

**Undescribed or little-known Tropical American Tipulidae  
(Diptera) Part III**

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(With 15 text-figures)

At this time I am describing a small number of species belonging to the genus *Tipula* from various parts of Brazil, Chile, Colombia, Ecuador, and Peru, collected by several friends and colleagues, Juan Foerster, Guillermo Kuschel, Luis E. Peña, Jose M. Schunke, Lauro Travassos, and Felix Woytkowski, to all of whom I am greatly indebted for many kind favors in the past years.

***Tipula (Microtipula) biprolata* sp. n.**

General coloration of mesonotum obscure orange, pleura yellow; basal antennal segments yellow; wings faintly tinged with brown, costal region and stigma medium brown; abdomen yellow with a conspicuous black subterminal ring; male hypopygium with tergite deeply emarginate, with two bifid rods at base of notch; inner dististyle with beak long and slender, lower beak scarcely developed.

**Male.** — Length, about 12.5 mm; wing 11 mm; antenna, about 5.5 mm. Frontal prolongation of head, including nasus, brownish yellow; palpi yellow, terminal segment slightly darker. Antenna about one-half the wing; proximal three segments yellow, the succeeding ones bicolored, basal enlargement black, the outer end of segment light brown, terminal segments more uniformly darkened, verticils about one-half the segments. Head light brown.

Pronotum brownish yellow. Mesonotal praescutum and scutum obscure orange, virtually unpatterned, scutellum and postnotum yellow. Pleura yellow. Halteres medium brown. Legs with coxae and trochanters yellow; remainder of legs obscure yellow, outer tarsal segments blackened; claws of male toothed. Wings faintly tinged with brown, cells *C* and *Sc*, with the stigma, medium brown; distal ends of outer radial cells very weakly darkened; veins brown, paler in costal field. Venation: Petiole of cell  $M_1$  about one-half longer than *m*; *m-cu* close to fork of  $M_{3-4}$ .

Abdomen yellow, the tergites narrowly dark brown laterally, segments six and seven black to form a conspicuous ring; hypopygium yellow, the basal half of eighth sternite pale brown.

Male hypopygium (fig. 1) with the tergite, *t*, very deeply and narrowly emarginate to produce elongate lobes, their tips obtuse, with a group of stiff black setae; at base of emargination with two rods, each terminating in a blackened spine and a subterminal black lobe, before which are about four strong black setae. Proctiger moderately sclerotized, depressed-flattened, apex emarginate, at base with a gently curved rod. Ninth sternite, *9s*, with appendages appearing as two slender horns, the acute tips directed inwards, surface with abundant microscopic setulae. Basistyle, *b*, with a conspicuous blackened lobe, narrowed at base, expanded and more flattened outwardly. Outer dististyle, *d*, a subcylindrical lobe, the apex with several setae; inner style broad-based, narrowed into a long slender blackened beak; lower beak reduced to two low blackened knobs on lower margin of beak. Eighth sternite, *8s*, sheathing, narrowed outwardly to the flattened obtuse apex.

Holotype, ♂, Boracéia, São Paulo, Brazil, October 7, 1948 (Lauro Travassos).

The fly is readily distinguished from other approximately similar species by the hypopygial structure, particularly the tergite and inner dististyle.

### **Tipula (Microtipula) bitribula** sp. n.

Allied to *scelestia*; general coloration of mesonotum yellow, the praescutum with three vaguely differentiated ferruginous stripes, the median area with a blackened spot on either side at anterior end; antennae of male elongate, proximal flagellar segments vaguely bicolored; wings tinged with brown, prearcular and costal fields more yellowed; abdomen reddish yellow with a subterminal blackened ring; male hypopygium with lateral tergal lobes narrow, their tips nearly acute; apices of rods of proctiger obtuse; posterior border of eighth sternite with two short fingerlike lobes, the tips obtuse.

Male. — Length, about 16 mm; wing 14 mm; antenna, about 8.5 mm. Frontal prolongation of head testaceous yellow. Antennae of male very long, approximately two-thirds the wing; scape, pedicel and first flagellar segment yellow, the succeeding segments vaguely bicolored, brown, the conspicuous basal enlargements brownish black, outer segments uniformly blackened; segments about twice their longest verticils. Head brownish yellow.

Pronotum obscure yellow, scutum medially restrictedly more darkened. Mesonotal praescutum subnitidous, yellow, with three vaguely differentiated ferruginous stripes, median area with an elongate black spot on either side of anterior end; posterior scler-

rites of notum yellowed, centers of scutal lobes more ferruginous. Pleura yellowed. Halteres moderately long, stem yellowed, knob brown, the extreme apex paler. Legs with coxae and trochanters yellowed; femora obscure yellow, tibiae darker, tarsi blackened; claws toothed. Wings tinged with brown, prearcular and costal fields more yellowed; stigma medium brown; oblitative areas very reduced; veins brown. Outer radial branches with the exception of  $R_{1-2}$  with macrotrichia, the remaining veins behind  $R$  glabrous. Venation:  $R_s$  slightly shorter than  $m-cu$ ; petiole of cell  $M_1$  a little longer than  $m$ ; cell  $2nd A$  moderately wide.

Abdomen reddish yellow, segments seven and eight blackened to form a ring, hypopygium yellow. Male hypopygium (fig. 2) with posterior border of tergite,  $t$ , conspicuously trifid, the median lobe long-oval, its tip narrowly obtuse; lateral lobes very narrow, the tips nearly acute. Proctiger,  $pr$ , including two sets of pendulous rods or blades, the narrow darkened pair glabrous, tips obtuse. Dististyle,  $d$ , apparently single, compact, the beak and lower beak short and stout, blackened, their apices truncated; region of outer basal lobe with a few strong setae. Phallosome,  $p$ , with the apophyses small, long-oval; aedeagus elongate, outer end slightly expanded. Eighth sternite,  $8s$ , relatively short, narrowed outwardly, posterior border with two short parallel finger-like lobes, the tips obtuse, separated by a U-shaped emargination.

Holotype, ♂, Avispas, Madre de Dios, Peru, 150 km west of Puerto Maldonado, September 10-30, 1963 (L. E. Peña).

The most similar species is *Tipula (Microtipula) scelestia* Alexander, of Bolivia, which differs especially in the hypopygial structure, as stated in the diagnosis.

### ***Tipula (Microtipula) cithariformis* sp. n.**

General coloration of thoracic dorsum dark brown, pleura yellow; antennae of male about one-half the wing, flagellum black; wings strongly infuscated, the costal border and stigma darker, cell  $2nd A$  narrow; male hypopygium with median lobe of tergite broad, longer than the laterals; appendage of ninth sternite lyriform from a very short base; apex of aedeagus divided into three filaments.

Male. — Length, about 13.5 mm; wing 11 mm; antenna, about 5.5 mm. Frontal prolongation of head dark brown, more yellowed beneath; palpi black. Antennae of male about one-half the wing; scape yellowish brown, pedicel darkened, above with conspicuous black setae; flagellum black, segments with small basal enlargements, the longest verticils shorter than the segments;

terminal segment small, oval. Head above yellowed anteriorly, darker behind; vertex narrow.

Mesonotum dark brown without definite pattern, pleura yellow. Halteres elongate, brown, knob dark brown, Legs with coxae and trochanters yellow; remainder of legs broken. Wings strongly infuscated, more darkened beyond the cord; prearcular and costal fields, with the stigma, still darker brown; veins dark brown. Outer radial veins with abundant macrotrichia, fewer on  $M_1$ , other veins beyond cord glabrous. Venation: Petiole of cell  $M_1$  longer than  $m$ ;  $m-cu$  on  $M_4$  shortly beyond the base; cell 2nd A narrow.

Abdomen elongate, tergites blackened, intermediate segments each with a small yellowed area at base; basal sternites extensively yellowed; subterminal segments uniformly blackened to form a ring; hypopygium yellow. Male hypopygium (fig. 3) with tergite,  $t$ , subquadrate, median region of posterior border produced into a broad depressed-flattened lobe, its margin shallowly concave, fringed with short stout black setae; lateral tergal lobes about one-half as long as the median projection, tips obtuse. Proctiger including a complex blackened cushion and two elongate blades that are densely provided with short yellow setae. Appendage of ninth sternite,  $9s$ , lyriform, the two arms from a very short base, light yellow, with very long yellow setae throughout their length. Blackened lobe near proximal end of mesal face of basistyle relatively small. Outer dististyle,  $d$ , relatively long and slender, a little shorter than the inner style, narrowed outwardly, provided with conspicuous black setae, the outer ones shortest; inner style blackened, short and compact, conspicuously divided, the larger arm including the beak and lower beak, the smaller arm representing the outer basal lobe, appearing as a strong curved hook. Phallosome,  $p$ , with gonapophyses narrow, less than one-half the aedeagus, the latter at apex divided into three yellow filaments that are less than one-half the remainder of organ, the lateral pair slightly expanded at tips, the shorter central element slender, its tip pointed; immediately before the filaments the enlarged part of the aedeagus with dense short yellow setulae.

Holotype, ♂, Libertad, 6 km southeast of Tena, Napo-Pastaza, May 10-12, 1963 (L. E. Peña).

The most similar species is *Tipula (Microtipula) lyriformis* Alexander, which differs especially in the hypopygial structure, including the tergite, appendage of the ninth sternite, inner dististyle, and phallosome.

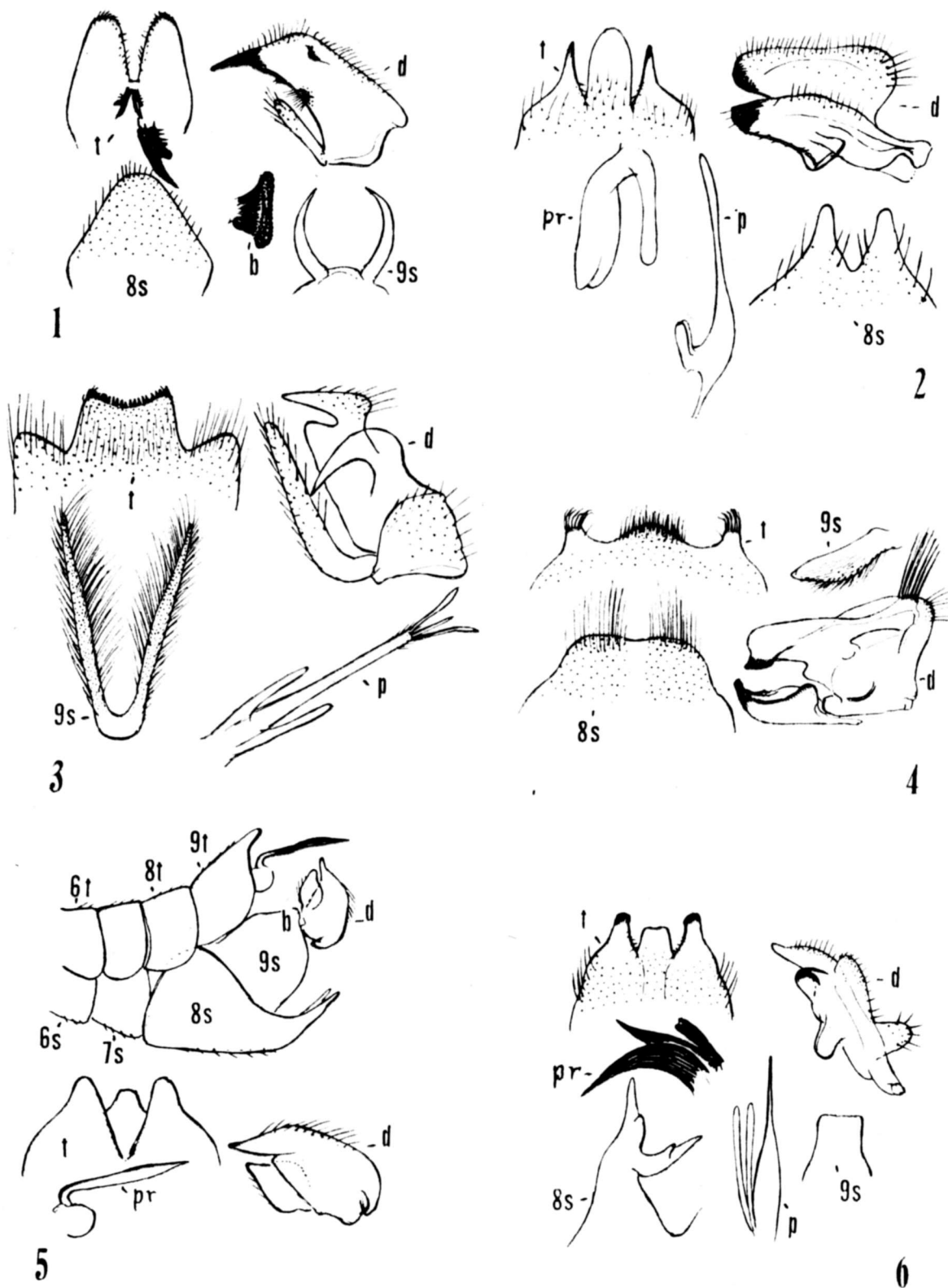


Fig. 1. *Tipula (Microtipula) biprolata*, sp. n.; male hypopygium. — Fig. 2. *Tipula (Microtipula) bitribula*, sp. n.; male hypopygium. — Fig. 3. *Tipula (Microtipula) cithariformis*, sp. n.; male hypopygium. — Fig. 4. *Tipula (Microtipula) diadexia*, sp. n.; male hypopygium. — Fig. 5. *Tipula (Microtipula) monocera*, sp. n.; male hypopygium. — Fig. 6. *Tipula (Microtipula) pontifex*, sp. n.; male hypopygium. — (Symbols: *b*, basistyle; *d*, dististyle; *p*, phallosome; *pr*, proctiger; *s*, sternite; *t*, tergite).

### ***Tipula (Microtipula) diadexia* sp. n.**

Allied to *didolos*; thorax almost uniformly cinnamon brown; antennae nearly one-half the wing; male hypopygium with posterior border of tergite trilobed, the lobes relatively short, tipped with strong black setae; outer dististyle slender; blades of ninth sternite only moderately acute.

Male. — Length, about 16 mm; wing 12.5 mm; antenna, about 6 mm. Frontal prolongation of head light brown, including

nasus; palpi with basal two segments dark brown, the remainder paler, apex of terminal segment light yellow. Antennae of male elongate; proximal three segments light yellow, succeeding two blackened at base, yellow outwardly, remaining segments with petioles more infuscated, the extreme tips yellowed; basal enlargements of segments small, verticils much shorter than the segments. Head with front narrowly yellow, vertex pale brown, without a tubercle.

Pronotum light brown medially, more brownish yellow on sides. Mesothorax almost uniformly cinnamon brown, without evident pattern. Halteres with stem obscure yellow, knob infuscated. Legs with coxae and trochanters yellow; femora and tibiae brownish yellow, tarsi brownish black; claws of male toothed. Wings tinged with brown, the prearcular field and cell *C* more infuscated, cell *Sc* yellowed; stigma large, brown; outer radial field and base of cell *R* slightly more infuscated than remainder of ground; obliterative areas before stigma and across cell *1st M*<sub>2</sub> restricted; veins brown, *Sc*, *Cu* and the Anals more yellowed. Venation: *Rs* arcuated, slightly longer than *m-cu*; cell *2nd A* moderately broad.

Abdominal tergites yellowish brown to light brown, sternites paler; segments seven and eight, together with posterior border of six, brownish black to form a broad ring; outer end of eighth sternite and the hypopygium yellowed. Male hypopygium (fig. 4) with posterior lobe of tergite, *t*, trilobed, all lobes relatively short, all tipped with strong black setae. Proctiger pale, broadly flattened. Basistyle without a blackened lobe on mesal face. Ninth sternite, *9s*, with two long-triangular yellowish brown blades, surface densely setiferous, tips only moderately acute. Dististyles, *d*, as figured; outer style much more slender than in *didolos*, the inner style with the lower beak pale.

Holotype, ♂, Divisoria, Cordillera Azul, Huanuco, Peru, 1,600 meters, August 18, 1947 (J. M. Schunke).

The most similar described species are *Tipula (Microtipula) didolos* Alexander, of northern Argentina, and *T. (M.) inaequilobata* Alexander, of Ecuador, which differ in the length and coloration of the antennae, and in details of structure of the hypopygium, particularly the tergite, blades of the ninth sternite and the dististyles. All of these species lack the blackened lobes on the mesal face of the basistyle such as is found in many species of the subgenus, including the superficially similar *T. (M.) lenta* Alexander and *T. (M.) paralenta* Alexander.

**Tipula (Microtipula) monocera** sp. n.

Allied to *smilodon*; mesonotal praescutum golden yellow with three black stripes, the lateral pair outcurved to the margin; antennae of male relatively short; femora black, bases broadly yellow, outer end with a vaguely indicated brightening; wings strongly darkened, costal border and stigma more intensely so; basal abdominal segments yellow, tergites with three interrupted brownish black stripes, outer four segments black; male hypopygium large, tergite tridentate, proctiger a long simple blackened rod; dististyles small, closely applied to one another; eighth sternite sheathing, terminating in two slender lobes.

**Male.** — Length, about 16 mm; wing 14.5 mm; antenna, about 4 mm.

**Female.** — Length, about 16-17 mm; wing 15-16 mm; antenna, about 3-3,2 mm.

Frontal prolongation of head relatively short, less than the remainder, yellow, narrowly gray above; nasus of male blackened, with long black setae; palpi brown. Antennae of male unusually short for a member of the subgenus; scape and pedicel brownish yellow, flagellum black; flagellar segments longer than their verticils, feebly incised; flagellar segments in female virtually simple. Head yellow, anterior vertex with a large triangular brownish black area.

Pronotum orange. Mesonotal praescutum golden yellow with three black stripes, the lateral pair outcurved to margin; posterior sclerites of notum yellow, scutal lobes with paler brown areas. Pleura obscure yellow, dorsopleural membrane orange. Halteres with stem brownish yellow, knob dark brown. Legs with coxae and trochanters yellow; femora black, broadly yellowed basally and with a vague to scarcely indicated nearly terminal brightening; tibiae and tarsi brownish black to black; claws of male hairy, toothed. Wings strongly darkened, stigma and cells *C* and *Sc* still darker, especially the latter, preacular field slightly more yellowed; veins brown. Longitudinal veins behind level of *R* glabrous. Venation: *Rs* variable in length, subequal to or shorter than *m-cu*, the latter at or beyond the origin of *M*<sub>4</sub>.

Abdominal tergites of male yellow, the intermediate segments with three interrupted brownish black stripes, sternites yellow, sixth to ninth segments in male black. In the female the abdominal tergites more extensively patterned with black, the sixth and seventh segments black to form a narrow ring, genital segment yellow. Ovipositor with cerci compressed-flattened, darkened, straight, hypovalvae almost as long, yellow, tips broadly obtuse. Male hypopygium (fig. 5) very large and conspicuous. Ninth

tergite, *t*, with posterior border tridentate, median lobe broader. Proctiger, *pr*, a long simple blackened rod from an oval base, the tip acute. Apex of basistyle very slightly produced. Dististyles, *d*, small, oval, both styles closely applied to apex almost as a unit; outer style subtriangular, narrowed to an obtuse point; inner style with beak slender, lower beak reduced. Eighth sternite, *8s*, long and sheathing, its apex terminating in two slender lobes that are directed caudad and slightly dorsal.

Holotype, ♂, Quincemil, Cuzco, Peru, 880 meters, September 1, 1962 (L. E. Peña). Allotopotype, ♀, October 30, 1962. Paratopotypes, 3 ♀ ♀, with the allotype.

*Tipula (Microtipula) monocera* is entirely distinct from other members of the *smilodon* group, differing in the body coloration, antennal structure, and especially the structure of the male hypopygium, particularly the proctiger and dististyles.

### ***Tipula (Microtipula) pontifex* sp. n.**

Allied to *diacanthos*; general coloration of thorax yellow, the praescutum with three ferruginous stripes; antennae of male elongate, flagellar segments black, the bases dilated; abdomen polished fulvous with a vague darkened subterminal ring on seventh segment; male hypopygium with posterior border of tergite trifid, the decurved lateral lobes blackened; proctiger including two long acute black spines; eighth sternite on either side of posterior border bilobed, each lobe with a small subterminal tubercle.

Male. — Length, about 14.5-15 mm; wing 15-15.5 mm; antenna, about 10-10.5 mm. Frontal prolongation of head orange yellow, nasus short and stout; palpi yellow, extreme tip of terminal segment darkened. Antennae of male elongate, about two-thirds the body or wing; scape orange, pedicel pale yellow, first flagellar segment yellow basally, outer half slightly darkened; remainder of flagellum black, the incisures of the more proximal segments very narrowly paler; basal endangements of segments small but conspicuous, oval, the segments with abundant short erect white setae, longest verticils less than one-half the segments. Head yellow.

Cervical region orange; pronotum yellow, center of scutum weakly more darkened. Mesonotum testaceous yellow, praescutum with three more ferruginous polished stripes that are poorly indicated against the ground. Pleura yellow, vaguely patterned with orange, including the ventral anepisternum and sternopleurite, dorsopleural region light yellow. Halteres with stem yellow, knob brownish black. Legs with coxae and trochanters yellow; femora



brownish yellow, darker outwardly; tibiae brown, tarsi darker brown; claws of male toothed. Wings strongly yellowed, prearcular and costal fields more saturated yellow, stigma almost concolorous, pale brown; veins brown. Outer radial veins with macrotrichia, including proximal half of  $R_3$  and outer half of  $R_{4-5}$ , the remaining veins behind  $R$  glabrous. Venation:  $R_{1-2}$  and  $R_3$  divergent, cell  $R_2$  at margin subequal to or slightly more extensive than cell  $R_3$ ; petiole of cell  $M_1$ , subequal to or about one-half longer than  $m$ ;  $m-cu$  at fork of the short  $M_{3-4}$ ; cell  $2nd A$  moderately broad.

Abdomen almost uniformly polished fulvous, segment seven vaguely more darkened to form a poorly indicated ring, the large hypopygium fulvous. Male hypopygium (fig. 6) with the tergite,  $t$ , elongate, posterior border trifid, median lobe broader, pale, the longer laterals decurved, their tips blackened. Proctiger,  $pr$ , with three elongate blackened rods, two of which are acutely pointed. Appendage of ninth sternite,  $9s$ , small, pale, narrowed outwardly, apex truncated. Basistyle without a modified blackened lobe. Dististyle,  $d$ , small, apparently single, complex in outline, about as figured. Phallosome,  $p$ , with aedeagus extended into a capillary point; gonapophyses unusually long, bladelike; penis very long, coiled. Eighth sternite,  $8s$ , very large, sheathing, narrowed outwardly, terminating in two outer lobes, each again divided into two subequal cylindrical lobules, their tips pointed, each with a small subapical tubercle (lobe of one side shown).

Holotype, ♂, Quincemil, Cuzco, Peru, 880 meters, October 23, 1962 (L. E. Peña). Paratotype, 1 ♂.

The most similar regional species is *Tipula (Microtipula) diacanthos* Alexander, 1921, which has all details of the hypopygium distinct. It now appears that *T. (M.) effera* Alexander, 1929, is a synonym of *diacanthos*.

### ***Tipula (Eumicrotipula) amblythrix* sp. n.**

Belongs to the *glaphyoptera* group, allied to *coronaria*; general coloration of body yellow, praescutal stripes poorly differentiated; wings light yellow, very faintly patterned with darker, stigma saturated yellow; male hypopygium with posterior border of tergite very gently convex, the median area with three microscopic emarginations; dorsal crest of inner dististyle with about 16 modified setae, their tips obtuse.

Male. — Length, about 16 mm; wing 16.5 mm; antenna, about 6 mm. Frontal prolongation of head yellow, including the long slender nasus which is tipped with long yellow setae; proximal three segments of palpi obscure yellow, terminal segment

brown. Antennae with proximal three segments yellow, the succeeding two or three with bases obscure yellow, the stems darker, outer segments more uniformly dark brown; flagellar segments longer than their verticils, the basal enlargements relatively small. Head whitish yellow; vertical tubercle entire.

Pronotum yellow, sides pale brown. Mesonotal praescutum with ground yellowed, with four poorly differentiated yellowish brown stripes, the posterior ends of the intermediate pair confluent and more orange; posterior sclerites of notum yellow, each scutal lobe with two yellowish brown areas; scutellum and mediotergite with a vague capillary pale brown line. Pleura yellow, with a relatively broad and conspicuous pale brown stripe extending from the cervical region to beneath the wing root on the dorsal pteropleurite. Halteres with stem whitened, knob orange. Legs with coxae and trochanters whitish yellow; femora yellow, with a narrow vaguely indicated brown subterminal ring; tibiae and tarsi yellow, the outer segments of the latter dark brown; claws simple. Wings light yellow, very faintly patterned with darker, including four very restricted darkenings in costal region, chiefly in cell *Sc*; still fainter brown clouds at near two-thirds cell *M* and one third cell *Cu*, both adjoining vein *Cu*; stigma more saturated yellow; veins yellow, restrictedly brownish yellow in the patterned areas. Abundant macrotrichia on longitudinal veins beyond general level of origin of *Rs*, including also much of both Anals. Venation:  $R_{1-2}$  entire; petiole of cell  $M_1$  about one-half longer than *m*; *m-cu* close to fork of  $M_{3-4}$ .

Abdomen light yellow, the lateral tergal borders narrowly darkened, the median area very indistinctly clouded; hypopygium yellowed. Male hypopygium (fig. 7) with tergite, *t*, transverse, with abundant yellow setae; posterior border very gently convex, lateral angles produced into obtuse knobs, median area with three microscopic emarginations that are separated by flattened blades. Appendage of ninth sternite, *9s*, relatively small, tipped with several long yellow setae, the longest exceeding the appendage. Outer dististyle, *d*, with outer half feebly dilated, tip truncate; inner style with apex of beak obtuse, pendant, yellow; modified enlarged setae of dorsal crest about 16 in number, their apices dilated into obtuse knobs. Gonapophysis, *g*, appearing as a sub-circular yellow plate, the margin produced into a small point. Appendage of eighth sternite, *8s*, a small spatulate blade, narrowed at base, the width slightly more than one-half the length, surface with abundant delicate small setae and fewer longer ones.

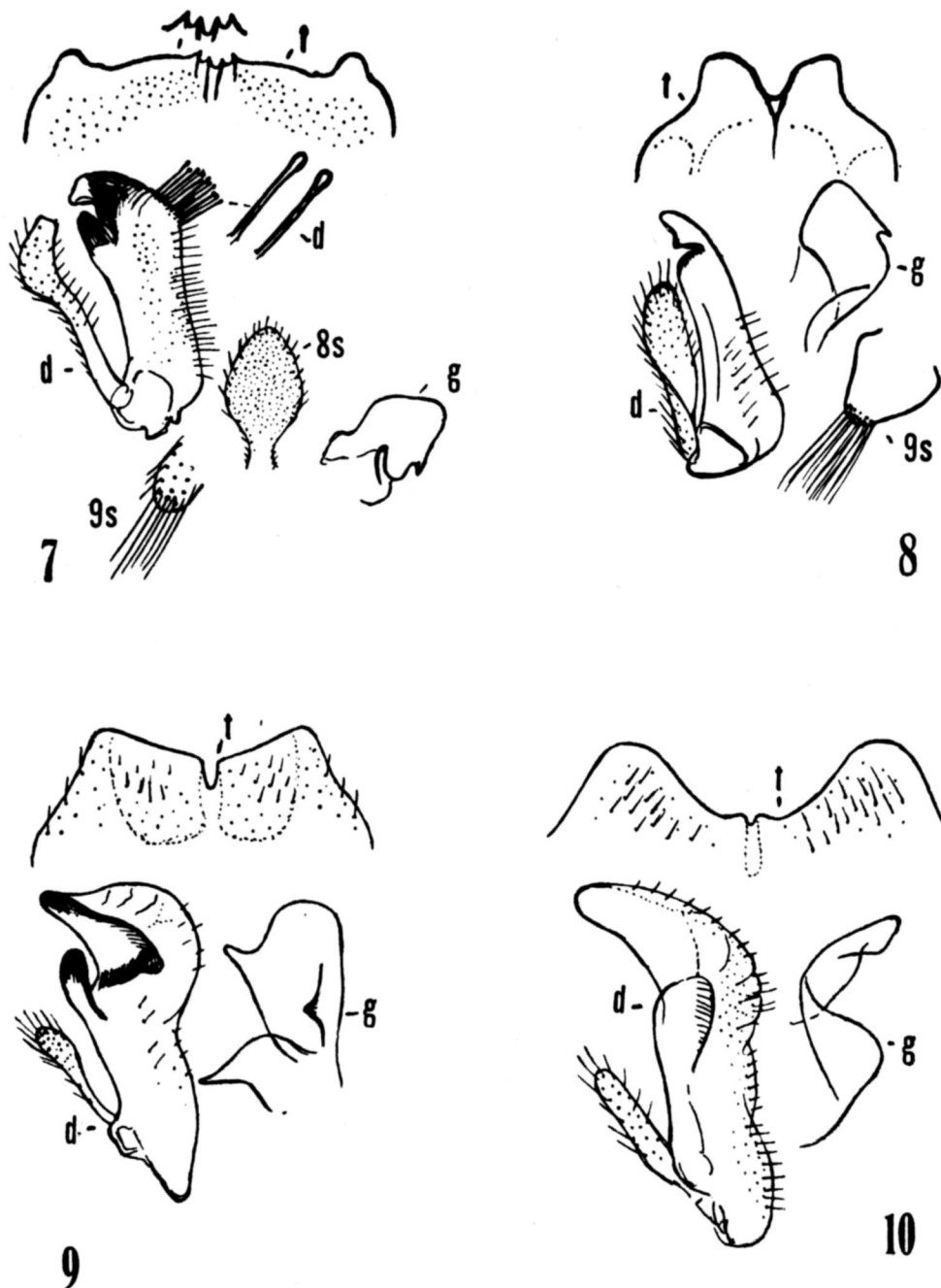


Fig. 7. *Tipula (Eumicrotipula) amblythrix*, sp. n.; male hypopygium. — Fig. 8. *Tipula (Eumicrotipula) charmosyne*, sp. n.; male hypopygium. — Fig. 9. *Tipula (Eumicrotipula) foersteriana*, sp. n.; male hypopygium. — Fig. 10. *Tipula (Eumicrotipula) procericornis* Ewvards; male hypopygium. — (Symbols: *d*, dististyle; *g*, gonapophysis; *s*, sternite; *t*, tergite).

Holotype, ♂, Sariapampa, Huanuco, Peru, 3,600-4,100 meters, May 11, 1946 (Felix Woytkowski).

*Tipula (Eumicrotipula) amblythrix* is told from other species that are allied to *T. (E.) coronaria* Alexander by the details of hypopygial structure, as the bulbous obtuse tips of the modified setae of the inner dististyle. The most nearly related species is *T. (E.) sariapampae*, sp. n.

### ***Tipula (Eumicrotipula) charmosyne*, sp. n.**

Belongs to the *glaphyoptera* group, allied to *subglabrata*; mesonotum gray with conspicuous brown markings; pleura with a dark brown longitudinal stripe; legs black, femora with a very narrow subterminal yellow ring; wings conspicuously marmorate with brown and white; male hypopygium with posterior border of ninth tergite with two broad lobes that are separated by a narrower U-shaped emargination; outer dististyle broad, inner style without a low flange on outer margin; gonapophysis with a small acute spine on margin.

Male. — Length, about 17 mm; wing 17.5 mm; antenna, about 3.4 mm. Frontal prolongation of head brown, light gray above; nasus long and slender; palpi black, base of second segment paler. Antennae of male relatively short, 12-segmented; scape and pedicel yellow, flagellum black, the segments with scarcely developed basal enlargements, subequal to the longest verticils. Head gray, paler anteriorly, sides of posterior vertex vaguely darkened.

Pronotum light yellow with a small brown sublateral spot. Mesonotal praescutum gray with three brown stripes, the median very irregular, interrupted by gray at anterior end and near center, humeral region and a broad marginal spot before suture darker brown; scutum gray, each lobe with two disconnected brown spots; scutellum brownish gray, parascutella brownish black; mediotergite dark brown with a large gray area on sides of anterior half, pleurotergite extensively silvery white. Pleura gray with a dark brown longitudinal stripe extending from cervical region to the pteropleurite, narrowed and more or less interrupted behind; dorsopleural membrane light yellow, narrowly bordered dorsally by dark brown. Halteres obscure yellow, knob clearer yellow. Legs with coxae gray, fore pair brown basally; femora black, bases vaguely brightened, more evident on posterior legs, with a narrow obscure yellow ring far before tip, remainder of legs black; claws simple. Wings conspicuously marmorate with brown on a whitened ground, the two colors subequal in extent, the brown areas on anterior half, with four in cells *Sc* and *R*, the last at cord, extended obliquely across outer end of cell *1st M*<sub>2</sub> to the fork of *M*<sub>1-2</sub>; two comparable brown areas in outer radial field; paler brown markings in outer end of cell *M* and especially in cells *Cu* and the *Anals*; expanded marginal darkenings at ends of all longitudinal veins; the chief whitened ground areas in cells *R* and *M*, across cell *1st M*<sub>2</sub> into cell *M*<sub>3</sub>, beyond the cord in outer radial field and outer half of cell *R*<sub>5</sub>; veins brown, more yellowed in the ground areas. Venation: *Rs* long subequal or slightly exceeding twice *m-cu*.

Basal abdominal tergites light brown, the lateral margins and posterior borders of segment two and those following blackened, outer segments more uniformly light brown; basal sternites brownish yellow, the outer segments more uniformly brownish gray. Male hypopygium (fig. 8) with posterior border of tergite, *t*, produced into two broad lobes that are separated by a narrower U-shaped emargination. Appendage of ninth sternite, *9s*, suboval,

terminating in very long yellow setae. Outer dististyle, *d*, unusually broad, its diameter nearly two-thirds that of the inner style, the latter with very sparse vestiture, as in *subglabrata*. Gonapophysis, *g*, on outer margin produced into a small acute spine. Eighth sternite with posterior border gently convex, medially more membranous, with long yellow setae.

Holotype, ♂, Sariapampa, Huanuco, Peru, 3,000-4,100 meters, May 2, 1946 (Felix Woytkowski).

*Tipula (Eumicrotipula) charmosyne* is most similar to *T. (E.) subglabrata* Alexander, likewise from Peru, the two species differing in the coloration of the thorax and wings and in the hypopygial structure, including especially both dististyles and the gonapophyses.

### ***Tipula (Eumicrotipula) foersteriana* sp. n.**

Belongs to the *glaphyoptera* group; size small (wing of male about 12 mm); general coloration of mesonotum light gray, praescutum with four narrow darker stripes; antennae (♂) very long, nearly equal to the wing, black, flagellar segments with dense erect black setae, basal enlargements small; femora yellow, tips brownish black, claws simple; wings pale brown, striped longitudinally with paler, including a nearly continuous stripe from near base of cell *R* to wing tip in cell *R*<sub>5</sub>, cell *M* of the ground color; abdomen gray, hypopygium fulvous; male hypopygium with tergal lobes broad; inner dististyle with dorsal crest high; gonapophysis a broad flattened blade, tip obtuse, lateral margin produced into a fingerlike lobe; eighth sternite without a distinct appendage.

**Male.** — Length, about 10-10.5 mm; wing 12-12.5 mm; antenna, about 11.5-11.6 mm. Frontal prolongation of head light gray above, darker on sides; nasus lacking; palpi black. Antennae of male very long, exceeding the body and nearly equal to the wing, black throughout, the scape slightly pruinose; flagellar segments very long-cylindrical, with small basal enlargements; segments with dense erect setae, the verticils only a little longer, about one-tenth the segment. Head gray; anterior vertex broad.

Pronotum gray. Mesonotal praescutum light gray with four narrow darker stripes, the intermediate pair behind narrowed to points, lateral praescutal borders similarly darkened; scutum gray, each lobe with two separated darker areas; scutellum and postnotum light gray, with a narrow brown band at posterior border of mediotergite and dorsal katapleurotergite. Pleura light gray, vaguely patterned with darker gray; dorsopleural membrane buffy brown. Halteres stem brown, knob brownish black. Legs with coxae light gray; trochanters dark brown; femora

yellow, tips abruptly brownish black, the amount subequal on all legs, including about the outer sixth of fore femur; tibiae brown, tips blackened; tarsi black, claws simple. Wings pale brown, striped longitudinally with paler, including a nearly continuous stripe from near base of cell *R*, across the cord to the outer end of cell *R*<sub>5</sub>; further brightenings include the outer half of cell *Cu* and base of 1st *A*, with small less evident pale areas elsewhere on membrane; veins light brown. Outer radial veins with sparse macrotrichia, lacking on outer branches of *M* and *Cu* as well as all veins basad of cord and behind *R*. Venation: Basal half of vein *R*<sub>1-2</sub> preserved; cell *M*<sub>1</sub> about one-fourth longer than its petiole; *m-cu* on *M*<sub>4</sub> beyond the fork.

Abdomen gray, hypopygium fulvous. Male hypopygium (fig. 9) with the large tergite yellow, transverse, posterior border very shallowly emarginate with a further deep and narrow median notch, the lobes thus formed broad, with very small and inconspicuous yellow setae. Outer dististyle, *d*, spatulate on outer half; inner style with both beak and lower beak obtuse, blackened; dorsal crest high, rounded, with small inconspicuous setae. Gonapophysis, *g*, appearing as a broad flattened blade, tip obtuse, lateral margin produced into a fingerlike lobe, with a second smaller blade at base of the outer apophysis. Eighth sternite without a distinct median appendage, the apical membrane with sparse scattered setae.

Holotype, ♂, Manizales, Colombia, 4,100 meters (13,325 feet), December 31, 1958 (collector Ruiz, through Juan Foerster). Paratopotype, ♂.

I am pleased to dedicate this species to Juan Foerster, of Argentina, to whom I am indebted for numerous Neotropical Tipulidae. The closest ally is *Tipula* (*Eumicrotipula*) *procericornis* Edwards, from high altitudes in the Ecuadorean Andes. This has the antennae very similar in length and vestiture but differs evidently in the wing pattern and in hypopygial structure, especially the ninth tergite, inner dististyle and gonapophysis. I have shown the hypopygium of *procericornis* (fig. 10), based on a paratype in my collection. The distribution of pale color in the wings differs in the two species, in *procericornis* the principal longitudinal stripe including cell *M* instead of cell *R* as in the present fly. *T. (E.) olssoniana* Alexander, from the high paramo in Merida, Venezuela (4,080 meters) likewise is allied but more distantly so.

**Tipula (Eumicrotipula) kuscheli** sp. n.

Belongs to the *glaphyoptera* group; stenopterous; general coloration gray; palpi, antennae and legs black; wings long and straplike, milky white; intermediate abdominal tergites polished black; male hypopygium with posterior border of tergite with a V-shaped notch, vestiture of lobes sparse and microscopic; eighth sternite very short, constricted at midwidth, without lobes or appendages.

**Male.** — Length, about 10-12 mm; wing 4.5-5 by 0.15-0.2 mm; antenna, about 5.6-5.8 mm. Frontal prolongation of head black, sparsely pruinose, very deep, in direct alignment with the anterior vertex and remainder of front, the emargination commonly present at its base lacking; nasus lacking; palpi black. Antennae relatively long, black throughout; scape short, slightly more than one-half the subcylindrical first flagellar segment, succeeding flagellar segments very strongly nodose, the outer swelling larger than the basal enlargement, covered with a short dense pubescence but without verticils except on the basal enlargements where they are short and stout, much less than the segments. Head gray, vertical tubercle scarcely developed; anterior vertex very broad, nearly twice the exposed diameter of the eye.

Pronotum dark gray. Mesonotal praescutum gray, with vague indications of a darker stripe; posterior sclerites of notum gray pruinose; V-shaped suture very shallow, the lateral arms only slightly evident. Pleura dark gray, the anterior dorsopleural membrane light yellow. Halteres normally developed, dark brown. Legs relatively long; coxae light gray, trochanters darker; remainder of legs black, sparsely pruinose, the surface appearing subglabrous, the vestiture being very short and appressed; tibial spurs long and slender, smooth; claws small, simple. Wings long but very narrow, as shown by the measurements, straplike to produce an extreme stenopterous condition; when bent backward extending about to three-fifths the length of abdomen and more than twice the length of the halteres; coloration milky white with pale veins, those behind *R* only vaguely apparent being best indicated by strong macrotrichia on *C*, *R* and along a vein in the outer fourth of wing, presumably the remnant of  $R_{4-5}$ .

Abdomen with intermediate tergites polished black, the first and outer segments, together with the sternites, gray pruinose. Male hypopygium (fig. 11) with the tergite, *t*, large, narrowed outwardly, posterior border with a V-shaped notch, lobes subtriangular, with sparse conspicuous setigerous punctures that bear microscopic setae. Basistyle, *b*, completely separated, compact.

Outer dististyle, *d*, a darkened club, with long delicate setae; inner style blackened, compact, lower beak very obtuse; region of dorsal crest with long yellow setae. Phallosome including the small aedeagus and large flattened complex dark colored. Gonapophyses, *g*, shaped about as figured, the lateral pair microscopically setuliferous or scabrous. Eighth sternite, *8s*, very short, with both the posterior and cephalic borders emarginate, the length across the constricted central part, only about one-fifth the breadth; transverse impressed lines conspicuous, elongate; posterior border extensively produced into pale membrane but without a median appendage; margins of lateral lobes with about four or five small setae, the midline with about eight microscopic bristles.

Holotype, ♂, P. Williams, Isla Navarino, Beagle Canal, Tierra del Fuego, Chile, 600 meters, January 7, 1959 (G. Kuschel). Paratopotypes, 3 ♂♂, January 4-7, 1959.

The species is dedicated to Guillermo Kuschel, distinguished specialist in the Curculionidae, to whom I am greatly indebted for cooperation in making known the crane-flies of Chile. This unusually interesting subapterous *Tipula* is entirely distinct from other species in the subgenus *Eumicrotipula* Alexander where the males have reduced wings. These include *Tipula (Eumicrotipula) phalangioides* Alexander, taken on Minza Ridge, Volcan Tungurahua, Ecuador, at 3,900-4,650 meters, by F. Martin Brown, and *T. (E.) schachovskoyi* Alexander, of Mount Chapelco, Neuquen, Argentina, 1,200 meters, collected by Serge S. Schachovskoy. Both of these species have the wings very reduced, shorter than the halteres. It should be noted that there are various other members of the subgenus where the wings are fully developed in the males but more or less reduced in the female sex, in Chile these including *T. (E.) apterogyne* Philippi and *T. (E.) dimorpha* Alexander.

### ***Tipula (Eumicrotipula) mecoglossa* sp. n.**

Belongs to the *monilifera* group; mesonotal praescutum almost uniformly obscure orange, the four stripes only vaguely indicated; antennae of male more than one-half the wing; femora obscure yellow, tips conspicuously blackened; wings marmorated brown and white, the latter color including a band beyond stigma, extended backward into base of cell *M*<sub>3</sub>; male hypopygium with posterior border of ninth tergite very narrowly emarginate; apex of ninth sternite densely clothed with short reddish setae; gonapophysis unequally bilobed, the outer blade a broad spatula, the shorter inner arm acute; appendage of eighth sternite very long and slender, about five times as long as the diameter across the base.

Male. — Length, about 15 mm; wing 14.2 mm; antenna, about 8 mm. Frontal prolongation of head with dorsal half yellowed, including the long nasus, the sides blackened, paling to brown beneath; palpi black, tips of the intermediate segments



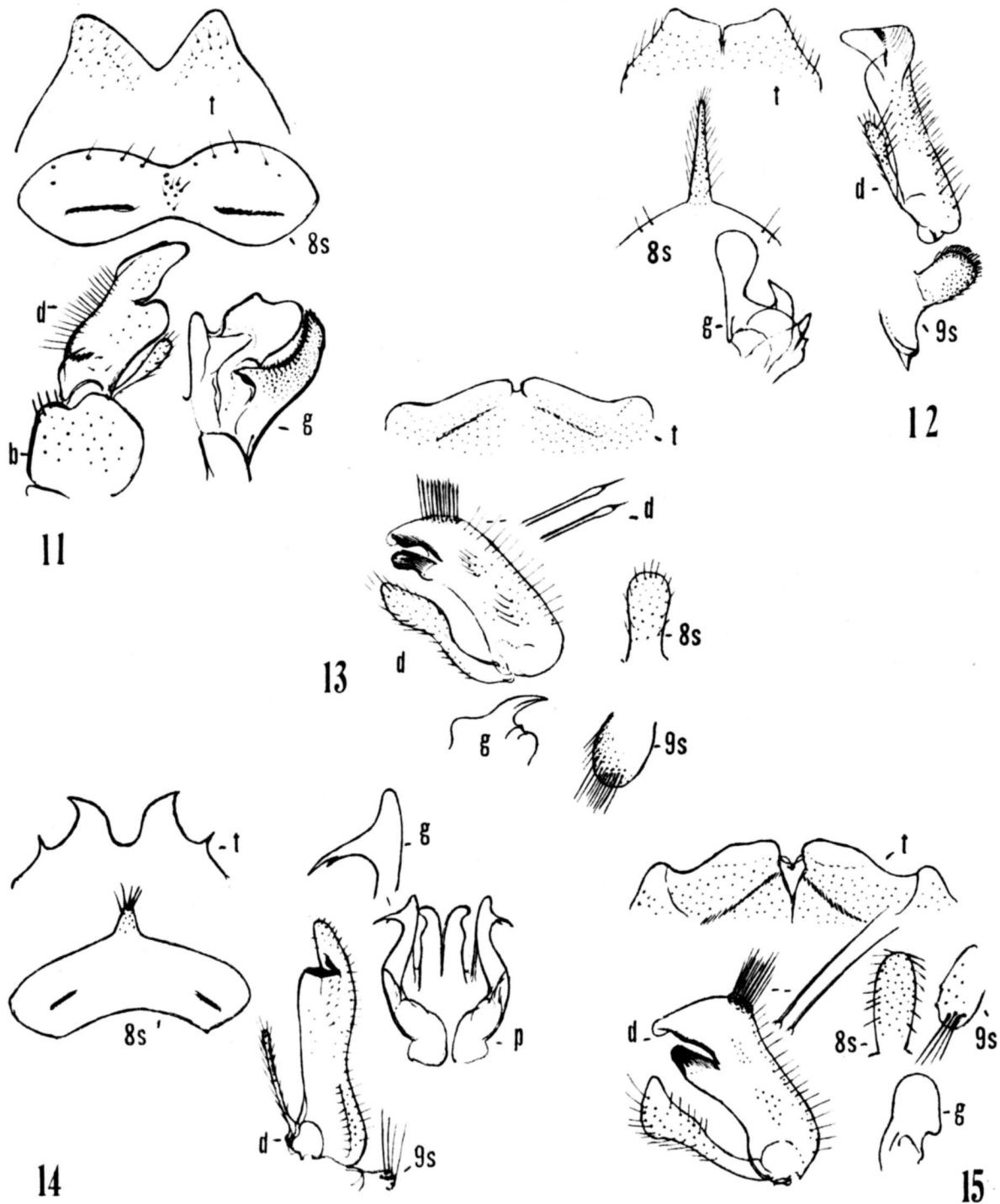


Fig. 11. *Tipula (Eumicrotipula) kuscheli*, sp. n.; male hypopygium. — Fig. 12. *Tipula (Eumicrotipula) mecoglossa*, sp. n.; male hypopygium. — Fig. 13. *Tipula (Eumicrotipula) odontomera*, sp. n.; male hypopygium. — Fig. 14. *Tipula (Eumicrotipula) redunca*, sp. n.; male hypopygium. — Fig. 15. *Tipula (Eumicrotipula) sariapampae*, sp. n.; male hypopygium. — (Symbols: b, basistyle; d, dististyle; g, gonapophysis; s, sternite; t, tergite).

narrowly pale. Antennae of male more than one-half the wing; proximal three segments yellow, succeeding flagellar segments brownish yellow with conspicuous hemispherical blackened enlargements, outermost segments uniformly black; whitened setae of segments moderately long, shorter than the black dorsal bristle, much shorter than the basal verticils. Head buffy gray.

Mesonotal praescutum almost uniformly obscure orange, the four usual stripes only slightly and vaguely indicated; darkened pattern of scutal lobes brown, poorly indicated on the brownish gray ground; scutellum brownish yellow, more darkened medially,

parascutella darker; mediotergite weakly infuscated on sides, central area more yellowed. Pleura and pleurotergite light yellow, including the dorsopleural membrane. Halteres with stem obscure yellow, clearer basally, knob dark brown. Legs with coxae and trochanters yellow; femora obscure yellow, tips conspicuously blackened; tibiae brown, passing into black; tarsi black, claws toothed. Wings with the ground brown with a clearly defined whitened pattern that is much more restricted than the ground, the chief darkened areas basad of cord including two major marks occupying both cells *R* and *M*, with further alternating white and brown areas in cell *Cu*; cell *1st A* with a zigzag brightening at near midlength; beyond cord with a broad band extending from costa into base of cell *M*<sub>3</sub>, with more than the basal half of cell *1st M*<sub>2</sub> whitened; restricted pale marks at end of cell *R*<sub>5</sub> and near base of *M*<sub>1</sub>; veins dark brown, brightened in the pale fields; cells *C* and *Sc* uniformly brown; veins brown. Venation: Petiole of cell *M*<sub>1</sub> and *m* subequal.

Abdominal tergites light brown, broadly darkened laterally, sternites more yellowed, hypopygium chiefly infuscated. Male hypopygium (fig. 12) with posterior border of tergite, *t*, very shallowly concave, with a small linear emargination, the lateral lobes thus formed subtruncate, the lateral angles only slightly produced; tergal vestiture short and pale. Ninth sternite, *9s*, with lobe suboval, the outer end with dense short reddish setae, the remainder with fewer long bristles. Outer dististyle, *d*, with outer half slightly expanded, some of the outer marginal setae very long; inner style relatively long and narrow; beak obtuse, lower beak very blunt, both blackened near their bases; setae of outer margin long and pale, scattered, not forming a comb. Gonapophysis, *g*, unequally bilobed, the outer blade a conspicuous flattened spatula, inner arm shorter, its apex acute. Eighth sternite, *8s*, with appendage very long and slender, gradually narrowed to the obtuse apex, the length about five times the diameter across the base, vestiture long and pale.

Holotype, ♂, Cundinamarca, Monterredondo, Colombia, 1,420 meters, December 7, 1958 (Juan Foerster).

*Tipula (Eumicrotipula) mecoglossa* is generally similar to *T. (E.) innubens* Alexander, of Peru, differing in the shorter antennae, different wing pattern, and in hypopygial characters, including especially the gonapophyses and eighth sternite.

**Tipula (Eumicrotipula) odontomera** sp. n.

Belongs to the *glaphyoptera* group, allied to *coronaria*; praescutal stripes orange, the intermediate pair separated by a capillary darker vitta; wings light yellow, restrictedly patterned with brown; male hypopygium with modified setae of dorsal crest of inner dististyle slightly dilated near apex, thence extended into hairlike points; gonapophysis a slender curved tooth.

**Male.** — Length, about 16.5 mm; wing 17.5 mm; antenna, about 4.4 mm.

**Female.** — Length, about 16.5-17 mm; wing 17.5-18 mm.

Frontal prolongation of head light yellow above, including the slender nasus, ventral half slightly darker; proximal two segments of palpi brownish yellow, remainder black, relatively short. Antennae of male with proximal four segments yellow, the pedicel paler; succeeding segments weakly bicolored, the small basal enlargement brownish black, stem paler, outer segments more uniformly darkened; verticils shorter than the segments. Head yellowed, with a faint grayish tinge, posterior orbits very narrowly yellow.

Pronotum yellow, vaguely patterned with darker. Mesonotal praescutum yellow with four orange stripes, the intermediate pair separated by a capillary darker vitta; scutum yellow, each lobe with two pale brown areas; scutellum and mediotergite yellowed, with a capillary pale brown line. Pleura and pleurotergite yellow, the former with a pale brown dorsal stripe extending from the cervical region to the dorsal anepisternum. Halteres long and slender, light yellow. Legs with coxae and trochanters pale yellow; femora yellow with a narrow pale brown subterminal ring; remainder of legs yellow, outer tarsal segments dark brown; claws simple. Wings pale yellow, weakly patterned with light brown, including small clouds at about one-third and tip of cell *Sc* and at origin of *Rs*; more extensive seams along vein *Cu* in outer end of cell *M*, base of cell *Cu*, and along vein *2nd A* in cell *1st A*; still further paler seams at cord and as streaks in outer end of cell *1st A*; whitened obliterative areas relatively conspicuous, especially across base of cell *1st M<sub>2</sub>* and into adjoining cells; stigma pale yellow; veins light brown, more yellowed in the prearcular and costal fields and behind vein *Cu*. In the females the darkened pattern is even paler and less conspicuous. Longitudinal veins with macrotrichia almost to arculus, more restricted on basal section of *Cu<sub>1</sub>*. Venation: *R<sub>1-2</sub>* entire; *Rs* about one-half longer than *m-cu*; petiole of cell *M<sub>1</sub>* subequal to *m*.

Abdomen yellow, lateral tergal borders pale brown, outer segments more uniformly darkened; hypopygium yellow. Male hypopygium (fig. 13) generally as in *amblythrix* and allies. Ninth tergite, *t*, with lateral angles low, median area with a U-shaped emargination but without spinous points, the setae yellow, long and delicate but very inconspicuous. Appendage of ninth sternite, *9s*, oval, with strong setae. Outer dististyle, *d*, with the outer half spatulate, with conspicuous setae, apex obtuse; inner style with the modified setae of dorsal crest slightly dilated before tip, extended beyond this into hairlike points. Gonapophysis, *g*, a slender curved tooth from an expanded base. Appendage of eighth sternite, *8s*, not strongly constricted near base, with abundant setulae and scattered pale setae.

Holotype, ♂, Piedras Grandes, Huanuco, Peru, 3,000 meters, November 11, 1937 (Felix Woytkowski). Allotopotype, ♀, November 17, 1937. Paratopotype, ♀, November 16, 1937.

*Tipula (Eumicrotipula) odontomera* is closely related to *T. (E.) amblythrix*, sp. n., and *T. (E.) sariapampae*, sp. n., differing in the shorter antennae and especially in the hypopygial structure, including the tergite, gonapophyses, and nature of the modified setae of the dorsal crest of the inner dististyle.

### ***Tipula (Eumicrotipula) omnilutea* sp. n.**

Size large (wing of female 21.5 mm); coloration of body chiefly yellow, praescutum with two faintly indicated orange intermediate stripes; halteres yellow, knob orange; legs orange yellow, femora unpatterned; wings clear light yellow, the outer fourth with a very pale brown suffusion, no darkening at origin of *Rs*; abdominal tergites uniformly yellow.

**F e m a l e.** — Length, about 22 mm; wing 21.5 mm; antenna, about 3.5 mm. Frontal prolongation of head subequal in length to the remainder, orange yellow, including the long nasus; first palpal segment light brown, the remainder darker, terminal segment relatively short. Antennae with proximal three segments yellow, the remainder bicolored, bases narrowly brown, the longer outer part yellow, terminal segment long-oval, dark brown; first flagellar segment longer than the scape. Head dull yellow; vertical tubercle broad and low.

Pronotum yellow, with a narrow inconspicuous brown central line. Mesonotal praescutum with the ground yellow, with two faintly differentiated intermediate orange stripes, the lateral stripes slightly darker, interspaces between the stripes vaguely darkened; scutal lobes orange, their anterior ends slightly darker; scutellum

and mediotergite yellowed, with a scarcely indicated darkened central vitta. Pleura and pleurotergite yellow; dorsopleural membrane orange yellow. Halteres with stem pale yellow; knob orange. Legs with coxae and trochanters yellow; remainder of legs orange yellow, femora without pattern; outer three tarsal segments darker. Wings clear light yellow with about the outer fourth, beyond the cord, faintly suffused with very pale brown; comparable vague clouds at near one-third the length of cell *Cu* and in outer ends of both Anal cells; no indication of a darkening at origin of *Rs*; three tiny whitened obliterative spots, one prestigmal, the others on either side of cord in cells *R* and *1st M*<sub>2</sub>; veins yellow, extensively whitened along cord, including outer end of *Rs* and most of basal section of *M*<sub>3</sub>. Macrotrichia on veins *R*<sub>2-3</sub>, *R*<sub>3</sub>, *R*<sub>4-5</sub>, *M*<sub>1</sub>, *M*<sub>2</sub>, *M*<sub>3</sub>, *M*<sub>4</sub>, distal section of *Cu*<sub>1</sub>, and tips of *1st A* and basal section of *Cu*<sub>1</sub>, lacking on *Rs*, *M* and *2nd A*. Venation: *R*<sub>1-2</sub> entire, whitened; *Rs* about one-fourth longer than *m-cu*; *m* and petiole of cell *M*<sub>1</sub> subequal; *m-cu* on *M*<sub>4</sub> beyond the perpendicular base.

Abdominal tergites uniformly yellow, sternites similarly yellowed, the intermediate segments narrowly blackened, especially laterally. Ovipositor with cerci elongate, slender, gently upcurved.

Holotype, ♀, Sariapampa, Huanuco, Peru, 3,600-4,100 meters, May 9, 1946 (Felix Woytkowski).

The most similar species is *Tipula (Eumicrotipula) semivulpina* Alexander, of Ayacucho, Peru, which is adult in September. This is a smaller fly with the coloration slightly different, including the halteres, legs, wings and abdominal tergites. It appears certain that two distinct species are represented and that this will be confirmed when the male sex is discovered.

### ***Tipula (Eumicrotipula) redunca* sp. n.**

Belongs to the *glaphyoptera* group; wing of male about 17.5 mm; antennae short, flagellum black; mesonotal praescutum obscure yellow with four entire brown stripes; femora yellow, tips blackened, preceded by a more yellowed ring, claws simple; wings with a tessellated pattern of pale yellowish white and brown, vein *R*<sub>1-2</sub> entire; male hypopygium with posterior border of tergite with paired lobes and additional more lateral slender spines; gonapophysis a sclerotized rod, before apex produced lateral into a powerful spine with a smaller lateral tooth; posterior border of eighth sternite with a small appendage that bears five strong setae.

Male. — Length, about 17 mm; wing 17.5 mm; antenna, about 2.5 mm. Frontal prolongation of head light brown above, lower darker brown, nasus elongate; palpi black. Antennae short;

scape yellow; pedicel very pale yellow, flagellum black; flagellar segments virtually simple, without a basal enlargement, about one-half longer than their verticils. Head brownish gray, sides of posterior genae and a capillary central vitta weakly more darkened.

Mesonotal praescutum obscure yellow with four entire brown stripes; posterior sclerites light gray, scutal lobes with confluent brown areas; parascutella brown, mediotergite chiefly dark brown, the anterolateral part yellowed, pleurotergite brown, the katepaleurotergite darker. Pleura obscure yellow, variegated by brown, most evident on the anepisternum and ventral sternopleurite. Halteres light yellow throughout. Legs with coxae obscure yellow, anterior faces darkened; trochanters obscure yellow; femora yellow, tips rather broadly blackened, preceded by a vague more yellowed ring; tibiae brown, tarsi passing into black; claws simple. Wings with ground pale yellowish white, conspicuously variegated and tessellated by brown, the dark areas exceeding the ground in amount; darker brown markings in bases of cells *R* and *M*, continued to costa; other somewhat equidistantly spaced areas at about one-third the length of cell, at origin of *Rs* and over cord; beyond the cord the darkenings include the outer end of cell *1st M*<sub>2</sub>, outer radial cells and marginal spots at ends of the other veins; cell *Sc* beyond base uniformly pale brown; veins yellow, pale brown in the clouded parts. Longitudinal veins beyond cord chiefly with conspicuous macrotrichia, lacking on outer half of *R*<sub>1-2</sub>. Venation: *R*<sub>1-2</sub> entire; petiole of cell *M*<sub>1</sub> and *m* subequal; *m-cu* at fork of *M*<sub>3-4</sub>.

Abdominal tergites reddish brown, darkened laterally, sternites and hypopygium more uniformly brownish black. Male hypopygium (fig. 14) with tergite, *t*, transverse, the posterior border generally convex, the margin with a strong lobe on either side of a U-shaped emargination, each lobe produced laterad into a short point; more laterally on margin with a further slender acute point. Appendage of ninth sternite, *9s*, a small lobe that bears several very long setae that are directed caudad. Basistyle small. Outer dististyle, *d*, long and slender, pale, with coarse setae; inner style narrow, the beak slightly produced, lower beak stouter, truncated and blackened at apex; base of style slightly enlarged or produced into an obtuse lobe, vestiture of style very small and inconspicuous. Gonapophysis, *f*, distinctive, appearing as a sclerotized rod, tip obtuse, before apex produced laterad into a powerful slightly curved spine with a smaller tooth on lower face at near midlength. Eighth sternite, *8s*, very short, transverse,

posterior border gently convex, the median appendage only a little longer than the breadth across base, its apex with a few strong spinelike setae.

Holotype, ♂, Manizales, Colombia, 3,500 meters, December 31, 1958 (Juan Foerster).

The present fly is quite different from the numerous other regional members of the *glaphyroptera* group having the same general size and appearance in the structure of the hypopygium, especially of the tergite, ninth sternite, dististyles, gonapophysis and eighth sternite. Other superficially similar species include *Tipula* (*Eumicrotipula*) *asteria* Alexander, of Peru, and *T. (E.) bathromeces* Alexander, of Bolivia.

### ***Tipula* (*Eumicrotipula*) *sariapampae* sp. n.**

Belongs to the *glaphyroptera* group, allied to *coronaria*; general coloration of body yellow, praescutum with three orange stripes, in cases divided by a darker central line; wings pale yellow, the light brown pattern very restricted and indistinct; abdomen yellow, sides of the more proximal tergites narrowly brown; male hypopygium with median notch of tergite conspicuous; dorsal crest of inner dististyle with a compact group of about 15 simple setae that narrow gradually into hairlike points; gonapophysis oval, the marginal lobe stout.

**Male.** — Length, about 15.5-16 mm; wing 17-17.5 mm; antenna, about 6-6.2 mm.

**Female.** — Length, about 17 mm; wing 18 mm.

Frontal prolongation of head yellow, sparsely pruinose, including nasus; proximal two segments of palpi yellow, the remainder black. Antennae of male relatively long, as shown by the measurements; proximal three segments yellow, succeeding segments weakly bicolored, the small basal enlargements blackened, stems dark brown, only the outer segments more uniformly darkened. Head brownish yellow, sparsely gray pruinose.

Pronotum whitish yellow, narrowly darkened medially, more broadly so on sides. Mesonotal praescutum yellow with three more orange stripes, the central one in cases with a capillary darker median vitta; scutal lobes faintly patterned with light brown; posterior sclerites of notum grayish yellow, with a more or less distinct capillary darkened central line; notum with abundant delicate white setae. Pleura yellow with a relatively narrow pale brown dorsal stripe extending from the cervical region to the dorsal pteropleurite. Halteres with stem yellow, knob vaguely more darkened. Legs with coxae and trochanters yellow; femora yellow with a narrow pale brown subterminal ring; tibiae and

tarsi yellow, the outer segments brownish black; claws simple. Wings pale yellow with a very restricted and indistinct pale brown pattern, most evident as small spots at near one-third and at end of cell *Sc* and at origin of *Rs*; other vague clouds in cells *M*, *Cu* and *Anals*, most evident along vein *Cu*; a small darker brown dash in base of cell *1st A*; veins yellowish brown.

Abdomen yellow, sides of the more proximal tergites narrowly brown; hypopygium yellow. Ovipositor with cerci slender, gently upcurved. Male hypopygium (fig. 15) with posterior border of tergite, *t*, convex medially, lateral lobes small, intermediate pair broad, separated by a U-shaped median emargination, without spinous points as in *amblythrix*. Outer dististyle, *d*, with outer end expanded into a subtriangular head; inner style with the modified setae of dorsal crest on a low elevation, each narrowed gradually into a pale hairlike point, without a bulbous dilation as in some related species. Gonapophysis, *g*, a subcircular plate, its lateral projection very obtuse to subobsolete. Eighth sternite, *8s*, with the appendage moderately broad, the length about twice the diameter across base.

Holotype, ♂, Sariapampa, Huanuco, Peru, 3,600 meters, May 12, 1946 (Felix Woytkowski). Allotopotype, ♀, pinned with type. Paratopotypes, 3 ♂♂, 3,600-4,000 meters, May 3-4, 1946.

*Tipula* (*Eumicrotipula*) *sariapampae* is most similar to *amblythrix*, sp. n., differing evidently in hypopygial structure, particularly the tergite and the modified setae of the dorsal crest of the inner dististyle.