

**TIPULIDAE NUEVOS O POCO CONOCIDOS DE
VENEZUELA (DIPTERA)**

**NEW OR LITTLE-KNOWN TIPULIDAE FROM
VENEZUELA (DIPTERA)**

Part I

by

Charles P. Alexander,

Massachusetts State College, Amherst, Massachusetts.

In the present series of papers, I wish to discuss certain of the undescribed and uncommon species of Tipulidae from Venezuela. Almost our only recent knowledge of the crane-flies of this vast republic result from collections made by Mr. Pablo J. Anduze and Mr. Gaston Vivas-Berthier, whose material has been submitted to me for study and report. I am very deeply indebted to Messrs. Anduze and Vivas-Berthier for the privilege of retaining the type specimens in my own very extensive collection of these flies. Duplicates will be returned for the collection of the Instituto Nacional de Higiene. In this initial report I am discussing certain of the species above mentioned, together with one further species from unusually high altitudes in the Venezuelan Andes, collected by my long-time friend, Mr. Axel A. Olsson, petroleum geologist, who for the past quarter of a century has sent me many fine species of Tipulidae from many of the republics of South and Central America.

Tanypremna (Tanypremnella) gentilis sp. n.

General coloration of praescutum obscure yellow, with four scarcely indicated brownish yellow stripes that are vaguely and incompletely bordered by darker; a narrow transverse brown stripe on mesopleura; tarsi and tips of tibiae white; wings crystalline, the oval stigma dark brown; *Rs* nearly straight; petiole of cell M_1 shorter than *m*; abdominal segments yellow, their broad posterior borders brownish black.

Female.—Length about 8 mm.; wing 10 mm.

Frontal prolongation of head obscure yellow, with well-developed nasus; palpi brown. Antennae with scape obscure yellow; pedicel very pale yellow; flagellum broken. Head orange; no vertical tubercle.

Pronotum weakly infuscated medially, paling to yellow on sides. Mesonotal praescutum obscure yellow, with four scarcely indicated brownish yellow stripes that are virtually concolorous with the ground, indicated by very vague darker borders, including a median brown vitta on about the cephalic half of sclerite; posterior sclerites of notum slightly darker, yellowish brown, the lateral portions of mediotergite and the pleurotergite more uniformly yellow. Pleura yellow, the cephalic portion of the mesepisternum weakly darkened to form a narrow and poorly defined dark transverse band. Halteres with stem testaceous, knob darkened. Legs with the coxae and trochanters yellow; femora obscure yellow, the tips abruptly brown, the amount subequal on all legs; tibiae brown, the tips whitened; tarsi white. Wings crystalline, the oval stigma dark brown; cell *Sc* brownish yellow; veins brown. Venation: *Rs* nearly straight; R_3 a trifle longer than R_{2+3} ; *r-m* distinctly preserved; petiole of cell M_1 shorter than *m*; cell 2nd *A* wider than in *transfasciata*.

Abdominal segments strongly bicolored, the basal rings yellow, the broad posterior borders brownish black.

Holotype, ♀, Akuriman, Gran Sabana, October 29, 1940 (*Anduze*).

Tanypremna (Tanypremnella) gentilis is closest to *T. (T.) transfasciata* Alexander, of Ecuador, differing especially in the details of coloration and venation. Hitherto about six species of the subgenus *Tanypremnella* Alexander had been defined, all from Ecuador and Peru.

Tipula olssoniana sp. n.

Belongs to the *glaphyoptera* group; allied to *procericornis*; wings of male fully-developed, of female reduced to small blackened pads; antennae (male) a little longer than one-half the body, black throughout, terminal segment elongate; vestiture of flagellar segments short and inconspicuous; wings (male) strongly infumated, with a longitudinal whitish stripe extending the entire length; R_{1+2} atrophied; male hypopygium with the ninth tergite simply emarginate; eight sternite with a small median lobe that is a trifle shorter than its breadth across base.

Male.—Length about 9-10 mm.; wing 10.5-11 mm.; antenna about 5.3-5.4 mm.

Female.—Length about 14 mm.; wing about 1 mm.

Frontal prolongation of head dark gray, with black setae; nasus stout; palpi black. Antennae (male) of moderate length, a little exceeding one-half the length of body, black throughout; flagellar segments moderately incised; verticils very short; pubescence of segments abundant but pale and inconspicuous; terminal (thirteenth) segment elongate, a little exceeding the penultimate in length. Antennae (female) only 12-segmented; first flagellar segment very long, exceeding the succeeding three combined; outer flagellar segments short-cylindrical; terminal segment a trifle longer than the penultimate. Head gray, the center of the vertex more infuscated.

Pronotum gray, narrowly infuscated medially. Mesonotum gray, the praescutum with three brown stripes, the median one broad, the lateral stripes unusually narrow; praescutal interspaces with a few dark setigerous punctures; scutal lobes each with two brownish areas; scutellum and

postnotum clear light gray. Pleura gray; dorsopleural membrane infuscated. Halteres relatively long, stem dark brown, knob blackened. Legs with coxae and trochanters gray; remainder of legs black, the femoral bases more reddish brown, most extensive on posterior legs; claws simple; legs of male much longer and more slender than in female. Wings (male) relatively narrow, fully-developed; membrane strongly infumated, with a conspicuous whitish longitudinal stripe extending the entire length of wing, involving the bases of cells *1st A* and *2nd A*, the central portion of *Cu*, more than the outer half of cell *M*, all of *1st M₂*, extreme base of *2nd M₂*, attaining wing-tip in outer end of cell *R₅*; cells *C* and *Sc*, with the stigma, a little more yellowish brown; prearcular field chiefly darkened; veins brown, a little more brightened in the costal field. Venation: *R₁₊₂* atrophied, at most represented by a short spur; petiole of cell *M₁* subequal in length to cell. In female, the wings are reduced to microscopic blackened pads, somewhat elongate, and with the costal border conspicuously setiferous.

Abdominal tergites chiefly dark brown, the caudal borders of the segments restrictedly brownish yellow, the lateral margins more grayish; hypopygium chiefly dark brown; the dististyles obscure yellow. In female, abdomen more elongate, lighter brown, the tergites with three slightly darker stripes; genital shield blackened; cerci long and straight. Male hypopygium with the caudal margin of tergite shallowly notched, the lateral lobes thus formed very obtuse. Outer dististyle small, only moderately expanded. Inner dististyle large and conspicuous, the lobes blackened and obtusely rounded. Eighth sternite with a small median lobe that is a trifle shorter than the breadth across the base, provided with long yellow setae that considerably exceed the lobe in length.

Holotype, ♂, Paramo de Mucuchies, Merida, between the cities of Merida and Trujillo, altitude 4,080 meters, April 3, 1942 (A. A. Olsson); swarming in bright sunlight. *Allotopotype*, ♀. *Paratopotypes*, 9 ♂♂.

I am pleased to name this distinct *Tipula* after the collector, who was my boyhood friend and college room-mate

for many years. The nearest relative of *Tipula olssoniana* is *T. procericornis* Edwards, from high altitudes in the Ecuadorian Andes (3,800-3,900 meters). This latter fly, of which I possess a paratype through the kindness of Mons. Eugene Séguy, has very long antennae in the male, with greatly lengthened flagellar segments that are clothed with a long conspicuous blackened pubescence. The structure of the male hypopygium, especially of the inner dististyle, is distinct in the two flies. Both species have vein R_{1+2} either entirely atrophied or virtually so.

Limonia (Geranomyia) vindicta sp. n.

Allied to *canadensis*; general coloration obscure yellow, the praescutum darkened medially behind, the centers of the scutal lobes similarly darkened; pleura testaceous yellow; knobs of halteres dark brown; legs pale brownish yellow; wings with a pale yellow tinge, the oval stigma brown; Sc_1 ending about opposite midlength of R_s ; male hypopygium with the rostral prolongation of the ventral dististyle very short and blunt, with two spines, one from a low tubercle; gonapophyses pale, terminating in an acute black spine; aedeagus covered with microscopic setulae.

Male.—Length, excluding rostrum, about 6 mm.; wing 7 mm.

Rostrum dark brown, pale basally; evidently rather elongate but the tip broken; maxillary palpi near base. Antennae black, the scape and pedicel brownish yellow; flagellar segments subcylindrical to weakly fusiform, with truncated ends; terminal segment a trifle longer than the penultimate. Head buffy brown.

Pronotum obscure yellow. Mesonotum obscure yellow, very restrictedly patterned with pale brown, including a central area on praescutum before the suture and the centers of the scutal lobes. Pleura testaceous yellow. Halteres with stem pale, knob dark brown. Legs with the coxae and trochanters yellowish testaceous; remainder of legs pale brownish yellow, the femora unpatterned; tarsi scarcely darker.

Wings with a pale yellow tinge, unpatterned except for the oval brown stigma; veins pale brown, *Sc* and the basal veins more yellow. Venation: *Sc* moderately long, *Sc*₁ ending about opposite midlength of *Rs*, *Sc*₂ near its tip; a supernumerary crossvein in cell *Sc*; *Rs* nearly straight, about twice the basal section of *R*₄₊₅; cell 1st *M*₂ short-rectangular, shorter than any of the elements beyond it; *m-cu* close to fork of *M*.

Abdominal tergites and hypopygium brown, the esternites paler. Male hypopygium with the tergite transverse, the caudal margin straight or virtually so. Basistyle much smaller than the ventral dististyle. Dorsal dististyle acutely pointed at tip. Ventral dististyle very large, its rostral prolongation unusually short and blunt, with two spines, one arising from a very low tubercle, the other sessile; spines acutely pointed, subequal in length but appearing slightly unequal because of the differences in the basal tubercles, longer than the rostral prolongation itself. Gonapophyses with mesal-apical lobe erect, pale, terminating in an acute black point. Aedeagus terminating in two narrow oblong lobes, closely appressed to one another, separated only by a linear split; surface of aedeagus with abundant microscopic setulae.

Holotype, ♂, Rio Chacaito, Miranda, altitude 980 meters, September 18, 1938 (*Vivas-Berthier*); Collector's N° 39.

In the nature of the pattern of the body and wings, *Limonia* (*Geranomyia*) *vindicta* is apparently closest to species such as *L. (G.) canadensis* (Westwood), differing notably in the details of structure of the male hypopygium, as the very obtuse rostral prolongation and the blackened tips of the gonapophyses. It should be noted that all members of the group have delicate setulae on the aedeagus but these are very sparse and insignificant in some species, such as *L. (G.) guatemalensis* (Alexander); longer and more abundant, but still pale and inconspicuous in others, such as *L. (G.) argentinensis* Alexander, *L. (G.) austroandina* Alexander, *L. (G.) canadensis* (Westwood), *L. (G.) distinta* (Doane) and *L. (G.) vanduzeei* (Alexander); coarsest and most conspicuous in the present fly.

Limonia (Geranomyia) cinereinota (Alexander).

1913. *Geranomyia cinereinota* Alexander; Ent. News, 24: 407-408 (Bolivia, British Guiana).

Widely distributed in South and Middle América. San Esteban, Estado Carabobo. December 30, 1939 (*Anduze*).

Orimarga (Orimarga) excessiva Alexander.

1926. *Orimarga excessiva* Alexander; Ann. Ent. Soc. America, 19: 380-381 (Venezuela).

Described from Tachira, Venezuela. The description of the thorax of the type is erroneous. The central portion of the praescutum is almost black, laterally paling to more grayish; sclerites below and behind the wing-base more brightened. The legs of the unique type were broken; femora and tibiae black, tarsi snowy white with only the last segment darkened.

Allotype, ♂, Borburata, Estado Carabobo, altitude 500 meters, March 15, 1940 (*Anduze*). One additional male taken with the allotype.

Orimarga (Diotrepha) fumicosta elongata subsp. n.

Much as in typical *fumicosta* Alexander but larger and with the venational details distinct.

Male.—Length 7-8 mm.; wing 5-6 mm.

Venation: R_2 and $r-m$ in transverse alignment; both R_{2+3} and the basal section of R_{4+5} elongate and subequal, almost one-half the length of R_s and longer than R_{1+2} alone. In typical *fumicosta*, R_{2+3} is less than one-third the length of R_s , usually only about one-quarter.

Holotype, ♂, Borburata, Estado Carabobo, altitude 500 meters, March 15, 1940 (*Anduze*). *Paratopotype*, ♂.

Teucholabis (Teucholabis) spinigera Schiner.

1868. *Teucholabis spinigera* Schiner; Novara Reise, Dipt., p. 44 (type from Venezuela, Lindig 1864; not Colombia, as stated).

1927. *Teucholabis (Teucholabis) spinigera* Alexander; Encycl. Entomol., Diptera, 4: 24-25 (redescription of holotype specimen).

Borburata, Estado Carabobo, altitude 500 meters, March 15, 1940 (*Anduze*).

San Esteban, Estado Carabobo, December 25, 1939- January 6, 1940 (*Anduze*).

The female is much smaller than the male, as is common in this genus and a very few others within the family Tipulidae.

Gonomyia (Lipophleps) neofalcifer sp. n.

Belongs to the *cinerea* group, allied to *falcifer*; male hypopygium with the outer dististyle unequally bifurcate, the inner arm spinous, only about one-half the length of the stem; stem of outer dististyle with a small spine or tooth; inner dististyle hispinous, with a further small triangular blackened point at base of style.

Male. — Length about 4.5 mm.; wing about 3.9 mm.

Rostrum and palpi dark brown. Antennae with basal segments yellow, the scape infuscated beneath; outer flagellar segments passing into dark brown. Head obscure yellow, the center of vertex extensively darkened.

Pronotum darkened medially, light sulphur-yellow on sides; pretergites sulphur-yellow. Mesonotal praescutum dark gray with two brown intermediate stripes, the lateral stripes broader but only vaguely indicated; pseudosutural foveae brownish black; scutal lobes dark brown; scutellum obscure yellow, extensively dark brown medially at base; postnotum obscure reddish, sparsely pruinose, the cephalic portion of

mediotergite darkened. Pleura dark brown, with a conspicuous yellow longitudinal stripe extending from the fore coxae to base of abdomen, passing beneath root of halteres; dorso-pleural region light brown. Halteres with stem yellow, knob infuscated. Legs with the coxae pale, the fore and middle pairs restrictedly darkened basally; trochanters yellow; femora yellow, with a narrow, pale brown, subterminal ring (fore legs broken); tibiae pale yellow, the tips conspicuously brownish black; tarsi black, the proximal ends of basitarsi a trifle paler. Wings brownish gray, the prearcular and costal fields conspicuously whitened, as in the group; stigma small, medium brown; a vaguely indicated dark seam on cord, chiefly evident as a deepening in the color of the veins; veins pale brown, yellow in the whitened areas. Venation: *Rs* very short., only a little longer than *r-m*; cell *1st M*₂ open by atrophy of basal section of *M*₃.

Abdomen dark brown, the posterior borders of the segments narrowly but conspicuously pale, these brightened areas more or less bilobed by a median encroachment of the dark basal areas; segments seven and eight more uniformly darkened; basistyles dark on outer faces, the inner portions yellow. Male hypopygium with the outer dististyle conspicuously forked, the branches unequal, the outer one elongate, approximately twice the length of the stem, the margin with microscopic teeth; inner arm more acutely pointed, only about one-half the length of stem, very vaguely toothed; inner edge of stem at near midlength with a microscopic spine or tooth. Inner dististyle with a broad-based yellow lobe that terminates in two slightly unequal black spines; a further small triangular black point at base of style.

Holotype, ♂, Akuriman, (Gran Sabana), Estado Bolívar, altitude 900 meters, October 19, 1940 (*Anduze*).

The only other described species of the *cinerea* group having bispinous inner dististyles are *Gonomyia (Lipophleps) falcifer* Alexander, of Amazonian Peru, and *G. (L.) subfalcifer* Alexander, of Paraguay. These differ especially in the details of structure of the male hypopygium, especially of the inner dististyle.

Erioptera (Erioptera) celestis Alexander.

1940. *Erioptera (Erioptera) celestis* Alexander; Ann. Mag. Nat. Hist., (11) 5: 294-296 (Ecuador).

Known hitherto only from Ecuador. Borburata, Estado Carabobo, altitude 500 meters, March 15, 1940 (*Anduze*).

RESUMEN

Inicia el Prof. Alexander una serie de trabajos sobre los Tipulidos nuevos o poco conocidos de la fauna venezolana. Describe a las especies nuevas: *Tanypremna (Tanypremnella) gentilis* Alexander de la Gran Sabana; *Tipula olssoniana* Alexander del Páramo de Mucuchies; *Limonia (Geranomyia) vindicta* Alexander del río Chacaíto en el E. Miranda; *Gonomyia (Lipophleps) neofalcifer* Alexander de la Gran Sabana y establece como nuevos records en Venezuela: *Limonia (Geranomyia) cinereinota* Alexander de San Esteban, E. Carabobo y *Erioptera (Erioptera) celestis* Alexander de Borburata, E. Carabobo.