiator* sp.n.; male hypopygium.

Fig. 9.—*Molophilus improcerus* sp.n.; male hypopygium.

PLATE XXVIII.

