

351

**NEW SPECIES OF CRANE FLIES FROM SOUTH  
AMERICA. PART V.**

**(Family Tipulidæ, Order Diptera.)**

**BY**

**CHARLES P. ALEXANDER.**

---

**REPRINTED FROM**  
**ANNALS OF THE ENTOMOLOGICAL SOCIETY OF AMERICA**  
**Vol. XXIV, No. 3.**

---

**COLUMBUS, OHIO,**  
**September, 1931.**

# NEW SPECIES OF CRANE FLIES FROM SOUTH AMERICA. PART V.\*†

(Family Tipulidæ, Order Diptera.)

CHARLES P. ALEXANDER,  
Amherst, Massachusetts.

The majority of the species herein described as new were collected in *Colombia* by Mr. Fred W. Walker, chiefly at Vista Nieve on Mount Santa Marta. All such resulting types have been returned to the Museum of Zoology of the University of Michigan. One additional species was likewise taken on Mount Santa Marta by my friend, Dr. George Salt. The other species considered are from *Brazil*, collected by the veteran naturalist, Mr. Friedrich Schade, and from *Chile*, where they were taken in the Province of Malleco by Professor D. S. Bullock. Except where indicated above, the types of the novelties are preserved in my own collection. I wish to thank the gentlemen above mentioned very sincerely for this appreciated co-operation in making known the rich Tipulid fauna of the Neotropics.

## **Macromastix** Osten Sacken.

### **Macromastix (Araucomyia) bullocki** sp. n.

General coloration shiny yellow, the praescutum with reddish stripes; antennae of both sexes very short, 10-segmented; femora brownish yellow, the tips narrowly brownish black; wings grayish subhyaline, the stigma and a confluent seam on the anterior cord dark brown; abdomen yellow, lined longitudinally with black, the latter areas very extensive on the sternites.

*Male*.—Length, about 11 mm.; wing, 12 mm.

*Female*.—Length, about 15 mm.; wing, 14-14.5 mm.

Frontal prolongation of head obscure yellow, darker on sides, the nasus elongate; palpi black. Antennæ 10-segmented, unusually short in both sexes, a little longer than the head, excluding the frontal prolongation; first scapal segment brownish-yellow, the second clearer

---

\*Contribution from the Entomological Laboratory, Massachusetts State College.

†The preceding part under this general title was published in these ANNALS in 1930 (XXIII: 721-740).

yellow; flagellum black; flagellar segments elongate-cylindrical, the verticils of the basal segments short, on the outer segments becoming more elongate, exceeding the segments. Head pale brown above, the posterior orbits clear yellow.

Pronotum light yellow, restrictedly infuscated medially. Mesonotal praescutum nitidous, deep yellow, with four narrow dark reddish stripes, the intermediate pair blackened on their anterior portions; median region of scutum yellow, the lobes more reddish; scutellum yellowish-testaceous; postnotal mediotergite yellow with two reddish brown longitudinal areas. Pleura nitidous, yellow, variegated with reddish areas. Halteres pale, the knobs infuscated. Legs with the fore coxæ yellow, lined with reddish, the other coxæ darker; trochanters brownish yellow; femora brownish yellow, the tips narrowly brownish black; tibiæ and tarsi obscure yellow, the latter passing into dark brown; claws (♂) with a basal tooth. Wings grayish subhyaline, cells *C* and *Sc* more yellowish; stigma and a connecting cloud on the anterior cord dark brown; wing-tip vaguely infumed; a dark seam in cell *M* along vein *Cu*; veins black, more yellowish in the costal region. Macrotrichia of veins small and inconspicuous. Venation:  $R_{1+2}$  diverging strongly from  $R_3$ , paralleling the free tip of  $Sc_2$ ; cell  $M_1$  with the petiole longer to shorter than *m*.

Abdominal tergites obscure yellow, with a narrow median black vitta; sternites similar, trivittate with black, the median stripe very wide, restricting the ground-color to narrow sublateral lines; hypopygium obscure yellow. Male hypopygium with the lateral lobes of the tergite very long and slender, separated by a deep notch; the fused basistyles and sternites similarly long and slender. Ovipositor with all valves very long and slender, straight.

HABITAT: Chile. *Holotype*, ♂, Nahuelbuta, near Angol, Malleco, among Chilean Pines, *Araucaria imbricata* Pav., altitude 800 meters, March 9, 1929 (D. S. Bullock). *Allotopotype*, ♀, altitude 1,200 meters, March 10, 1929. *Paratopotype*, a teneral ♀, with the allotype.

*Macromastix* (*Araucomyia*) *bullocki* is named in honor of the collector, Professor Dillman S. Bullock. The species is very different from *M. (A.) paulseni* (Phil.) in the short antennae of the male and all details of coloration and structure. The polished yellow and rusty coloration of the thorax is very suggestive of certain species of *Nephrotoma*.

### **Tipula** Linnaeus.

#### **Tipula laterosetosa** sp. n.

Ground-color of mesonotum obscure yellow, the praescutum with four brown stripes that are narrowly bordered by darker brown; antennae short in both sexes, the flagellum bicolorous;

pleura variegated yellow and brown; femora with a broad yellowish white subterminal ring; tibiae brown, the bases narrowly pale yellow; wings grayish brown, variegated by dark brown and cream-yellow areas, the latter including a W-shaped mark across the outer ends of cells *R* and *M*, and a series of small marginal spots in the medial to anal fields; male hypopygium with a lateral pencil of yellow setae on either side of tergite; ninth sternite bearing two approximated cylindrical lobes on the mid-line.

*Male*.—Length, about 21 mm.; wing, 21.5 mm.

*Female*.—Length, about 25 mm.; wing, 24 mm.

Frontal prolongation of head brownish yellow, the nasus elongate, concolorous; palpi brownish black. Antennae relatively short in both sexes; scape yellow; flagellar segments bicolorous, the basal enlargement brownish black, the remainder yellow; on outer segments the coloration becomes more brownish yellow; verticils much longer than the segments. Head buffy-yellow, on the posterior vertex trivittate with slightly darker brown, including a median vitta and a similar line on the posterior orbits; median region of anterior vertex produced into a small rounded papilla.

Mesonotal praescutum obscure yellow, with four light brown stripes that are narrowly bordered by dark brown; humeral region yellow, enclosing a small black marginal spot; posterior inter-spaces appearing as elongate pale yellow triangles; a shallow crescent-shaped brown area at suture; scutal lobes with centers brownish testaceous, encircled with dark brown, the median area testaceous, variegated by brown behind; scutellum dark brown, the parascutella similar, with a pale central spot; postnotal medio-tergite gray, with a capillary brown median line that becomes more expanded on the caudal margin. Pleura light yellow, variegated by transverse brown areas on sternopleurite and anepisternum, the latter broader and forming part of a more or less interrupted longitudinal stripe extending from the cervical sclerites to the postnotum; a small velvety-black spot on the dorsal pteropleurite; pleurotergite dark brown, the elevated ventral portion densely set with golden-yellow tomentum. Halteres dusky, the base yellow, the knobs obscure yellow. Legs with the coxae and trochanters yellow; femora yellow basally, passing into black on the distal half, this darkening enclosing a pale yellow subterminal ring; tibiae with the extreme bases yellow, the remainder dark brown; tarsi dark reddish brown. Wings with the ground-color grayish brown, variegated with dark brown and cream-colored areas; prearcular region chiefly darkened, separated from a more extensive post-arcular area by clear yellow at arculus; no dark spots along cell *Sc*, as usual in the *glaphyoptera* group; stigma darkened; small dark areas along cord and at near mid-length of vein *Cu*; the chief creamy areas appear as a W-shaped mark lying transversely across cells *C*, *Sc*, *R* and *M* before the cord; the distal fourth of cell *R*<sub>5</sub>; a narrow, irregular line beyond the stigma; small



marginal spots in outer ends of cells 2nd  $M_2$ ,  $M_3$ ,  $M_4$  and 1st  $A$ , there being two in the last-named cell; and extensive area in basal half of cell  $Cu$ , extending into cell  $M$ ; veins dark, pale in the creamy areas. Venation:  $R_{1+2}$  entire;  $R_{4+5}$  usually sinuous, deflected caudad on outer half, cell  $R_3$  at margin being unusually wide.

Abdominal tergites chiefly blackened, the incisures of the basal segments more cinnamon-brown; outer segments margined laterally with cinnamon-brown; basal sternites reddish brown, segment four chiefly darkened; outer segments darkened, except at margins. Male hypopygium relatively large, the tergite fused with the sternite. Tergite with the median region produced into a depressed lobe, its apex with a shallow V-shaped notch; extreme margin narrowly chitinized and produced at lateral angles into small ventral spines; lateral region of tergite bearing a tuft of long yellow setæ. Region of basistyle not differentiated from sternite except by a short straight suture below; apex of basistyle truncated. What appears to be a curiously modified outer dististyle is borne at end of basistyle, appearing as a pale membranous lobe that is prolonged ventrad into a ribbon-like extension. Ninth sternite bearing two conspicuous subcylindrical lobes, closely applied to one another to appear almost as a single structure. Ovipositor with all valves well-developed, the tergal valves hairy except on distal third; sternal valves compressed, yellow.

HABITAT: Colombia. *Holotype*, ♂, Vista Nieve, Mt. Santa Marta, altitude about 5,000 feet, August 8, 1926 (F. W. Walker). *Allotopotype*, ♀, August 6, 1926. *Paratopotype*, a damaged ♂, August 7, 1926.

The general resemblance of this fly to various species of the *oblique-fasciata* group is probably superficial only. The species is well-distinguished by the peculiar structure of the male hypopygium.

### Limonia Meigen.

#### *Limonia (Rhipidia) tripectinata* sp. n.

Belongs to the *maculata* group; allied to *inaequipectinata*; antennae (♂) elongate; flagellar segments 2 to 11 unequally tripectinate, there being a very small median spur, in addition to the elongate branches; wings with four darkened clouds in the subcostal field, in addition to the stigma; male hypopygium with the rostral prolongation of the ventral dististyle long and slender, with two spines that arise close together.

*Male*.—Length, about 6 mm.; wing, 7 mm.

*Female*.—Length, about 7.5-8 mm.; wing, 7.5.

Rostrum and palpi black. Antennæ (♂) very large and conspicuous, if bent backward extending to some distance beyond the base of

abdomen; scape black, the flagellar segments white, the basal swelling and all branches black; terminal segment entirely black; branches very long and slender, the longest approximately one-third the length of the entire organ; in addition to the long branches, there arises between them a small spur, forming a very unequal third branch; branch of first flagellar segment single; segments 2 to 11 unequally tripectinate, as described, the branches of outer segments gradually decreasing in length; terminal segment elongate, a trifle shorter than the branches of the penultimate segment. Antennæ (♀) nearly simple, the flagellar segments with very short, inconspicuous apical pedicels; terminal segment elongate. Head dark gray.

Pronotum black. Mesonotal praescutum reddish brown, the color broadened behind, the lateral and humeral regions extensively more yellowish; median region of praescutum narrowly darker brown; scutum reddish brown; scutellum darker brown, paler medially; postnotum dark brown. Pleura pale grayish brown, with two vague darker longitudinal stripes, the more dorsal stripe ending at the pteropleurite, the ventral stripe extending from the fore coxæ to the base of abdomen. Halteres pale yellow, the knobs weakly infuscated. Legs with the coxæ yellow, darkened basally; trochanters yellow; femora yellow, narrowly and vaguely darkened subapically; tibiæ brownish yellow; tarsi passing into darker brown. Wings with the ground-color creamy, with a restricted dark pattern, this consisting of four diffuse dark clouds in the subcostal field, in addition to the stigma; restricted pale brown seams along cord and outer end of cell *1st M*<sub>2</sub>; wing-tip, especially in the outer ends of the radial cells, darkened; veins yellow, darker in the clouded areas. Venation: *Sc* long, *Sc*<sub>1</sub> ending about opposite two-thirds the length of *Rs*, *Sc*<sub>2</sub> at its tip; *Rs* gently arcuated at origin; free tip of *Sc*<sub>2</sub> and *R*<sub>2</sub> in approximate transverse alignment; *m-cu* at fork of *M*.

Abdominal segments obscure yellow, the caudal margins conspicuously ringed with dark brown; hypopygium obscure yellow. Male hypopygium with the tergite transverse, the caudal margin convex, the median region transverse or feebly concave. Basistyle moderately large, the ventro-mesal lobe stout basally, narrowed to an obtuse point that bears a single long powerful seta. Ventral dististyle of moderate size, a little larger than the basistyle; rostral prolongation long and slender, at about two-thirds the length bearing two long slender spines that are placed close together. Dorsal dististyle elongate, curved and narrowed to a long acute apical point. Gonapophysis with the mesal-apical lobe blackened, obliquely obtuse at tip, separated from the shorter outer lobe by a narrow U-shaped notch.

HABITAT: Colombia. *Holotype*, ♂, Vista Nieve, Mt. Santa Marta, altitude about 5,000 feet, August 7, 1926 (F. W. Walker). *Allotopotype*, ♀, August 7, 1926. *Paratopotypes*, 3 ♂♂, 10 ♀♀, August 6-8, 1926.

*Limonia (Rhipidia) tripectinata* has an antennal structure that is much like that of *L. (R.) inæquipectinata* Alexander, which differs conspicuously in the smaller antennae, the wing-pattern and venation, and in the structure of the male hypopygium.

***Limonia (Rhipidia) mystica* sp. n.**

Belongs to the *uniseriata* group; general coloration yellow, the mesonotal praescutum with a broad, median brown stripe; antennae entirely black; flagellar segments 1 to 10 with a single branch; thoracic pleura yellow, with two narrow black stripes; halteres black; wings whitish, with a conspicuous brown and gray clouded pattern; cell  $M_2$  tending to be open by atrophy of the basal section of  $M_3$ ; male hypopygium with the spines of the rostral prolongation of the ventral dististyle short and spike-like.

*Male*.—Length, about 5 mm.; wing, 6 mm.

Rostrum and palpi black, the former about as long as the remainder of head. Antennæ black; basal flagellar segments with a single branch, the formula being 2+10+2; longest branch (about flagellar segments 7 to 9) approximately three times the segment; basal flagellar segment with a stout basal branch that is shorter than the segment; penultimate segment simple, or nearly so; terminal segment elongate, narrowed outwardly. Head black, sparsely pruinose.

Pronotum yellow, narrowly dark brown medially. Mesonotal praescutum buffy yellow, with a broad dark brown median stripe that is a trifle expanded laterally at near midlength; lateral stripes lacking or represented only by a small circular dusky cloud at the suture; scutum yellow, each lobe with a triangular brown area, the point directed caudad onto the scutellum; scutellum yellowish testaceous; postnotal mediotergite chiefly dark brown, pale yellow laterally. Pleura yellow, with two narrow black longitudinal stripes, the dorsal one extending from the cervical sclerites across the dorsal pleurites to the halteres; ventral stripe less distinct and more broken, including the dorsal sternopleurite and the meral region. Halteres short, black, the extreme base of the stem yellow, the knobs large. Legs with the coxæ yellow, slightly darkened across their bases; trochanters yellow; femora brownish yellow, vaguely darkened outwardly; tibiæ and tarsi pale brown, the terminal tarsal segments blackened; posterior legs lost. Wings whitish, more cream-colored in the costal region, with a heavy brown costal pattern and abundant gray clouds that cover most of the remainder of the wing; dark clouds six in number, the first two confluent or nearly so; fourth area at origin of  $R_s$ ; fifth at fork of  $Sc$ , the sixth at stigma; the gray clouds include the cord and a more or less complete subapical fascia; medial, cubital and anal cells more evenly clouded with gray; the ground-color appears at the outer

end of cell *M*, bases of Anal cells and as a smaller area in cell *1st A* at end of vein *2nd A*; veins cream-yellow in the ground-areas, more infuscated elsewhere. Venation: *Sc*<sub>1</sub> ending about opposite three-fifths the length of *Rs*, *Sc*<sub>2</sub> at its tip; *Rs* long, gently arcuated; *R*<sub>2</sub> faint, subequal to the free tip of *Sc*<sub>2</sub>; cell *M*<sub>2</sub> open or tending to be open by the atrophy of the basal section of *M*<sub>3</sub>; *m-cu* close to fork of *M*. In one wing of the type, the basal section of *M*<sub>3</sub> is entirely atrophied; in the other wing, it is indicated by a vague trace.

Abdominal tergites yellowish brown, the caudal margins narrowly blackened; sternites more uniformly yellow; hypopygium brownish yellow. Male hypopygium with the tergite transverse, its caudal margin straight or very gently concave. Basistyle small, with a large ventro-mesal lobe. Ventral dististyle considerably larger than the basistyle, the rostral prolongation slender, with two small spike-like spines at near midlength, these placed close together. Dorsal dististyle a slightly curved darkened rod, slightly dilated outwardly, the tip suddenly narrowed to a slender point. Gonapophyses with the mesal apical lobe darkened, the outer margin roughened, the apex a more slender blackened point.

HABITAT: Colombia. *Holotype*, ♂, Vista Nieve, Mt. Santa Marta, altitude about 5,000 feet, August 7, 1926 (F. W. Walker).

The closest relative of the present species is *L. (R.) pallatangæ* Alexander (Ecuador), which differs in the larger size, details of coloration of the antennae, body and wings, and the much shorter flagellar branches.

### Gynoplistia Westwood.

#### *Gynoplistia (Gynoplistia) variata* sp. n.

Generally similar and most nearly allied to *G. (G.) manicata* Alexander (Chile), differing most conspicuously in the smaller size and absence of blackened femoral tips.

*Male*.—Length, about 17-18 mm.; wing, 14.5-15 mm.

Antennæ (♂) 18-segmented, the formula being 2+2+8+6; scape and apices of flagellar segments yellow, the branches and basal enlargements of the segments darkened, the outer segments more uniformly darkened; longest branch (about flagellar segment 7 or 8) about five times the segment and shorter than the combined length of the simple terminal flagellar segments; last branch shorter than to approximately twice the length of the segment. Head brown.

Mesonotum brown, with a yellowish pollen, the praescutal stripes only feebly indicated. Pleura chiefly covered by a silvery-yellow bloom, the ventral sternopleurite more glabrous. Halteres pale, the knobs infuscated. Legs with the femora brownish yellow, the tips weakly darkened but not at all blackened, as in *manicata*; tibiæ yellow, the tips more narrowly darkened. Wings pale yellow, the stigma a



very little darker; in the holotype with a few grayish brown blotches in cells *M* and *Cu* near the cord and larger ones in the ends of the Anal cells, including a larger area in cell *1st A* that almost crosses the cell. Venation: Much as in *manicata*, with the anterior branch of *Rs* similarly long and sinuous; *Rs* a little shorter; cell *1st M*<sub>2</sub> slightly narrower, especially on the basal half.

Abdominal tergites grayish brown, the basal sternites bilineate with black; hypopygium yellowish brown. Male hypopygium with the outer dististyle much as in *manicata*. Interbases appearing as nearly simple chitinized horns, with a microscopic point on margin at near midlength.

HABITAT: Chile. *Holotype*, ♂, Angol, Malleco, November 25, 1929 (D. S. Bullock). *Paratopotype*, ♂, April 30, 1929.

#### **Gynoplistia (Gynoplistia) biarmata** sp. n.

Generally similar and allied to *G. (G.) manicata* Alexander, differing especially in the absence of black femoral tips and the structure of the male hypopygium, especially of the interbasal processes.

*Male*.—Length, about 23 mm.; wing, 19 mm.

Antennæ 19-segmented, the formula being 2+2+9+6; black, the incisures of the basal flagellar segment restrictedly yellow; tips of flagellar branches paler than their bases; longest branch shorter than the combined terminal simple segments; last branch about one-half longer than the segment; terminal segment constricted, as in the group. Head gray.

Mesonotum gray, the praescutum with three brown stripes, the median stripe darker in front, weakly divided behind; pseudosutural foveæ bicolorous, reddish with the lateral portion blackened; median region of scutum and the scutellum light gray; postnotal mediotergite yellowish brown, sparsely pruinose. Pleura heavily pruinose. Halteres pale yellow, the knobs weakly infuscated. Legs with the femora dark brown, yellow basally; tibiæ abruptly yellow, with narrowly darkened tips; tarsi yellow, the outer segments a little darkened. Wings pale yellow, the oval stigma pale brown; a small brown cloud at end of vein *R*<sub>3</sub>; veins brown, more yellowish in the costal region. Venation as in *manicata* and allies.

Abdomen black, pruinose, the segments very narrowly margined laterally and caudally with yellow; hypopygium chiefly dark. Male hypopygium as in *manicata* and allies, but the interbasal processes very different in form, broad-based, with two large spines, the more basal larger and bearing a microscopic spinule on outer margin at near midlength.

HABITAT: Chile. *Holotype*, ♂, Angol, Malleco, 1928 (D. S. Bullock).



The two species described above, *Gynoplistia* (*Gynoplistia*) *variata* sp. n. and *G. (G.) biarmata* sp. n., together with *G. (G.) gilvipennis* Alexander and *G. (G.) manicata* Alexander, and very possibly also *G. (G.) flavipennis* (Philippi), form a compact group of large *Gynoplistiæ* in which the anterior branch of *Rs* is long and conspicuously sinuous and the tibial spurs and tarsal claws of both sexes are microscopically toothed.

### **Eriocera** Macquart.

#### **Eriocera tholopa** sp. n.

General coloration black, heavily pruinose; antennae short in both sexes; head dull orange, darkened behind; mesonotal praescutum with three shiny black stripes, the lateral margins pruinose, the interspaces more yellowish pollinose; legs and halteres black; wings dusky, the cord seamed with darker;  $R_2$  at or before the fork of  $R_{4+5}$ ; cell  $M_1$  lacking; *m-cu* at fork of  $M$ ; ovipositor very long and slender.

*Male*.—Length, about 9 mm.; wing, 7 mm.

*Female*.—Length, about 12 mm.; wing, 8.5 mm.

Rostrum and palpi black. Antennæ black throughout, short in both sexes, 7-segmented ( $\sigma^7$ ), 9-segmented ( $\varphi$ ); first flagellar segment nearly as long as remainder of flagellum. Head dull orange, the occiput infuscated; vertical tubercle weakly bifid.

Mesonotal praescutum with three shiny black stripes, the lateral margins pruinose, the interspaces more yellowish pollinose; posterior sclerites of mesonotum black, sparsely pruinose, the scutellum and postnotum more heavily so. Pleura black, heavily pruinose, the dorso-pleural region slightly more buffy. Halteres black; the extreme base of stem paler. Legs with the coxæ pruinose; trochanters black; femora black, the extreme bases more reddish brown; tibiæ brownish black to black; tarsi black. Wings dusky, the costal region darker, the wing-base somewhat more yellowish brown; narrow darker brown seams along cord and veins  $Rs$  and  $R_5$ ; veins black. Venation:  $Sc_1$  ending opposite the fork of  $Rs$ ,  $Sc_2$  at its tip;  $Rs$  elongate, weakly angulated at origin;  $R_2$  at or just before the fork of  $R_{3+4}$  ( $\sigma^7$ ) or more than its own length before this fork ( $\varphi$ ); cell  $M_1$  lacking; *m-cu* at or beyond the fork of  $M$ , longer than the distal section of  $Cu_1$ .

Abdomen black, gray pruinose, more heavily so on the basal portions of the segments; male hypopygium black. Ovipositor with the tergal valves exceedingly long and slender, horn-yellow, blackened at bases.

**HABITAT:** Brazil. *Holotype*,  $\sigma^7$ , Jaragua, Santa Catharina, October 10, 1929 (F. Schade). *Allotopotype*,  $\varphi$ , October 9, 1929.

*Eriocera tholopa* is apparently closest to *E. flaviceps* (Wied.), differing in the coloration of the body and wings. The latter species is still known to me only from the very brief and insufficient original description.

### Elephantomyia Osten Sacken.

#### Elephantomyia (Elephantomyia) humilis sp. n.

Size small (wing, not exceeding 6.5 mm.); thorax entirely yellow, immaculate; legs pale brown; wings yellowish subhyaline.

*Male*.—Length, excluding rostrum, about 5.5 mm.; wing, 5.8 mm.; rostrum, about 6 mm.

*Female*.—Length, excluding rostrum, about 6.5 mm.; wing, 6.5 mm.; rostrum, about 5 mm.

Rostrum elongate, subequal to or longer than the body, dark brown, including the palpi. Antennæ dark brown, the verticils very long and conspicuous, much exceeding the segments in both sexes. Head very light gray.

Thorax entirely yellow, unmarked. Halteres pale, the knobs weakly infuscated. Legs with the coxæ and trochanters yellow, the fore coxæ slightly infuscated on outer face; remainder of legs pale brown; a weak tibial spur on hind legs of male, not developed on other legs, at least of female. Wings yellowish subhyaline, a little darker toward apex; stigma long-oval, brown; veins brown, those of basal half of wing somewhat more yellowish brown. Venation:  $Sc_2$  ending shortly before the fork of  $R_s$ ,  $Sc_1$  atrophied or nearly so;  $R_s$  long, gently arcuated to feebly angulated; branches of  $R_s$  long, extending generally parallel for their entire length; cell *1st*  $M_2$  short-rectangular, shorter than any of the veins beyond it; *m-cu* subequal to or longer than the distal section of  $Cu_1$ , at or before midlength of cell *1st*  $M_2$ ; cell *2nd*  $A$  long and narrow.

Abdomen yellowish brown, the sternites somewhat paler; in the female, the basal tergites are weakly bicolorous, the proximal half being somewhat darker than the remainder; on the outer segments the color is more uniform brown. Male hypopygium with the mesal face of the basistyle densely cushioned. Outer dististyle unusually short and stout, broad-based, shorter than the strongly curved inner dististyle.

HABITAT: Colombia. *Holotype*, ♂, Vista Nieve, Mt. Santa Marta, altitude about 5,000 feet, August 8, 1926, at light, 4 A. M. (F. W. Walker). *Allotopotype*, ♀, August 6, 1926. *Paratopotype*, ♂, with the allotype.

*Elephantomyia humilis* is even smaller than *E. boliviensis* Alexander, differing from the latter in the details of body-coloration and wing-venation, such as the straighter anterior

branch of *Rs*, small cell *1st M*<sub>2</sub> and more elongate vein *2nd A*. The paratype is very small and has lost the head, but seems undoubtedly to represent the same species.

**Elephantomyia (Elephantomyia) angustissima** sp. n.

General coloration yellow; pronotum and praescutum with a brown median stripe; femora obscure yellow, the tips narrowly blackened, preceded by a wide clearer yellow annulus; male hypopygium with the inner dististyle relatively elongate, a trifle longer than the outer style.

*Male*.—Length, excluding rostrum, about 8 mm.; wing, 8.5 mm.; rostrum, about 8 mm.

*Female*.—Length, excluding rostrum, about 9 mm.; wing, 8 mm.; rostrum, about 8 mm.

Rostrum nearly as long as the body in both sexes, dark brown. Antennæ with the scapal segments dark brown, the flagellum paler; flagellar segments becoming more slender and attenuate outwardly. Head yellowish gray, the center of the posterior vertex more infuscated; anterior vertex reduced to a strip that is a little narrower than the diameter of the first scapal segment.

Pronotum and mesonotum yellow, the anterior portion with a dark brown median stripe that becomes obsolete at near midlength of the praescutum. Pleura yellow. Halteres pale, the knobs weakly infuscated, the extreme base of the stem yellow. Legs with the coxæ and trochanters yellow; femora obscure yellow, the extreme tips blackened, preceded by a wider, more diffuse, clearer yellow ring; tibiæ and tarsi yellowish brown to pale brown; tibial spurs present. Wings with a yellowish tinge, the apex more darkened, cells *C* and *Sc* a little more suffused; stigma oval, dark brown; veins dark brown. Venation: *Sc*<sub>1</sub> ending about opposite the fork of *Rs*, *Sc*<sub>2</sub> at its tip; *Rs* relatively short, weakly angulated at origin; branches of *Rs* extending nearly parallel to one another for their entire length, the upper branch a little sinuous beneath the stigma; *m-cu* at near midlength of cell *1st M*<sub>2</sub>, exceeding the distal section of *Cu*<sub>1</sub>.

Abdominal tergites brownish yellow, with a more or less continuous brown median line, more expanded on the caudal margins of the segments; subterminal segments more uniformly darkened; sternites yellow, the caudal margins of the segments narrowly darkened. Male hypopygium with the mesal face of the basistyle with relatively few but long and conspicuous, erect setæ. Outer dististyle relatively elongate, bifid at apex. Inner dististyle only a trifle longer than the outer, nearly straight. Gonapophyses appearing as long, slender, sinuous spines. Aedeagus a penefilum of moderate length and stoutness.

HABITAT: Colombia. *Holotype*, ♂, Vista Nieve, Mt. Santa Marta, altitude 5,000 feet, August 6, 1926 (F. W. Walker). *Allotopotype*, ♀.

*Elephantomyia angustissima* is distinct from all described regional species in the pattern of the legs and structure of the male hypopygium. It is closest to *E. westwoodi* O. S. of the Nearctic fauna, differing especially in the details of structure of the hypopygium, especially of the gonapophyses.

### Teucholabis Osten Sacken.

#### Teucholabis (Teucholabis) marticola sp. n.

General coloration black; mesonotal praescutum yellow, with three nearly confluent blackish stripes; scutellum yellow; knobs of halteres infuscated; femora yellow, the tips blackened; wings subhyaline, the small stigma pale brown; male hypopygium with the apical spine of the basistyle very reduced; outer dististyle simple, terminating in an acute blackened spine.

*Male*.—Length, about 4.5 mm.; wing, 4 mm.

Rostrum black, nearly as long as the remainder of head; palpi black. Antennæ black throughout; flagellar segments oval, decreasing in size outwardly. Head black, sparsely pruinose.

Pronotum obscure yellow, narrowly blackened laterally. Mesonotal praescutum shiny yellow, the disk chiefly covered by three blackish brown stripes that are nearly confluent, the median stripe paler than the laterals; scutal lobes blackened, the median region obscure yellow; scutellum pale yellow; postnotal mediotergite dark reddish brown. Pleura chiefly black, the ventral sternopleurite and meral region more reddish. Halteres pale, the knobs infuscated. Legs with the coxæ reddish brown, the trochanters more yellowish; femora yellow, the tips broadly blackened, the amount nearly equal on all legs; tibiæ yellowish brown, darker apically; tarsi broken. Wings subhyaline, the small, subcircular stigma pale brown; veins pale brown. Venation:  $Sc_1$  ending about opposite one-third the length of the long arcuated  $R_s$ ,  $Sc_2$  opposite the origin of the latter;  $R_2$  lying just beyond the level of the basal section of  $R_5$ ;  $R_{1+2}$  short, the tip subobsolete; cell 1st  $M_2$  long, widened outwardly,  $m$  longer and more arcuated than the basal section of  $M_3$ .

Abdominal tergites dark brown, the caudal margins of the segments narrowly pale; sternites more uniformly pale; hypopygium yellowish. Sternal pocket relatively simple. Male hypopygium with the basistyle short, the apical spine very tiny. Outer dististyle a simple slender rod that narrows to a slender smooth blackened spine. Inner dististyle small, very strongly curved, the tip blackened, narrowed to a slightly decurved point.

HABITAT: Colombia. *Holotype*, ♂, Mt. Santa Marta, November 1, 1926, at light (G. Salt).

By means of my key to the American species of *Teucholabis* (Trans. Amer. Ent. Soc., 40: 235–239; 1914), *Teucholabis*



*marticola* runs to couplet 24, disagreeing with both included species, *tristis* Alexander (Peru) and *molesta* Osten Sacken (Mexico), in the coloration of the thoracic dorsum, infuscated halteres, and details of venation.

### Gonomyia Meigen.

#### Gonomyia (Lipophleps) lemniscata sp. n.

Belongs to the *pleuralis* group; size small (wing, ♂, 3.5 mm.); male hypopygium with the dististyle terminating in a short blackened spine; on outer face of style at near mid-length with a small spike-like spine that is surrounded by numerous erect setae.

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

Rostrum and palpi black. Antennae with the scape and basal segments of the flagellum orange-yellow, the remainder of the flagellum brown. Head chiefly pale yellow.

Pronotum and anterior lateral pretergites whitish. Mesonotal praescutum fulvous-brown; scutal lobes similarly colored; median region of scutum and the scutellum more yellowish, with a continuous capillary brown median line; postnotum yellow. Pleura yellow, with two narrow brown longitudinal stripes. Halteres pale, the knobs weakly darkened. Legs with the fore coxae darkened, the remaining coxae yellow; trochanters yellow; femora light brown, darkening to a narrow subterminal ring, the extreme apex again pale; tibiae and tarsi pale brown. Wings with a faint brown tinge, the base and costal region clear yellow; stigma oval, dark brown, as in the group; cells on either side of the cord variegated by pale creamy areas; veins pale, the cord and outer end of cell 1st  $M_2$  darker. Venation:  $Sc_1$  ending a short distance before the origin of  $R_s$ , the distance on Costa being a little more than one-half of  $R_s$ ; anterior branch of sector pale, strongly curved cephalad around the stigma; veins  $R_5$  and  $M_{1+2}$  approximated at wing-margin.

Abdominal tergites pale yellow medially, margined caudally and laterally with brown; sternites more uniformly pale, margined caudally with brown. Male hypopygium of the general structure of *recurvata*, differing especially in details of the dististyle. Outer fleshy lobe of basistyle relatively stout; spinous lobe of basistyle pale basally, narrowed to an acute point. Dististyle extended into a short, blackened spine, immediately before this with a small fleshy lobe bearing two fasciculate setae; outer face of style at near midlength bearing a small spike-like spine that is surrounded by numerous erect setae. Gonapophyses of both sets almost as in *recurvata*, the elongate arms delicately fringed with setae along mesal edge; apical lobes of median phallosomic structure pale, elongate, gently divergent.



HABITAT: Colombia, Brazil. *Holotype*, ♂, Vista Nieve, Mt. Santa Marta, Colombia, altitude 5,000 feet, August 8, 1926, at light, 4 A. M. (F. W. Walker). *Paratype*, ♂, Jaragua, Santa Catharina, Brazil, September 20, 1929 (F. Schade).

*Gonomyia (Lipophleps) lemniscata* is allied to *G. (L.) recurvata* Alexander, differing in the details of structure of the male hypopygium, more especially of the dististyle. The occurrence of this species and *Limonia (Geranomyia) walkeri* Alexander on Mt. Santa Marta and again in Santa Catharina in southeastern Brazil is worthy of note.

***Gonomyia (Gonomyia) methodica* sp. n.**

Belongs to the *subcinerea* group; general coloration dark brown; antennae black throughout; scutellum light yellow; pleura yellow, the anepisternum more darkened; wings tinged with brown; *Sc* short, *Sc*<sub>1</sub> ending opposite origin of *Rs*, *Sc*<sub>2</sub> at its tip; *R*<sub>3</sub> gently arcuated, not deflected cephalad at outer end; male hypopygium with the outer dististyle a small oval fleshy lobe; phallosome bearing two strongly hooked lateral spines.

*Male*.—Length about 4.4 mm.; wing, 5.2 mm.

Rostrum and palpi black. Antennæ black throughout; outer flagellar segments becoming long and slender, with relatively long dense verticils. Head dark gray.

Pronotum dark brown. Mesonotal praescutum and scutal lobes dark brown, very sparsely pruinose; anterior lateral pretergites and restricted humeral region very pale yellow; pseudosutural foveæ elongate, black; median region of scutum testaceous-yellow; scutellum light yellow, the base medially with a darkened spot; postnotal mediotergite pale brown, sparsely pruinose, the cephalic-lateral portions restrictedly yellow. Posterior pleura and pleurotergite pale yellow, without clearly defined dark markings, the cephalic pleurites weakly infuscated. Halteres dusky, the extreme base of the stem pale yellow. Legs with the coxæ pale yellow, the fore coxæ slightly more darkened; trochanters pale yellow; remainder of legs dark brown. Wings with a brown tinge, the ill-defined stigma slightly darker brown; veins dark brown. Costal fringe relatively long and conspicuous. Venation: *Sc* short, *Sc*<sub>1</sub> ending just beyond the origin of *Rs*, *Sc*<sub>1</sub> subequal to *Sc*<sub>2</sub>; *Rs* relatively short, less than *R*<sub>2+3+4</sub>; *R*<sub>3</sub> gently arcuated, not deflected cephalad at tip, as in allied species; *m-cu* at two-fifths the length of cell *1st M*<sub>2</sub>.

Abdominal tergites dark brown, the sternites pale; hypopygium yellowish brown. Male hypopygium with the basistyle relatively short and stout, the outer lateral lobe longer than either dististyle; a small blunt tuberculate lobe on mesal face of proximal end of basistyle. Outer dististyle a small, oval, fleshy lobe that is densely covered with delicate setulæ and a few long setæ. Inner dististyle a little larger,

produced into a gently curved blackened spine, the margin of which, at near midlength, bears a long seta; apex of style a short blunt lobe bearing several setæ, two of which are larger and fasciculate. Phallosome asymmetrical, large and complex, bearing at near midlength a pale oval lobe; two lateral spines that are strongly interlocked.

HABITAT: Colombia. *Holotype*, ♂, Vista Nieve, Mt. Santa Marta, altitude about 5,000 feet, August 7, 1926 (F. W. Walker).

*Gonomyia (Gonomyia) methodica* is readily distinguished from allied regional species by the structure of the male hypopygium.

### Neognophomyia Alexander.

#### *Neognophomyia colombicola* sp. n.

General coloration of mesonotal praescutum reddish; postnotum blackened; pleura pale yellow, with a conspicuous blackened dorso-longitudinal stripe; wings whitish, with a relatively narrow brown seam along cord; cell *1st M*<sub>2</sub> strongly widened outwardly; male hypopygium with the lateral tergal spines blackened, microscopically setulose before the acute tips.

*Male*.—Length, about 6-6.5 mm.; wing, 6-6.5 mm.

*Female*.—Length, about 6.5-7 mm.; wing, 6-6.5 mm.

Rostrum yellow; palpi more darkened, especially the outer segments. Antennæ brownish black; flagellar segments oval, more elongate-oval in male. Head yellow; vertex relatively narrow.

Anterior lateral pretergites yellowish white. Mesonotal praescutum pale reddish or reddish brown, in cases with vague indications of darker stripes; scutal lobes dark brown or brownish black, the median region paler, more silvery; scutellum pale; postnotal mediotergite chiefly blackened, the lateral and cephalic portions narrowly pale. Pleura pale yellow, with a more or less entire, black, dorso-longitudinal stripe, beginning on the propleura, extending to the postnotal mediotergite, best defined as two large areas on the anepisternum and pleurotergite, more nearly interrupted on the dorsal pteropleurite. Halteres pale. Legs with the coxæ and trochanters yellow; femora yellow, the tips more or less infuscated; remainder of legs yellow, the outer tarsal segments passing into brown. Wings whitish, with a relatively narrow brown seam along the cord, narrowed behind, subobsolete on *m-cu*; a scarcely indicated dark seam on outer end of cell *1st M*<sub>2</sub>; vague darkening across the basal cells; veins brown, darker in the infuscated areas. Venation: *Sc*<sub>1</sub> ending opposite or just beyond *R*<sub>2</sub>, *Sc*<sub>2</sub> pale, beyond midlength of *Rs*; *R*<sub>2</sub> about one-half *R*<sub>3+4</sub>; cell *1st M*<sub>2</sub> strongly widened outwardly; a weak angulation or spur on *m* near its union with *M*<sub>3</sub>; cell *2nd A* relatively wide.

Abdominal tergites dark brown, the basal segments yellow medially; sternites more uniformly pale yellow. Male hypopygium with the tergal spines appearing as blackened, gently curved rods that narrow

gradually to acute points, before their apices fringed with delicate setulæ.

HABITAT: Colombia. *Holotype*, ♂, Vista Nieve, Mt. Santa Marta, altitude about 5,000 feet, August 8, 1926 (F. W. Walker). *Allotopotype*, ♀, August 8, 1926, at light, 4 A. M.; *Paratopotypes*, 5 ♂ ♀, August 6–8, 1926.

The most nearly allied species seems to be *N. pervicax* (Alexander) of Peru, which differs in the venation and structure of the male hypopygium, especially the tergal spines.

### Gnophomyia Osten Sacken.

#### Gnophomyia acricula sp. n.

General coloration of mesonotum black; thoracic pleura striped longitudinally with dark and pale; halteres with darkened knobs; legs obscure yellow; wings with a weak brown tinge; *r-m* connecting with *Rs* shortly before the fork; male hypopygium with the outer dististyle a simple, gently curved rod that gradually narrows to a subacute blackened apex.

*Male*.—Length, about 7 mm.; wing, 6 mm.

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

Rostrum and palpi black, paler in the female. Antennæ black throughout; flagellar segments long-oval, with verticils that are subequal to or a little longer than the segments. Head brown; eyes of female apparently larger than in male, approximated or contiguous on the vertex, in the male separated by a strip of moderate width.

Pronotum brownish black. Anterior lateral pretergites restrictedly pale yellow. Mesonotal praescutum black or brownish black, sparsely pruinose; humeral and lateral regions restrictedly brightened; posterior sclerites of mesonotum blackened. Pleura variegated, the dorsal pleurites with a black longitudinal stripe, most intense on the anepisternum; beneath this stripe on the dorsal sternopleurite a more yellowish area; ventral sternopleurite brown, more or less pruinose. Halteres dark brown or brownish black, the extreme base of stem brightened. Legs with the coxæ and trochanters yellow, the large posterior coxæ, together with the meral region, more conspicuously so; trochanters yellow; remainder of legs obscure yellow, the outer tarsal segments darkened. Wings with a weak brownish suffusion, the stigma scarcely indicated; veins dark brown. Venation: *Sc*<sub>1</sub> ending just before the subevanescent *R*<sub>2</sub>, *Sc*<sub>2</sub> opposite *r-m*; *r-m* connecting with *Rs* a short distance before the fork of the latter; *m-cu* opposite *r-m* and a short distance beyond the fork of *M*.

Abdominal tergites blackened; sternites more yellowish; hypopygium dark. In the female, the incisures are slightly darkened. Male hypopygium with the basistyles short and stout. Outer dististyle a simple, gently curved rod, gradually narrowed to the subacute blackened

tip. Inner dististyle with the basal portion expanded, the apical extension obtuse, the whole style with several coarse setæ. What appears to be a tergal structure is a quadrate median plate, the apex decurved into two blunt blackened lobes that are separated by a small notch. Ovipositor with the valves blunt at tips, conspicuously hairy, the sternal valves very short.

HABITAT: Colombia. *Holotype*, ♂, Vista Nieve, Mt. Santa Marta, altitude about 5,000 feet, August 8, 1926, at light, 4 A. M. (F. W. Walker). *Allotopotype*, ♀, August 8, 1926.

*Gnophomyia acricula* is allied to *G. subhyalina* Alexander, differing especially in the body-coloration, details of venation, and structure of the male hypopygium.

#### ***Gnophomyia vilis* sp. n.**

General coloration pale reddish brown; pleura with a broken blackish longitudinal stripe; femora yellow, the tips weakly infuscated; wings tinged with grayish yellow, the veins yellowish brown; veins  $R_3$  and  $R_4$  long, extending nearly parallel for their entire length; male hypopygium with the outer dististyle a flattened blade, the apex obtuse; ovipositor with the tergal valves short and stout, truncated and setiferous at apex.

*Male*.—Length, about 6-7 mm.; wing, 5.5-6 mm.

*Female*.—Length, about 7-7.5 mm.; wing, 6-6.5 mm.

Rostrum pale brown; palpi darker brown. Antennæ brownish yellow, the outer flagellar segments somewhat darker; flagellar segments oval, becoming more slender outwardly, the verticils exceeding the segments. Head obscure yellow, in cases dark grayish brown.

Mesonotum reddish brown, the humeral region and anterior lateral pretergites more yellowish; median area of scutum more yellowish; scutellum more testaceous. Pleura reddish brown, with a conspicuous blackish dorsal stripe, most intense on the anepisternum, paler to subobsolete on the dorsal pteropleurite. Halteres brownish yellow, the knobs infuscated. Legs with the coxæ and trochanters yellow; femora and tibiæ yellow, the tips weakly infuscated; tarsi yellow, the outer segments passing into dark brown. Wings tinged with grayish yellow; veins light yellowish brown. Venation:  $Sc_1$  ending just before  $R_2$ ,  $Sc_2$  some distance from its tip;  $R_2$  a little shorter than  $R_{2+3}$ ; veins  $R_3$  and  $R_4$  long, running nearly parallel for their entire length; *m-cu* at from one-third to two-fifths the length of cell *1st M*<sub>2</sub>.

Abdominal tergites yellowish brown, darker laterally; sternites more uniformly yellow; hypopygium reddish yellow. Male hypopygium with the outer dististyle a flattened blade, gently arcuated, the apex broadly rounded. Inner dististyle short and stout, blackened, provided with small black setæ, the tip obtuse. Ovipositor with the valves unusually short and stout, the tergal valves truncated at tips, darkened, and bearing a few setæ.



HABITAT: Colombia. *Holotype*, ♂, Orihueca, November 13, 1925 (F. W. Walker). *Allotopotype*, ♀. *Paratopotypes*, 16 ♂ ♀.

*Gnophomyia vilis* is closest to *G. subhyalina* Alexander, differing in the coloration and venation of the wings and in the structure of the male hypopygium, especially the outer dististyle.

### Molophilus Curtis.

#### *Molophilus flexilistylus* sp. n.

Belongs to the *plagiatus* group; antennae short; mesonotal praescutum reddish brown, with three more yellowish stripes; knobs of halteres infuscated; male hypopygium with the basal dististyle a long slender rod, expanded at apex, the margin at this point with a series of appressed spines, together with a single larger spine borne on the opposite margin.

*Male*.—Length, about 3.3-3.5 mm.; wing, 4-4.2 mm.

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

Rostrum and palpi dark brown. Antennæ short in both sexes, if bent backward not attaining the wing-root, dark brown throughout. Head dark gray.

Mesonotal praescutum with the ground-color reddish brown with three more yellowish stripes; humeral region and anterior lateral pretergites obscure yellow; scutum and scutellum reddish brown, the latter somewhat more testaceous; postnotum brown. Pleura testaceous, the dorsal sclerites more infuscated. Halteres dusky, the knobs infuscated, the color in large part due to abundant dark setæ. Legs with the coxæ and trochanters testaceous; femora and tibiæ brownish yellow; tarsi a little darker. Wings with a brownish tinge, the prearcular and costal regions a little more yellowish; veins pale brown, the macrotrichia dark brown. Venation: Petiole of cell *M*<sub>3</sub> about one-half longer than *m-cu*; vein 2nd *A* relatively short, ending opposite or just before the caudal end of the oblique *m-cu*.

Abdomen brown, including the hypopygium, the lateral region somewhat darker brown. Male hypopygium with the apical beak of the basistyle slender, gently curved. Basal dististyle a long, slender rod, dilated at apex and here with a lateral series of acute appressed spines, these decreasing in size outwardly; on opposite face, at base of expanded portion of style, with a longer appressed spine. Ovipositor with the valves long and slender, the tergal valves only gently curved.

HABITAT: Colombia. *Holotype*, ♂, La Cumbre, Mt. Santa Marta, altitude 8,000 feet, in deep cloud forest, August 8, 1926 (F. W. Walker). *Allotopotype*, ♀. *Paratopotypes*, 3 ♂ ♂, altitude 7,200-8,000 feet.



The diagnostic features listed above, especially the structure of the male hypopygium, are distinctive of the species. One paratype has the knobs of the halteres much paler, due to depilation.

***Molophilus subtenebricosus* sp. n.**

Belongs to the *plagiatus* group; allied to *M. tenebricosus* Alexander (Colombia: Andes Occidental), differing especially in the structure of the male hypopygium.

*Male*.—Length, about 4.3 mm.; wing, 5.2 mm.

Antennæ elongate, strongly nodulose. General coloration of mesonotal praescutum blackish gray, with three reddish brown stripes; humeral and anterior lateral pretergites whitish; posterior sclerites of mesonotum, together with the pleura, blackish brown. Halteres pale. Male hypopygium with the apical beak of the basistyle slender, as in *tenebricosus*, but strongly curved. Basal dististyle a long slender rod, the base constricted, beyond this point flattened, with more than the apical third a slender, entirely smooth, black spine; outer aspect of dilated portion of style with abundant appressed setulæ.

HABITAT: Colombia. *Holotype*, ♂, Vista Nieve, Mt. Santa Marta, altitude about 5,000 feet, August 7, 1926 (F. W. Walker).

***Molophilus walkeri* sp. n.**

Belongs to the *plagiatus* group; general coloration brownish gray; halteres yellow; wings obscure whitish, with two vague darker crossbands, one at the cord, the other in the basal cells; male hypopygium with the basal dististyle a powerful blackened rod, the distal two-thirds roughened with spinulæ and spinous setae, the tip suddenly narrowed into a blackened spine, at near one-third the length on outer margin with a powerful erect spine.

*Male*.—Length, about 3.6-3.8 mm.; wing, 4.5-4.7 mm.

Rostrum and palpi black. Antennæ of moderate length, if bent backward extending about to the wing-root, black throughout; flagellar segments oval, gradually decreasing in size outwardly; verticils of basal segments long and conspicuous, becoming shorter and less conspicuous on the outer segments, on the penultimate being scarcely as long as the segment. Head black, sparsely pruinose.

Mesonotum dark brownish gray. Anterior lateral pretergites restrictedly pale yellow. Pleura black, sparsely pruinose. Halteres yellow. Legs with the coxæ black; trochanters brown; remainder of legs black, the femoral bases restrictedly pale. Wings obscure whitish, with two vague darker crossbands, one at the cord, the second more diffuse, crossing the basal cells; veins pale, somewhat darker in the infuscated areas; trichia of veins pale brown, darker and forming

conspicuous patches on those veins traversing the infuscated areas, especially along the cord. Venation: *m-cu* oblique, subequal in length to the petiole of cell  $M_3$ ; vein *2nd A* ending shortly beyond the caudal end of *m-cu*.

Abdomen brownish black, including the hypopygium. Male hypopygium with the apical beak of the basistyle decurved to an acute point. Outer dististyle relatively slender, bifid at apex. Basal dististyle a powerful blackened rod, the apex narrowed into a blackened spine, the distal two-thirds of the style with abundant appressed spinulæ on all faces, those of the ventral or inner face more slender and spinous; on outer margin of style at near one-third the length with a powerful erect spine.

HABITAT: Colombia. *Holotype*, ♂, Vista Nieve, Mt. Santa Marta, altitude 5,000 feet, August 8, 1926, at light, 4 A. M. (F. W. Walker).

*Molophilus walkeri* is respectfully dedicated to the collector of this abundant series of Tipulidæ from Santa Marta, Mr. Fred W. Walker. The structure of the male hypopygium is distinctive.

#### *Molophilus marthæ* sp. n.

Belongs to the *plagiatus* group; general coloration of mesonotal praescutum reddish brown, the postnotum and pleura blackened; antennae relatively long, extending to beyond the wing-root; knobs of halteres infuscated; legs dark brown; wings tinged with brown, the long abundant macrotrichia dark brown; male hypopygium with the basal dististyle a powerful rod, the distal half fringed with setae and appressed spines; basal half of style on outer face with two powerful erect spines.

*Male*.—Length, about 3.5 mm.; wing, 4.4 mm.

Rostrum and palpi black. Antennæ black, relatively long, if bent backward extending to beyond the wing-root; flagellar segments oval, with long, unilaterally arranged verticils and additional long delicate setulæ. Head dark brown.

Mesonotal praescutum reddish brown, the anterior lateral pretergites whitish; scutal lobes and scutellum darker, the postnotum blackened. Pleura blackened. Halteres yellow, the knobs infuscated. Legs with the coxæ and trochanters yellow to testaceous yellow; remainder of legs dark brown. Wings with a faint brown tinge, more evident as a seam along vein *Cu*; veins pale brown, the long abundant macrotrichia dark brown; costal fringe long and dense. Venation: *m-cu* about two-thirds the length of the petiole of cell  $M_3$ ; vein *2nd A* long, gently sinuous, ending beyond midlength of the petiole of cell  $M_3$ .

Abdomen brownish black, the hypopygium more yellowish. Male hypopygium with the apical beak of basistyle slender and straight; margin of basistyle cephalad of beak extensively blackened and

microscopically roughened. Outer dististyle relatively stout, bifid, the inner arm more elongate. Basal dististyle a powerful rod, the distal half or slightly less narrowed to a gently curved spine, the concave face provided with a dense fringe of setæ in addition to a series of appressed spines; basal half of style more enlarged, with two powerful erect spines. Phallosomic structure small, oval, glabrous.

HABITAT: Colombia. *Holotype*, ♂, Vista Nieve, Mt. Santa Marta, altitude about 5,000 feet, August 6, 1926 (F. W. Walker).

*Molophilus marthæ* is very distinct from all described species of the genus in the structure of the male hypopygium.

#### ***Molophilus bidigitatus* sp. n.**

Belongs to the *plagiatus* group; general coloration reddish brown, the head, pronotum and humeral regions of praescutum light yellow; thoracic pleura dark brown; halteres yellow; wings grayish yellow, the costal region clearer yellow; male hypopygium with the basal dististyle bifurcate at apex; phallosomic structure a pale setiferous cushion, its caudal end bifid.

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

Rostrum and palpi brown. Antennæ with the scape yellow, the flagellum broken. Head pale yellow, more infuscated behind.

Pronotum and anterior lateral pretergites light sulphur-yellow. Mesonotum reddish brown, the humeral region of praescutum light sulphur-yellow; posterior sclerites of mesonotum somewhat darker brown. Pleura dark brown, the dorso-pleural region chiefly darkened, the posterior portion yellow. Halteres yellow, with golden setæ. Legs with the fore coxæ infuscated, the remaining coxæ and all trochanters yellow; remainder of legs broken. Wings grayish yellow, the base and costal region clearer yellow; veins pale, the macrotrichia brown. Venation: *m-cu* about two-thirds the petiole of cell  $M_3$ ; vein *2nd A* relatively elongate, extending to about opposite one-third the length of the petiole of cell  $M_3$ .

Abdomen yellowish brown, darker laterally; hypopygium yellow. Male hypopygium with the apical beak of basistyle slender, gently curved. Outer dististyle bifid, the inner arm more slender. Basal dististyle having much the same shape as the apex of the outer dististyle, being conspicuously bifurcate, both arms appearing as slender blackened spines, the outer arm more curved and a little stouter than the inner spine; stem short. Phallosomic structure a pale cushion that is covered with long conspicuous setæ, the apex deeply notched medially. Aedeagus relatively short, subequal in length to the outer dististyle.

HABITAT: Brazil. *Holotype*, ♂, Jaragua, Santa Catharina, August 21, 1929 (F. Schade).

*Molophilus bidigitatus* is very distinct from all described Neotropical species in the structure of the basal dististyle of the male hypopygium.