

**TIPULIDAE NUEVOS O POCO CONOCIDOS DE  
VENEZUELA (DIPTERA)  
NEW OR LITTLE - KNOWN TIPULIDAE FROM  
VENEZUELA (DIPTERA)**

**Part VI**

by

*Charles P. Alexander,*

Massachusetts State College, Amherst, Massachusetts.

The initial part of this series of papers was published in this *Boletín* (vol. 2: 17-26; 1943), the immediately preceding number in vol. 3:171-192; 1944. In the present part I wish to discuss a series of species belonging to the subfamily Tipulinae, bringing the total number recorded to this date to one hundred species.

As before, most of the species recorded for the first time from Venezuela are based on series of specimens that were taken by Mr. Pablo J. Anduze and Mr. René Lichy, chiefly in the Maritime Andes of the Estado Aragua where many further interesting discoveries will be made. A few further records result from the materials taken by Dr. John G. Myers on his trip to Mount Roraima in 1932. I am deeply obligated to the collectors for the privilege of retaining in my personal series of Tipulidae the various types of the new species.

**TIPULINAE**

79. *Ozodicera (Ozodicera) duidensis* Alexander.

1931. *Ozodicera (Ozodicera) duidensis* Alexander; Amer. Mus. Novitates 491; 2-3.

Mount Duida, November 30, 1928 - January 11, 1929 (G. H. H. Tate).

80. *Ozodicera (Ozodicera) striatipennis* Alexander.  
1941. *Ozodicera (Ozodicera) striatipennis* Alexander;  
Journ. N. Y. Ent. Soc., 49: 139-140.  
Antimano, D. F. alt. 900 mts. Jan. 13, 1940 (Lichy).

81. *Holorusia (Holorusia) flavicornis* Alexander.  
1914. *Holorusia flavicornis* Alexander; Ent. News, 25:  
352-353.

Venezuela, without more exact data (ex Fruhstorfer Collection in the Hungarian National Museum).

82. *Holorusia (Holorusia) longitarsis* (Macquart).  
1846. *Tipula longitarsis* Macquart; Dipt. exot., suppl. 1:  
17, pl. 2, fig. 2.

The types were from Colombia and Venezuela, without exact data. The species is not definitely recognizable from the description.

83. *Holorusia (Holorusia) strangalia* Alexander.  
1926. *Holorusia strangalia* Alexander; Insec. Inscit. Menst.,  
14: 162-163.

La Fria, Tachira, April 14-17, 1920; Tachira, Tachira, April 7, 1920 (E. B. & J. H. Williamson; W. H. Ditzler).

84. *Tanypremna (Tanypremna) perornata* Alexander.  
1929. *Tanypremna perornata* Alexander; Journ. N. Y.  
Ent. Soc., 37: 90-92.

La Fria, Tachira, April 12-14, 1920 (E. B. & J. H. Williamson; W. H. Ditzler).

85. *Brachypremna arcuaria triangularis* subsp. n.

Very similar to the typical subspecies (Ecuador: Napo-Pastaza), differing specially in the details of structure of the male hypopygium.

Ninth tergite with the lobes narrow and triangular in outline, their tips very narrowly obtuse, separated by a broad U-shaped emargination. In *arcuaria* Alexander, the lobes are broadly triangular, with obtuse tips, and are separated by a V-shaped notch that is narrower than either lobe. In both races these lobes are conspicuously glabrous. Dististyle with the basal spine unusually slender; outer blade of style with the apex produced into a flattened flange. Aedeagus unusually long and slender, toward the tip with small spinous points (apex broken in the only male available).

*Holotype*, ♂, Rancho Grande, Aragua, altitude 1.150 meters, August 27, 1944 (Lichy). *Allotopotype*, ♀, with the type. *Paratopotype*, 1 ♀, August 1943 (Lichy).

I believe that with more material available the present fly will be found to represent a distinct species, differing from *arcuaria* in the characters indicated above.

86. *Brachypremna breviventris* (Wiedemann).

1821. *Tipula breviventris* Wiedemann; Diptera Exotica, 1:43.

Southern slopes of Mount Roraima, altitude 4.000 feet, November 5, 1927 (Paulo). As has been indicated before, Phelps has clearly demonstrated that Roraima records pertain to Venezuela (Bol. Soc. Venezolana Cien. Nat., Nº. 36: 83-95, Map "E"; 1939).

(34) *Brachypremna dispellens* (Walker).

Motatán., Trujillo, June 2, 1938 (Vivas Berthier).

87. *Brachypremna laetiventris* sp. nov.

Size medium (wing, male, 17 mm.); general coloration of mesonotum almost uniformly brown, scarcely patterned; antennal flagellum black; femora brownish black, the tips narrowly whitened, the tibial bases similarly white; tips of tibiae white, most extensively so on the posterior legs where about the outer fourth of the segment is included; wings

brown, restrictedly patterned with darker brown and poorly indicated paler areas; pale droplets near wing-tip lacking; abdomen conspicuously variegated, dark brown with yellow rings, particularly conspicuous on the sternites; in life, the basal abdominal rings heavily light gray pruinose.

*Male*.—Length about 13 mm.; wing 17 mm.

Frontal prolongation of head above clear light yellow, including the nasus, ventral half abruptly dark brown; palpi bicolored, basal two segments brownish black, the incisures narrowly yellow; third segment yellow; terminal segment uniformly darkened, less than twice the length of the third. Antennae with scape yellow, pedicel pale brown; flagellum uniformly brownish black, the first segment enlarged. Head rich brown, vaguely patterned with still darker brown on anterior vertex.

Pronotum brown, more blackened on sides. Mesonotum almost uniform dark reddish brown, the praescutum without pattern excepting a small yellow spot on the sides before suture and a brightening before the humeral area; postnotum, including both mediotergite and pleurotergite, brown, without pattern. Pleura dark brown, restrictedly variegated with yellow on the posterior portion of the sternopleurite and ventral pteropleurite; dorsopleural membrane darkened. Halteres with stem weakly darkened, the base restrictedly pale, the knob slightly darker with its tip pale. Legs with coxae chiefly yellow pollinose, the fore pair patterned with dark brown at base, the posterior pair similarly infuscated on cephalic face; trochanters yellow; femora brownish black, the tips narrowly but conspicuously whitened; tibiae black, the bases narrowly white, in degree subequal to the femoral tip; tips of tibiae whitened, the amount differing on the various legs, on fore pair including the distal tenth or less or approximately twice the brightened base; on middle legs, the amount of white is slightly greater; on posterior tibiae the white tips include approximately the outer fourth of segment; on fore and middle legs, tarsi creamy-white with the proximal

third of basitarsi, immediately beyond origin, weakly infuscated; posterior tarsi uniformly whitened. Wings with a strong brownish ground, patterned with darker and vaguely paler areas; stigma oval, brown, narrowly ringed with still darker brown; most of the veins, with the exception of *1 st. A*, vaguely seamed with darker, cell *2nd. A* uniformly infuscated; centers of many cells, including areas before and beyond the origin of *Rs*, base and outer end of cell *M*, and much of the outer medial field with more yellowed areas but without the pale yellow droplets common in the genus; obliterative spots on veins *M*<sub>2</sub> to *M*<sub>4</sub> conspicuous; a clearer yellow spot before stigma in outer end of cell *Sc*; veins dark brown. Venation: Basal section of *R*<sub>4+5</sub> relatively short so veins *R*<sub>2+3</sub> and *R*<sub>4+5</sub> at their bases are relatively close together and lie generally parallel to one another; tip of vein *R*<sub>3</sub> bent cephalad at its tip in a moderate curve only.

Abdomen with first tergite dark brown, broadly yellow pollinose on sides; second tergite dark brown, with conspicuous yellow central spot at near midlength, preceded in center and on either side by smaller isolated yellow spots; sides of tergite behind the yellow area pruinose; third and succeeding tergites dark brown, the basal rings very narrowly pale, becoming broader and more pruinose on sides, this pattern persisting through tergite seven; eighth segment uniformly dark brown; sternites very brightly patterned, each one broadly yellow with the incisures dark brown, the apex narrowly, the basal rings much more broadly of this color, their extreme cephalic portions gray pruinose to produce conspicuous silvery gray basal rings; hypopygium yellow, the tergite palest. It should be noted that after treatment with KOH and mounting in balsam that the gray pruinosity is lost. Male hypopygium with the caudal margin of tergite gently emarginate, forming very low lateral lobes that are provided with only a few strong setae. Dististyle with the outer lobe or style elongate, clavate, incurved toward the strongly curved apex of the main style, the latter obtuse at tip, its outer edge before apex with about ten strong setae.

*Holotype*, ♂, Mount Roraima, 1932 (J. G. Myers); Collector's Nº 3.192. The exact data in the Myers record are unavailable at this time.

*Brachypremna laetixventris* is entirely distinct from the various other species that have the abdominal pattern appearing as transverse bands and without median brown areas on the sternites. The almost uniformly darkened mesonotum and the diffusely patterned wings separate the fly from the most similar of these species, such as *B. clymene* Alexander and *B. sappho* Alexander, both of southeastern Brazil.

88. *Brachypremna similis* Williston.

1900. *Brachypremna similis* Williston; Biol. Centr.-Amer. Dipt. I, suppl., p. 229.

Caño del Tigre, Mérida, September 1943 (Anduze). Formerly from Central América.

89. *Brachypremna subuniformis* sp. nov.

Size medium (wing, male, about 18 mm.); thorax conspicuously patterned with dark brown; femora yellowish brown to light brown, with a conspicuous, nearly terminal brown ring, the extreme tip whitened; tibiae pale brown, the tip narrowly darker brown; tarsi brown, the outer segments more yellowish brown; wings with cell 2nd. A pale, dark at apex; abdomen with the black sternal areas pointed at both ends, not reaching the posterior border; male hypopygium with the apex of dististyle truncate, the outer tooth small, acute, placed at near two-fifths the length of the style.

*Male*.—Length about 14-15 mm.; wing 17-18 mm.

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

Frontal prolongation of head yellow above, blackened on ventral half; nasus conspicuous, black; prolongation stout, its dorsal surface tumid; palpi with basal segment yellow; remaining segments brownish black, obscure yellow at their

tips. Antennae with scape, pedicel and proximal three flagellar segments yellow, the outer segments passing into black. Head with front and anterior vertex yellow or grayish yellow, the posterior vertex with two conspicuous brownish gray areas that are separated by a narrow pale median vitta; posterior orbits grayish yellow.

Pronotum with the restricted ground obscure yellow, with three broad brownish gray marks, the median one somewhat darker. Mesonotal praescutum buffy brown, with four stripes, the intermediate pair narrow, confluent and more or less polished at their anterior ends; lateral stripes wider but more diffuse; lateral borders of praescutum more grayish; scutum with lobes brown, ringed with darker brown, the median area pale; scutellum light yellowish gray, with a conspicuous median brown stripe, parascutella dark; mediotergite with the ground yellowish gray with three evident stripes, the median one narrower and more clearly defined, the lateral pair more pruinose; pleurotergite chiefly gray pruinose, regularly spotted with brown, the latter involving most of the sclerite, less evident on the dorsal pteropleurite. Halteres with stem yellow, knob blackened. Legs with coxae obscure yellow, patterned with dark brown or brownish black; trochanters chiefly obscure yellow, weakly patterned with dark brown, especially the posterior pair; femora yellowish brown to light brown, with a narrow nearly terminal brown ring, the extreme tip whitened; tibiae pale brown, the tip narrowly darker brown; tarsi brown, the outer segments slightly more yellowish brown; claws very long, the tooth more or less obtuse. Wings with the ground color weakly infuscated, costal border uniformly brownish yellow; cephalic portion of prearcular field darkened, the posterior portion pale; stigma dark brown, the center more or less brightened; veins, especially those beyond cord, more or less seamed with brown, more extensively so at tips; veins basad of cord less distinctly seamed, more evidently so in cell *M* adjoining vein *Cu*; cell *M*<sub>1</sub> and adjoining portions of 1st. *M*<sub>2</sub> and 2nd. *M*<sub>2</sub> more whitened; costal margin of cells *R*<sub>2</sub> and *R*<sub>3</sub> bordered with yellow; cell

2nd. A pale, its tip darkened; veins brown. Venation: *Rs* relatively short, arcuated at origin; *m* longer than the petiole of cell *M*<sub>1</sub>.

Basal abdominal tergites darkened medially, yellowed on sides, the proximal portion of tergite two with an oblique brown stripe; outer tergites paler brown, with a median yellow central vitta; eighth segment more uniformly blackened, variegated with yellow; sternites yellow, each with long-oval black central areas that are narrowed at both ends and do not reach the posterior border of segment; basistyle pale, restrictedly darkened at proximal end; dististyle dark brown. Ovipositor with genital shield pale brownish yellow on sides; hypovalvae more blackened at bases; cerci elongate, straight, their tips narrowly obtuse. Male hypopygium (Fig. 1) with the tergite, *9t*, conspicuously notched, the lateral lobes broad and obtuse, with setulae over their entire surface. Dististyle, *d*, with the outer tooth at near two-fifths the length, glabrous, acute at tip; apex of style truncate, its lower or ventral angle more produced than the outer one; outer margin of style basad of tooth with abundant erect setulae.

*Holotype*, ♂, Gran Sabana, Akuriman, E. Bolívar, October 29, 1940 (Anduze). *Allotype*, ♀, Santa Elena, E. Bolívar, October 19, 1940 (Anduze). *Paratypes*, 1 ♂, 2 of doubtful sex, with the allotype.

The most similar described species is *Brachypremna uniformis* Alexander, 1920, of Amazonian Brazil. This latter differs conspicuously in the coloration of the body and appendages, especially the legs, all femora and tibiae being uniformly brown. The male sex of *uniformis* is still not known to me. The present fly is quite distinct from all other described species in the pattern of the legs, especially the subterminal brown ring on the femora, and in the structure of the male hypopygium.



### 90. *Nephrotoma medioligula* sp. n.

Allied to *lateropolita*; general coloration yellow, the mesonotum heavily patterned with black, including three praescutal stripes; lateral stripes entirely polished, their anterior ends curved laterad to the border; scutellum darkened; knobs of halteres restrictedly yellow; femora yellow, the tips very narrowly blackened; wings brownish yellow, stigma small, pale brown; cell Sc dark brown; abdominal tergites with series of black median and lateral spots; male hypopygium with the eighth sternite deeply emarginate, with a conspicuous median fleshy lobule projecting some distance beyond the obtusely rounded lateral lobes.

*Male*.—Length about 12 mm.; wing 10.5 mm.

Frontal prolongation of head light yellow, a little more reddened above; nasus elongate, with conspicuous black setae; palpi with basal segment light brown, the remainder light yellow, the extreme tip of the terminal segment weakly darkened. Antennae with scape and pedicel yellow, flagellum black; segments moderately incised; longest verticils unilaterally distributed, shorter than the segments. Head orange, more yellowed on posterior orbits; vertical tubercle high, entire; occipital brand relatively small and inconspicuous, broadly oval in outline, a little darker than the surrounding ground.

Pronotum broadly yellow medially, blackened on sides; pretergites yellow, behind the pseudosutural foveae with a longitudinal blackened area. Mesonotum with the ground yellow, the praescutum with three polished black stripes, the broad central one with a more reddened median line, both ends of the stripe being uniformly blackened, behind crossing the suture onto the cephalic portion of scutum; anterior end of lateral stripe curved outward to the praescutal border, polished throughout, the mesal border somewhat more reddened, posterior end of lateral stripe becoming confluent with a large blackened area over the lateral portions of the suture and the

cephalic ends of the scutal lobes; remainder of scutal lobes and the scutellum paler brown; central area of scutum darker yellow; parascutella very pale yellow; mediotergite yellow, the central portion more reddened. Pleura and pleurotergite light yellow, variegated with more reddish areas, especially on the anepisternum, ventral sternopleurite, cephalic edge of pteropleurite, and all of pleurotergite excepting the callosity. Halteres dusky, the apex of knob restrictedly light yellow. Legs with coxae reddish yellow; trochanters yellow; femora yellow, the tips very narrowly blackened, the amount equal on all legs; tibiae brown, passing into black; tarsi black; claws (male) toothed. Wings with brownish yellow tinge; stigma small, darker brown but inconspicuous, with a few trichia; cell *C* yellow, cell *Sc* uniformly dark brown, much darker than the stigma; veins dark brown. Venation: *Sc*<sub>1</sub> preserved as a spur; *Rs* about one-third longer than the basal section of *R*<sub>4+5</sub>, both oblique in position; petiole of cell *M*<sub>1</sub> punctiform; *M*<sub>1+2+3</sub> unusually long, subequal to *r-m*; *m-cu* some distance before *M*<sub>4</sub>.

Abdominal tergites yellow, restrictedly but conspicuously patterned with black, including a series of median subtriangular dashes, interrupted by the basal rings and narrower posterior borders of the segments, the second tergite with two such areas; on lateral borders, tergites two and three with two black spots, the succeeding segments with the single apical darkening; basal sternites yellow; on outer segments the amount of dark color is increased, especially on segments six and seven; sternite eighth with a major blackened area on either side beyond base; remainder of hypopygium brownish yellow. Male hypopygium (Fig. 2) with the ninth tergite badly twisted in the unique type slide, provided with a U-shaped median notch, the entire outer border with numerous blackened spinous points. Outer dististyle *od.* relatively narrow pale, the basal two-thirds more dilated, the apex narrowed to a slender point. Inner dististyle, *id.* with the beak only slightly darkened, obtusely rounded, the ventral portion more blackened; lower beak heavily blackened; dorsal

crest relatively high, entirely glabrous; a conspicuous blackened flange on face of style near base, this irregularly toothed and provided with a few strong setae. Gonapophyses relatively stout, the apex more or less resembling the head and beak of a bird. Eighth sternite, 8s, sheathing, the posterior margin notched; lateral lobes broadly rounded, with long conspicuous reddish setae, these longer and denser toward the midline; from the median notch projects a membranous median lobule that juts some distance beyond the lateral lobes, provided with long conspicuous setae at base, particularly on sides, the remainder of lobule with microscopic setulae and a few longer scattered setae.

*Holotype*, ♂, Rancho Grande, Aragua, altitude 1,150 meters, August 27, 1944 (Lichy).

The present species is most similar to *Nephrotoma lateropolita* Alexander, of Costa Rica, from which it differs especially in the structure of the male hypopygium, particularly on the inner dististyle and the eighth sternite.

91. *Tipula (Microtipula) detecta* Alexander.

1926. *Tipula detecta* Alexander; Insec. Inscit. Menst., 14: 165-166.

Táchira, Táchira, April 4, 1920 (E. B. & J. H. Williamson; W. H. Ditzler).

92. *Tipula (Microtipula) lichyana* sp. n.

Size medium (wing, male, 13 mm. or less); antennae elongate, flagellar segments bicolored; thorax light reddish brown, the posterior sclerites of notum and the pleura more testaceous yellow; wings grayish subhyaline, with a conspicuous darkened costal border; *r-m* obliterated by approximation or short fusion of veins  $R_{4+5}$  and  $M_{1+2}$ ; abdomen yellow, with a black subterminal ring; male hypopygium with the caudal border of tergite with a V-shaped notch that is densely fringed with black setae; proctiger not blackened; appendage of ninth sternite a broad pale median plate, the

outer lateral angles of which are produced into narrow, gently curved arms, the entire structure with abundant appressed pale setae.

*Male*.—Length about 10-12 mm.; wing 11.5-13 mm.; antenna about 5.8-6 mm.

Frontal prolongation of head brownish yellow; nasus long and slender; palpi brownish yellow, the terminal long segment paler yellow. Antennae (male) elongate; basal four segments yellow, succeeding segments bicolored, the basal enlargement blackened, the pedicel brownish yellow, passing into clear yellow at tip of each segment; outer segments more uniformly darkened; flagellar segments elongate, the basal enlargement relatively conspicuous; longest verticils shorter than the segments. Head light reddish brown, with indications of a slightly darker median line.

Thorax almost uniformly light reddish brown, the praescutal stripes not or scarcely indicated; scutellum, postnotum and pleura more testaceous yellow, unpatterned. Halteres infuscated. Legs with coxae testaceous yellow; femora yellow; remainder of legs obscure yellow, the tarsi passing into black. Wings grayish subhyaline, the outer prearcular border and costal margin conspicuously infuscated, the color continued to the wing tip; cell *Sc* more yellowish brown than cell *c*, stigma still darker brown; weaker seams at origin of *Rs*, over anterior cord, outer end of cell 1st.  $M_2$  and over *m-cu*; cell  $R_1$  and extreme base of cell  $R_3$  pale; veins brown. Venation: *Rs* scarcely longer than the gently arcuated *m-cu*;  $R_{1+2}$  preserved; *r-m* obliterated by the approximation or short fusion of veins  $R_{4+5}$  and  $M_{1+2}$ , the basal section of  $R_{4+5}$  very long; *m* about two-thirds to three-fourths as long as the petiole of cell  $M_1$ ; cell 2nd. *A* relatively wide.

Abdomen yellow, with a conspicuous black subterminal ring involving tergites six to eight, inclusive, sternites six and seven, with more than the basal half of the eighth segment; remainder of hypopygium yellow. Male hypopygium (Figs. 3, 4) with the ninth tergite, 9t, transverse, strongly narrowed

outwardly, the apex with a broad V-shaped notch that is abundantly fringed with dense black setae, shortest toward the midline, longer toward the apices of the lobes; setae elsewhere on tergite elongate, reddish brown; proctiger appearing as flattened-compressed pale blades that are densely setuliferous. Dististyles *d*, relatively simple, the outer style a narrow curved arm, its tip blackened; mesal face of style near base with a few elongate setae; inner style broad-based, the apex produced into two arms, the outer a straight rod with its inner margin blackened, the tip acute; inner arm a shorter pale flattened blade that is narrowed to the acute tip. Appendage of ninth sternite, *9s*, appearing as a broad depressed median plate, the outer lateral angles produced into narrow gently curved, arms, their tips narrowly obtuse; median region of plate slightly produced; the entire structure, including the arms, pale with abundant appressed pale setae

*Holotype*, ♂, Rancho Grande, Aragua, altitude 1,150 meters, May 1944 (Lichy). *Paratopotypes*, 1 ♂, with type; 1 ♂, August 27, 1944 (Lichy).

I take great pleasure in naming this distinct species for the collector, Mr. René Lichy, distinguished student of the Venezuelan Lepidoptera. The fly, while resembling in its general appearance various other regional members of the subgenus, is entirely distinct in the structure of the male hypopygium, particularly of the tergite, dististyles, and the appendage of the ninth sternite. The most similar Venezuelan species is *Tipula (Microtipula) zonalis* Alexander, which differs in every detail of structure of the hypopygium.

93. *Tipula (Microtipula) tecta* Alexander.

1926. *Tipula tecta* Alexander; Insec. Inscit. Menst., 14: 166-167.

Táchira, Táchira, April 10, 1920 (E. B. & J. H. Williamson; W. H. Ditzler). In its general appearance this fly is very close to *T. (M.) auricularis* Alexander, and it will require a microscopic study of the male hypopygium to settle this rela-

tionship. At this time I am unable to make such a detailed examination of the present fly.

94. *Tipula (Microtipula) zonalis* Alexander.

1926. *Tipula zonalis* Alexander; Insec. Inscit. Menst., 14: 164-165.

Táchira, Táchira, April 4, 1920 (E. B. & J. H. Williamson; W. H. Ditzler).

95. *Tipula (Eumicrotipula) arecuna* Alexander.

1931. *Tipula arecuna* Alexander; Amer. Mus. Novitates 491: 3-4.

Mount Roraima, summit, altitude 8,600 feet, November 1927 (G. H. H. Tate).

96. *Tipula (Eumicrotipula) cristata* sp. n.

Belongs to the *glaphyroptera* group, *unistriata* subgroup; antennae (male) weakly bicolored, of female more strongly so; mesonotum yellow, with a broad, dark brown, median stripe; femora yellow, with a relatively narrow brown subterminal ring; wings pale yellow, handsomely patterned with brownish yellow, dark brown and pale brown, the ground including a pale discal stripe; squama setulose; vein  $R_{1+2}$  entire; male hypopygium with the inner dististyle bearing a crest of modified setae on outer margin near apex.

*Male*.—Length about 15 mm.; wing 16 mm.; antennae about 4.2 mm.

*Female*.—Length about 18 mm.; wing 18.5 mm.

Frontal prolongation buffy above, darkened on ventral half, nasus long and slender; palpi black. Antennae (male moderately long; scape and pedicel yellow, flagellar segments weakly bicolored, the basal enlargement black, the stems light brown; segments moderately incised, subequal in length to the longest verticils; in female, antennae shorter and strongly bicolored throughout, the flagellar segments yellow with blackened bases. Head buffy, the sides of the posterior vertex strongly darkened; vertical tubercle low.

Pronotum obscure yellow, narrowly dark brown medially, the sides broadly darkened. Menosotum brownish yellow, with a broad, dark brown, central stripe extending the entire length, narrower on the scutum where the area is subtended by small lateral lines over the mesal edges of the lobes, these dashes continued backward onto the scutellum; lateral praescutal stripes and remainder of scutal lobes much less distinctly darkened; a darkened spot on sides of praescutum behind the pseudosutural foveae. Pleura chiefly yellow pollinose, vaguely patterned with pale brown on fore coxae, propleura and the dorsopleural region. Halteres yellow, knobs pale brown with obscure yellow tips. Legs with coxae pale, pollinose; trochanters yellow; femora obscure yellow, with a relatively narrow medium brown subterminal ring; remainder of legs obscure yellow, the tibial tips very narrowly darkened, the outer tarsal segments passing into black; claws simple. Wings with the ground pale yellow, handsomely patterned with darker brownish yellow, pale brown and very restrictedly with dark brown; the latter areas include one over *h* and the arculus; origin of *Rs*; stigma and a confluent seam over the anterior cord; outer end of cell 1st.  $M_2$ ; a small spot in cell *R* adjoining the vein at near one-third the length, and a seam along the distal half of vein *Cu* in the medial field, this latter conspicuously interrupted by a yellow marking a short distance basad of *m-cu*; the pale areas include a conspicuous oblitative mark across cell 1st.  $M_2$  into the bases of cells  $M_1$  to  $M_3$ , slightly involving the adjoining cells *R* to  $M_4$ ; distal half of cell  $R_5$ ; small pale marginal spots in cells  $M_1$  to  $M_3$ , inclusive; cells *Cu*, 1st. *A* and 2nd. *A* with an extensive pale pattern, especially in the basal portions of the Anal cells and for most of the length of cell *Cu*; the remainder of disk, particularly the costal area, outer radial field and posterior border of wing paler brown, interrupted by the yellow ground, as described; veins yellow in the ground areas, more infuscated in the patterned fields. Squama with a few setae. Venation: *Rs* about two and one-half to nearly three times *m-cu*;  $R_{1+2}$  entire; petiole of cell  $M_1$  subequal to *m*, cell  $M_1$  correspondingly deep.

Abdomen chiefly yellow, the tergites narrowly trivittate with brown, the median stripe diffuse but nearly entire; sternites more uniformly brownish yellow; subterminal segments in male more extensively darkened; hypopygium brownish yellow. Ovipositor with cerci unusually slender, gently up-curved to the acute tips. Male hypopygium (Fig. 5) with the ninth tergite, *9t*, transverse, its posterior border subtruncate or very slightly emarginate, with a tiny U-shaped median notch that is bordered on either side by a carina that extends onto the dorsal surface; sublateral portions of tergal border gently and broadly emarginate, glabrous or virtually so, the disk back from border with abundant pale setae. Appendage of ninth sternite, *9s*, stout bilobed, the upper portion with normal setae, the lower part more truncate at apex and here provided with long strong reddish bristles. Basistyle, *b*, with the lobe large and pendant, oval, with long yellow setae on its posterior third. Outer dististyle, *od*, elongate, gradually and very slightly widened on distal third. Inner dististyle, *id*, with the beak pale, slender; lower beak heavily blackened and obtusely rounded, directed upwardly; outer portion of dorsal crest opposite the lower beak with a row or crest of about 30 to 35 straight powerful setae, each slightly bulbous at apex and thence extended into a straight hairlike point. Eighth sternite, *8s*, with its posterior border convexly rounded; median lobe entirely pale, with coarse setae on its basal two-thirds.

*Holotype*, ♂, Rancho Grande, Aragua, altitude 1.150 meters, September 13, 1944. (Lichy). *Allotopotype*, ♀, in copula with type.

This fly is most closely related to *Tipula* (*Eumicrotipula*) *striptella* Alexander, of northern Panama, and to *T. (E.) unistriata* Alexander, of Brazil, especially the former. This differs in its small size and distinctive wing pattern and venation, as the very strongly arcuated vein  $M_3$ . The male sex of *scriptella* is still unknown but that of *unistriata* has all details of structure quite different from those in the present fly.



Pronotum buffy gray, restrictedly patterned with brown. Mesonotal praescutum buffy gray, with four ill-defined brownish gray stripes, the intermediate pair more reddish brown, divided by a capillary brown median vitta that is faint and more or less interrupted; lateral borders of intermediate stripes and the narrow lateral pair more grayish; interspaces with very conspicuous dark brown setigerous punctures; posterior sclerites of notum grayish, the scutal lobes patterned with darker brownish gray; scutellum with paired brown spots at base, parascutella dark; mediotergite buffy brown, with paired circular brown areas on posterior portion. Pleura and pleurotergite buffy yellow, virtually unpatterned except for a small brown spot on cephalic border of mesepisternum. Halteres brownish black, the base of stem narrowly yellow. Legs with coxae pale yellow, whitish pruinose; trochanters yellow; femora obscure yellow, the tips blackened, subequal in amount on all legs; tibiae brown, the tips very narrowly darker; tarsi black; claws (male) simple. Wings with a highly diversified pattern of pale brown, darker brown and whitish subhyaline; darkest areas include the stigma and a costal series of major areas in the radial field, placed at base, at one-third the length, over origin of *Rs* and over the fork of the latter, the last being confluent with the darker brown stigma; wing-tip in outer radial field heavily darkened; *m-cu* and adjacent portions of *Cu* seamed with dark brown, with a further isolated area at near two-thirds the length of *Cu* in cell *M*; posterior two-thirds of wing with the ground paler brown; the whitish pattern includes a conspicuous oblique post-stigmal mark from *C* across cell *1st. M*<sub>2</sub> into the bases of cells *M*<sub>3</sub> and *M*<sub>4</sub>, disconnected from restricted brightenings in the outer fifth of cell *R*<sub>5</sub> and the basal third of cell *M*<sub>1</sub>; basal of cord, the white color forms a zigzag pattern that is almost as extensive as the brown ground, particularly in the basal fourth of wing, in all cells from *R* to *2nd. A*, inclusive; costal field brown; cell *Sc* slightly variegated by darker extensions from the radial field; veins dark brown, a little paler in the

whitened areas, the tip of  $R_{1+2}$  whitened but preserved. Venation:  $Rs$  a little less than three times  $m-cu$ ; petiole of cell  $M_1$  shorter than  $m$ .

97. *Tipula (Eumicrotipula) duida* Alexander.

1931. *Tipula duida* Alexander; Amer. Mus. Novitates 491: 4-5.

Mount Duida, January 11, 1929 (G. H. H. Tate).

98. *Tipula (Eumicrotipula) marmoripennis* Rondani.

1850. *Tipula marmoripennis* Rondani; Nuovi Annali delle Scienze Nat. e Rendicato Acad. Sci. Bologna (3) 2: 194-195.

The type was from an unknown locality in Venezuela. From the description the fly could pertain either to the *glaphyoptera* or the *monilifera* group of the subgenus. Since the type is a female it may prove to be unrecognizable.

99. *Tipula (Eumicrotipula) infinita* sp. n.

Belongs to the *monilifera* group; antennae (male) very long, exceeding four-fifths the length of body; flagellar segments black, the basal swellings abrupt; wings with a highly diversified pattern of pale brown, darker brown and whitish subhyaline, the last including a broad poststigmatal band; male hypopygium having the caudal border of ninth tergite with a narrow median notch; inner dististyle without a comb of modified setae; gonapophyses appearing as flattened pale plates, the lower apical angle produced into a slender curved point; lobe of eighth sternite relatively long, about two and one-half times as long as its width across the base.

*Male*.—Length about 15 mm.; wing 17.5 mm.; antenna about 13 mm.

Frontal prolongation of head yellow dorsally and ventrally, more blackened on sides; nasus elongate; palpi with first segment blackened, its tip paler; remainder of palpi broken. Antennae (male) very long, exceeding four-fifths the length

of body; scape and pedicel light yellow; first flagellar segment light brown, remaining segments black, a little exceeding their longest verticils; in addition to the verticils, the entire stem of segments with very long erect white setae; basal swellings of segments abrupt. Head above light brownish gray, with a narrow dark median vitta and more diffuse markings on sides of posterior vertex and posterior orbits.

Abdominal tergites yellowish brown to pale brown, the incisures narrowly paler; a sublateral dark stripe more nearly continuous on the basal segments on outer tergites broken into basal spots; basal sternites light yellow; subterminal segments and most of hypopygium dark brown, the apex of tergite broadly pale. Male hypopygium (Fig. 6) having the pale posterior portion of the ninth tergite, *9t*, narrowed, the entire caudal border broadly emarginate, the median region with a secondary deep U-shaped notch; adjacent angles produced into slightly developed obtuse blades, the outer lateral angles more broadly obtuse; entire margin of tergite glabrous. Ninth sternite, *9s*, with a small, weakly bilobed appendage, the entire structure with only about a score of long setae, more concentrated into a pencil on the ventral portion. Basistyle, *b*, entire, provided with a pencil or group of long setae on a very low elevation. Outer dististyle, *od*, pale, expanded outwardly, fringed with very long setae. Inner dististyle, *id*, long and narrow; beak relatively long and slender, pale, the tip narrowly obtuse; lower beak blackened; outer portion of dorsal crest slightly elevated and with coarse transverse ridges; setae of remainder of crest erect, pale unmodified, not forming a comb as in certain allied forms. Gonapophysis, *g*, appearing as a flattened pale blade, the lower apical angle produce into a slender curved point, its tip subacute. Eighth sternite, *8s*, with the median lobe relatively long, the length about two and one-half times the width across base, gradually narrowed to the obtuse tip; entire surface of lobe with long yellow setae, those at tip more than one-third the length of the entire lobe.

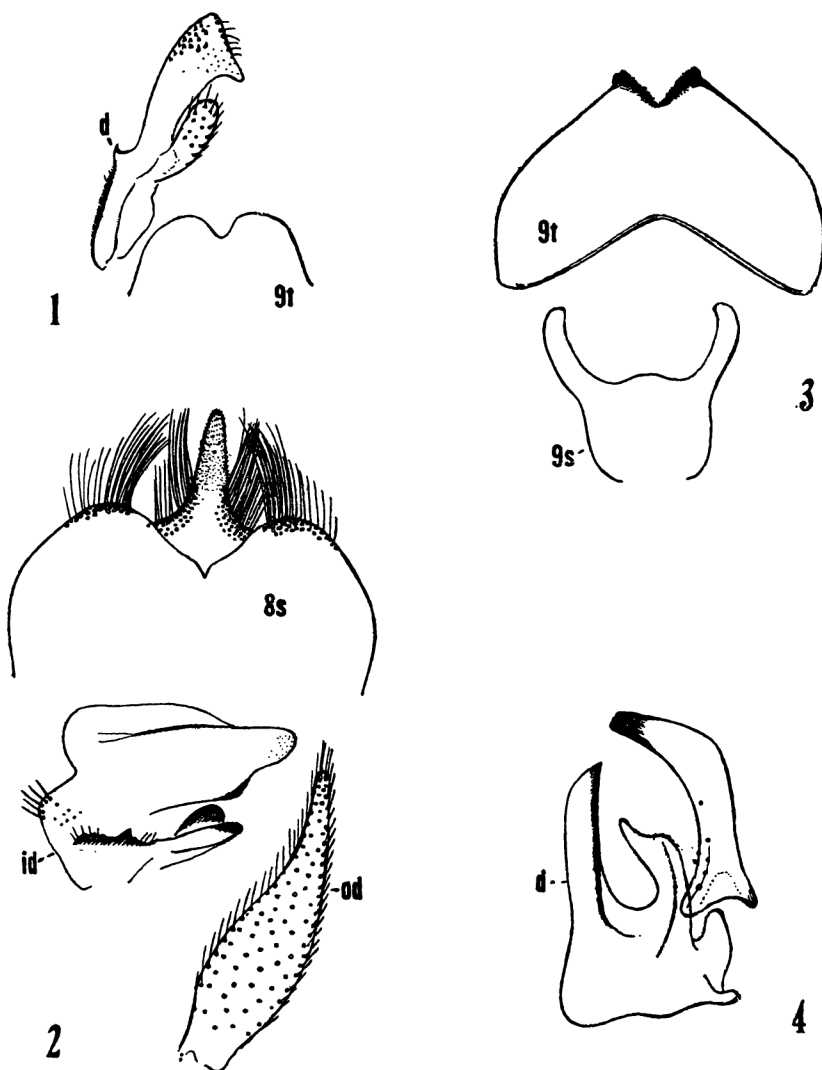
*Holotype*, Rancho Grande, Aragua, April 1944 (Lichy).

This fly is most similar to *Tipula (Eumicrotipula) armillata* Alexander and *T. (E.) pantherina* Alexander, having similarly very elongate antennae in the male sex. It differs from all such species in the structure of the male hypopygium, particularly the tergite, inner dististyle, gonapophyses and eighth sternite.

100. *Tipula (Eumicrotipula) pantherina* Alexander.

1941. *Tipula pantherina* Alexander; Ann. Ent. Soc. America, 34: 242.

The type, a unique male, was from Venezuela, without further data; included in the "Old Collection" of the Vienna Museum and presumably captured either by Carl Gotthelf Kaden 1857 or by Alexander Lindig (1864). Later taken in Venezuelan Andes (Mérida, June 1938, collected by Anduze) and at El Junquito, D. F. along the trail to Colonia Tovar km. 17, altitude 1.670 meters. April 3, 1938, collected by Vivas Berthier.

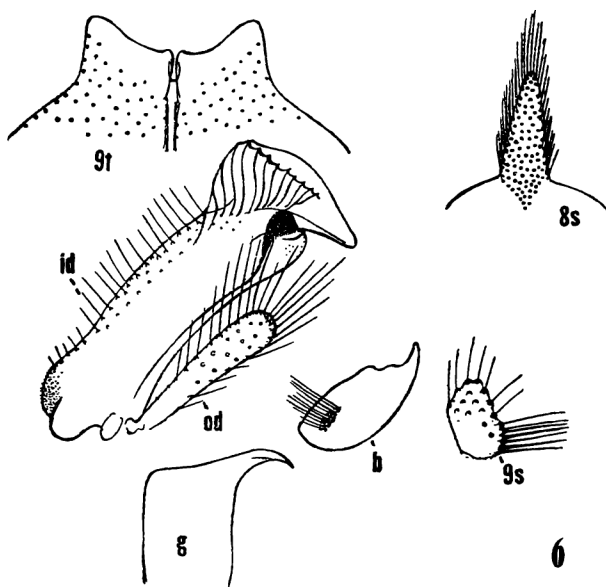
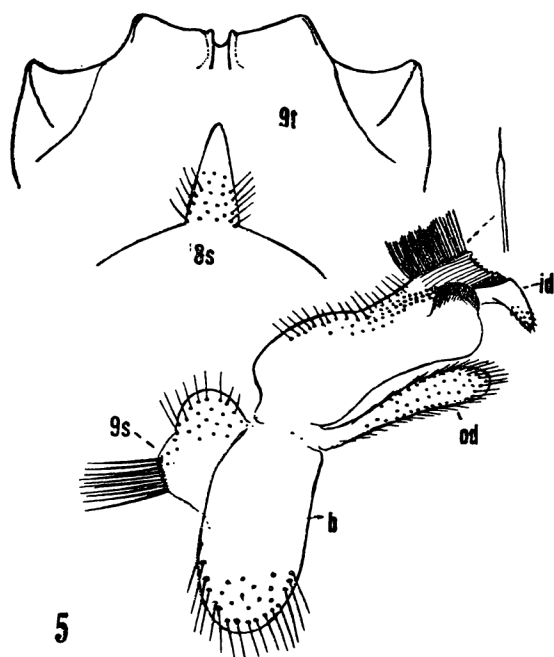


#### EXPLANATION OF FIGURES

Fig. 1.—*Brachypremna subuniformis* sp. n.; male hypopygium.

Fig. 2.—*Nephrotoma medioligula* sp. n.; male hypopygium.

Fig. 3, 4.—*Tipula* (*Microtipula*) *lichyana* sp. n.; male hypopygium.



#### EXPLANATION OF FIGURES

Fig. 5.—*Tipula (Eumicrotipula) cristata* sp. n.; male hypopygium.

Fig. 6.—*Tipula (Eumicrotipula) infinita* sp. n.; male hypopygium.

(Symbols: *b*, basistyle; *d*, dististyle; *g*, gonapophysis; *id*, inner dististyle; *od*, outer dististyle; *s*, sternite; *t*, tergite).