NEW SPECIES OF CRANE FLIES FROM SOUTH AMERICA. PART III.

TUOS MOSS SALES AW (Family Tipulidæ, Order Diptera)

BY

Charles P. Alexander.

- Tipula Linnaus.

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NEW SPECIES OF CRANE FLIES FROM SOUTH AMERICA. PART III.*†

(Family Tipulidæ, Order Diptera).

CHARLES P. ALEXANDER, Amherst, Mass.

The great majority of the species discussed at this time are from Argentina, collected by Messrs. Bruch, Shannon and Weiser; Paraguay, collected by Schade; and Ecuador, collected by Tate. The interesting Tipula is from Colombia and was included in extensive collections of crane-flies belonging to the British Museum, kindly loaned to me for study by Mr. Edwards. Except where stated to the contrary, the types of the new species are preserved in my collection.

Tipula Linnæus.

Tipula colombicola sp. n.

Belongs to the *macrosterna* group; nearly allied to *trinidadensis* Alexander; antennæ more elongate, nearly one-half the length of the body in male; three complete thoracic stripes; ninth tergite of male hypopygium with a quadrate median notch.

Male. Length about 13 mm.; wing, 12 mm.; antenna about 6 mm. Frontal prolongation of head dark brown dorsally, heavily pruinose, the remainder light yellow; palpi chiefly obscure yellow. Antennæ more elongate than in trinidadensis, the scape light yellow; first flagellar segment black, the distal half yellow; remaining segments black, their extreme tips light yellow, the outer segments more uniformly darkened. Head obscure yellow, the center of the vertex conspicuously dark brown.

Mesonotal praescutum yellow, with three conspicuous shiny dark brown stripes; scutal lobes yellow, each variegated with two lighter brown areas; postnotum whitish pruinose. Pleura heavily white pruinose, the dorso-pleural membrane light yellow, dusky before the wing-root; a blackish spot on anepisternum. Halteres yellow, the base of the knobs darker. Legs with the coxæ pale, weakly pruinose; femora yellow, the tips very narrowly but conspicuously dark brown;

*Contribution from the Department of Entomology, Massachusetts Agricultural College.

†The preceding parts under this general title were published in these Annals in 1926 (XIX: 378-394), and 1928 (XXI: 623-641).

tibiæ brownish yellow, the tips very narrowly infuscated; tarsi elongate, pale brown, gradually passing to brownish black. Wings yellowish gray, the prearcular and costal regions bright yellow; stigma pale brown, a little darker than the ground-color; veins yellowish brown. Venation about as in other members of the *macrosterna* group.

Abdominal tergites reddish yellow, the intermediate segments with a shiny black median triangle; segments seven and eight black, to produce a subterminal ring; hypopygium large, fulvous-yellow. Male hypopygium with the median incision of the ninth tergite relatively deep and narrow, the lateral lobes directed caudad and mesad, blackened. Dististyles very complicated in structure; dorsal submedian lobe that is chisel-shaped in *trinidadensis* is here more acutely bispinous, the ventral spine longer and more conspicuous; the outermost style or blade is extended laterad into a conspicuous spine.

HABITAT: Colombia. *Holotype*, &, Lake Sapatoza Region, Chiriguana District, August-September, 1924 (C. Allen). Type in the British Museum (Natural History) No. 1925–576.

Limonia Meigen.

Limonia (Limonia) catamarcana sp. n.

General coloration brownish gray; antennæ brownish black, the first segment yellow; knobs of halteres darkened; legs chiefly obscure yellow; wings whitish subhyaline, sparsely variegated with brown; a supernumerary crossvein in cell Sc, close to Sc_2 ; m-cu before the fork of M; male hypopygium with the rostral prolongation of the ventral dististyle very high and compressed, the two spines placed on the side near the ventral margin.

Male. Length about 5.5 mm.; wing, 6.5 mm.

Rostrum obscure yellow, the palpi darker. Antennæ with the basal segment yellow, the remainder brownish black; flagellar segments oval. Head chiefly brownish gray, the front and occiput more yellowish.

Pronotum dark medially, paling to yellow on the sides. Mesonotal praescutum brownish gray, darker medially, the humeral region more brightened; scutal lobes dark brown, the median region and scutellum pale yellow; postnotum dark, pruinose. Pleura variegated brown and yellow, the surface pruinose; dorso-pleural region paler. Halteres pale, the knobs darkened. Legs with the coxæ obscure yellow, the fore coxæ darker; trochanters yellow; remainder of legs obscure yellow, the tarsal segments passing into dark brown. Wings whitish subhyaline, the oval stigma darker brown; restricted dusky clouds at origin of Rs, along cord and outer end of cell $1st\ M_2$; veins dark. Venation: Sc ending some distance beyond origin of Rs, Sc_1 at about one-third the length of Rs, Sc_2 some distance from its tip; in both wings of

type and thus presumed to be normal, a supernumerary crossvein in cell Sc not far from Sc_2 ; Rs long, gently arcuated; cell 1st M_2 long and narrow; m-cu about one-third to one-half its length before the fork of M.

Abdominal tergites brown, the incisures pale; sternites more uniformly yellow; hypopygium chiefly pale. Male hypopygium with the caudal margin of the tergite gently emarginate, the lobes low, each with from eight to ten setæ. Basistyle with the ventro-mesal lobe short and stout. Ventral dististyle relatively small, the rostral prolongation very high and compressed, the caudal margin gently rounded to the blunt tip; the usual two spines short, placed laterally on the face of the prolongation near the ventral margin. Dorsal dististyle curved to the long acute tip. Gonapophyses with the mesal apical lobe unusually short and inconspicuous, the margin of the notch microscopically serrulate.

HABITAT: Argentina. *Holotype*, ♂, Quebrada "Volcan," at Agua Amarilla, Catamarca, January 29, 1922 (V. Weiser).

Limonia catamarcana is quite distinct from other regional species of the subgenus. The entire aspect of the fly is that of a Dicranomyia rather than a Limonia, but from the venation the species must be referred to the latter subgenus. It seems very possible that the presence and position of the supernumerary crossvein in cell Sc is not constant for the species.

Limonia (Limonia) villaricæ sp. n.

General coloration dark brown; knobs of halteres darkened; legs chiefly obscure yellow; wings light brown, the stigma scarcely darker; Sc_1 ending about opposite two-fifths the length of Rs; m-cu longer than the distal section of Cu_1 ; male hypopygium with the rostral spines of the ventral dististyle two, subequal.

Male. Length about 4.6 mm.; wing, 5.3 mm.

Rostrum approximately one-half the remainder of the head, obscure yellow, darker apically; palpi brown. Antennæ with the scapal segments brown, a trifle paler than the brownish black flagellum; flagellar

segments oval. Head brown, paler behind.

Mesonotum chiefly dark brown, the lateral margins of the praescutum and scutal lobes a little more reddish brown. Pleura similarly dark reddish brown. Halteres pale, the knobs dark brown. Legs with the coxæ brown, the trochanters obscure yellow; remainder of legs obscure yellow, only the last tarsal segment infuscated. Wings with a light brown tinge, the oval stigma scarcely darker, barely indicated; veins darker brown. Venation: Sc_1 ending about opposite two-fifths the length of Rs, Sc_2 not far from its tip; Rs arcuated to weakly angulated at origin; cell 1st M_2 small, shorter than the veins beyond it;

m-cu a short distance before the fork of M, longer than the distal section of Cu_1 .

Abdominal tergites dark brown, the sternites yellow; hypopygium brownish yellow. Male hypopygium with the tergite transverse, the caudal margin very gently emarginate, with numerous coarse setæ. Ventral dististyle fleshy, the rostral prolongation stout basally, narrowed to the obtuse tip; rostral spines two, placed on basal half of the prolongation, subequal and placed close together. Dorsal dististyle a relatively short curved rod, the tip suddenly narrowed into an acute spine. Gonapophyses with the mesal apical lobe broad, narrowed gradually to a small, slightly decurved point, the margin irregularly and microscopically roughened.

HABITAT: Paraguay. Holotype, &, Villarica, August 26, 1924 (F. Schade).

Limonia villaricæ is a small, insignificant species, characterised especially by its negative characters and structure of the male hypopygium.

Limonia (Dicranomyia) weiseriana sp. n.

General coloration gray; rostrum obscure yellow; wings whitish subhyaline, clouded with brown and gray; cell $1st\ M_2$ long and relatively narrow; male hypopygium with the spines of the rostral prolongation of the ventral dististyle long and straight, black, the outer about two-thirds of the inner; dorsal dististyle obtuse at apex.

Male. Length about 6-6.3 mm.; wing, 7-7.8 mm. Female. Length about 6 mm.; wing, 8.2-8.3 mm.

Rostrum obscure yellow, the palpi black. Antennæ dark brown, the scapal segments somewhat paler; flagellar segments short-oval.

Head gray, paler behind and beneath; anterior vertex broad.

Anterior lateral pretergites yellowish. Mesonotum chiefly gray, the praescutum with three darker gray stripes, the broader median stripe more distinct; median region of scutum and the scutellum paler, more yellowish gray. Pleura gray, with darker longitudinal areas on the anepisternum and sternopleurite. Halteres yellow, the knobs infuscated. Legs with the coxe and trochanters yellow, the fore coxe a trifle darker; femora yellow, the tips narrowly and weakly infumed; remainder of legs passing gradually into brown, the tips of the individual tarsal segments narrowly blackened. Wings whitish subhyaline, with a handsome brown and gray clouding; stigma brown, oval, more or less connected with a large cloud at the end of Rs; cord and outer end of cell 1st M2 more narrowly seamed with brown; extensive but paler gray washes on the median veins beyond the cord, as a seam at near midlength of the basal section of Cu1, and the entire distal section of the same vein; similar extensive pale gray clouds on both anal veins; veins brownish yellow, darker in the clouded areas. Venation: Sc

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short, Sc1 ending before origin of Rs, Sc2 a short distance from its tip; Rs relatively short and arcuated, about one-half longer than the more strongly arcuated basal section of R_{4+5} ; cell 1st M_2 relatively long and narrow; m-cu close to the fork of M.

Abdominal tergites obscure yellow, darker medially and caudally, the surface somewhat pruinose; sternites brown; hypopygium large, the ventral dististyle conspicuously orange-yellow. Male hypopygium with the tergite transverse, the caudal margin with a broad U-shaped emargination. Ventral dististyle very large and fleshy, the rostral prolongation stout, beyond the spines more narrowed, terminating in a chitinized point; rostral spines unusually long and conspicuous, black, nearly straight and directed strongly basad; outer spine about twothirds the length of the inner, both exceeding in length the prolongation itself. Dorsal dististyle strongly curved, widened at near midlength, the tip obtuse. Gonapophyses with the mesal apical lobe long and slender, gently curved.

HABITAT: Argentina. Holotype, &, Quebrada "Volcan," at Agua Amarilla, Catamarca, January 29, 1922 (V. Weiser). Allotopotype, 9. Paratopotypes, 5 of o, with the types.

I dedicate this interesting crane-fly to the memory of the late Engineer Vladimir Weiser, to whom I am very greatly indebted for many Andean Tipulidæ, chiefly from Jujuy, Tucuman and Catamarca. Among the described regional species, L. weiseriana is most closely allied to L. (D.) invalida Alexander (Peru), differing especially in the more extensive pattern of the wings and the details of structure of the male hypopygium.

Limonia (Rhipidia) inæquipectinata sp. n.

Belongs to the maculata group; antennæ (%) elongate, the flagellar segments tripectinate, one of the branches being very reduced, the other two long and slender; antennæ bicolorous; thoracic pleura gray with two narrow longitudinal brown stripes; wings gray with a sparse brown pattern; male hypopygium with the rostral prolongation of the ventral dististyle very long and slender, with two long curved spines placed far out toward the outer end; phallosome large and complicated in structure.

Male. Length about 5 mm.; wing, 6.6 mm.

Rostrum and palpi black. Antennæ (%) elongate, if bent backward extending to some distance beyond the base of the abdomen; scape dark; basal enlargements of all segments and branches black, the elongate pedicel of the flagellar segments with the exception of the last white; first flagellar segment with a single basal branch that is about as

long as the pedicel; flagellar segments two to eleven with two very long basal branches, in addition to a small intermediate branch that is about as long as the basal enlargement; longest branches about two and one-half times the segment, clothed with a delicate pubescence; outer face of basal enlargements of segments with very long, conspicuous verticils that are subequal to the segments; terminal flagellar segment elongate, with verticils that are a little shorter than the seg-

ments. Head dark gray.

Pronotum dark brown. Mesonotal praescutum light brown, with indications of three dark stripes near the suture; posterior sclerites of mesonotum chiefly dark-colored. Pleura gray with two narrow dark brown longitudinal stripes. Halteres yellow, the knobs dark brown. Legs with the coxæ yellow, their bases dark brown; trochanters light yellow; remainder of legs broken. Wings gray, with a sparse brown pattern; cell C infuscated; cell Sc variegated with brown; stigma oval, grayish brown; vague brown clouds at origin of Rs, confluent with a spot at end of Sc; a large area at fork of Rs, confluent with the stigma; pale seams along cord and outer end of cell 1st M_2 ; brown seams in outer ends of cells R₂ and R₃; prearcular region white; veins dark brown, Cu chiefly yellow. Conspicuous macrotrichia on veins beyond cord. Venation: Sc relatively long, extending to about opposite midlength of Rs, Sc2 at its tip; Rs angulated at origin; cell 1st M2 small; m-cu shortly before the fork of M.

Abdominal tergites obscure yellowish testaceous, the lateral margins narrowly, the caudal margins more broadly, infuscated; sternites yellow, the incisures darkened; outer segments darkened. Male hypopygium with the caudal margin of the tergite only gently emarginate. Basistyle with the ventro-mesal lobe long and slender, the apex a little expanded, provided with long conspicuous setæ; an additional series of powerful setæ along the margin. Ventral dististyle large and fleshy, with sparse inconspicuous setæ; rostral prolongation very long and conspicuous, the cephalic margin fimbriate with short dense yellow setæ; just before the apex with two long, slender, gently curved spines that are placed so close together as to appear almost as a single structure; immediately distad of the rostral prolongation, on the same face, the dististyle is produced into a pale conical fleshy lobe that is tipped with two or three elongate setæ. Dorsal dististyle a very long slender chitinized rod, strongly bent near midlength, the tip suddenly narrowed into a long straight spine. Gonapophyses pale, the mesal apical lobe elongate. Phallosome very large and complex in structure, including a pale fleshy central portion that is subtended by smaller fleshy lateral lobes.

HABITAT: Argentina. Holotype, o, Iguazu Falls, October 3-5, 1927, (R. & E. Shannon). Type in the United States National Museum.

The tripectination of the flagellar segments marks the extreme tendency, so far as at present known, in the tribe Limoniini.

Limonia (Rhipidia) bruchiana sp. n.

Belongs to the *maculata* group; allied to *subcostata* Alexander; antennæ (♂) with eleven long-branched segments; mesonotum chiefly light brown, the dorso-pleural region extensively blackened; halteres black, the base of stem and apex of knob conspicuously yellow; wings whitish subhyaline, with an extensive gray pattern, most evident as a series of five costal areas; axillary region extensively whitened; *m-cu* before fork of *M*; male hypopygium with the tergite small, transverse; rostral prolongation of ventral dististyle long, decurved, the two spines very small and stout.

Male. Length about 7 mm.; wing, 6.5 mm.; antenna, about 3.3 mm. Rostrum black, about one-half the length of the remainder of the head; palpi brownish black. Antennæ (♂) long and conspicuous, nearly half the length of the body, as shown by the measurements; scapal segments black; flagellar segments with the stems pale yellow, the branches black, the terminal segments dusky on outer half; antennæ 14-segmented, the formula being 2+11+1; all flagellar segments except the last long-bipectinate; branches of first flagellar segment subequal to the segment; of succeeding segments becoming gradually longer, the longest (about flagellar segments six to eight) more than twice the segment; flagellar segment eleven with the branches about one-half longer than the segment. Head dark gray; eyes (♂) above

contiguous for a short distance.

Pronotum and anterior lateral pretergites restrictedly yellow. Mesonotal praescutum with the stripes light yellowish brown, the margins and interspaces narrowly margined with black; scutal lobes dark brown, the median area and scutellum more testaceous; postnotal mediotergite dark brown, paler caudally, the cephalo-lateral angles pale yellow, most of the surface in an oblique light slightly pruinose. Pleura brown, the dorsal region chiefly occupied by a conspicuous black longitudinal stripe. Halteres black, the base of the stem and apex of each knob conspicuously light yellow. Legs with the coxæ brownish yellow, darker basally; trochanters obscure yellow; femora brownish yellow, at or immediately before the tips with a dark brown ring; tibiæ brown; tarsi dark brown; posterior tarsi broken beyond the basitarsus, the latter brownish yellow; it is highly probable that the succeeding tarsal segments of the posterior legs are similarly yellow, as in other members of the subcostata subgroup. Wings whitish subhyaline, with an extensive gray or brownish gray pattern, somewhat heavier along the costal region where there are five major areas, the last being the stigma, these areas much more extensive than the interspaces; similar dark seams along the cord and outer end of cell 1st M_2 ; basal axillary region conspicuously white; veins brown, the subcostal interspaces and vein Cu1 more yellowish. Venation: Sc1 ending about opposite three-fifths the length of Rs, Sc2 at its tip; cell 1st M2 relatively small, shorter than vein M_4 beyond it; m-cu about one-fourth its length before the fork of M.

Abdomen brown, the incisures somewhat darker. Male hypopygium with the tergite small, transverse, the caudal margin nearly straight, without setæ except two or three on lateral portions of sclerite. Basistyle with the ventro-mesal lobe large, strongly narrowed at apex, terminating in a powerful seta; mesal margin of basistyle with two powerful fasciculate setæ, the more cephalic one prolonged into a delicate hair-like point. Ventral dististyle with the rostral prolongation long, gently decurved and narrowed to the apex which bears a powerful terminal seta; rostral spines two, very short and stout, slightly separated, placed before midlength of the prolongation.

Habitat: Argentina, Paraguay. *Holotype*, σ , La Plata, Argentina, August 8, 1922, in room at light (Carlos Bruch). *Allotype*, \circ , Villarica, Paraguay, September, 1928, (F. Schade). *Paratypes*, 1 σ , 1 \circ , with the allotype, September-November, 1928, (F. Schade).

I take great pleasure in naming this handsome *Rhipidia* in honor of the collector, my friend and colleague, Dr. Carlos Bruch. It is well-distinguished from *subcostata*, which seems certainly to be its nearest ally among the described species, by the coloration and details of structure.

Limonia (Rhipidia) pallatangæ sp. n.

Belongs to the uniseriata group; general coloration yellow, the mesonotal praescutum with a median dark brown stripe; antennæ black, the penultimate segment yellow, flagellar segments one to ten with a single branch; pleura with two narrow longitudinal brownish black stripes; halteres black, the apices of the knobs yellow; wings creamy-yellow, with a conspicuous brown and gray clouded pattern; abdomen yellow, the hypopygium concolorous; male hypopygium with the spines of the rostral prolongation of the ventral dististyle short and spike-like.

Male. Length about 6.5 mm.; wing, 8 mm.

Rostrum and palpi black, the former about one-half the length of the head. Antennæ black, the base of the first segment a little brighter, the penultimate segment light yellow; axes of the outer segments becoming paler, almost whitish; antennæ with ten branched segments, the branches being single, the longest (about flagellar segment four or five) a little longer than the segment; branch of the first segment appearing merely as a stout spur that is about as long as the glabrous apical pedicel of the segment. Head brownish gray, clearer gray on the posterior orbits.

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Mesonotal praescutum brownish yellow laterally, the disk chiefly

occupied by reddish brown, the median stripe passing into dark brown; scutum and scutellum pale yellow, each scutal lobe traversed by a dark brown line that passes into the scutellum, converging toward a central point; postnotum with the median area darkened, the lateral margins pale. Pleura yellow, the surface largely covered by two narrow longitudinal brownish black stripes. Halteres black, the base of the stem pale yellow, the apices of the knobs obscure yellow. Legs with the coxæ yellow, more or less darkened basally; trochanters yellow; femora yellowish brown to brown, the tibiæ and tarsi yellow, the terminal tarsal segments darkened. Wings with the ground-color creamyyellow, the surface largely covered by extensive brown and gray clouds, including a costal series of about six of the former, these more extensive than the interspaces; broad brownish gray seams along the cord, outer end of cell 1st M_2 and as marginal clouds at ends of some of the longitudinal veins; the paler gray areas occupy most of the remaining surface of the wings, including streaks near the outer ends of the marginal radial and medial cells; axillary region pale; veins yellow, darker in the infuscated areas. Venation: Sc_1 ending just beyond midlength of Rs, Sc_2 at its tip; Rs long, gently arcuated; free tip of Sc_2 a short distance beyond R_2 ; m-cu close to fork of M.

Abdominal tergites brownish yellow, the sternites brighter yellow, the basal segments narrowly margined laterally with black lines; hypopygium yellowish. Male hypopygium with the tergite transverse, the caudal margin gently emarginate, the broad lobes with conspicuous setæ. Ventral dististyle with the spines of the rostral prolongation placed beyond midlength, small, spike-like, close together. Dorsal dististyle gently curved, more expanded near outer end, terminating

abruptly in an acute spine.

HABITAT: Ecuador. Holotype, &, Pallatanga, altitude

4400 feet, April 1, 1922 (G. H. H. Tate).

The only allied regional species is L. (R). unipectinata (Williston) which has all details of coloration of the wings and legs distinct.

Limonia (Rhipidia) paraguayana sp. n.

Belongs to the *domestica* group; general coloration brownish yellow, the thorax variegated with brown; postnotal mediotergite with a velvety-black triangular area; legs yellow, the outer tarsal segments darkened; wings pale yellow, dotted with brown and gray; male hypopygium with the spines of the rostral prolongation of the ventral dististyle long and slender.

Male. Length about 5.5 mm.; wing, 6.8 mm.

Rostrum and palpi black. Antennæ with the scapal segments brownish black, the flagellum extensively pale yellow, the central portion of each flagellar segment a trifle infuscated, the incisures thus

remaining broadly pale; flagellar segments (\bigcirc) almost simple, little if any produced. Head dark brownish gray; anterior vertex reduced to a linear strip.

Mesonotal praescutum chiefly pale brownish yellow, with a broad brown median stripe that becomes darker and better delimited on the posterior half of the sclerite; indications of narrow lateral brown stripes before the suture; scutal lobes extensively dark brown, ringed with brownish black; median area of scutum and the scutellum pale yellowish gray; postnotal mediotergite with a large black triangle on anterior half, the caudal and lateral portions of the sclerite pale. Pleura chiefly pale brownish yellow, narrowly lined ventrally with dark brown. Halteres pale yellow. Legs with the coxæ chiefly pale, the bases traversed by a narrow dark brown line; trochanters yellow; remainder of legs yellow, only the outer tarsal segments darkened. Wings pale yellow, with an abundant brown and gray dotting in all the cells; the more conspicuous brown areas are small and restricted, distributed as follows: Above the arculus; at supernumerary crossvein in cell Sc; origin of Rs; tip of Sc; stigma; along cord and outer end of cell 1st M₂; the gray dots are scattered in all cells, variable in size, some very small, others larger and tending to become confluent; veins pale, darker in the infuscated areas. Venation: A supernumerary crossvein in cell Sc; Sc1 ending about opposite midlength of Rs, Sc2 at its tip; m-cu before the fork of M.

Abdominal tergites chiefly brownish, the sternites paler, more yellowish, narrowly lined laterally with black; hypopygium yellow. Male hypopygium with the tergite transverse but relatively wide, narrowed outwardly, the caudal margin very gently emarginate. Ventral dististyle of moderate size, fleshy, the rostral prolongation long and conspicuous, with two or three long, gently curved spines, in the type there being three such spines on one style and only two on the other; the spines are placed shortly before the outer end of the prolongation, the innermost a little the shorter, the longest spine approximately two-thirds the length of the prolongation alone.

HABITAT: Paraguay. Holotype, ♂, Villarica, July 15, 1928 (F. Schade).

L. (R.) paraguayana is most closely allied to L. (R.) shannoni (Alexander) of Eastern North America, which differs especially in the structure of the male hypopygium, the spines of the rostral prolongation of the ventral dististyle being short and stout.

Limonia (Rhipidia) schadei sp. n.

Belongs to the *domestica* group; general coloration of thorax dark brown, the praescutum obscure yellow with a brown median stripe; antennal segments (3) a little produced; wings saturated brownish yellow, sparsely patterned with brown;

stigma pale, encircled by a dusky ring; abdominal tergites bicolorous.

Male. Length about 6-6.4 mm.; wing, 7.2-7.7 mm.

Rostrum and palpi black. Antennæ black, the apical pedicels of the flagellar segments white; flagellar segments strongly produced, so the base of each segment appears triangular. Head blackish gray;

eyes above contiguous or virtually so.

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Pronotum brownish black. Mesonotal praescutum obscure yellow with a median brown stripe; scutal lobes infuscated, the center of each lobe obscure yellow; median region of scutum whitish testaceous; scutellum dusky, pale posteriorly; postnotum dark brown. Pleura chiefly dark brown, sparsely pruinose, the ventral pleurites abruptly pale. Halteres obscure yellow, the knobs weakly infuscated. Legs with the coxe yellow, the bases dark brown; trochanters yellow; femora yellow, with a scarcely indicated darker subterminal ring; tibiæ and tarsi obscure yellow, the latter passing into dark brown. Wings saturated brownish yellow, the outer radial cells a little more infuscated; stigma pale, encircled by a dusky ring; narrow or restricted brown seams at origin of Rs, fork of Sc, along cord and outer end of cell 1st M_2 ; posterior prearcular cells and axillary region dusky; veins dark brown, C, Sc, most of R, Cu and the Anal veins except at tips yellow. Venation: Sc1 ending just beyond midlength of Rs, Sc2 at its tip; cell 1st M2 relatively small; m-cu just beyond the fork of M.

Abdominal tergites bicolorous, yellow, the caudal and lateral portions narrowly dark brown; subterminal segments more extensively darkened; hypopygium obscure yellow; sternites chiefly pale yellow. Male hypopygium with the tergite transverse, the caudal margin very gently emarginate. Ventral dististyle with the rostral prolongation conspicuous, the two spines unusually long and prominent, nearly as long as the prolongation itself, gently curved and directed slightly basad.

HABITAT: Paraguay. Holotype, &, Santa Barbara, September 4, 1925 (F. Schade). Paratype, &, Villarica, June 30, 1925 (F. Schade).

I take great pleasure in dedicating this crane-fly to the collector, Mr. F. Schade, to whose efforts we owe most of our knowledge of the Tipulidæ of Paraguay. L. (R.) schadei is allied to domestica (Osten Sacken) being separated especially on the uniformly darkened, more strongly pectinate antennal flagellum, the body-coloration, and the structure of the male hypopygium.

Limonia (Geranomyia) austroandina sp. n.

Belongs to the canadensis group; allied to argentinensis (Alexander); male hypopygium with the caudal margin of the tergite deeply notched; rostral spines of ventral dististyle arising from very long, conspicuous swollen bases, especially the inner spine, the base of which is approximately twice as long as that of the outer spine.

Male. Length (excluding rostrum) about 6 mm.; wing, 7 mm.; rostrum about 4.3 mm.

Female. Length (excluding rostrum) about 7.5 mm.; wing, 6.8 mm.;

rostrum about 4 mm.

Rostrum elongate, as shown by the measurements, dark brown, more yellowish at base. Antennæ with the scapal segments brownish yellow, the flagellum dark brown. Head gray, the posterior vertex

and occiput broadly obscure yellow.

Rostrum and paloi black, the former pruipose,

Mesonotal praescutum gray, largely covered by four darker plumbeous-gray stripes, the humeral region more yellowish; remainder of mesonotum dark gray, the scutellum obscure yellow, the median region of the scutal lobes obscure brownish yellow. Pleura reddish brown, pruinose. Halteres pale, the knobs infuscated. Legs with the coxæ and trochanters reddish yellow; femora obscure yellow, the tips narrowly dark brown; tibiæ obscure yellow, the tips even more narrowly darkened; tarsi passing into dark brown. Wings subhyaline, the oval stigma brown; veins brown. Venation: Sc1 ending opposite midlength of Rs, Sc₂ at its tip; a weak supernumerary crossvein in cell Sc; Rs arcuated to weakly angulated at origin; m-cu at or before the fork of M, subequal to the distal section of Cu_1 .

Abdominal tergites dark brown, the caudal margins of the segments narrowly and restrictedly pale; sternites more yellow, the outer segments darkened. Male hypopygium with the tergite transverse, the caudal margin with a deep V-shaped median notch, the lobes with numerous conspicuous setæ. Basistyle of moderate size, the ventro-mesal lobe large, with a smaller fleshy lobule near base. Dorsal dististyle a slender, very strongly curved hook, gradually narrowed into a long slender tip. Ventral dististyle very large and fleshy; rostral spines long and conspicuous, the outer arising from a long basal tubercle, the inner spine arising from a very long pale cylindrical tubercle that is about twice as long as the base of the outer spine; both spines slender, the outer a trifle the longer. Gonapophyses with the mesal apical lobe produced into a long narrow blade that is longer than the length of the base of the apophysis.

HABITAT: Argentina. Holotype, &, Cienega, near Agua Amarilla, Catamarca, altitude 3000 meters, February 12, 1923 (V. Weiser). Allotopotype, Q, with the type.

L. (G.) austroandina is quite distinct from the allied and generally similar L. (G.) argentinensis (Alexander), in the peculiar modifications of the male hypopygium, as described.

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Shannonomyia Alexander.

Shannonomvia argenticeps sp. n.

General coloration pale brownish yellow; antennæ with the basal three segments light yellow, the remainder dark brown; head silvery; legs yellow; wings fulvous-yellow, with a restricted brown pattern appearing as dark seams to the cross-veins and deflections; R_2 at fork of R_{3+4} .

Female. Length about 5.5 mm.; wing, 5.8 mm.

Rostrum and palpi dark brown. Antennæ (9) short, the first three segments pale yellow, the succeeding segments abruptly dark brown; flagellar segments oval, gradually decreasing in size outwardly, the verticils a little longer than the segments. Head almost covered by a

dense silvery pruinosity, the genæ more yellowish.

Mesonotum pale brownish yellow, without dark markings, the surface very vaguely pruinose. Pleura somewhat more testaceous yellow. Halteres obscure yellow. Legs with the coxæ and trochanters yellow; remainder of legs yellow, only the outer tarsal segments a little darker. Wings with a strong fulvous-yellow tinge, the prearcular and costal regions clearer yellow; very restricted brown seams at origin of R_2 , on R_2 , along cord and outer end of cell 1st M_2 ; a whitish marginal spot at apex of cell R_4 ; veins yellow, darker in the infuscated areas. Venation: Sc pale, both Sc_1 and Sc_2 ending before the fork of Rs, the latter short, angulated at origin; R_2 at fork of R_{3+4} ; veins R_3 and R_4 strongly diverging, cell R_3 at margin more than twice R_2 ; cell 1st M_2 long, gently widened outwardly, longer than vein M_3 beyond it; m-cu close to midlength of cell 1st M_2 .

Abdomen vellowish brown. Tergal valves of ovipositor long and

slender, acicular, gently upcurved.

HABITAT: Ecuador. Holotype, Q, Ventura, altitude 1400 feet, April 11, 1922 (G. H. H. Tate).

Shannonomyia argenticeps is very distinct from the numerous regional species of the genus.

Shannonomyia paraguayensis sp. n.

General coloration buffy brown, sparsely pruinose; legs and halteres yellow; wings yellowish, the stigma very pale brown; veins yellow; Sc2 at extreme tip of Sc1; abdominal tergites dark brown, the ninth segment yellow; male hypopygium with the outer dististyle unusually short and stout.

Male. Length about 5.5 mm.; wing, 6 mm.

Rostrum and palpi black, the former pruinose. Antennæ with the scapal segments brownish yellow, the basal flagellar segments light

brown, the outer segments passing into black; flagellar segments oval, with elongate verticils. Head light gray.

Pronotum brownish gray. Mesonotum buffy brown, the praescutum with the median region somewhat darker, the surface sparsely pruinose; pseudosutural foveæ very small, comma-shaped. Pleura buffy, the anepisternum darker. Halteres pale. Legs with the coxæ and trochanters yellow; remainder of legs obscure yellow, only the outer tarsal segments restrictedly darkened. Wings with a strong yellow suffusion, the oval stigma very pale brown; veins yellow. Venation: Sc_1 ending about opposite two-thirds the length of Rs, Sc_2 at its extreme tip; Rs strongly arcuated at origin; cell 1st M_2 widened outwardly; m-cu about one-half its length beyond the fork of M.

Abdominal tergites dark brown; basal sternites obscure yellow, narrowly infuscated laterally; outer sternites dark brown; ninth segment yellow; remainder of hypopygium dark brown. Male hypopygium with the outer dististyle unusually short and stout, widened beyond midlength, the apex with two blackened teeth, the outer shorter and

more slender. Inner dististyle short, gently curved.

Habitat: Paraguay. Holotype, ♂, Villarica, July 28, 1925 (F. Schade).

In its general appearance, Shannonomyia paraguayensis is most similar to S. lentina (Alexander) and S. lentoides (Alexander), of Middle America. It is very different in appearance from other regional species.

Atarba Osten Sacken.

Atarba (Atarba) brevicornis sp. n.

General coloration yellow; antennæ (%) relatively short, bicolorous; legs yellow, the terminal tarsal segments darkened; wings light yellow; Sc short; m-cu before the fork of M; subterminal segments of abdomen (3) extensively blackened; male hypopygium with the median region of the tergite produced into a conspicuous depressed rectangular lobe that divides into two divergent horns; aedeagus large.

Male. Length about 5 mm.; wing, 5.5 mm.

Rostrum obscure yellow, the palpi dark brown, the basal segment pale. Antennæ (3) unusually short for this sex, if bent backward extending about to the base of the halteres; scapal segments vellow: basal flagellar segments bicolorous, the basal portion yellow, the remainder dark brown; on the first segment, the yellow equals the brown in amount; on succeeding segments the yellow decreases in area, on about the eighth flagellar segment becoming obsolete, the outer segments uniformly darkened; basal flagellar segment cylindrical, the outer segments long-oval. Head brownish yellow.

Mesonotum yellow, the postnotum slightly whitish pruinose. Pleura brownish yellow, the surface sparsely pruinose. Halteres pale. Legs yellow, the femoral tips not darkened, the tarsal segments beyond the first dark brown. Wings light yellow; stigma lacking; veins brighter yellow. Macrotrichia of veins shorter and less conspicuous than in fiebrigi. Venation: Sc1 ending opposite the origin of Rs; Rs relatively short, angulated at origin; anterior branch of Rs relatively short, cell R_4 at margin being unusually wide, more than twice R_2 ; basal section of R₅ straight, about three-fourths the length of Rs; cell 1st M₂ small; m-cu before the fork of M, the distance equal to one-third or one-fourth m-cu.

Abdomen obscure yellow, the tergites more or less darkened medially; a broad brownish black subterminal ring involving segments six to eight and the caudal portion of five; hypopygium yellow. Male hypopygium with the median region of the sternite produced into a conspicuous depressed long-rectangular lobe, the apex of which is further split into two divergent horns. Outer dististyle moderately slender, the teeth relatively small and scattered. Gonapophyses large and not especially spinous. Aedeagus large, constricted before midlength, with a ridge-like collar immediately basad of this.

HABITAT: Paraguay. Holotype, &, Villarica, February 12,

1926 (F. Schade).

Atarba brevicornis is distinct from all of the numerous species of the genus in Tropical America. It agrees with megaphallus Alexander (Brazil) in the large size of the aedeagus but in the coloration of the antennæ agrees better with fiebrigi Alexander (Paraguay) and similar species, from all of which it differs most evidently in the unusually short antennæ of the male sex.

Atarba (Atarba) tatei sp. n.

General coloration brownish yellow; antennal flagellum uniformly brownish black; legs yellow, the tips of the femora narrowly and conspicuously blackened; wings grayish yellow, the stigma small and only slightly darker than the groundcolor; Rs very short, about two-thirds the basal section of R5; cell 1st M2 short and nearly square; abdominal tergites dark brown; the basal segments weakly bicolorous; hypopygium yellow, the outer dististyle with only a few coarse spines on outer margin.

Male. Length about 5 mm.; wing, 6 mm. Female. Length about 5.5 mm.; wing, 6.8 mm.

Rostrum light brownish yellow, the palpi darker brown. Antennæ with the basal segments of the scape dark brown, the second segment

paler; flagellum brownish black, the segments gradually decreasing in length and diameter outwardly, the terminal segment shorter and paler than the others; verticils of all except the outer segments shorter than

the segments. Head chiefly infuscated.

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Mesonotum brownish yellow, unmarked, the pleura more testaceous vellow. Halteres pale, the knobs slightly infuscated. Legs with the coxæ and trochanters yellow; femora yellow, the tips narrowly but conspicuously blackened; tibiæ and tarsi yellow, the outer segments of the latter darkened. Wings grayish yellow, the costal region clearer yellow; stigma, small oval, only a little darker than the ground-color: veins brownish yellow. Venation: Sc1 ending shortly before Rs, the latter very short, about two-thirds the length of the basal section of R_5 and in alignment with it; cell 1st M2 unusually short and nearly square: m-cu shortly beyond the fork of M

Abdomen with the basal tergites weakly bicolorous, the remainder dark brown, especially the subterminal segments; hypopygium yellow; basal sternites clear pale yellow. Male hypopygium with the outer dististyle unusually slender and attenuated, the spines along the outer margin large and coarse, especially the three intermediate ones; beyond this point, the apex is slender, blackened, bearing a lateral spine close

to tip. The sternal plate is broader than long.

HABITAT: Ecuador. Holotype, &, Pallatanga, altitude 4400 feet, April 1, 1922 (G. H. H. Tate). Allotopotype, Q, March 26, 1922. Paratopotype, ♂, with the allotype.

The species is named in honor of the collector. By my key to the American species of Atarba (Ann. Ent. Soc. America, 19:171: 1926), this species runs to brunneicornis Alexander (Colombia), a very different species that has the femora uniformly vellow and the details of venation distinct.

Gnophomyia Osten Sacken.

Gnophomyia pallidapex sp. n.

General coloration black, the lateral angles of the pronotal scutellum yellow; wings blackish, the outer cells extensively paler; R_{2+3+4} and R_{2+3} subequal; m-cu beyond midlength of the long cell 1st M_2 ; abdomen, including the hypopygium, black.

Male. Length about 6 mm.; wing, 6 mm. Female. Length about 7 mm.; wing, 6.2 mm.

Rostrum and palpi black. Antennæ black throughout, relatively elongate (3), if bent backward extending to beyond the base of the abdomen; flagellar segments elongate-oval. Head black, the anterior vertex a little dusted with gray.

Thorax entirely black with the exception of the lateral angles of the pronotal scutellum which are yellow. Halteres and legs entirely black.

Wings with a strong blackish tinge, the cells beyond the level of the outer end of cell 1st M_2 , as well as the outer ends of the cubital and anal cells conspicuously paler; veins black. Venation: Rs short, very gently arcuated, in alignment with R_5 ; R_{2+3} subequal to R_{2+3+4} and equal to or only a little shorter than R_{1+2} ; veins R_3 and R_4 nearly parallel, diverging very gradually; cell 1st M2 elongate, with m-cu beyond midlength; veins issuing from the cell rather elongate.

Abdomen, including hypopygium, black. Male hypopygium with the tergite large, its caudal margin nearly transverse, fringed with setæ. Outer dististyle long and slender, glabrous, gently curved to the obtuse apex. Inner dististyle very short, the tip enlarged and obtuse, the stem with long conspicuous setæ, some of which virtually

equal the style in length.

HABITAT: Paraguay. Holotype, &, Santa Barbara, October 17, 1925 (F. Schade). Allotopotype, Q. Paratype, A. Molinasque, Department of Caragua, November 9, 1925 (F. Schade).

Gnophomyia pallidapex is very distinct from the known Neotropical species of the genus in the peculiar coloration of the wings.

Gonomyia Meigen.

Gonomyia (Progonomyia) pleurolineata sp. n.

General coloration yellowish, the dorsal pleura striped longitudinally with dark brown; wings grayish yellow, the stigma barely evident; R2 very faint to subobsolete, placed just before the fork of R_{3+4} ; m-cu shortly before the fork of M; male hypopygium with the outer dististyle having the dilated blackened head trilobed.

Male. Length about 5.3 mm.; wing, 6.3 mm.

Rostrum pale, more brownish pruinose above; palpi black. Antennæ with the basal segment obscure yellow; second segment black, the base paler; flagellum black, the segments long-oval with verticils that do not exceed the segments. Head gray, the center of the vertex a little infuscated.

Anterior lateral pretergites light sulphur-yellow. Mesonotal praescutum dark, pruinose, more intense in front, the humeral region light sulphur-yellow; posterior sclerites of mesonotum more yellowish, especially the scutellum. Pleura yellow, striped longitudinally with darker, including a broad dorsal darker brown stripe; sternopleurite weakly darkened ventrally. Halteres pale, the knobs slightly darkened. Legs with the coxæ brownish yellow, the fore coxæ more darkened; trochanters yellow; femora obscure yellow, the tips somewhat darker; tibiæ yellowish brown; tarsi passing into dark brown. Wings grayish yellow, the stigma barely evident; veins brown. Venation: Sc long, Sc_1 ending beyond midlength of the long gently arcuated Rs, Sc_2 some distance from its tip, Sc1 alone about one-half longer than m-cu; R2 very faint to subobsolete, placed just before the fork of R₃₊₄; cell 2nd M₂

deep; m-cu shortly before the fork of M.

1929]

Abdomen yellowish brown, the hypopygium somewhat brighter. Male hypopygium with the outer dististyle distinctly trifid, the enlarged blackened head being divided into two pincer-like major arms, one flattened and obtuse, the other more curved and terminating in a blackened subacute point; besides these, at their bases, a shorter more triangular branch or lobe. Inner dististyle arcuated beyond base, the distal portion smooth, the apex obtusely rounded, the surface without punctures. Apex of aedeagus weakly trifid.

HABITAT: Argentina. Holotype, &, Quebrada "Volcan," at Agua Amarilla, Catamarca, January 29, 1922 (V. Weiser).

Gonomyia pleurolineata is readily told from all allied species by the coloration of the body and wings and the structure of the male hypopygium. The only other regional species so far described with a tripartite outer dististyle is G. weiseri Alexander, an otherwise very different fly.

Gonomyia (Gonomyia) catamarcæ sp. n.

Allied to G. andicola Alexander; general coloration of mesonotum yellowish brown; rostrum yellow; antennæ entirely blackened; halteres elongate, dusky; wings grayish, the stigma poorly defined; petiole of cell R₃ elongate; m-cu before the fork of M; male hypopygium with the outer dististyle a simple rod, the apex truncated; phallosome with the apophyses symmetrical, slender, each bifid at apex.

Male. Length about 5 mm.; wing, 6.4 mm.

Rostrum yellow; palpi dark brown. Antennæ black, the first segment a trifle brightened at base; antennæ relatively long for a member of this genus, if bent backward extending nearly to the wingroot. Head pale, shrunken in the type, the vertex apparently infuscated.

Anterior lateral pretergites whitish yellow. Mesonotum light yellowish brown, without distinct markings, the scutellum a trifle more yellow. Pleura chiefly pale yellow, with a vague dusky area extending from the propleura onto the anepisternum; sternopleurite more reddish vellow. Halteres elongate, dusky. Legs with the coxæ and trochanters pale yellow; femora pale brown, brighter basally, the tips darker brown; tarsi dark brown. Wings rather strongly narrowed at base, grayish, the stigma very pale; veins brown, Sc more yellowish. Venation: Sc_1 ending just beyond the origin of Rs, Sc_2 an equal distance before this origin; Rs almost in alignment with R5, the basal section of the latter obliterated or nearly so; petiole of cell R_3 elongate, gently arcuated, nearly twice vein R_3 ; cell 1st M_2 long-rectangular, subequal to vein M_4 beyond it; m-cu about one-half its length before the fork of M. Abdominal tergites brownish yellow, indistinctly lined longitudinally with brown, most evident medially; sternites pale yellow; hypopygium yellow. Male hypopygium with the tergite produced medially into a lobe that divides into divergent arms. Basistyle with a relatively small, elongate-oval dusky lobe. Outer dististyle a long, pale, fleshy structure, the outer surface and apex with setæ. Inner dististyle a simple, nearly straight rod, the basal half more dilated, the outer margin with numerous setæ, including two powerful flattened ones; distal portion of style narrow, straight, the apex truncated, before the tip with a single powerful seta. Phallosome long and slender, the aedeagus extending slightly beyond the subtending apophyses, the latter symmetrical, elongate, each split into two acute spines at tip.

HABITAT: Argentina. Holotype, o, Bolson, Catamarca,

altitude 2700 meters, March 7, 1924 (V. Weiser).

The only allied species so far made known is G. (G.) andicola Alexander (Colombia), which differs in the dark coloration, the venation, and structure of the male hypopygium.

Molophilus Curtis.

Molophilus substylifer sp. n.

Belongs to the *plagiatus* group; closely allied to *M. stylifer* Alexander, differing especially in the wing-shape, venation, and details of structure of the male hypopygium.

Male. Length, excluding head, about 3 mm.; wing, 3.5 mm. Head broken. General coloration of mesonotum light brown, variegated with darker brown, the postnotum dark brown. Pleura chiefly dark. Halteres obscure yellow, the knobs weakly darkened. Legs with the coxæ brownish yellow; trochanters yellow; femora yellow basally, more infuscated outwardly; tibiæ and tarsi passing into brown. Wings whitish subhyaline, the veins conspicuous, brown; prearcular and costal regions more yellowish. Wings broader than in stylifer, the caudal margin opposite the anal veins not concave, as in the latter species. Venation: R_{2+3} more oblique in position; vein 2nd A longer, ending about opposite the caudal end of vein m-cu.

Abdomen brown, the hypopygium somewhat brighter. Male hypopygium with the basistyle having the terminal beak relatively slender, without a basal shoulder, as in *stylifer*. Outer dististyle with both arms subequal in length and subacute at tips; in *stylifer*, the lateral arm is much shorter and truncated. Basal dististyle a long straight rod that narrows to an acute point, the short lateral spine placed at or

slightly beyond one-third the length.

HABITAT: Argentina. Holotype, &, Bolson, Catamarca, altitude 2750 meters, March 9, 1924 (V. Weiser).

The antennæ of the male of *Molophilus stylifer* are unusually elongate; the condition in the present species is unknown.

Molophilus pallatangensis sp. n.

Belongs to the *plagiatus* group; allied and generally similar to *M. perseus* Alexander, differing especially in the coloration and wing-pattern.

Male. Length about 3.5-3.7 mm.; wing, 4.5-4.7 mm.

Rostrum and palpi dark brown. Antennæ (♂) of moderate length, if bent backward extending nearly to the root of the halteres; scapal segments dark, the flagellum brownish yellow; flagellar segments subcylindrical, with a short dense white pubescence. Head dark gray.

Posterior pronotum pale yellow. Mesonotum dark brownish gray, the humeral region of the praescutum brighter yellow. Pleura dark gray. Halteres pale yellow, the base of the stem and the knobs lighter yellow. Legs with the coxæ and trochanters testaceous yellow; femora obscure yellow, darker outwardly; tibiæ and tarsi darker brown. Wings whitish subhyaline, the veins darker, conspicuously seamed with brown clouds to produce a more or less streaked appearance, the more evident seams being along the cord and along the main veins basad of the cord; veins pale yellow, somewhat darker in the clouded areas. Macrotrichia pale brown, the long costal fringe and conspicuous patches along the cord and on veins Cu and 2nd A darker brown and more conspicuous. Venation: Almost as in perseus; vein 2nd A extending to slightly beyond m-cu.

Abdominal tergites brownish black, the sternites more obscure yellow; hypopygium dark brown. Male hypopygium with the beak of the basistyle simple, the base relatively stout. Basal dististyle generally similar to that of *perseus*, appearing as a strong rod that is extended into a powerful apical spine, the outer margin provided with a series of ten or more spines, the basal ones shorter and appressed, the

outer ones longer and more erect.

HABITAT: Ecuador. *Holotype*, &, Pallatanga, altitude 4400 feet, March 28, 1922 (G. H. H. Tate). *Paratopotypes*, 2 & &, March 26–28, 1922 (G. H. H. Tate).

The thorax of the type of *M. perseus* was described as being light yellowish brown but a paratype female in my collection is much darker, more grayish brown. It seems possible that more than a single species is confused in the series. *M. pallatangensis* differs most evidently in the conspicuously patterned wings, with dark veins and patches of dark macrotrichia.

Molophilus paraguayanus sp. n.

Belongs to the *plagiatus* group; general coloration brownish gray; antennæ brownish black; male hypopygium with the basal dististyle broadly expanded on basal two-fifths, the

mesal edge with abundant appressed spinous setæ, the apical portion abruptly narrowed into a slender spine.

Male. Length about 3.5-3.6 mm.; wing, 4.3-4.4 mm. Female. Length about 4.2 mm.; wing, 4.5 mm.

Rostrum and palpi black. Antennæ (♂) brownish black, of moderate length, if bent backward extending about to the wing-root. Head

brownish gray.

Mesonotum brownish gray, the anterior lateral pretergites and restricted humeral region light sulphur-yellow; pseudosutural foveæ elongate, dark-colored. Pleura darker brown, the dorso-pleural region pale. Halteres yellow, the knobs weakly infumed. Legs with the coxæ testaceous yellow, the fore coxæ somewhat darker; trochanters yellow; femora obscure yellow, the outer ends darkened; tibiæ and tarsi dark brown. Wings tinged with brown, the costal region brighter, more yellowish; veins brown, the macrotrichia still darker brown. Venation: R_2 lying shortly beyond the level of r-m; vein 2nd A ending just before the outer end of m-cu.

Abdomen dark brown, the sternites in male weakly bicolorous, obscure yellow with the caudal margins narrowly dark brown, in the female more uniformly darkened; hypopygium dark. Male hypopygium with the apical beak of the basistyle slender, blackened. Basal dististyle with about the basal two-fifths greatly expanded, the mesal edge with abundant appressed spinous setæ, the apical portion abruptly

narrowed into a slender spine. Aedeagus sinuous.

HABITAT: Paraguay. Holotype, \eth , Villarica, February 1, 1925 (F. Schade). Allotopotype, \Diamond , June 10, 1925. Paratopotypes, 1 \eth , with the allotype; 1 \Diamond , with the type.

Molophilus paraguayanus is very distinct from all species

in the structure of the male hypopygium.