

NEW OR LITTLE-KNOWN TIPULIDAE (DIPTERA).
 XCII.—ORIENTAL-AUSTRALASIAN SPECIES.

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At this time I am describing a part of the new species discovered by Mr. Wilfred E. Long in the vicinity of Henderson and at various stations on the Waitakere Range, North Auckland, New Zealand. These forests occupy the subtropical rain forest of the north island, with kauri (*Agathis australis* Salisbury) the dominant tree of the lowlands and lower hills on dryer soils. Equally characteristic are three species of tree ferns belonging to the genera *Cyathea* and *Dicksonia*, together with a considerable number of species of trees and shrubs, with associated herbs. A complete list of the species of Tipuloidea of the Waitakere Range will be provided when the survey reaches completion. At the present time nearly 150 species of these flies have been taken, virtually all through the tireless efforts of Mr. Long, to whom I express my deepest thanks for this abundant material and for the privilege of retaining the type-specimens of the new species.

Longurio (Brevicera) waitakerensis, sp. n.

General coloration dark brown; antennæ (female) short, apparently 12-segmented, with the outer six flagellar segments very reduced; wings infuscated, cells *C* and *Sc* particularly so; a whitened spot at proximal end of stigma; vein R_3 relatively short; abdomen relatively short.

Female.—Length about 14 mm.; wing 13.5 mm.; antenna about 1.2 mm.

Frontal prolongation of head brown, relatively short; nasal region short and broad; palpi dark brown. Antennæ short, apparently 12-segmented but with the outer six segments so reduced and crowded as to be difficult to differentiate; antennæ testaceous brown, the outer segments only vaguely darker; verticils numerous, shorter than the segments. Head brown, the vertex with golden-yellow pollen.

Thoracic dorsum chiefly dark brown, the median region of the præscutum with a vague obscure brownish-yellow central stripe. Pleura dark brown, the dorsopleural membrane a trifle paler. Halteres brown, the knob a little darker. Legs with the coxæ brown; trochanters brownish yellow; remainder of legs chiefly yellow, the extreme tips of the femora darkened; outer three tarsal segments dark brown. Wings fully developed, infuscated, the prearcular field and cells *C* and *Sc* strongly so; stigma oval, darker brown; a whitened spot at proximal end of stigma and a less evident oblitative streak across the base of cell 1st M_2 and adjacent cells; a small pale spot in the anterior prearcular field; veins brown. Veins beyond cord without macrotrichia or virtually so except for a series on vein R_{4+5} and base of R_3 . Venation: Sc_2 at proximal end of stigma or shortly

before outer end of R_s ; vein R_3 and cell R_2 shorter than in *aenigmatica*; petiole of cell M_1 only a little longer than m ; vein M_{3+4} about as long as m .

Abdomen dark brown, the genital shield a trifle brighter. Abdomen distinctly shorter than in *aenigmatica*; valves of ovipositor, especially the cerci, long and slender, glabrous.

Hab. New Zealand (North Island).

Holotype, ♀, Swanson, North Auckland, Station 9, January 13, 1951 (*W. E. Long*).

The only other described member of the subgenus having fully-developed wings in the female sex is *Longurio (Brevicera) aenigmatica* (Alexander), likewise from the North Island. This differs in the coloration of the body and wings, details of structure of the nasus and antennæ, and in the distinctly longer abdomen.

Longurio (Macromastix) amissionis, sp. n.

Size medium (wing about 11 mm.); general coloration brown, the præscutum with four poorly-indicated darker stripes; antennæ of male moderately long, approximately one-half the body; wings pale brown, weakly patterned with pale; cell M_1 lacking; male hypopygium with the inner dististyle complex, produced into a cleaver-like beak and a lower more slender arm; outer apical angle of style slightly produced, bearing about five strong spinous points.

Male.—Length about 9 mm.; wing 11.2 mm.; antenna about 4.5 mm.

Frontal prolongation of head obscure yellow, the nasus short and stout; palpi dark brown. Antennæ (male) relatively long, as shown by the measurements, being approximately one-half the body; scape and pedicel yellow, proximal two flagellar segments brownish yellow, the succeeding ones black; flagellar segments long-cylindrical, with an abundant short white pubescence, the verticils very reduced, unilaterally distributed, on the more proximal segments being scarcely one-seventh to one-eighth the segment. Head orange; vertical tubercle relatively large and bulbous, entire.

Pronotum brown, variegated medially and on sides with three paler areas. Mesonotal præscutum and scutum brown, with very slightly darker brown markings, including four præscutal stripes; scutellum and postnotum obscure testaceous yellow; mesonotal vestiture short and sparse, inconspicuous. Pleura testaceous yellow, glabrous. Halteres with stem yellow, knob dark brown. Legs with the coxæ testaceous; trochanters yellow; remainder of legs brown, the outer tarsal segments still darker; claws simple. Wings with the ground pale brown, cells C and Sc , with the stigma, darker brown; obliterative area whitened, conspicuous, extending from before the stigma in cell R_1 , across the outer end of cell R into the base of 1st M_2 ; small, vague, more yellowed areas before mid-length of vein M in both cells R and M , and in the bases of cells Cu , 1st A and 2nd A ; a barely evident brightened spot near outer end of cell 1st A , remote from the margin; veins brown,

Weak scattered macrotrichia on vein R_{4+5} and outer end of M_{1+2} . Venation: R_s gently arcuated; R_{1+2} pale, almost in alignment with the basal section of R_2 ; cell M_1 lacking; cell 2nd A moderately broad.

Abdomen with the basal segment testaceous; succeeding tergites shiny obscure yellow, their posterior borders narrowly darkened, the second tergite with an additional comparable ring beyond mid-length; on the intermediate and outer segments the mid-dorsal region more or less infuscated; basal sternites yellow, the outer ones more darkened. Male hypopygium with the tergite transverse, its caudal margin with a broad, shallow median emargination, the lobes broad; more than the posterior half of the tergite with very abundant dark-coloured setæ, directed outwardly. Basistyle short. Inner dististyle complex, produced into a cleaver-like beak and a lower more slender arm that terminates in a few small black spicules; surface of the cleaver near base with a low flange. Outer apical angle of style a little produced, bearing about five strong spinous points; mesal face of style nearer base produced into a low lobe that is provided with long dark setæ. Outer dististyle short and stout, with coarse setæ.

Hab. New Zealand (North Island).

Holotype, ♂, Swanson, North Auckland, Station 10, May 1, 1949 (*W. E. Long*).

This very distinct fly needs little comparison with other species. In the lack of cell M_1 it agrees with *Longurio* (*Macromastix*) *submanca* (Alexander), whereas in the moderately elongate antennæ it suggests *L. (M.) mesocera* (Alexander). It differs from all known species in the coloration of the wings and structure of the male hypopygium.

Longurio (Macromastix) glaucocapilla, sp. n.

Size small (wing, male, 10 mm. or less); mesonotal præscutum green with three conspicuous orange stripes; remainder of body with strong greenish tints; wings with R_{1+2} oblique, in alignment with the short R_2 , meeting vein R_1 at about a right angle; male hypopygium with the tergite very narrowly transverse, the lateral angles produced, separated by a very broad and shallow emargination; lateral tergal lobes with relatively sparse setæ; inner dististyle dilated at apex, the outer margin with a continuous row of about a dozen small black spines.

Male.—Length about 7–8.5 mm.; wing 8–10 mm.; antenna about 0.9–1.0 mm.

Female.—Length about 9 mm.; wing 11 mm.

Frontal prolongation of head brownish yellow, whitened above; nasus elongate, whitened; palpi dark brown. Antennæ short; scape and pedicel yellow, heavily white pruinose; flagellum black. Head above brownish yellow, heavily white pruinose, especially on the anterior vertex, the latter broad, approximately three times the diameter of the scape.

Pronotum olive-green. Mesonotal præscutum green, with three conspicuous orange stripes; in more desiccated specimens, the colours less brilliant though indicated; posterior sclerites of notum green, the

scutal lobes conspicuously orange; thorax glabrous. Pleura orange, with greenish reflections. Halteres of moderate length, infuscated. Legs with the coxæ testaceous, with green tints; trochanters obscure yellow; femora obscure yellow, restrictedly infuscated on outer face at apex; tibiæ and tarsi brownish yellow, with green tints, outer tarsal segments passing into black; claws (male) strongly curved, simple. Wings with a weak brownish tinge, the stigma somewhat darker brown; veins dark brown. Sparse macrotrichia on outer ends of veins beyond cord. Venation: R_s moderately long, straight, subequal to R_{2+3} ; R_{1+2} oblique, in alignment with the short R_2 , meeting vein R_1 at about a right angle; cell M_1 a little longer than its petiole; basal section of M_{1+2} more than one-half longer than M_{3+4} ; cell 2nd A narrow.

Abdomen greenish yellow, in cases the green pattern much heavier; hypopygium concolorous. In the holotype the lateral tergal borders weakly darkened. Ovipositor with the valves short and blunt. Male hypopygium with the ninth tergite very narrowly transverse, the lateral angles produced, separated by a very broad and shallow emargination, the margins and lower surface with relatively sparse scattered black spinous setæ. Inner dististyle narrow basally, more dilated at apex, the outer margin with a row of about a dozen small black spines.

Hab. New Zealand (North Island).

Holotype, ♂, Swanson, North Auckland, Station 9, June 25, 1950 (*W. E. Long*). *Paratopotypes*, ♂♀, Station 9, March 16, 1950; Station 10, April 25, 1950.

The species is allied to *Longurio* (*Macromastix*) *campbelli* (Alexander) and *L. (M.) tapleyi* (Alexander), of the South Island of New Zealand, differing in the small size, details of coloration and venation, and especially in the structure of the male hypopygium, particularly the tergite and inner dististyle.

Limonia (Dicranomyia) waitakeriae, sp. n.

Size small (wing, female, 5 mm.); mesonotum weakly infuscated, the sides of the gibbous præscutum light yellow; antennæ black throughout, the basal flagellar segments with short dark apical pedicels, the terminal segment elongate; head brownish grey, the anterior vertex relatively broad; halteres infuscated; legs brown; wings with a weak brownish tinge, the stigma very faintly indicated; Sc short, Sc_1 ending some distance before origin of R_s , Sc_1 very long, nearly equal to R_s ; cell M_2 open by the atrophy of m .

Female.—Length about 5 mm.; wing 5 mm.; antenna about 0.9 mm.

Rostrum brownish yellow, clearer yellow at base, nearly one-half as long as the remainder of head; palpi black. Antennæ black throughout; basal flagellar segments oval, the first one with a slender basal pedicel and a stout shorter darkened apical one; succeeding segments becoming more elongate, with very short apical pedicels; outer segments passing into subcylindrical-elongate, especially the terminal one which is nearly twice the penultimate; verticils of basal segments considerably exceeding

the segments, on the outer ones less conspicuous. Head brownish grey; anterior vertex relatively broad, a little exceeding twice the diameter of the scape.

Pronotum concealed beneath the gibbous præscutum, apparently infuscated, the sides yellow. Mesonotal præscutum clear light yellow on sides, the median area in front infuscated, continued back to the suture as a capillary dark line; scutal lobes with yellow centres surrounded by more dusky rings; scutellum and mediotergite weakly infuscated, the pleurotergite and pleura light yellow, unpatterned; propleura more darkened. Halteres relatively long, infuscated, the base of stem narrowly yellow. Legs with the coxæ yellow, the fore pair weakly infuscated; trochanters yellow; remainder of legs medium brown; claws (female) with a single long, slender spine. Wings with a weak brownish tinge, the stigma very faintly indicated; veins brown. Venation: *Sc* short, *Sc*₁ ending a distance before origin of *Rs* that slightly exceeds one-third the length of the latter, *Sc*₂ far from its tip, *Sc*₁ alone nearly as long as *Rs*; basal section of *R*₄₊₅ a little shorter than *Rs*, both arcuated in a similar manner; *R*₂ and free tip of *Sc*₂ in transverse alignment; cell *M*₂ open by the atrophy of *m*; *M*₃₊₄ subequal to or a little shorter than *M*₄; *m-cu* at or just before the fork of *M*; cell 2nd *A* relatively narrow, especially at the pointed outer end.

Abdomen broken.

Hab. New Zealand (North Island).

Holotype, ♀, Swanson, North Auckland, Station 9, May 23, 1950 (*W. E. Long*).

The present fly is quite different from the most similar regional species, including *Limonia* (*Dicranomyia*) *cuneipennis* (Alexander), *L. (D.) pictithorax* (Alexander) and *L. (D.) tarsalba* (Alexander). In the open cell *M*₂ it is most like the otherwise very distinct *tarsalba*, which is most readily distinguished by the snowy white tarsi.

Limonia (*Dicranomyia*) *wilfredi*, sp. n.

Size medium (wing, male, 5.5 mm. or less); general coloration uniformly pale green or greenish yellow; antennal flagellum brownish black, wings nearly hyaline, unpatterned; cell *M*₂ open by the atrophy of the basal section of *M*₃, *m-cu* at the fork of *M*; male hypopygium with the ventral dististyle small, its area a little less than that of the basistyle; rostral prolongation slender, the two spines elongate, almost as long as the prolongation itself.

Male.—Length about 4.5–5 mm.; wing 5–5.5 mm.

Rostrum green; palpi a little darker. Antennæ with the scape pale green, the remainder brownish black, with a strong greenish tinge; basal flagellar segments short-oval, the outer ones more elongate, the terminal segment about one-third longer than the penultimate, pointed at outer end; longest verticils of the intermediate segments subequal to the segments. Head greenish; anterior vertex narrow.

Thorax uniformly pale green or greenish yellow, the colours presumably fading to yellow in older museum specimens. Halteres relatively short, pale green. Legs pale green, the tips of the femora rather narrowly but conspicuously dark brown. Wings nearly hyaline, unpatterned; veins pale brown, more greenish in the costal field. Venation: Sc_1 ending a short distance before the origin of R_s , the distance variable, longest in one paratype where it is about equal to four-fifths the length of R_s ; Sc_1 long, approximately one-half to two-thirds R_s ; cell M_2 open by the atrophy of the basal section of M_3 , cell 2nd M_2 slightly longer than its petiole; $m-cu$ at the fork of M .

Abdomen, including hypopygium, greenish yellow. Male hypopygium with the caudal margin of the tergite with a broad V-shaped notch, the lobes low, with pale setæ of moderate length. Basistyle with the ventromesal lobe large, obtuse, with some of the outer setæ large and strong. Dorsal dististyle a strongly curved sickle, narrowed gradually into a long terminal spine. Ventral dististyle small, its area a little less than that of the basistyle; rostral prolongation slender, the two spines elongate, almost as long as the prolongation itself, placed near the base of the prolongation, slightly separated. Gonapophysis with the mesal-apical lobe relatively slender, its tip narrowly obtuse, weakly darkened.

Hab. New Zealand (North Island).

Holotype, ♂, Swanson, North Auckland, Station 4, March 16, 1950 (*W. E. Long*). *Paratypes*, ♂♂, Henderson, Station 1, May 12, 1950 (*W. E. Long*).

I take great pleasure in dedicating this very distinct fly to the collector, Mr. Wilfred E. Long. The only other generally similar greenish species in the islands are *Limonia* (*Dicranomyia*) *sulphuralis chlorophylloides* (Alexander) and *L. (D.) subviridis* (Alexander), both of which differ in the closed cell 1st M_2 of the wings and in the structure of the male hypopygium, particularly the ventral dististyle.

Austrolimnophila (*Austrolimnophila*) *agathicola*, sp. n.

Belongs to the *marshalli* group; general coloration of præscutum brown, the central stripe paling to yellow on cephalic half; antennæ long, flagellar segments bicoloured, fully six times as long as broad; head grey pruinose, more blackened on orbits, posterior vertex more fulvous; wings yellow, patterned with brown, the areas along the posterior border ocelliform; male hypopygium with the outer dististyle relatively narrow, at apex decurved into a hook; inner dististyle weakly forked at apex; mesal face of basistyle with two pale setuliferous lobes near the proximal end; interbase simple, its tip a trifle expanded and hooked.

Male.—Length about 11–12 mm.; wing 12–12.5 mm.; antenna about 5–5.5 mm.

Rostrum and palpi dark brown. Antennæ (male) relatively long, nearly one-half the length of body; basal three segments yellow, the succeeding ones bicoloured, black basally, the outer half or less yellow, the outer segments uniformly darkened; flagellar segments long-cylindrical, the

length of the intermediate ones fully six or seven times the diameter; segments with a dense erect pale pubescence, additional to the longer verticils. Head above grey pruinose, more blackened on orbits adjoining the eyes, the posterior vertex more fulvous; anterior vertex relatively narrow, somewhat wider than the diameter of the scape.

Pronotum fulvous brown, patterned transversely with darker brown. Mesonotal præscutum infuscated laterally, with three brown stripes, the median one paling to obscure yellow on more than the cephalic half; scutal lobes infuscated, the central region broadly yellow; scutellum obscure brownish yellow, the parascutella more darkened except on the yellow lateral portions; central area of mediotergite infuscated, the sides, with the pleurotergites, obscure yellow. Pleura chiefly obscure yellow, the dorsopleural region and adjoining part of the anepisternum more infuscated. Halteres with stem yellow, base of knob dark brown, the apex more narrowly pale. Legs with the coxæ and trochanters obscure yellow; femora obscure yellow basally, passing into brownish black, with a clear cut yellow subterminal ring placed about its length before the tip, the extreme apex a little more reddened; tibiæ brown, tarsi somewhat darker. Wings with the ground-colour yellow, conspicuously patterned with brown, including solid areas at arculus, origin of R_s , cord, stigma and fork of R_{2+3+4} , outer end of cell 1st M_2 and fork of M_{1+2} , with spots at ends of veins R_3 and R_4 ; paler brown areas and clouds on posterior half of wing, including ocellate ones at ends of both anal veins and less evidently so over Cu and near outer end of vein M ; outer medial cells chiefly clouded, 1st M_2 clear; veins brown, C more yellowed. Venation: Sc_2 from two to three times its length from tip of Sc , nearly opposite to beyond the fork of R_{2+3+4} ; $m-cu$ before mid-length of cell 1st M_2 ; cell M_1 varying from about twice to fully three times its petiole; squamal setæ present.

Abdominal tergites chiefly infuscated, the extreme caudal margins yellow; basal sternites clear yellow; hypopygium brownish yellow. Male hypopygium with the tergite produced into an elongate lobe, as in the group. Basistyle with the interbase a simple sclerotized rod, narrowed outwardly but slightly expanded and hooked at tip; mesal face of style before apex produced into a small, flattened blade, near its base with two pale setuliferous lobes or blades, the more cephalic one narrower. Outer dististyle relatively narrow, at apex decurved into a slender point, the outer surface with conspicuous setæ. Inner dististyle weakly forked at apex; outer margin at near mid-length with a conspicuous setiferous tubercle. Gonapophysis appearing as a curved rod, much exceeding the small ædeagus.

Hab. New Zealand (North Island).

Holotype, ♂, Swanson, North Auckland, Station 9, March 21, 1950 (*W. E. Long*). *Paratopotypes*, ♂♂, Station 10, March 14–29, 1951; Station 9, March 21, 1950 (*W. E. Long*).

The present fly apparently is most nearly allied to *Austrolimnophila* (*Austrolimnophila*) *strigimacula* (Edwards), differing in the elongate

antennæ, details of coloration, and especially in the structure of the male hypopygium, particularly the dististyles and interbase. The structure of the hypopygium, particularly the lobes of the basistyle and the inner dististyle somewhat suggest *A. (A.) cyatheti* (Edwards), an otherwise entirely distinct fly.

Austrolimnophila (Austrolimnophila) subinterventa oriunda, subsp. n.

Male.—Length about 10 mm.; wing 8.5×1.9 mm.; antenna about 9.5 mm.

Characters as in typical *subinterventa* (Edwards), differing as follows:—mesonotal præscutum with the disk conspicuously dark brown, the posterior sclerites of the notum still darker. Wings relatively narrow, as shown by the measurements; ground-colour very slightly yellowed, with a relatively heavy brown pattern that includes areas at arculus, origin of *Rs*, over the stigmal region, cord, outer end of cell 1st M_2 and fork of M_{1+2} ; spots at tips of R_3 , *Cu*, 1st *A* and 2nd *A*, the last large and conspicuous; veins uniformly darkened. Venation: cell 1st M_2 longer and narrower than in the typical form, the basal section of M_3 lying far distad, transverse, approximately one-third to one-fourth the oblique *m*.

Abdomen conspicuously bicoloured, the bases of the segments broadly ringed with yellow, the tips more extensively blackened, the amount of the latter increasing on the outer segments. Male hypopygium with the tergal lobes relatively narrow, less than the broad U-shaped central notch; lobes each with about 12 to 14 setæ. Outer dististyle narrower than in the typical form, the spine at base of outer margin conspicuous. Inner dististyle conspicuously darkened. Ædeagus more slender, only about as stout as the gonapophysis, with a grouping of slender spines at near mid-length.

Hab. New Zealand (North Island).

Holotype, ♂, Swanson, North Auckland, Station 10, December 8, 1950 (*W. E. Long*).

Austrolimnophila (Austrolimnophila) wilfredlongi, sp. n.

Mesonotal præscutum yellow, with four brown stripes; prothorax yellow; pleura yellow, chiefly covered by a brownish black transverse stripe; femora with three black rings, tibia black with a narrow subbasal yellow ring; wings yellow, heavily patterned with brown; male hypopygium with the tergite produced into two narrow lobes: interbase a simple sinuous spine; outer dististyle produced into a strong decurved spine.

Male.—Length about 11–12 mm.; wing 13–13.5 mm.; antenna about 3 mm.

Rostrum dull black; palpi black. Antennæ (male) relatively short; scape light yellow, pedicel more testaceous yellow; basal flagellar segments brown, the remainder black, elongate, a little shorter than the longest verticils. Head with front and much of vertex blackened, the centre of the anterior vertex restrictedly reddened.

Prothorax and humeral region of the mesonotal præscutum yellow, the posterior part of the latter with four distinct brown stripes, the intermediate pair paler but indicated on the anterior part of the sclerite; lateral præscutal borders behind the humeri dark brown; scutum yellow medially, the lobes brown, darker behind; scutellum dark brown, with indications of a reddish central vitta; postnotum dull black, the lateral borders of the mediotergite and pleurotergite broadly yellow. Pleura chiefly occupied by a brownish-black transverse stripe on the mesepisternum, completely traversing the pleura; centres of the pteropleurite and pleurotergite more weakly darkened. Halteres brownish black, the base of stem light yellow. Legs with the fore coxæ light yellow, mid-coxæ brownish black, posterior coxæ brownish yellow; trochanters yellow; femora brownish yellow basally, with three black rings, the narrowest apical, the subterminal and postmedial rings broader and subequal, much exceeding the clear yellow interspaces; tibiæ black, with a narrow subbasal yellow ring; tarsi brownish black, the outer segments paling to brown, the terminal segments again darker. Wings with the restricted ground yellow, slightly more saturated in the prearcular and costal fields; most of the surface covered by a uniform brown pattern, in part ocelliform, with more or less complete rings at arculus, origin of *Rs* and over the end of vein *2nd A*; a second extensive darkening at and near the cord, separated from the basal areas by a complete narrow yellow cross-band at about mid-length of *Rs*, this darkened area nearly parallel-sided, variegated by small yellow spots, especially in the costal field; wing-tip and subapical cells again darkened, including an ocellate area at fork of M_{1+2} , this outer darkened mass in cases more or less fused with the central darkening, in other cases entirely separated by a very narrow but complete arcuated yellow band at near four-fifths of the wing; veins brown in the patterned fields, brownish yellow in the interspaces, clear yellow in the subcostal ground areas. Venation: *Rs* long, square and spurred at origin; R_{2+3+4} a little less than twice *m-cu*; petiole of cell M_1 subequal to the cell; cell *1st M*₂ rectangular, with *m-cu* about one-half to two-thirds its length beyond the fork.

Abdominal tergites variegated yellowish brown, blackened laterally and on the basal rings; sternites uniformly yellow; segment eight black, forming a narrow ring; hypopygium chestnut-brown. Male hypopygium with the tergite produced medially into two narrow lobes that are separated by a deep U-shaped notch that is wider than either lobe. Basistyle with the interbase a long, simple, sinuous spine. Outer dististyle relatively narrow, its apex produced into a strong decurved spine; inner dististyle about equal in length but much stouter basally, the outer half with delicate setæ, the apex obtuse.

Hab. New Zealand (North Island).

Holotype, ♂, Nihotupu, North Auckland, October 20, 1949 (*W. E. Long*).

Paratopotype, ♂, October 22, 1949.

This unusually distinct crane-fly is dedicated to the collector, Mr. Wilfred E. Long, as a further appreciation of his efforts in making

known the rich Tipulid fauna of the Waitakere Range. The fly superficially suggests *Austrolimnophila* (*Austrolimnophila*) *nigrocincta* (Edwards), but is entirely different in its coloration and structure of the male hypopygium.

Limnophila platyna, sp. n.

Size small (wing, male, less than 4.5 mm.); general coloration dark brown, sparsely pruinose; antennæ short, black; legs brownish yellow, claws with a weak spinule on inner margin beyond mid-length; wings greyish subhyaline, the stigma darker, the disk vaguely patterned with greyish clouds; cell M_1 very small; $m-cu$ a short distance beyond the fork of M ; male hypopygium with the outer dististyle stout, the apex bidentate, the surface setigerous; gonapophysis appearing as a strong slightly curved rod; ædeagus very short.

Male.—Length about 4 mm.; wing 4.3 mm.

Rostrum and palpi black. Antennæ short, if bent backward extending about to the posterior end of the pronotum, black; flagellar segments oval. Head dark brown, grey pruinose.

Thorax almost uniformly dark brown, sparsely pruinose, the postnotum and pleura more heavily so. Halteres with stem pale, the knob very weakly darkened. Legs with the fore coxæ dark brown, pruinose, the remaining coxæ paler, especially the posterior pair; trochanters obscure testaceous yellow; remainder of legs brownish yellow, the outer tarsal segments blackened; claws with a weak spinule on inner margin beyond mid-length. Wings greyish subhyaline, the stigma darker; broad vague to scarcely indicated grey clouds over the cord and origin of R_s ; wing-base a trifle more yellowed; veins brown, a little paler in the ground areas. Venation: Sc_1 ending nearly opposite the fork of R_s , Sc_2 a short distance from its tip; R_{2+3+4} a trifle longer than the basal section of R_5 ; R_{1+2} and R_{2+3} subequal; cells R_2 and R_3 at margin of nearly equal width; inner ends of cells R_4 , R_5 and 1st M_2 in transverse alignment; cell M_1 very small, about one-third to one-fourth as long as its petiole; cell 1st M_2 narrow, m very short; $m-cu$ about one-third to one-fifth its length beyond the fork of M .

Abdomen light brown, with a darker brown subterminal ring; basistyles of male hypopygium conspicuously paler. Male hypopygium with the outer dististyle stout, its apex bidentate, in addition to the slender apical point there being a stouter triangular lower flange; outer third of style with numerous setæ, those of outer margin stouter. Inner dististyle narrowed on outer half. Gonapophysis appearing as a strong, slightly curved rod, the tip subacute. Ædeagus very short, long-oval in outline.

Hab. New Zealand (North Island).

Holotype, ♂, Waitakere Filter Station, North Auckland, October 14, 1950 (*W. E. Long*).

The present fly is most similar to species such as *Limnophila latistyla* Alexander, differing in the venation and, especially, the structure of the male hypopygium.

Metalimnophila longi, sp. n.

General coloration of head and thorax brown; antenna (male) exceeding three-fourths the length of the body or wing, black throughout; wings weakly tinged with brown, the stigma and a vague seam over the anterior cord slightly more darkened; male hypopygium with the tergal lobes unusually short and inconspicuous, appearing as dark triangular points separated by a very broad and shallow notch; appendage of basistyle elongate, dilated at tip into a subtriangular head; inner dististyle with the apex extended into a slender sclerotized point, the lower margin with a bulbous pale lobe that bears about a dozen strong black setæ, two or three being of unusual length.

Male.—Length about 5 mm.; wing about 5.2 mm.; antenna about 4 mm.

Rostrum dark brown; palpi black. Antennæ black throughout; flagellar segments elongate-cylindrical, much exceeding the longest verticils. Head dark brown.

Mesonotum medium brown, more pruinose behind. Pleura with a conspicuous dark brown dorsal stripe, the ventral sclerites paler. Halteres pale. Legs obscure yellow, the tips of the femora and tibiæ very narrowly and vaguely darkened. Wings with a weak brown tinge, the stigma and a vague seam over the anterior cord darkened. Wing tip broken beyond cell 1st M_2 , the venation evidently much as in *mirifica* and allies.

Abdomen dark brown, the hypopygium a trifle paler. Male hypopygium with the tergal lobes unusually short and inconspicuous, appearing as dark triangular points separated by a very broad and shallow U-shaped notch. Basistyle with its appendage long-produced, dilated at tip into a subtriangular head, the extreme end terminating in a small point; a group of about five long erect setæ on outer margin before the head, the latter with abundant short dense setulæ. Outer dististyle a long curved rod, its tip darkened. Inner dististyle distinctive, the apex extended into a slender sclerotized point, before apex on lower margin with a bulbous pale lobe that bears about a dozen strong black setæ, two or three of these very long, about equal to one-half the length of the entire style. Phallosome with two elongate rods and the usual cluster of blackened spines.

Hab. New Zealand (North Island).

Holotype, a broken ♂, Swanson, North Auckland, Station 9, March 16, 1950 (*W. E. Long*).

This distinct *Metalimnophila* is dedicated to Mr. Wilfred E. Long. The closest relatives include *Metalimnophila mirifica* (Alexander), *M. producta* (Alexander) and *M. yorkensis* (Alexander), especially the last. All three species differ in the structure of the male hypopygium. It may be noted that *yorkensis* has a swollen glandular area at near one-third the length of the femur in the male sex. Unfortunately, the posterior legs of the present fly are broken, and it cannot be stated whether a comparable area is present.

Gynoplistia (Gynoplistia) waitakerensis, sp. n.

General coloration of mesonotum dark chestnut-brown, more or less pruinose in places; antennæ (male) black, 16-segmented, with ten long-branched segments; halteres yellow; femora yellow, blackened at or immediately before the tips; wings whitish subhyaline, patterned with brown, including cells *C* and *Sc* and the wing tip; cell *R*₃ sessile; abdomen brownish yellow, more or less variegated with brown; male hypopygium with the basistyle terminating in two unequal flattened blades; both dististyles simple; gonapophysis slender, a trifle expanded at apex.

Male.—Length about 9 mm.; wing 8.6 mm.; antenna about 2.6 mm.

Rostrum dark brown; palpi brownish black. Antennæ (male) black throughout, 16-segmented, the formula being 2+2+8+4; longest branch (about flagellar segment five) a little less than one-half the entire organ or about half the flagellum; last branch only a little shorter than the first. Head dark brown.

Pronotum brown, sparsely pruinose. Mesonotal præscutum with the disk dark chestnut-brown, polished, the humeral region more pruinose; scutal lobes even darker, the median area broadly pruinose; posterior sclerites of notum light brown, more or less pruinose, especially the cephalic end of the mediotergite. Pleura medium brown, heavily pruinose in places, least so near the suture of the anepisternum and sternopleurite. Halteres yellow. Legs with all coxæ brownish yellow, heavily pruinose; trochanters brownish yellow; femore yellow, blackened at or immediately before the tips; fore tibiæ and tarsi black, middle and hind tibiæ and basitarsi yellowish brown, the tips and remainder of tarsi black; posterior femora dilated at apices. Wings whitish subhyaline, with a conspicuous brown pattern that includes all of cells *C* and *Sc*, stigma, and a major confluent seam over the anterior cord; darkened areas at origin of *Rs* and at the wing tip, the inner edge of the latter about at the fork of *M*₁₊₂; further darkenings over the outer end of cell 1st *M*₂ and as a restricted seam along vein *Cu*, more expanded at margin in cells *M*₄ and *Cu*; very vague darkenings at mid-length of vein 1st *A*, expanded over the subapical part of cell 1st *A* to the margin at end of 2nd *A*; prearcular field yellow, the veins concolorous, the remaining veins dark brown. Veins of outer medial field virtually glabrous, there being about 15 trichia on vein *M*₁ and two or three on *M*₂. Venation: Cell *R*₃ sessile, *R*₂₊₃₊₄ thus lacking; cell *M*₁ about one-fourth longer than its petiole; cell 1st *M*₂ short-rectangular; *m-cu* just beyond mid-length cell 1st *M*₂; vein 2nd *A* sinuous, not bent strongly into the margin.

Abdominal tergites brownish yellow, the posterior borders darkened, the amount of dark colour increasing on the outer segments; basal tergite dark, pruinose; basal sternites more uniformly brownish yellow; subterminal segments a little darker brown; hypopygium obscure yellow. Male hypopygium with the basistyle stout, the mesal face with abundant long erect yellow setæ; mesal apical blade relatively small, glabrous, the apical blade much larger, conspicuously setiferous except at apex and along outer apical margin. Two dististyles, the outer more slender, at

apex produced into a small point, on lower margin before this spine with two strong setæ; inner style strongly arcuated at base, the outer half dusky, with abundant small punctures. Phallosome consisting of a pair of simple gonapophyses, slender, weakly expanded and pointed at tips; ædeagus simple, the openings paired.

Hab. New Zealand (North Island).

Holotype, ♂, Swanson, North Auckland, Station 12, September 30, 1950 (*W. E. Long*).

In its general appearance the fly is similar to *Gynoplistia* (*Gynoplistia*) *dactylophora* Alexander and *G. (G.) pleuralis* Alexander, differing in the coloration, antennal formula and structure, coloration of the body, wings and legs, and especially in the structure of the male hypopygium.

Gynoplistia (*Gynoplistia*) *glauca vexator*, subsp. n.

Male.—Length about 13 mm.; wing 12 mm.; antenna about 3.5 mm.

Close to the typical form, differing in details of coloration and structure of the male hypopygium.

Antennæ (male) apparently only 16-segmented, the formula being 2+2+9+3, the long terminal segment fully one-half longer than the penultimate and possibly formed by the fusion of two segments. Mesonotal præscutum with the median stripe dark, strongly narrowed on the cephalic third of the sclerite. Legs with the femora blackened, with a narrow but conspicuous yellow subterminal ring placed some distance before the tip. Abdomen with the tergites brownish yellow, without pruinosity, the outer four segments more darkened. Male hypopygium with the structure generally as in the typical form, differing in details. Ninth tergite with the median lobe much reduced, transverse, its margin subtruncate. Basistyle with the interbasal lobes simple, blackened, abundantly spiculate; mesal face of style merely protuberant, without a clearly defined lobe, as in the typical form. Outer dististyle with the arms feebly divergent, separated by a deep U-shaped notch, the smooth arm longer than the scabrous one, the latter shorter and stouter than in typical *glauca* Edwards.

Hab. New Zealand (North Island).

Holotype, ♂, Swanson, North Auckland, Station 9, January 5, 1951 (*W. E. Long*).

Amphineurus (*Amphineurus*) *tenuipollex*, sp. n.

Size relatively small (wing, male, about 5 mm.); general coloration dark brown, the præscutum castaneous to yellow; legs obscure yellow, darkened by abundant linear brown scales; wings greyish, darkened by dense black setæ on veins and membrane; vein 2nd *A* strongly sinuous; male hypopygium with the inner dististyle bifid; interbases and gonapophyses simple.

Male.—Length about 5–5.2 mm.; wing 4.8–5.2 mm.; antenna about 1–1.1 mm.

Rostrum brown; palpi black. Antennæ with scape and pedicel brown, flagellum dark brown, the segments long-fusiform, with unilaterally distributed verticils that are considerably longer than the segments, additional to long erect whitened more delicate setæ. Head above dark brown, with conspicuous dark setæ.

Pronotum dark brown, the scutellum pale yellow. Mesonotal præscutum polished yellow medially, more castaneous on sides and in front, the humeral region broadly pale yellow; scutum, scutellum and postnotum darker brown, the two latter with very long erect black setæ; margins of both the mediotergite and pleurotergite broadly more yellowed. Pleura chiefly dark brown. Halteres short, dark brown, the base of stem pale yellow. Legs with the coxæ and trochanters testaceous yellow; remainder of legs obscure yellow, the appearance darkened by abundant linear pale brown scales; outer tarsal segments darker brown. Wings with the ground greyish, the colour obscured by abundant dense black setæ on the veins and in all the cells; wing-base a trifle more brightened. Venation: R_{2+3+4} shorter than R_{2+3} ; cell 1st M_2 small, m much shorter than the basal section of M_3 ; $m-cu$ about one-fifth to two-fifths its length beyond the fork of M ; vein 2nd A strongly sinuous.

Abdomen, including hypopygium, dark brown. Segments five to seven with transverse modified areas that are provided with microscopic pegs, these more dense than the scattered setæ on the surrounding integument; caudal lateral angles of these same segments with a brush or pencil of exceedingly long setæ, these almost as long as the width of the abdomen. Male hypopygium with the tergite provided with scattered coarse setæ, at apex produced into a single slender spine. Basistyle very long and slender, particularly the portion beyond the dististyles, provided with abundant long retrorse setæ. Outer dististyle expanded at mid-length, thence narrowed into a gently curved rod, its tip obtuse. Inner dististyle smaller, curved to the acute tip, at near mid-length bearing a smaller lateral spine. Interbases or lateral apophyses appearing as long, slender stems, enlarged at apex, terminating in a slightly recurved acute spine. Gonapophyses approximated at mid-line, appearing as simple rods, sinuous, about the distal two-fifths directed laterad as a long, slender, slightly upcurved spine, somewhat suggesting the appearance of the bill of an avocet.

Hab. New Zealand (North Island).

Holotype, ♂, Henderson District, North Auckland, Station 2, February 3, 1950 (*W. E. Long*). *Paratopotype*, ♂, Station 2, December 14, 1949 (*W. E. Long*).

The present fly is quite distinct from the other described members of the *campbelli* group of the genus, including *Amphineurus* (*Amphineurus*) *bicorniger* Alexander, *A. (A.) campbelli* Alexander, and *A. (A.) nox* Alexander, in the structure of the male hypopygium. In the bispinous inner dististyle it comes closest to *bicorniger*, differing conspicuously in the very different interbases and gonapophyses. The *campbelli* group is well distinguished by certain abdominal and genitalic characters of the

male sex. The transverse slightly elevated areas without modified scales on abdominal segments five to seven, as described under the present species, and the pencils of greatly elongated setæ on these same segments, are not found in the other members of the genus. The male genitalia, while being somewhat as in members of the typical group, have the lobe of the basistyle unusually long and slender.

Amphineurus (Amphineurus) hudsoni cyathetanus, subsp. n.

As in the typical form, differing in the details of structure of the male hypopygium. Ninth tergite produced into two slender blackened points, separated by a small V-shaped notch that is less than one-half as deep as the median produced portion; margins of the points microscopically roughened. Inner dististyle with the strong black spine of the typical form reduced to a group of small spiculate points, entirely without a brush of setæ. Phallosome with both the ædeagus and the spines of the gonapophyses much smaller and less conspicuous.

In typical *hudsoni* Edwards, the ninth tergite of the hypopygium terminates in two blackened blades, the surface microscopically roughened or spiculate, the blades separated by a deep U-shaped notch. Inner dististyle with a strong black spine on face, bearing a brush of long setæ near its base. Phallosome with the ædeagus and the subtending spines of the gonapophyses elongate. Both subspecies have the outer dististyle appearing as a slender rod that terminates in about six or seven spinous points, with a brush of long yellow setæ on face of style back from the apex.

Hab. New Zealand (North Island).

Holotype, ♂, Swanson, North Auckland, Station 9, November 16, 1950 (*W. E. Long*). *Paratype*, ♂, Kaitaia, North Auckland, September 20, 1923 (*J. G. Myers*).

Tasiocera (Tasiocera) longiana, sp. n.

Size relatively large (wing, male, 3.5 mm. or more); general coloration dark brown, the pleura and pleurotergite yellow; macrotrichia of outer wing cells much reduced; *m-cu* at or close to the fork of *M*; male hypopygium with the dististyle slender, gently curved, narrowed to the slightly decurved tip, on lower margin just beyond mid-length with an acute slender spine; phallosome with the lateral shoulders obtuse, not extending caudad beyond the central projection; a pair of slender rods near base of phallosome, separated by a U-shaped notch that is wider than either lobe.

Male.—Length about 3–3.5 mm.; wing 3.5–4.2 mm.; antenna about 2.8–3.2 mm.

Rostrum brownish yellow; palpi brownish black. Antennæ (male) elongate, as shown by the measurements, dark brown; basal flagellar segments elongate-cylindrical, the outer ones more dilated on about their proximal two-thirds, narrowed at tips; besides the scattered elongate verticils, there are further scattered delicate setæ that are much longer,

exceeding the segments in length, together with more abundant shorter erect setæ. Head dark grey.

Pronotum testaceous yellow. Mesonotum dark brown, the pleura and pleurotergite yellow. Halteres dusky, the base of stem narrowly yellow. Legs with the coxæ testaceous yellow; trochanters yellow; remainder of legs pale, the colour darkened by abundant long setoid scales. Wings greyish subhyaline; veins pale brown, macrotrichia darker. Macrotrichia in outer ends of cells lacking or reduced to a very few in the extreme apices. Venation: R_{2+3+4} subequal to or a little longer than the basal section of R_5 ; inner end of cell M_2 strongly arcuated, with $m-cu$ close to its base, in cases slightly before the fork of M .

Abdomen, including the hypopygium, dark brown. Male hypopygium with the dististyle terminal, appearing as a relatively slender, gently curved rod that narrows to the slightly decurved tip; on lower margin just beyond mid-length with an acute slender spine. Phallosome moderately complex; lateral shoulders of the central mass obtuse, not extending caudad beyond the central projection. A pair of slender rods near base of phallosome, separated by a deep U-shaped notch that is wider than either lobe.

Hab. New Zealand (North Island).

Holotype, ♂, Swanson, North Auckland, Station 8, July 28, 1950 (*W. E. Long*). *Paratopotype*, ♂, July 26, 1950; *paratypes*, ♂, Nihotupu, August 26, 1950; ♂, Waitakere Filter Station, September 6, 1949 (*W. E. Long*).

The present fly is still another of the interesting crane-flies from the Waitakere Range that I am naming in honour of the collector. The species is readily told from other regional members of the genus by the structure of the male hypopygium, particularly the dististyle. In its general appearance it suggests species such as *Tasiocera* (*Tasiocera*) *diaphana* Alexander and *T.* (*T.*) *triton* Alexander.

Tasiocera (*Tasiocera*) *aproducta*, sp. n.

Size medium (wing, male, 3.5 mm.); general coloration brown, the pleura paler; wings with a weak brownish tinge; $m-cu$ lying very far distad, beyond mid-length of vein M_{3+4} or more than four times its own length beyond the fork of M ; male hypopygium with the dististyle slender, with a few scattered punctures; phallosome with the central mass not produced medially, the lateral angles slightly so.

Male.—Length about 3 mm.; wing 3.5 mm.

Rostrum and palpi brown. Antennæ with the scape and pedicel brown; flagellum broken. Head brown.

Thorax brown, the pleura more yellowed. Halteres broken. Legs with the coxæ and trochanters brownish testaceous; remainder of legs brownish yellow, appearing darker because of the abundant dark-coloured vestiture. Wings with a weak brownish tinge, the veins a little darker; macrotrichia brown. A series of macrotrichia in outer ends of cells R_2 to 2nd A , inclusive. Venation: R_{2+3+4} exceeding twice the basal

section of R_5 ; $m-cu$ lying very far distad, beyond mid-length of vein M_{3+4} or more than four times its own length beyond the fork of M .

Abdomen, including the hypopygium, dark brown. Male hypopygium with the basistyle relatively long. Dististyle barely terminal in position, slender, gently narrowed to the slightly decurved spinous tip; surface with a few scattered pale punctures, the more basal ones elongate. Phallosome complex; central mass not produced medially, the lateral angles slightly so, with reflexed margins; a slight protuberance or shoulder on side of phallosome beyond mid-length.

Hab. New Zealand (North Island).

Holotype, ♂, Swanson, North Auckland, Station 10, July 5, 1950 (*W. E. Long*).

The regional species having the male hypopygium most similar to that of the present fly include *Tasiocera* (*Tasiocera*) *diaphana* Alexander and *T. (T.) semiermis* Alexander, which differ in the venation and in the details of structure of the male hypopygium, particularly the phallosome.

Molophilus (Molophilus) coronarius, sp. n.

Belongs to the *plagiatus* group; general coloration uniformly yellow, the head brown; wings whitish subhyaline, macrotrichia of veins and anal fringe long; male hypopygium with the beak of the basistyle slender, gently curved; basal dististyle a relatively stout straight rod that bears a row of six strong spines, forming a comb or partial crown; outer surface of distal third of style with microscopic appressed spinulæ.

Male.—Length about 3 mm.; wing 3.5 mm.; antenna about 0.8 mm.

Rostrum yellow, palpi a little darker. Antennæ with the scape and pedicel reddish brown, flagellum slightly darker; flagellar segments subcylindrical, shorter than the long conspicuous verticils. Head brown, sparsely pruinose.

Thorax almost uniformly yellow, the mid-dorsal region somewhat more reddened, the surface polished. Halteres yellow. Legs with the coxæ and trochanters yellow; remainder of legs obscure yellow, the colour slightly darkened by the vestiture. Wings whitish subhyaline, the veins a trifle darker; macrotrichia pale brown. Trichia long, the anal fringe especially so. Venation: $m-cu$ inevident in the unique type.

Abdomen, including hypopygium, yellow. Male hypopygium with the beak of the basistyle slender, gently curved, blackened. Outer dististyle with its outer arm a blackened spine, the inner blade expanded at tip, the margin microscopically erose. Basal dististyle distinctive, appearing as a relatively stout straight rod, pale on basal half, the remainder darkened, at apex produced into a row of six strong powerful spines that form a comb or partial crown; back from the apex with a setuliferous collar; outer surface of distal third of style with microscopic appressed spinulæ, the outer ones stronger. *Ædeagus* slender, smooth.

Hab. New Zealand (North Island).

Holotype, ♂, Pukematekeo, Waitakere Range, North Auckland, altitude 900 feet, May 27, 1950 (*W. E. Long*).

The most similar regional species is *Molophilus (Molophilus) flavidulus* Alexander, which differs especially in the structure of the male hypopygium, particularly the basal dististyle, which is longer and more slender, merely toothed at apex.

Molophilus (Molophilus) crassistylus, sp. n.

Belongs to the *plagiatus* group; general coloration yellow, the head darker; antennæ short; halteres and legs yellow; wings yellow, unpatterned; male hypopygium with the basal dististyle a powerful simple rod, its outer fifth expanded into a head, the obtuse apex directed laterad; outer surface of head with strong appressed spinous points.

Male.—Length about 3 mm.; wing 3.4 mm.; antenna about 0.6 mm.

Rostrum and palpi brownish yellow. Antennæ (male) short; scape and pedicel yellowish brown, the latter a trifle darker; flagellum brownish yellow; flagellar segments long-oval to subcylindrical, with long conspicuous verticils, some on the more proximal segments unusually long and conspicuous. Head light brown.

Thorax almost uniformly shiny yellow. Halteres yellow. Legs yellow, the terminal tarsal segments darkened. Wings yellow, the veins a trifle darker; macrotrichia of veins light brown. Venation: Petiole of cell M_3 a little less than three times *m-cu*; vein 2nd *A* ending nearly opposite the posterior end of *m-cu*.

Abdomen yellow. Male hypopygium with the beak of the basistyle unusually slender, especially on the outer half, the tip subacute. Outer dististyle with the two arms very unequal, the flattened outer arm with microscopic roughenings on the surface. Basal dististyle a powerful simple rod that is expanded on outer fifth into a head that is directed laterad, the apex obtuse; outer margin of the head with several strong appressed spines that are directed outward, these becoming smaller and more scattered on the more basal portions. Ædeagus relatively short, slender, entirely smooth.

Hab. New Zealand (North Island).

Holotype, ♂, Swanson, North Auckland, Station 9, January 6, 1950 (*W. E. Long*).

There are a few other regional species of the *plagiatus* group that have similar yellow body coloration and unpatterned wings, and in which the basal dististyle of the male hypopygium is expanded at its outer end into a head. The most similar of these include *Molophilus (Molophilus) coronarius*, sp. n., and *M. (M.) flavidulus* Alexander, which differ in all details of the male hypopygium, particularly the basal dististyle.

Molophilus (Molophilus) quinquespinosus, sp. n.

Belongs to the *macrocerus* group; general coloration brownish black; antennæ (male) elongate, nodulose; male hypopygium with the apex of the basistyle produced into a weak point; basal dististyle unusually long and slender, gradually narrowed to the long, acute tip, a short distance back from the latter with a small brush of long delicate setæ; surface

of style at and beyond mid-length with a linear series of five small black spines.

Male.—Length about 3.5 mm.; wing 4.2 mm.; antenna about 2.7 mm.

Rostrum and palpi black. Antennæ (male) elongate, exceeding one-half the length of wing, brownish black; flagellar segments strongly nodulose, the basal two-thirds oval, the apical third narrowed into a glabrous neck; dilated portions of segments with very long outspreading verticils, the longest about one-half longer than the segment. Head dark brown.

Thorax almost uniformly brownish black, sparsely pruinose to produce a plumbeous appearance; lateral pretergites pale; humeral region of præscutum reddish brown. Halteres dusky, the base of stem narrowly yellow. Legs with the coxæ testaceous brown, the fore pair darker; trochanters obscure brownish yellow; remainder of legs brown, with darker vestiture; tarsi darkening to black; claws small. Wings weakly darkened, the base restrictedly more yellowed; veins and macrotrichia dark brown. Venation: R_2 lying basad of level of $r-m$; petiole of cell M_3 approximately one and one-half times $m-cu$; vein 2nd A long, ending some distance beyond the level of $m-cu$.

Abdomen, including hypopygium, brownish black. Male hypopygium with the apex of basistyle produced into a weak point, somewhat suggestive of the beak found in members of the *plagiatus* group but with setæ to the tip. Outer dististyle relatively small, beyond the enlarged base narrowed and curved to the small slightly expanded head, the latter further produced into a small point. Basal dististyle unusually long and slender, gradually narrowed to the long acute tip, a short distance back from the latter with a small brush of long delicate setæ; surface of style at and beyond mid-length with a linear series of five small black spines.

Hab. New Zealand (North Island).

Holotype, ♂, Henderson, North Auckland, Station 1, December 5, 1950 (*W. E. Long*).

The present fly is entirely distinct from the other known members of the *macrocerus* group. It is most similar to species such as *Molophilus* (*Molophilus*) *subuliferus* Alexander, differing in the quite distinct hypopygium. The five spinous points on the basal dististyle are quite different from the slender spinous setæ found in other species of the group.

Molophilus (*Molophilus*) *subscaber*, sp. n.

Belongs to the *terminans* group; general coloration brown, the posterior sclerites of the thorax and the pleura more blackened; halteres yellow; legs obscure yellow, the outer tarsal segments blackened; wings with a dusky tinge, certain of the veins seamed with still darker; male hypopygium with the outer dististyle relatively slender, the beak only moderately produced; surface of head with scattered small spines, the disk with a single retrorse spine; inner style longer and more slender, the narrowed apex with microscopic spicules.

Male.—Length about 4–4.2 mm.; wing 4.6–4.8 mm.

Rostrum and palpi black. Antennæ black, short; basal flagellar segments suboval, the verticils greatly exceeding the segments; outer segments more elongate. Head dark brown.

Thoracic dorsum chiefly brown, the pretergites obscure yellow; præscutum darker brown at anterior end of the central stripe; postnotum and pleura blackened. Halteres yellow, the knobs brighter. Legs with the coxæ brownish testaceous; trochanters yellow; remainder of legs obscure yellow, the outer tarsal segments blackened. Wings with a dusky tinge, the disk and cells beyond cord somewhat paler; stigmal region extensively infuscated; certain of the veins less conspicuously seamed; prearcular field obscure yellow; veins brown. Venation: R_2 lying just beyond the level of $r-m$; petiole of cell M_3 less than three times $m-cu$; vein 2nd A ending about opposite one-third the petiole of cell M_3 .

Abdomen, including hypopygium, brownish black. Male hypopygium with the outer dististyle relatively slender, as compared with *terminans* or *greyensis*, the beak only moderately produced; surface of head with scattered small spines, apparently chiefly marginal in position; disk with a single retrorse spine. Inner dististyle longer and more slender, its basal half more dilated; apex with microscopic spinulæ.

Hab. New Zealand (North Island).

Holotype, ♂, Swanson, North Auckland, Station 6, January 27, 1950 (*W. E. Long*). *Paratopotypes*, ♂, with the type; ♂♂, January 14, 1950.

The most nearly related species are *Molophilus (Molophilus) greyensis* Alexander and *M. (M.) terminans* Alexander, especially the latter. Both differ in the details of structure of the male hypopygium but are evidently closely allied.