

Undescribed Crane-flies from Argentina (Tipulidae, Diptera)

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The species of crane-flies described below were sent to me for naming by Señor Charles Bruch and Señor Pedro Jorgensen-Hansen. Some of the species were taken in the "Puna" or highlands of the Province of Jujuy by Vladimir Weiser, a civil engineer engaged in surveying this country, and kindly included in the material sent me by Señor Bruch. The types of *Tipula moniliferoides* were taken at the Estancia of Mr. B. M. Barrett, at Monte Veloz, about 150 kilometers south of Buenos Aires, where most of them were found in the houses in the morning, presumably having been attracted to lights earlier in the evening. The types are preserved in the writer's collection, paratypes of some of the species in the La Plata Museum. I am greatly indebted to the gentlemen above mentioned for the interesting material described at this time and elsewhere.

Gonomyia (Gonomyella) weiseri new species.

General coloration gray; antennae black throughout; mesonotal praescutum with three brown stripes; pleura grayish with a conspicuous yellow ventral stripe; halteres elongate, pale, the knobs brown; wings subhyaline, the stigma brown; *Sc* elongate; male hypopygium with the largest pleural appendage bifid.

♂ Length about 5.5 mm.; wing 7.2-8 mm. ♀ Length 6.8 mm.; wing 8-8.2 mm.

Rostrum and palpi black. Antennae black, the flagellar segments cylindrical. Head light gray.

Pronotum dull gray, the lateral margins narrowly yellowish, broadest on the scutellum. Mesonotal praescutum light gray with three conspicuous brown stripes; pseudosutural foveae conspicuous, oval, jet black; tuberculate pits at the extreme cephalic margin of the sclerite, separated

from one another by a distance a little greater than the diameter of one; scutum gray, each lobe with a brown mark continued backward from the lateral praescutal stripes; scutellum gray, broadly margined with pale; postnotum light gray. Pleura grayish, a conspicuous yellowish longitudinal stripe across the dorsal portion of the mesosternum and the ventral portions of the mesepimeron, beginning as a narrow point behind the fore coxa, broadest above and immediately behind the middle coxa. Halteres long and slender, pale, the knobs dark brown.

Legs with the coxae dark grayish brown; trochanters brown; remainder of the legs brown, the tips of the femora, tibiae and tarsi darker.

Wings comparatively long and narrow, subhyaline, the stigma conspicuous, oval, brown; veins dark brown. Venation: *Sc* long, *Sc1* ending just before midlength of the long *Rs*; *Sc2* removed a short distance from the tip of *Sc1*, *Sc1* alone being about equal to the basal deflection of *Cu1*; *Rs* very long, almost straight, longer than the combined *R2+3* and *R3* beyond it; *r* on *R2+3* nearer the fork of *Rs* than to the fork of *R2+3*; *R2* approximately equal to *R2+3*; cell *1st M2* open by the atrophy of the outer deflection of *M3*; basal deflection of *Cu1* a short distance before the fork of *M*.

Abdomen dark brown, sparsely pruinose, the caudal margins of the segments narrowly pale. Male hypopygium with the pleurites stout, the appendages inserted near midlength of the inner face; three pleural appendages, the largest heavily chitinized, bifid, the outer arm again slightly split at the tip so that the entire appendage appears indistinctly trifid; inner pleural appendage a flattened blade that is slightly dilated distally and provided with rather numerous sense setae; outer pleural appendage about as long as the second appendage, heavily chitinized, sinuous, narrowed to the blunt apex. Penis-guard long and narrow, the apex indistinctly trifid. Ovipositor with the valves slender, acute, strongly upcurved.

Habitat: Argentina.

Holotype: ♂; Cueva Iturbe, Province of Jujuy, altitude 3700 meters, November 10, 1919 (Vladimir Weiser). *Allotype:* ♀, Hornadita, Province of Jujuy, altitude 3400 meters, November 30, 1919 (Weiser). *Paratypes:* 1 ♀, with the allotype; 7 ♂ 4 ♀, Tilcara, March 20, 1920.

This interesting fly is dedicated to its collector, Señor Vladimir Weiser, to whom we are indebted for considerable assistance in determining the range of distribution of Tipulidae in Argentina.

Gonomyia (Gonomyella) argentinensis new species.

General coloration light brownish gray; antennae dark brown, mesonotal praescutum with three brown stripes; pleura dark brown with a

conspicuous light yellow longitudinal stripe; wings with a faint brownish tinge, the stigma very faint; male hypopygium with the intermedate pleural appendage narrow basally, gradually widened, the acute outer angles subequal.

♂. Length about 5 mm.; wing 5.5 mm.

Rostrum and palpi dark brown. Antennae dark brown. Head light gray, with an indistinct, darker, median line.

Pronotum dark brown, the lateral margins narrowly pale yellow. Mesonotal praescutum light brownish gray, with three dark brown stripes; scutum brownish gray, each lobe with two brown spots; scutellum and postnotum dusted with gray. Pleura dark brown; a conspicuous light yellow longitudinal stripe across the dorsal portions of the mesosternum, extending from behind the fore coxae to dorsad of the hind coxae; cephalic portion of the mesepimeron yellow; dorsal pleurites dusted with gray. Halteres light yellow, the knobs brown.

Legs with the coxae reddish brown; trochanters dull yellow; remainder of the legs obscure yellow; the tarsi darker.

Wings with a faint brown tinge; stigma very faint, slightly darker brown; veins dark brown. Venation: *Sc2* some distance from the tip of *Sc1*, immediately beyond the origin of *Rs*; *Rs* but slightly arcuated, about as long as *R2+3* and *R2* taken together; *r* indistinct, inserted at about midlength of *R2+3*; cell *1st M2* open; basal deflection of *Cu1* before the fork of *M*, this distance being about one-half the deflection.

Abdomen dark brown, the posterior margins of the segments indistinctly paler. Male hypopygium with the pleurites having three appendages, the outermost flattened, the short apex produced into an acute point that is directed at a right angle to the remainder of the blade, somewhat like the beak of a bird; the intermediate appendage is slender basally, gradually dilated into a fanlike structure, the outer margin concave, the lateral angles thus formed produced into acute or subacute, subequal points; inner pleural appendage a pale, flattened lobe that is gradually widened to just before the apex, the tip obtuse. Penis-guard distinctly trifid at apex.

Habitat: Argentina.

Holotype, ♂, Rioja, February, 1915, (E. Giacomelli). *Allotopotype*, 1 ♀, in poor condition.

This fly is allied to *G. velutina* Alexander, *G. weiseri* new species, and other members of the subgenus in the Neotropical fauna but is readily told by the structure of the male hypopygium.

Gonomyia (Leiponeura) bruchi new species.

Antennae black, the scapal segments largely yellow; head yellow, the vertex with a brown blotch; thorax yellow, marked with brown; thoracic

pleura yellow with two brown longitudinal stripes; halteres brown, the knobs yellow; legs brown; wings yellowish gray, the stigma indistinct; male hypopygium with the outer pleural appendage a chitinized hook with a short horn near its base.

♂. Length about 4 mm.; wing 3.8 mm.

Rostrum brown; palpi dark brown. Antennae of the male provided with very long verticils as usual in this group of species; first scapal segment yellow; second scapal segment enlarged, dark brown, margined with yellow; remainder of the antenna dark brown. Head light yellow with a large brown blotch on the vertex.

Pronotum whitish yellow. Mesonotal praescutum with three dark brown stripes that are sparsely purplish gray pruinose, entirely confluent in front, separated behind to show the yellow ground-color; lateral margins of the praescutum broadly yellow; scutum yellow, the center of each lobe purplish brown, this color produced by the backward extension of the lateral praescutal stripes; scutellum yellow, with a conspicuous brown median blotch at the base; postnotum brownish. Pleura yellow with two conspicuous brown longitudinal stripes, the more ventral suffusing the sterno-pleurites; mid-line of the sternum yellow. Halteres pale brown, the base of the stem and the base of the knobs darker; remainder of the knobs conspicuously light yellow.

Legs with the coxae and trochanters pale; remainder of the legs pale brown, the distal tarsal segments darker.

Wings with a strong yellowish gray tinge; stigma barely indicated by a long, dusky suffusion in cell *R1*; veins pale. Venation: *Sc* rather short, *Sc1* ending a short distance before the origin of *Rs*; *Sc2* removed from the tip of *Sc1* to a distance that is but little shorter than *r-m*; *Rs* rather short, almost square at origin; cell *1st M2* broad, the basal deflection of *Cu1* at or immediately before its fork.

Abdominal tergites dull yellow, with a broad, brownish median stripe; sternites yellow. Male hypopygium with the pleurites moderately stout, the outer angle produced into a long, stout, fleshy lobe; outer pleural appendage a long, chitinized hook that is broad at the base, narrowed gradually to the sinuous, acute tip, beyond the base with a short, stout horn; inner pleural appendage very small, fleshy, provided with stout bristles and tipped with a powerful spine. Penis-guard formed as two parallel flattened blades, the tips blackened and produced into a short beak that is directed cephalad; gonapophyses black, bent slightly at their tips which are minutely and irregularly toothed.

Habitat: Argentina.

Holotype, ♂, Province of Buenos Aires, October 11, 1919, (C. Bruch). 1 ♂, 2 ♀, La Aranja, Alta Gracia, Prov. de Córdoba, April 1-8, 1920 (C. Bruch).

This beautiful little fly is respectfully dedicated to its collector, Señor Charles Bruch, to whom I am greatly indebted for many Argentinian Tipulidae.

Holorusia catamarcensis new species.

Antennae naked, the basal half yellow, the distal half passing into brown; mesonotal praescutum brownish buff with three conspicuous gray stripes that are narrowly margined with dark brown, the median stripe bisected by a narrow line of this color; legs yellow, the tips of the femora and tibiae dark brown; wings brownish yellow, the stigma and a spot at the origin of *Rs* darker; abdominal tergites yellow, trivittate with dark brown.

♀.—Length about 19 mm.; wing 20.5 mm.

Frontal prolongation of head brownish yellow, narrowly dark brown laterally; nasus long and slender; palpi dark brown. Antennae with the basal seven segments light yellow, the flagellum thence passing into brown; flagellar segments cylindrical with microscopic verticils only, as in the genus; first flagellar segment very long and slender, nearly as long as the succeeding three taken together. Head pale brownish testaceous, sparsely gray pruinose.

Mesonotal praescutum pale brownish buff with three conspicuous gray stripes that are narrowly margined with dark brown, the median stripe split by a conspicuous brown stripe; scutum pale grayish testaceous, the lobes largely gray; scutellum and postnotum testaceous, sparsely whitish pruinose, the postnotum with a capillary brown line. Pleura pale brown, sparsely pruinose, the dorso-pleural membranes dull yellow. Propleura dull yellow, with an indistinct brownish spot above the fore coxa. Halteres pale, the knobs slightly darker.

Legs with the coxae yellow, sparsely pruinose; trochanters yellow; femora dull yellow, the tips conspicuously dark brown; tibiae similar, the tips narrowly darkened; tarsi pale brown, the distal segments darker.

Wings with a strong brownish yellow tinge, the subcostal cell yellow; stigma oval, brown; a brown cloud at the origin of *Rs*, a brown seam below vein *Cu*; oblitative areas before the stigma in cell *1st R2* and across cell *1st M2*, the basal deflection of *M1+2* and the outer deflection of *M3+4* being largely pale; cell *C* above the stigma pale; anal cells darkened distally, cell *1st A* with a pale triangle at the apex, slightly before vein *2nd A*; veins dark brown. Venation: *Rs* rather long, exceeding *R3*, slightly angulated at origin; vein *R3* not strongly arcuated; cell *1st M2* narrow; petiole of cell *M1* about one-half as long as *m*.

Abdomen yellowish, the tergites trivittate, a narrow brown median stripe, the apical segments with the caudal margins narrowly darkened; sublateral stripes broader; lateral margins pale gray; second sternite with a large brown blotch at the base. Ovipositor with the tergal valves long, straight, compressed.

Habitat: Argentina.

Holotype, ♀, Esquina Grande, Catamarca, April 7, 1915. (P. Jorgensen-Hansen).

Holorusia jujuyensis new species.

General coloration dark brownish black, pruinose; nasus bifid; antennal segments with short bristles; legs dark brown; wings gray, the veins seamed with subhyaline; *Rs* short, petiole of cell *M1* short; abdominal tergites reddish brown with sublateral brownish black stripes.

Length 18 mm.; wing 16 mm.

Frontal prolongation of the head comparatively short, dark reddish brown; nasus broad, distinctly bifid at apex, clothed with long yellow bristles; palpi brownish black. Antennae with the first segment dark brown, sparsely pruinose; second segment brownish yellow; flagellum uniformly brown, the outer segments darker; but ten evident flagellar segments, the first segment a little less than the succeeding two taken together; flagellar segments cylindrical with comparatively short verticils, the first and second flagellar segments with numerous such bristles. Head dark brown, narrowly gray along the inner margin of the eyes.

Mesonotal praescutum grayish brown, with three dull gray stripes that are margined with dark brownish black, the median area of the sclerite discolored in the unique type; humeral regions and lateral margins obscure yellow; scutum blackish with two large gray areas; scutellum and postnotum dull gray with a narrow blackish median line. Pleura dull gray, indistinctly marked with blackish; a conspicuous whitish area on the lateral sclerites of the postnotum, immediately cephalad of the base of the halteres. Halteres dark brown, paler basally.

Legs with the coxae and trochanters dark brown, the former dull gray pruinose, remainder of the legs dark reddish brown, the tips of the femora, tibiae and all the distal tarsal segments black.

Wings broad, dull gray, the veins broadly seamed with subhyaline, isolating the ground-color to the centers of the cells; a nearly continuous subhyaline streak along vein *M*, passing into cell *R* near its end, crossing cell *1st M2* and into cell *M4* where it forks before the wing-margin; similar forks are found in cells *R5*, *M1* and *2nd M2*, leaving gray triangles in the apices of these cells; stigma large, dark brown; cell *R2* pale, centered with gray; cell *R3* gray, the outer end pale; vein *1st A* is bordered on either side by a broad subhyaline space; veins reddish horn-color. Venation: *Rs* short, a little longer than *R2+3*; *R3* rather strongly arcuate; cell *1st M2* comparatively broad; petiole of cell *M1* short, about one-half of *m*; fusion of *Cu1* and *M3+4* punctiform.

Abdominal tergites reddish brown, with conspicuous, sublateral brownish black stripes and narrow gray margins; segments narrowly ringed caudally with pale; sternites brown, the distal segments more blackish. Ovipositor with the tergal valves almost straight, long and slender.

Habitat: Argentina.

Holotype: ♂, Province of Jujuy, January 12, 1920 (V. Weiser). *Allotype*: ♀, Tilcara, Jujuy, January 12, 1920 (Vladimir Weiser). *Paratopotypes*: 1 ♂, 1 ♀; *paratypes*, 10 ♂, 2 ♀, La Granja, Alta Gracia, Prov. de Córdoba, April 1-8, 1920 (C. Bruch).

Tipula moniliferoides new species.

♂ Length 12-13 mm.; wing 13.6-14.3 mm.; antenna 10.2-11 mm. ♀ Length 18-19 mm.; wing 14.2-15 mm.

Similar to *T. monilifera* Loew, differing as follows:

Antennal flagellum beyond the first segment brownish black. The three thoracic stripes are present, the median stripe represented by broad margins that are a little narrower than the lateral stripes. Pleura uniformly light yellow.

Habitat: Argentina.

Holotype: ♂, Monte Veloz, Province of Buenos Aires, January 17, 1920 (C. Bruch). *Allotopotype*: ♀. *Paratopotypes*: 2 ♂'s, 5 ♀'s, Estancia B. Barrett, Monte Veloz, January 14-17, 1920 (C. Bruch). *Paratypes*: 4 ♂, 4 ♀, La Granja, Alta Gracia, Prov. de Córdoba, April 1-8, 1920 (C. Bruch).

Tipula mitua Alexander (Colombia) which has the antennal flagellum dark colored as in the present species, differs in the relative shortness of the antennae and the coloration of the thorax.