

RECORDS AND DESCRIPTIONS OF NEOTROPICAL CRANE-FLIES (TIPULIDÆ, DIPTERA). II.

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The crane-flies discussed in the present article are almost without exception from South America. They are based largely on collections made in 1919 near Para, Brazil, by Mr. Herbert S. Parish, the veteran insect collector of the American Tropics. Several other interesting species were sent me by Señor Charles Bruch, collected near La Plata, Argentina, and a few others taken by Dr. Witte in the Province of Santa Cruz, Southern Patagonia. The types are preserved in the collection of the writer; paratypes of several Argentinian species in the Museum at La Plata.

Genus *Geranomyia* Curtis.

Geranomyia argentinensis new species.

Head gray, the genæ more buffy; mesonotum dull yellow, the præscutum with three very broad brown stripes that are nearly confluent; femora with an indistinct, narrow, brown subterminal ring; wings subhyaline, the stigma dark brown, vein *Sc* long, the basal deflection of *Cu*₁ before the fork of *M*.

Male.—Length (excluding rostrum), 5.8–6 mm.; wing, 6.3–6.8 mm.; rostrum, 3.2–3.4 mm.

Female.—Length (excluding rostrum), 7.5 mm.; wing, 7.5 mm.; rostrum, 3.3 mm.

Rostrum dark brown, rather elongate, the tips of the paraglossæ comparatively short. Antennæ with the scapal segments brown, the flagellum dark brown; basal flagellar segments oval, the terminal segments cylindrical. Head pale reddish, heavily gray pruinose, the genæ buffy. Vertex between the eyes rather narrow.

Mesonotum dull yellow, the præscutum with three very broad brown stripes that are practically confluent; scutum with the lobes largely dark brown; scutellum dark brown, broadly margined with yellow or, in some cases, entirely yellow; postnotum dark brown. Pleura uniformly dull yellow, the mesonotum whitish pruinose. Halteres brown, the base of the stem paler. Legs with the coxæ and trochanters yellow; femora pale yellowish brown, the tips a little brighter and with a very indistinct and narrow brown annulus; tibiæ light brown, the tips narrowly darker; tarsi dark brown. Wings subhyaline; stigma oval, dark brown; veins dark brown. Venation: *Sc* long, *Sc*₁ extending to about opposite two thirds the length of the long sector, *Sc*₂ not far removed from the tip of *Sc*₁; a supernumerary crossvein in cell *Sc* a short distance before the origin of the sector; *Rs* long, about three times as long as the basal deflection of *R*₄₊₅; basal deflection of *Cu*₁ some distance before the fork of *M*.

Abdominal tergites dark brown, the lateral margins of the tergites more yellowish; sternites yellowish. Male hypopygium with the ventral pleural appendage large, greatly exceeding the pleurites; two acute needle-like points on either side at the base of the ventral pleural appendage.

Habitat.—Argentina.

Holotype, ♂, Province of Buenos Aires (C. Bruch).

Allotype, ♀.

Paratopotypes, 5 ♂, ♀.

Geranomyia argentinensis belongs to the group of *G. canadensis* (Westwood) and is most nearly allied to *G. guatemalensis* Alexander from which it may be told by the shorter rostrum, the different thoracic and abdominal pattern, the less distinct brown femoral ring, and other details.

Genus *Dicranomyia* Stephens.

Dicranomyia amazonica new species.

Size large (wing of ♂ over 8 mm.); general coloration black, the præscutum reddish with a shiny black median stripe; wings grayish brown, the costal region and narrow seams along the cord darker brown, *Sc* long, cell 1st *M*₂ small, subquadrate.

Male.—Length, 7.8 mm.; wing, 8.5 mm.

Rostrum and palpi dark brown. Antennæ black throughout, the last segment elongate subulate. Head dark brown, gray pruinose, the vertex narrowed between the eyes, the latter with large coarse ommatidia.

Mesonotal præscutum reddish with a conspicuous black median stripe that is broadest and most distinct in front, becoming obliterated before the suture; scutum, scutellum and postnotum black. Pleura mostly black, the mesepimera a little paler. Halteres dark brownish black. Legs with the coxæ dull reddish, the fore coxæ black; trochanters dull reddish; femora black, the bases narrowly reddish; remainder of the legs black. Wings grayish brown, the wing-base indistinctly brighter; the costal region, stigma, tip of the wing and narrow seams along the crossveins and deflections of veins dark brown; veins dark brown, *R*, *Cu* and 2d *A* more yellowish. Venation: *Sc* long, extending to beyond midlength of the long sector, *Sc*₂ at the tip of *Sc*₁; *r* at the tip of *R*₁, longer than the apex of *R*₁ beyond it; cell 1st *M*₂ small, subquadrate; basal deflection of *Cu*₁ before the fork of *M*; *Cu*₂ shorter than the deflection of *Cu*₁.

Abdominal tergites black, the caudal margins of segments two to five broadly but indistinctly paler; sternites reddish brown. Hypopygium conspicuously reddish orange; pleurites elongate, much longer than the relatively small appendages; penis-guard conspicuous, about as long as the pleurites.

Habitat.—Brazil.

Holotype, ♂, Igarapé-Assú, Para, July 16, 1919 (H. S. Parish).

Paratype, ♂, Obidoo, September 10, 1919 (H. S. Parish).

Dicranomyia sanctæ-cruzæ new species.

General coloration reddish yellow; antennal flagellum dark brown; legs yellow, only the terminal tarsal segments darker; wings yellowish subhyaline with sparse dark brown marks at the stigma, along the cord, at crossvein *m* and on the 2d *Anal* vein.

Male.—Length, 8.4 mm.; wing, 12 mm.

Female.—Length, 9–9.3 mm.; wing, 11.5–12.6 mm.

Rostrum and palpi light yellow. Antennæ with the scapal segments brownish yellow, the flagellar segments dark brown, the intermediate flagellar segments oval in shape. Head reddish brown with a microscopic dense white pubescence, the median line of the vertex darker. Eyes rather widely separated by the vertex.

Thorax reddish yellow, the mesonotal præscutum with very indistinct darker reddish stripes. Pleura reddish brown. Halteres pale. Legs with the coxæ and trochanters dull yellow; remainder of the legs pale yellow, the two terminal tarsal segments dark brown; last tarsal segment longer than the penultimate; claws with three teeth. Wings subhyaline, the yellow veins surrounded by a pale yellow tinge; stigma brown, connected with a brown seam at the fork of *Rs*; *Cu*₂ and the basal deflection of *Cu*₁ seamed with brown; a large brown area on crossvein *m*; the distal half of vein 2d *A* with a large dark brown seam. Venation: *Sc*₁ ending opposite the origin of *Rs*, *Sc*₂ a short distance back from the tip so that *Sc*₁ alone is a little longer than *r*; basal deflection of *R*₄₊₅ about one half the length of the feebly sinuous sector; cell 1st *M*₂ closed; basal deflection of *Cu*₁ at or some distance before the fork of *M*.

Abdominal tergites reddish brown, the sternites yellowish, the subterminal

sternites a little darker. Male hypopygium rather large, the pleurites slender, on the ventral inner face produced proximad into a prominent lobe that is covered with appressed hairs; ventral pleural appendage large. Ovipositor with the valves nearly equal in length, or the tergal valves a little shorter than the sternal valves, the tips acute; the tergal valves are blackened and with the dorsal edges minutely serrate.

Habitat.—Argentina (Patagonia); Tierra del Fuego.

Holotype, ♂, Valle Tunel, Santa Cruz (Dr. Witte).

Allotopotype, ♀.

Paratopotype, ♀; paratype, ♀, Tierra del Fuego (Ohlin).

Dicranomyia sanctæ-cruzæ is a large, vigorous species that resembles *D. chlorotica* (Philippi), but is readily told by the handsomely spotted wings.

The paratype is in the Reichsmuseum in Stockholm.

Genus *Rhipidia* Meigen.

Rhipidia (Rhipidia) costaloides new species.

Antennæ black; general coloration black, the anterior part of the præscutum more reddish brown; wings pale gray with a grayish brown pattern along the veins.

Female.—Length, 4.8 mm.; wing, 5.3 mm.

Rostrum and palpi dark brownish black. Antennæ black throughout. Head dark.

Mesonotal præscutum reddish brown, becoming darker posteriorly, the remainder of the mesonotum likewise dark. Pleura dark, the sternum more yellowish. Halteres pale brown, the knobs darker. Legs with the coxæ dark basally; trochanters brown; femora brown; remainder of the legs broken. Wings pale gray subhyaline with a moderately heavy grayish brown pattern as follows: six costal blotches that are approximately as large as the interspaces between them, the first at the arculus, the third at the origin of R_s , the fifth subocellate, at the stigma, the sixth at the end of vein R_{2+3} ; broad paler gray seams along the cord and outer end of cell $1st M_2$. Venation: Sc ending just beyond midlength of R_s ; r at the tip of R_1 ; deflection of R_{1+5} about as long as cell $1st M_2$; inner end of cell $1st M_2$ not conspicuously arcuated; basal deflection of Cu_1 some distance before the fork of M .

Abdominal tergites reddish brown, the caudal margin of the segments broadly dark brown; sternites dull yellow, the segments conspicuously ringed with blackish brown as an annulus on the caudal margin of the segments and on the cephalic margin of the following segment; genital segment dull yellow. Ovipositor with the valves short but heavily chitinized; tergal valves slender, strongly upcurved at the acute tips; sternal valves long, ending about on a level with the tergal valves, straight, the tips acute.

Habitat.—Panama.

Holotype, ♀, Quebrada Richa, a branch of the Rio Tapaliza, a branch of the Rio Puero, altitude 1,300 feet, July 24, 1918 (Axel Olsson).

This small species is closest to *Rhipidia costalis* Williston of Central America and the Lesser Antilles. In order to supplement Williston's brief description, which applies equally well to more than one species in the Neotropical fauna, Mr. W. D. Lang, of the British Museum of Natural History, has very kindly sent me an enlarged accurate drawing of the wing of the type specimen of *R. costalis*. This figure agrees in all the essentials with the fly determined by the writer as *costalis* in an earlier paper (JOURN. N. Y. ENT. SOC., Vol. 22, pl. 3, fig. 2; 1914), the dark markings along the costal margin being considerably larger than the pale interspaces, the radial sector very long, the basal deflection of R_{4+5} comparatively short, basal deflection of Cu_1 just beyond the fork of M and other characters. In Mr. Lang's figures, cell $first M_2$ is shorter and broader than in the specimen above mentioned. *R. costaloides* is readily told by the reduced costal pattern and the venational details.

Genus *Teucholabis* Osten Sacken.

Teucholabis mendax new species.

General coloration reddish, the præscutum with three broad black stripes; head shining black; pleura with large black blotches; legs yellow throughout; wings subhyaline, the apex and a broad seam along the cord slightly brownish.

Male.—Length, 7 mm.; wing, 6.4 mm.

Rostrum pale brown, the palpi dark brown. Antennæ dark brown, the basal segments only a little paler. Head intense shiny black.

Pronotum shiny dark brown, the scutellum more reddish. Mesonotal præscutum reddish yellow with three intense black stripes that are very extensive, the interspaces restricted; median stripe ending before the suture; lateral stripes very broad, nearly circular in outline, continued caudad onto the scutal lobes; remainder of the mesonotum reddish, the postnotum with a distinct median and less distinct lateral stripes on the caudal half. Pleura orange-yellow with large jet black areas, smallest on the propleura; two large blotches on the mesopleura, the largest on the mesepisternum, extending from the sternum to the dorsopleural membranes; a smaller oval area immediately cephalad of the halteres. Halteres small, reddish, the stems a little darker. Legs dull yellow throughout, the femora somewhat thickened. Wings subhyaline with the apex and a broad diffuse seam along the cord very indistinctly darker; stigma dark brown; veins dark brown, the basal and costal regions more yellowish. Venation: Sc rather long, extending to about midlength of the sector;

r inserted a short distance beyond the line of the cord; cell *1st M*₂ long and narrow, about as long as vein *M*₁₊₂ beyond it, longer than *M*₃ beyond it; basal deflection of *Cu*₁ at about one fourth the length of cell *1st M*₂.

Abdomen reddish. Hypopygium weakly armed; an outer flattened pale blade that bears a few long setae; a long-curved appendage that terminates in a blackened needle-like point; an inner, bifid heavily chitinized appendage with the anterior blade flattened, the edge indistinctly two-toothed, truncated or slightly concave; penis-guard stout, the tip blackened.

Habitat.—Brazil.

Holotype, ♂, Prata, Para, June 30, 1919 (H. S. Parish).

Teucholabis mendax is readily told from all its relatives by the unusually pale banded wings and the shining black head.

Teucholabis persimilis new species.

General coloration light brown, the pleura yellow, wings yellow, crossvein *r* lacking, veins issuing from cell *1st M*₂ long.

Female.—Length, 4.6 mm.; wing, 4.5 mm.

Rostrum pale brown, the palpi darker. Antennae unusually long for this genus of flies, if bent backward extending to beyond the wing-root; brown, the basal segment a little paler; flagellar segments long-cylindrical with long verticils and a dense white pubescence. Head brownish yellow, sparsely white pruinose; vertex between the eyes broad.

Pronotum yellowish medially, the scutellum more whitish, the pleural regions more brownish. Mesonotum light brown, sparsely pollinose, the median area of the scutum and postnotum more yellowish. Pleura yellow, the dorsal pleurites somewhat darker. Halteres brown, the knobs dark. Legs dull yellow, the terminal three or four tarsal segments dark brown; claws small, untoothed, empodia conspicuous. Wings with a strong yellowish tinge; stigma indistinct, grayish; veins brownish yellow. Venation: *Sc* rather long, *Sc*₁ very long, extending to beyond midlength of the long sector, *Sc*₂ far from the tip of *Sc*₁ and slightly proximad of the origin of *Rs*; *r* lacking; veins *R*₂₊₃ and *R*₄₊₅ long, curved caudad and running parallel at their ends; cell *1st M*₂ narrow, shorter than the veins issuing from it; basal deflection of *Cu*₁ a short distance beyond the fork of *M*.

Abdominal tergites dark brown, the sternites more yellowish. Ovipositor with the valves long and slender, strongly upcurved, the tips acute.

Habitat.—Brazil.

Holotype, ♀, Igarapé-Assú, Para, July 15, 1919 (H. S. Parish).

This curious little fly is referred to the genus *Teucholabis* with considerable doubt. The radial cross-vein is completely lacking and vein *Sc*₁ is very long for a member of this genus of flies. *T. persimilis* bears a great resemblance to *T. parishi* Alexander (Psyche,

Vol. 20, pp. 46, 47; 1913) which must likewise be considered a doubtful member of the genus. The present species may be told by the long antennae and the details of venation, especially the shorter subcosta, the lack of a spur of vein *R*₂₊₃ and the shorter cell *first M*₂ with the longer veins issuing from it. That the spur on *R*₂₊₃ in *T. parishi* is a normal condition for this species is shown by the fact that it bears a macrotrichia on this spur in both wings of the unique type, this undoubtedly representing the origin of vein *R*₂.

Genus *Gonomyia* Meigen.

Gonomyia (Gonomyella) parænsis new species.

Antennae with the basal segments light yellow, the flagellum brown; head yellow, silvery pollinose; mesonotum lead-colored, the lateral margins narrowly light yellow; wings strongly tinged with brownish yellow, cell *R*₂ very short, cell *M*₂ very deep.

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

Female.—Length, 4.5 mm.; wing, 4.7 mm.

Rostrum and palpi dark brown. Antennae with the first scapal segment light yellow, stout, moderately elongated; second segment tumid, dull yellow; flagellum slender, brown, the segments with a dense white pubescence, in the male with long, second verticils. Head light yellow, darker on the occiput, covered with a sparse silvery white pollen that is most distinct on the anterior part of the vertex.

Pronotum yellow medially, the sides dark. Mesonotal præscutum dark lead color, sparsely pollinose, the lateral margin narrowly but conspicuously light yellow, two indistinct brownish stripes occupy the region of the inter-spaces; remainder of the mesonotum dark plumbeous. Pleura dull yellow, with a broad, ill-defined, dusky, dorsal stripe. Halteres dark brown. Legs dull yellow, darkening on the tibiae and tarsi, the latter dark brown. Wings strongly brownish yellow, the costal region more saturated; stigma indistinct; veins brown, the costal veins more yellowish. Venation: *Sc*₁ ending slightly before the fork of *Rs*; fusion of *R*₂₊₃ very long, the cell *R*₂ being shorter than in any other described American species of *Gonomyella*; *r* at about two fifths the length of *R*₂₊₃; cell *M*₂ very deep; basal deflection of *Cu*₁ just beyond the fork of *M*.

Abdominal tergites dull yellowish brown, the sternites more yellowish; hypopygium dull brownish yellow. In the female the antennae are shorter, the abdomen dark brown. Ovipositor horn-colored, the tergal valves very long, slender, upcurved at the tip.

Habitat.—Brazil.

Holotype, ♂, Prata, Para, June 30, 1919 (H. S. Parish).

Allotype, ♀.

The holotype male has the wings very much darker brown than in the female, the costal margin being especially suffused; in addition, the venational details are somewhat different, r being placed before one third the length of R_{2+3} ; R_2 considerably longer, slightly more than one half the length of R_3 ; basal deflection of Cu_1 some distance beyond the fork of M . With the exception of these rather conspicuous alar differences, the two flies are very similar to one another and until further material becomes available they must be considered as representing a single variable species.

Genus *Erioptera* Meigen.

Erioptera (Erioptera) micromyia new species.

Size very small (wing of ♀ under 3 mm.); general coloration pale brown, the thoracic dorsum unstriped; wings grayish; ovipositor very long and slender. Female.—Length, 3.3 mm.; wing, 2.8–2.9 mm.

Rostrum yellowish brown; palpi dark brown. Antennæ moderately long and slender, brown. Head light brown, sparsely gray pruinose.

Mesonotum light brown, the præscutum without stripes; tuberculate pits black, separated by a distance about equal to one and one half times the diameter of one. Pleura light brown, heavily light gray pruinose. Halteres with the knobs large, dark brown, the base of the stems pale. Legs with the coxæ small, pale testaceous, sparsely gray pruinose; trochanters testaceous; remainder of the legs brown. Wings grayish subhyaline; veins dark brown. Venation: As in the subgenus *Erioptera*; 2d anal vein moderately sinuate on its outer third.

Abdomen with the tergites dark brown; sternites more yellowish. Ovipositor with the valves very long and slender, acicular, gently upcurved; sternal valves similar in appearance to the tergal valves but more elongate, ending but a short distance before the tips of the tergal valves.

Habitat.—Brazil.

Holotype, ♀, Prata, Para, June 30, 1919 (H. S. Parish).

Paratopotypes, 2 ♀'s.

Genus *Ozodicera* Macquart.

Ozodicera attenuata new species.

Antennal segments four to nine with a single short pectination; segments ten to thirteen very long and attenuated; dorsum of the præscutum with four brown stripes; lateral margins of the abdominal tergites brown.

Male.—Length, about 20 mm.; wing, 16.5 mm.

Frontal prolongation of the head reddish, shiny, narrowly darker dorso-medially; nasus short; palpi black. Antennæ rather long for this genus of

flies, the three basal segments orange, thence passing into black; segments four to nine each bears a single short pectination which is shorter than the segment that bears it; the last four flagellar segments are greatly elongated, filiform, their combined length considerably exceeding the remainder of the antenna. Head yellowish tawny, the vertex very narrow between the large eyes.

Mesonotal præscutum yellowish tawny with four dark reddish brown stripes; remainder of the mesonotum brown, sparsely pruinose, especially the postnotum. Pleura light reddish brown, sparsely white pruinose. Halteres brown, the knobs a little darker. Legs with the coxæ reddish brown, gray pruinose; trochanters and femora dull brownish yellow; tibiae yellowish brown; tarsi dark brown, very long and slender. Wings light gray, the base of the wing and the costal region more brownish yellow; stigma elongate, grayish; veins yellowish brown, C , Sc and Cu more yellowish. Venation: tip of R_2 pale; $r-m$ very short to almost obliterated by the approximation of veins R_{4+5} and M_{1+2} ; cell M_1 broadly sessile; $m-cu$ obliterated by the punctiform contact of Cu_1 on M_{3+4} .

Abdominal tergites yellow, the lateral margins of the segments broadly brown, this mark widening on the fourth and succeeding segments to include most of the segments; sternites reddish yellow, segments seven and eight darker. Hypopygium reddish, the pleurites long, slender, bearing the compressed pleural appendages at their tips.

Habitat.—Brazil.

Holotype, ♂, Prata, Para, July 5, 1919 (H. S. Parish).

Ozodicera attenuata is closest to *O. gracilis* (Westwood) and *O. griseipennis* Loew. It is characterized by the very short antennal pectinations, the attenuated apical flagellar segments, the quadrivittate thorax and the dark lateral margins to the abdominal tergites. *O. gracilis* has the apical flagellar segments less elongated and the thorax subvittate; *O. griseipennis* has the median præscutal stripe entire and the abdomen with a dark brown dorso-median stripe.

Pectinotipula new genus.

Antennæ 13-segmented, in the male with the terminal ten segments each with two long pectinations that exceed in length the segments that bear them; flagellar segments verticillate. Venation with cell first M_2 small as in *Tipula*; cell M_1 long-petiolate. Male hypopygium as in *Tipula*, the ninth tergite, pleurite and sternite being entirely distinct; eighth sternite with a long, conspicuous median appendage. Coloration as in species of the *monilifera* group of the genus *Tipula*, the body with a capillary brown dorso-median line, the præscutum with the interspaces set with tiny brown setigerous punctures.

Genotype.—*Ozodicera argentina* van der Wulp (Argentina).

Enderlein (Zoöl. Jahrb., Vol. 32, pt. 1, p. 27; 1912) places *argentina* in his restricted genus *Ozodicera* under the mistaken belief that the antennæ are unipectinate. In reality, the antennæ in the male sex, at least, are long-bipectinate and of a structure that diverges widely from all species of the genus *Ozodicera*. Likewise in its wing-venation which is almost identical with the normal type of the genus *Tipula* and the simple male hypopygium this species departs from the compact type of *Ozodicera*. The presence of ten pectinate flagellar segments and the petiolate cell M_1 are ample characters upon which to remove this fly from *Ozodicera* to a position nearer the genus *Tipula*, to which it is obviously more nearly allied. The genitalia and color of the body closely resemble those of species of the *monilifera* group of the genus *Tipula* and it seems probable that the true affinities of this fly are not far distant from this group.

I am indebted to Señor Jörgensen for a specimen of this interesting fly, taken at Esquina Grande, Catamarca, Argentina, April 7, 1915.

Genus *Tipula* Linnæus.

Tipula bruchi new species.

Antennæ bicolorous; mesonotal præscutum with dark brown stripes; legs very long and slender, the tips of the femora and tibiæ black; wings with the costal margin yellowish, the membrane clouded with gray and with four dark brown blotches in the subcostal cell.

Male.—Length about 17–18 mm.; wing, 18–19.2 mm.

Hind leg, femur, 14.2 mm.; tibia, 16 mm.; metatarsus, 21.6 mm.

Frontal prolongation of the head slender, buffy, the sides darker; nasus slender with long yellow hairs. Antennæ short, the three basal segments dull yellow, the remaining segments yellow with the basal enlargement black; terminal segments more uniformly darkened; verticils longer than the segments that bear them. Head yellowish buff with a long dark brown median mark on the vertex; vertical tubercle rather conspicuous, brown medially, with an impressed median furrow.

Pronotum pale yellowish brown with three dark brown marks. Mesonotal præscutum light buff with three dark brown stripes, the median stripe divided by a broad pale line which, in turn, is split by a capillary dark brown median line; humeral region dark; scutum buffy gray, each lobe with two large dark brown marks; scutellum light brown with a dark brown median line; postnotum grayish, the posterior margin and median area more grayish, the latter with a capillary dark brown line. Pleura light buff, indistinctly spotted with

darker. Mesosternum indistinctly dark gray. Halteres rather long, the knobs dark brown with the apices dull yellow. Legs with the coxæ and trochanters brownish yellow; femora yellowish brown, the tips broadly black; tibiæ dark brown, the tips narrowly blackened; tarsi very long, dark brown, the metatarsi longer than the tibiæ. Wings subhyaline, with four dark brown subcostal blotches and a heavy grayish brown clouding in all the cells; cells C and Sc strongly yellowish; the first dark brown subcostal mark is at h and also includes the bases of cells R and M and extends into the costal cell; the remaining three marks do not reach the costal cell but send paler clouds caudad into cell R ; the third mark, at the origin of Rs , is the largest, stigma rather pale brown; the grayish brown clouds include the apical half of cells R_2 and R_3 ; most of cells R_5 to Cu_1 , conspicuous zigzag areas in cells M , Cu and $1st A$; cell $2d A$ more uniformly darkened. Venation: Veins R_2 and R_3 strongly divergent, the base of cell R_2 being very narrow; cell $1st M_2$ much longer than broad; $m-cu$ distinct.

Abdomen with the first tergite buffy with a dark brown median mark; second tergite dark with only the basal half pale laterally; remaining tergites darker brown, indistinctly ringed caudally with paler; the lateral margins are marked with a brown streak; sternites similar to the tergites; ninth segment pale. Male hypopygium with the ninth tergite extensive, pale, with a deep and narrow V-shaped median notch, the broad lateral lobes irregularly notched and toothed, the most lateral tooth largest. Ninth pleurite complete, the pleural appendages being long and slender; outer appendage cylindrical, clothed with long, coarse yellow hairs; inner appendage with the posterior margin beautifully fringed with long flattened hairs. Ninth sternite with the caudal inner angle with a pale, roughly oval lobe which is covered with a pale appressed pubescence and whose ventral angle bears a pencil of long reddish hairs that are decussate with those of the opposite side across the genital chamber. Eighth sternite bearing a broad, flattened, heart-shaped median lobe that is provided with long, coarse, yellow hairs.

Habitat.—Argentina.

Holotype, ♂, Province of Buenos Aires (C. Bruch).

Paratopotypes, 2 ♂♂.

Tipula bruchi is named in honor of Señor Charles Bruch, to whom I am indebted for many favors. The species agrees fairly well with the description of *T. nubifera* van der Wulp, but the pattern of the thorax and wings is very different in the two species.

Tipula wittei new species.

Antennal flagellum indistinctly bicolorous; mesonotum dark gray with five brown stripes, the three intermediate stripes capillary, the lateral stripes broader; wings grayish, the stigma pale yellowish brown; abdominal tergites brownish yellow with three dark brown stripes.

Female.—Length, about 26 mm.; wing, 19.2 mm.

Frontal prolongation of the head pale brownish yellow, more pruinose above; palpi dark brown. Antennæ with the first segment gray pruinose; second segment yellow; flagellar segments with the basal enlargement dark brown, the remainder of each segment a trifle paler to produce a very indistinct bicolorous effect; flagellar verticils long. Head brownish gray with a very indistinct brown line on the vertical tubercle.

Pronotum brownish with an indistinct capillary dark brown median line. Mesonotal præscutum dark gray with five brown stripes, the three intermediate very narrow, being formed by the lateral margins and capillary median vitta of the usual broad median stripe; lateral stripes broad; humeral region yellow; præscutal interspaces with a few dark setigerous punctures; scutum dark gray; scutellum dark testaceous brown; postnotum light gray with a capillary black median line. Pleura light yellow, gray pruinose; dorsopleural membranes dull yellow. Halteres long, dark brown, the base of the stem paler. Legs with the coxæ pale reddish, sparsely gray pruinose; trochanters dull yellow; femora reddish brown, the tips indistinctly darker; tibiæ yellowish brown, the tips narrowly dark brown; metatarsi yellowish brown, the tips darkened; remainder of the tarsi dark brown; metatarsi shorter than the tibiæ; claws small, simple. Wings grayish, the apical cells grayish brown, the costal and subcostal cells more yellowish; stigma pale yellowish brown; an obliterative streak before and beyond the stigma, the latter in the bases of cells R_2 and R_3 . Venation: Cell R_2 rather broad at the base; basal deflection of R_{4+5} short; cell *1st* M_2 small, almost regularly pentagonal; petiole of cell M_1 short, about as long as cell *1st* M_2 ; *m-cu* punctiform.

Abdominal tergites brownish yellow with three broad dark brown stripes, the lateral margins of the segments rather broadly pale, the caudal margins indistinctly ringed with yellowish, most evident on segments six and seven; sternites pale yellow, the terminal segments indistinctly pruinose. Ovipositor with the long dorsal shield and the valves light chestnut brown, the straight, slender tergal valves greatly exceeding the sternal valves, along the ventral margin with scattered erect setæ.

Habitat.—Argentina (Patagonia).

Holotype, ♀, Valle Tunel, Santa Cruz (Dr. Witte).

Tipula philippiana new species.

Antennæ indistinctly bicolorous; mesonotal præscutum dark brown with three broad bluish gray stripes that are narrowly and incompletely margined with pale gray and dark brown; pleura with a broad brown dorsal stripe; wings white, sparsely streaked with brown, the costal and subcostal cells more yellowish; abdomen dull yellow, trivittate with dark brown.

Female.—Length, about 23 mm.; wing, 19.5 mm.

Frontal prolongation of the head reddish testaceous; palpi dark brown. Antennæ with the basal flagellar segments indistinctly bicolorous, the basal swelling brown, the terminal flagellar segments more unicolorous brown; ver-

ticils conspicuous. Head light gray, more brownish adjoining the inner margin of the eyes.

Mesonotal præscutum dark brown, the præscutum stripes clear bluish gray, margined with dull whitish gray; the median stripe is split by a capillary dark brown line that broadens out behind, just before the suture enlarging into a blotch; immediately laterad of this and occupying the præscutal interspaces a similar short brownish line extending from the suture cephalad; interspaces sparsely dotted with brown setigerous punctures; lateral margins of the median stripe at about midlength of the sclerite narrowly and indistinctly margined with brown; lateral margins and the humeral region of the dark brown ground color; scutum dull gray, the lobes with a linear dark brown stripe; median lobe of the scutellum and the postnotum gray pruinose, the latter with an indistinct brown median line. Pleura brown, grayish pruinose; a dark brown longitudinal stripe on the dorsal pleurites; a dark brown velvety spot immediately dorsad of the base of the halteres on the sides of the postnotum and a small white area immediately before the halteres; dorso-pleural membranes dull yellowish. Halteres dark brown, the base of the stem and the base of the knob paler. Legs with the coxæ pale, grayish pruinose; trochanters and femora dull brownish yellow, the latter with an indistinct brownish ring immediately before their apices; tibiæ yellowish brown, the tips darker; tarsi brown; metatarsi considerably shorter than the tibiæ. Wings white, sparsely streaked and lined with brown; cells *C* and *Sc* strongly yellowish; stigma brown; small dark brown marks at *h*, at the origin of *Rs*, midway between the two latter, and at the tip of *Sc*; larger but slightly paler clouds at the fork of *Rs*, connecting with the stigmal spot, a large blotch in the end of cell R_2 and the middle of cell R_3 ; a large blotch at the base of cells *R* and *M* and along vein *Cu* in cells *M* and *Cu* for almost the whole length of this vein; grayish clouds in the ends of the anal cells; the ends of veins M_1 , M_2 , M_3 , Cu_1 and *1st A* are seamed with brown. Venation: Base of cell R_2 broad; cell *1st* M_2 subpentagonal; *m-cu* obliterated by the fusion of Cu_1 on M_{3+4} ; cells R_2 and M_1 are somewhat broader than in *T. wittei*.

Abdomen with the first tergite gray pruinose; remaining tergites dull yellow with three diffuse dark brown stripes that almost obliterate the ground color except at the base of the sclerites; sternites dull yellow, sparsely pruinose. Ovipositor almost as in *T. wittei* but the dorsal basal shield less elongate.

Habitat.—Argentina (Patagonia).

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