

# NEW SPECIES OF CRANE-FLIES FROM SOUTH AMERICA. PART VIII<sup>1</sup>

(Tipulidae: Diptera)

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In this report I wish to discuss some unusually interesting Tipulidae collected in Rio Grande do Sul, Brazil, by Mr. Fritz Plaumann. A few additional species were taken in Colombia, by Mr. Philip C. Stone, and in Ecuador, by Mr. William Clarke-MacIntyre. My deepest thanks are extended to the entomologists above mentioned for the privilege of retaining the types of the novelties in my extensive collection of these flies.

## Tipula Linnaeus

### Tipula laticostata sp. n.

General coloration brown, the praescutum without distinct stripes; antennae (male) elongate, nearly one-half the length of the body, flagellum bicolorous; wings grayish subhyaline, the entire costal border broadly and abruptly dark brown; *r-m* obliterated by approximation of veins  $R_{4+5}$  and  $M_{1+2}$ ; abdominal tergites brownish yellow, the lateral borders black; subterminal segments blackened; hypopygium obscure yellow, relatively small.

*Male*.—Length, about 16 mm.; wing, 14 mm.; antenna, about 7 mm.

*Female*.—Length, about 19–20 mm.; wing, 16 mm.; antenna, about 3 mm.

Frontal prolongation of head yellowish brown; nasus distinct; palpi testaceous-brown throughout. Antennae (male) elongate, nearly half as long as body; scape and pedicel yellow; flagellar segments bicolorous, yellow, the basal enlargement black; on distal segments the outer portion becomes darker, passing through brown to black, the extreme tips remaining yellow; flagellar segments only moderately incised; verticils much shorter than the segments. Head brown, the orbits very narrowly gray.

Mesonotal praescutum and scutum almost uniformly brown, without distinct stripes; praescutal setae very small; scutellum and mediotergite more testaceous-yellow. Pleura yellow, the pleurotergite weakly darkened; pleura glabrous. Halteres obscure yellow, the knobs weakly infuscated. Legs with the coxae yellowish testaceous, with long yellow setae; trochanters yellow; legs long and slender, obscure yellow, the outer

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tarsal segments a trifle darker; tibial spur formula 1—1—2. Wings grayish subhyaline, the entire prearcular region and costal border broadly and conspicuously dark brown, cell *Sc* a little brighter; on posterior portion, the dark border includes the extreme base of cell *M*, all of *R* excepting the outer third, and all of cells *R*<sub>1</sub>, *R*<sub>2</sub> and *R*<sub>3</sub>, ending as a border to vein *R*<sub>4+5</sub> in cell *R*<sub>5</sub>; stigma not or scarcely darker than the remainder of border; veins brown, a little darker in the costal portions. Macrotrichia of outer medial field much reduced; squama glabrous. Venation: *R*<sub>1+2</sub> preserved; *r-m* obliterated by approximation to short-fusion of veins *R*<sub>4+5</sub> and *M*<sub>1+2</sub>; cell *M*<sub>1</sub> slightly variable in length, from longer to shorter than its petiole; *m-cu* usually on *M*<sub>4</sub>, in cases at the fork of *M*<sub>3+4</sub>.

Abdomen moderately elongate; tergites brownish yellow, narrowly bordered laterally by black, the subterminal segments more uniformly blackened; sternites light yellow, most of segments seven and eight black; hypopygium relatively small, obscure yellow. Ninth tergite large, subquadrate, the caudal margin subtransverse, very shallowly emarginate. Ovipositor with slender, nearly straight cerci.

Habitat: Brazil (Rio Grande do Sul). *Holotype*, ♂, Nova Teutonia, February 7, 1936 (F. Plaumann). *Allotopotype*, ♀, February 25, 1936. *Paratopotype*, ♀, with the holotype.

*Tipula laticostata* is very distinct from all species of the genus so far described. The abruptly darkened costal border of the wing is suggestive of *Tipula* (*Yamatotipula*) *sayi* Alexander and allied species in the Nearctic Region.

### ***Tipula* (*Eumicrotipula*) *perstudiosa* sp. n.**

General coloration of mesonotal praescutum obscure yellow, with three dark brown stripes; antennae relatively short, flagellum bicolorous; femora black, paler at bases, with a narrow yellow subterminal ring; wings cream-colored, handsomely variegated with light and dark brown; macrotrichia of wing-cells abundant, including more than the distal half of cell 1st *A*; cell *M*<sub>1</sub> short-petiolate; abdominal tergites bicolorous.

*Male*.—Length, about 8.5 mm.; wing, 10 mm.

Frontal prolongation of head brown; palpi black. Antennae relatively short; scape and pedicel pale, flagellar segments bicolorous, brownish black at base, the outer portion yellow; on the more basal segments, the dark includes about one-half the segment, being more restricted and obscured on the outer segments. Head brown.

Mesonotal praescutum obscure yellow, with three dark brown stripes, narrower than in *iguazuensis*, the interspaces correspondingly wider, at the suture exceeding one-half the width of the lateral dark stripes; dark areas on scutal lobes very distinct and clearly-delimited. Halteres yellow, the knobs dark brown. Legs with the femora black, the bases paler; a conspicuous yellow subterminal ring, narrower than the black apex; tibiae and tarsi black. Wings with the ground-color creamy, with a heavy light and dark brown pattern, the latter color including five costal areas and a series of three in the cubital field: costal

cell uniformly darkened except at either end; basal yellow areas of subcostal field much wider than in *iguazuensis*, only indistinctly involving cell *C*; yellow subcostal area before stigma narrow; dark areas in cells *M* and *Cu* narrower and less clearly defined, the arcular yellow area not including cell *Sc*. Macrotrichia even more extensive than in *iguazuensis*, including more than the distal half of cell *1st A*; in cells *R* and *M* numerous and evenly-distributed as far basad as the origin of *Rs*. Venation: Petiole of cell *M*<sub>1</sub> a little shorter than *m*.

Abdominal tergites weakly bicolorous, the bases narrowly dark brown, the distal two-thirds paler yellowish brown; hypopygium pale. Male hypopygium with the caudal margin of tergite nearly transverse, with a tiny U-shaped median notch.

Habitat: Brazil (Rio Grande do Sul). *Holotype*, ♂, Nova Teutonia, October 18, 1935 (F. Plaumann).

The nearest ally of the present fly is *Tipula* (*Eumicrotipula*) *iguazuensis* (Alexander), of northern Argentina, which differs in the longer antennae, the individual flagellar segments being approximately one-half longer than in the present fly, and in the different arrangement of the praescutal stripes and uniformly colored abdominal tergites.

#### ***Tipula* (*Eumicrotipula*) *hostifica* sp. n.**

Mesonotal praescutum obscure yellow, with three dark brown stripes, the median one deeper in color than the laterals; antennae (male) elongate, about two-thirds the length of the body, black, the scape and pedicel light yellow; femora black, with a narrow yellow subterminal ring; wings dark brown, variegated with whitish subhyaline areas; abundant macrotrichia in cells beyond cord; cell *M*<sub>1</sub> virtually sessile; abdominal tergites and hypopygium black.

*Male*.—Length, about 8 mm.; wing, 8.5 mm.; antenna, about 5.5 mm.

Frontal prolongation of head dark brown on sides, paler dorsally; palpi black. Antennae relatively elongate, as shown by the measurements; scape, pedicel and basal two-thirds of the first flagellar segment light yellow, the remainder of the organ black; flagellar segments cylindrical, the basal enlargement poorly developed; verticils less than one-half the length of the segments. Head buffy, the central portion of vertex dark brown.

Pronotum brownish black medially, paler laterally. Mesonotal praescutum obscure yellow, with three dark brown stripes, the median one darker in front; lateral stripes paler than the median; posterior sclerites of notum dark brown, the scutellum paler. Pleura bicolorous, the propleura and pteropleurite light yellow; anepisternum, sternopleurite and meron dark brown, forming a conspicuous transverse pleural girdle. Halteres yellow, the knobs dark brown. Legs with the coxae and trochanters pale yellow; femora black, the bases restrictedly yellow, a yellow subterminal ring that is narrower than the black apex; tibiae and tarsi black. Wings with the ground-color dark brown, variegated by whitish subhyaline areas, as follows: Postarcular, not quite reaching

costa in front, attaining vein *Cu* behind; a small spot before origin of *Rs* in cells *Sc* and *R*; a broad oblique band before cord, extending from costa to vein *Cu*, more constricted along vein *M*; a second extensive band beyond stigma, extending from costal border into cell *R*<sub>5</sub>; small isolated pale areas in cells *R*<sub>3</sub>, *R*<sub>5</sub>, *M*<sub>1</sub>, 2nd *M*<sub>2</sub>, *M*<sub>3</sub>, *M*<sub>4</sub> and outer end of *M*; Cubital and Anal cells conspicuously variegated by pale; veins dark, yellow in the pale areas. Macrotrichia abundant in cells beyond cord, more restricted in bases of cells *R*<sub>3</sub>, *R*<sub>5</sub>, *M*<sub>3</sub> and *M*<sub>4</sub>; a few trichia in outer ends of cells *R*, *M* and *Cu*. Venation: *R*<sub>1+2</sub> entirely atrophied; cell *M*<sub>1</sub> very short-petiolate to virtually sessile; *M*<sub>3+4</sub> very short to nearly lacking, cell *M*<sub>3</sub> thus very deep; *m-cu* a short distance beyond origin of *M*<sub>4</sub>.

Abdominal tergites black; basal sternites a little more variegated by reddish brown; hypopygium brownish black.

Habitat: Brazil (Rio Grande do Sul). *Holotype*, ♂, Nova Teutonia, October 17, 1935 (F. Plaumann).

The present fly is most closely allied to *Tipula* (*Eumicrotipula*) *perstudiosa* sp. n., which differs most evidently in the shorter, bicolorous antennae, pattern and trichiation of the wings, and the coloration of the abdominal tergites.

### *Limonia* Meigen

#### *Limonia* (*Dicranomyia*) *quadrituberculata* sp. n.

Size large (wing, male, 12 mm.); general coloration of thorax reddish brown, the pronotum black medially; praescutum with a black median stripe on cephalic half of sclerite; scutellum with two black quadrate areas; halteres elongate, dark brown; legs brownish yellow; wings with a pale yellow tinge, the stigma a trifle darker than the ground; *Rs* only a little longer than the basal section of *R*<sub>4+5</sub>; abdomen dark brown, the basal sternites more obscure yellow; male hypopygium with the rostral prolongation of the large ventral dististyle blackened, on outer margin with a series of four strong setigerous tubercles, to produce a serrate appearance.

*Male*.—Length, about 9 mm.; wing, 12 mm.

Rostrum relatively elongate, exceeding one-half the length of head, black; palpi black. Antennae with scape and pedicel yellow, flagellum brownish black; flagellar segments long-oval, becoming more elongate outwardly, the ends truncated; verticils shorter than the segments. Head brown; anterior vertex greatly reduced to virtually obliterated.

Pronotum black above, reddish brown on sides. Mesonotal praescutum reddish brown, with a conspicuous black median stripe on the cephalic half; scutal lobes dark, the median area more reddish brown; scutellum pale, with a quadrate brownish black area on either side of the midline; central portion of mediotergite darkened, the lateral portions yellow. Pleura and pleurotergite reddish yellow. Halteres elongate, dark brown, the base of stem restrictedly yellow; a rather conspicuous fringe of setae on stem. Legs with the coxae reddish yellow; trochanters yellow; femora and tibiae brownish yellow; tarsi broken. Wings almost

uniformly tinged with pale yellow; stigma pale, only a trifle darker than the ground; veins pale brown. Venation:  $Sc_1$  ending a short distance before origin of  $R_s$ , the distance on  $C$  about one-half the length of  $R_s$ ;  $R_s$  only a little longer than the basal section of  $R_{4+5}$ ;  $m-cu$  at fork of  $M$ .

Abdominal tergites dark brown, the basal sternites more obscure yellow; hypopygium chiefly dark. Male hypopygium with the caudal margin of tergite having a very narrow V-shaped median notch, the lateral lobes broadly truncated. Basistyle with ventro-mesal lobe broadly obtuse; face of style with a stout fleshy lobe, bearing a series of about a dozen powerful spines along inner edge and at apex, the more basal ones from conspicuous tubercles. Ventral dististyle large, more extensive than the basistyle; rostral prolongation darkened, relatively small, the outer margin serrated by four powerful setigerous tubercles, the outermost at apex; rostral spines two, arising close together from face of prolongation at base. Gonapophyses with mesal-apical lobe short and broad.

Habitat: Colombia. *Holotype*, ♂, Usme, near Bogota, altitude 10,000 feet, July 9, 1936 (P. C. Stone).

This large, conspicuous member of the subgenus is most nearly allied to *Limonia* (*Dicranomyia*) *chlorotica* (Philippi) of Chile, which differs in the coloration of the body, wings and halteres. The male sex of *chlorotica* is still unknown.

### **Austrolimnophila Alexander**

#### **Austrolimnophila spinicaudata sp. n.**

General coloration of mesonotum dark brown, the scutellum testaceous-yellow; legs obscure yellow; wings suffused with brown, with numerous very small and relatively indistinct brown dots over the surface;  $R_{2+3}$  shorter than  $R_{1+2}$ ; cell  $M_1$  very deep, nearly sessile;  $m-cu$  about one-half its length beyond fork of  $M$ ; male hypopygium with the tergite deeply notched, each lobe produced into a small apical spine; posterior margin of inner dististyle with a series of sawlike teeth.

*Male*.—Length, about 13 mm.; wing, 13.2 mm.; antenna, about 2.8 mm.

Rostrum obscure yellow; palpi light brown. Antennae obscure yellow, the outer flagellar segments passing into brown; flagellar segments cylindrical, the intermediate and outer segments with very long verticils. Head behind fulvous-brown, the orbits gray; anterior vertex darker, relatively narrow, less than twice the diameter of the scape.

Pronotum and mesonotum relatively dark brown, the lateral portions of praescutum and scutum restrictedly yellow; scutellum testaceous-yellow; mediotergite dark brown. Pleura and pleurotergite uniformly testaceous-yellow. Halteres elongate; stem obscure yellow, knob infuscated. Legs with the coxae and trochanters testaceous-yellow; remainder of legs almost uniformly obscure yellow, including the tarsi; tibial spurs relatively small. Wings with an almost uniform brown tinge; numerous very small, darker brown dots scattered over the wing-surface, lacking only in cell *1st A* and basal portion of *Cu*; stigma slightly darker than

the ground; veins dark brown. Venation:  $Sc_1$  ending opposite fork of  $R_{2+3+4}$ ,  $Sc_2$  at its tip;  $R_{2+3}$  shorter than  $R_{1+2}$ ; cell  $M_1$  very deep, nearly sessile;  $m-cu$  about one-half its length beyond fork of  $M$ .

Abdominal segments dark brown, sparsely pruinose, the caudal margin of intermediate tergites narrowly paler; hypopygium dark. Male hypopygium with the tergite deeply notched, the mesal portion of each lobe produced into a small spinous point. Basistyle with the whole ventral face produced into a long setiferous cushion. Dististyles terminal; outer style densely hairy, relatively broad, at apex produced into a slender, gently curved, black spine; inner style narrowed on distal third, the posterior margin for more than half the length with a row of acute spines, largest and most conspicuous on basal portion.

Habitat: Brazil (Rio Grande do Sul). *Holotype*, ♂, Nova Teutonia, February 7, 1936 (F. Plaumann).

The nearest allied species is *Austrolimnophila pacifera* Alexander, of southern Brazil, which is superficially much like the present fly but differs evidently in the unspotted wings and very different structure of the male hypopygium, as the unspined tergite and inner dististyle.

#### *Austrolimnophila candiditarsis* sp. n.

General coloration of mesonotum uniformly brown, the praescutum unmarked; pleura yellow, with a transverse brown girdle on anepisternum; halteres very long, brownish black; legs yellow, the tarsi and tips of tibiae white; wings whitish subhyaline, with a relatively heavy brown pattern, including clouds at origin of  $R_s$ , along cord and outer end of cell 1st  $M_2$ , and as seams to the veins beyond cord;  $R_s$  angulated and spurred at origin;  $R_{1+2}$  relatively short; cell  $M_1$  deep;  $m-cu$  about its own length beyond fork of  $M$ .

*Male*.—Length, about 9 mm.; wing, 9 mm.; antenna, about 1.7 mm.

*Female*.—Length, 10–11 mm.; wing, 11–11.5 mm.

Rostrum brown; palpi dark brown. Antennae with scape and pedicel light yellow; flagellum brown; flagellar segments passing into cylindrical, with very long, unilaterally arranged verticils. Head pale brown, the center of vertex darker, especially on lateral portions adjoining the eyes.

Pronotum narrowly darkened medially, pale yellow on sides. Mesonotal praescutum and scutum uniformly brown, without markings; scutellum obscure yellow; mediotergite obscure yellow to yellowish brown. Pleura and pleurotergite pale yellow, with a transverse dark brown area occupying the anepisternum and dorsal pleural membrane immediately above it; sternopleurite paler. Halteres very long, brownish black, the extreme base of stem pale yellow. Legs with the coxae and trochanters pale yellow; femora obscure yellow, the tips narrowly and weakly darkened; tibiae pale yellow, fading to white at outer ends; tarsi white, the terminal segment infuscated. Wings whitish subhyaline, with a relatively heavy brown pattern, arranged as seams along the cord, outer end of cell 1st  $M_2$  and the veins beyond the cord; a conspicuous dark cloud at origin of  $R_s$ ; arcular region restrictedly darkened; wings

more heavily patterned in female than in male; veins dark brown. Venation:  $R_s$  long, angulated and spurred at origin, in alignment with  $R_{2+3+4}$ ;  $R_{1+2}$  relatively short, less than one-half  $R_{2+3}$ ; anterior cord oblique; cell  $M_1$  deep, its petiole subequal to or somewhat longer than  $m$ ;  $m-cu$  approximately its own length beyond fork of  $M$ ; anterior arcus broken, this condition not apparent on slide mounts.

Abdominal tergites dark brown, the caudal margins of the segments restrictedly pale; sternites yellow, the bases of the segments in cases narrowly darkened; hypopygium brownish black; genital shield of female black. Male hypopygium with the outer dististyle slender, only about as wide as the inner style, at apex produced into a small black spine.

Habitat: Brazil (Rio Grande do Sul). *Holotype*, ♂, Nova Teutonia, March 3, 1936 (F. Plaumann). *Allotopotype*, ♀, February 7, 1936. *Paratopotypes*, 2 ♀ ♀, October 12, 1935, February 7, 1936.

*Austrolimnophila candiditarsis* is readily told from all other described species of the genus by the white tarsi and conspicuously patterned wings.

### **Limnophila** Macquart

#### **Limnophila charon** sp. n.

General coloration black, including the antennae, halteres and legs; wings strongly suffused with blackish, unmarked except for the small, slightly darker stigma;  $R_{2+3+4}$  short, subequal to basal section of  $R_s$ ;  $R_{1+2}$  and  $R_2$  subequal; cell  $M_1$  present, about one-half longer than its petiole;  $m-cu$  at near midlength of cell *1st*  $M_2$ .

*Female*.—Length, about 9–10 mm.; wing, 9–10 mm.

Rostrum and palpi black. Antennae short, black throughout; basal flagellar segments globular, with relatively short, inconspicuous verticils; outer segments more elongate, with long conspicuous verticils; terminal segment about one-half longer than the penultimate. Head black; anterior vertex very broad, exceeding three times the diameter of scape.

Pronotum relatively small, black. Mesothorax black throughout, the surface moderately shiny. Halteres black throughout. Legs black, the tarsal segments a trifle paler. Wings strongly suffused with black; stigma small, oval, only a little darker than the ground; very vague darker seams adjoining certain of the veins; whitish longitudinal streaks in cells  $R$ ,  $M$  and *1st*  $A$ ; veins darker. Numerous macrotrichia on outer wing-veins, lacking on  $R_s$ . Venation:  $Sc_1$  ending shortly beyond fork of  $R_s$ ,  $Sc_2$  at its tip;  $R_s$  long;  $R_{2+3+4}$  short, subequal to basal section of  $R_s$ ;  $R_2$  and  $R_{1+2}$  subequal; cell  $M_1$  about one-half longer than its petiole;  $m-cu$  at or before midlength of cell *1st*  $M_2$ ; anterior arcus preserved.

Abdominal tergites black; sternites brownish yellow, the caudal margins narrowly darker; valves of ovipositor elongate, black, the outer halves of the gently upcurved cerci horn-yellow.

Habitat: Brazil (Rio Grande do Sul). *Holotype*, ♀, Nova Teutonia, March 6, 1936 (F. Plaumann). *Paratopotype*, ♀, November 28, 1935 (F. Plaumann).

*Limnophila charon* is entirely distinct from all other Neotropical species of the genus so far made known. It is readily told by the black color of the body and appendages and by the strongly blackened, unpatterned wings.

***Limnophila expressa* sp. n.**

General coloration of mesonotum yellowish brown, the praescutum with three brown stripes, the median one much darker and more distinct; halteres yellow; legs brownish black to black; wings cream-yellow, with a heavy brown pattern;  $R_{1+2}$  and  $R_2$  subequal; cell  $M_1$  about as long as its petiole; abdomen black, the genital shield and ovipositor more yellowish.

*Female*.—Length, about 11–12 mm.; wing, 9.5–10 mm.

Rostrum short, dark brown; palpi brownish black. Antennae dark brown, the bases of the pedicel and first flagellar segment a trifle brightened; flagellar segments oval, the verticils exceeding the segments. Head gray.

Pronotum yellowish brown, darker medially. Mesonotal praescutum yellowish brown, with three brown stripes, the median vitta dark brown, much clearer than the laterals; scutal lobes darkened, the median area paler; scutellum and mediotergite brown, gray pruinose. Pleura brownish yellow, sparsely pruinose, the anepisternum and ventral sternopleurite darker. Halteres yellow. Legs with the coxae and trochanters obscure yellow; remainder of legs brownish black to black, the femoral bases narrowly obscure yellow. Wings with the ground-color cream-yellow, the interspaces of the costal field and the prearcular area brighter yellow; a heavy brown pattern, as follows: Cell  $C$  except outer end, less evidently darkened in the paratype; conspicuous seams at arculus, origin of  $R_s$ , cord, outer end of cell  $1st\ M_2$ , fork of  $M_{1+2}$  and the axilla; large rounded brown clouds at ends of longitudinal veins, that at  $R_3$  largest, continued backward across cells  $R_3$  and  $R_4$ , in cases, this area nearly confluent with the cloud at fork of  $M_{1+2}$  to form an oblique subterminal fascia; about the outer half of cell  $M$  and the basal half of cell  $Cu$  darkened; a conspicuous marginal cloud at near midlength of cell  $2nd\ A$ ; veins yellow, darker in the clouded areas. Venation:  $Sc_2$  a little longer than  $Sc_1$ , ending just beyond fork of  $R_{2+3+4}$ ;  $R_{1+2}$  and  $R_2$  subequal; anterior cord oblique, the inner end of cell  $1st\ M_2$  most basad; cell  $M_1$  subequal to or longer than its petiole;  $m-cu$  close to midlength of cell  $1st\ M_2$ .

Abdomen black; genital shield and ovipositor more yellowish.

Habitat: Brazil (Rio Grande do Sul). *Holotype*, ♀, Nova Teutonia, November 28, 1935 (F. Plaumann). *Paratopotype*, ♀, October 28, 1935 (F. Plaumann).

The nearest ally of the present fly is *Limnophila araucania*



Alexander, of Chile, which differs conspicuously in the coloration of the body and legs and in the pattern of the wings.

***Limnophila leucostigma* sp. n.**

General coloration blackish, sparsely pruinose; antennal flagellum pale; legs obscure yellow, the femora with a vague darker subterminal ring; wings pale yellow, abundantly dotted and spotted with brown; stigma white; *Rs* elongate; cell *1st M*<sub>2</sub> elongate, its inner end lying before that of cell *R*<sub>5</sub>; *m-cu* near midlength of cell *1st M*<sub>2</sub>.

*Female*.—Length 8.5–11 mm.; wing, 8–10 mm.

Rostrum and palpi black. Antennae with scape and pedicel black; flagellum pale brownish yellow; flagellar segments oval, with verticils that exceed the segments; terminal segment longer than the penultimate. Head grayish brown, with a capillary, dark brown, median vitta that is more or less expanded on anterior vertex; black setigerous punctures on posterior part of vertex.

Mesonotum blackish, sparsely pruinose, with three more brownish stripes, the median one divided by a narrow darker vitta; scutum brown, the centers of the lobes darker; posterior sclerites of notum darkened, sparsely pruinose. Pleura dark, sparsely pruinose, with indications of a narrow longitudinal dark vitta. Halteres brown. Legs with the coxae brownish black; trochanters dusky; femora obscure yellow, narrowly and very indistinctly darkened subterminally; tibiae and basal three tarsal segments yellow, the tips of the individual segments very narrowly darkened; outer tarsal segments dark brown; legs moderately hairy. Wings with the ground-color pale yellow, abundantly dotted and speckled with microscopic areas of brown, these becoming larger and more nearly confluent in the outer radial field; somewhat larger and darker areas along cord and outer end of cell *1st M*<sub>2</sub>; prearcular field nearly clear; stigma whitish, unmarked; veins brownish yellow, with abundant trichia. Venation: *Rs* very long, in direct longitudinal alignment with *R*<sub>2+3+4</sub>, exceeding in length the unusually long and narrow cell *1st M*<sub>2</sub>; *Sc*<sub>2</sub> longer than *Sc*<sub>1</sub>, ending just beyond fork of *R*<sub>2+3+4</sub>; *R*<sub>2</sub> very faint, subequal to *R*<sub>1+2</sub>; inner end of cell *1st M*<sub>2</sub> lying basad of *R*<sub>5</sub>, the latter a corresponding distance before end of *R*<sub>4</sub>; *m* shorter than basal section of *M*<sub>3</sub>; *m-cu* close to midlength of cell *1st M*<sub>2</sub>; anterior arculus lacking.

Abdominal tergites brownish black; basal sternites somewhat paler. Ovipositor with basal shield and bases of cerci and most of hypovalvae blackened.

Habitat: Brazil (Rio Grande do Sul). *Holotype*, ♀, Nova Teutonia, September 4, 1935 (F. Plaumann). *Paratopotype*, ♀, August 17, 1935.

The reference of this fly to *Limnophila* is provisional and it may well be found to be closer to *Pseudolimnophila*, since the head is strongly narrowed behind and the anterior arculus is lost. The various members of the *undulata* group (*dictyoptera* Alex-

ander, *guttulatissima* Alexander, *lloydi* Alexander, *madida* Alexander and *undulata* Bellardi) are quite distinct in the retention of the anterior arcus and the nature of the wing-pattern and venation. The two species, *Limnophila schadei* Alexander and *L. subfuscata* Alexander, pertain to a still distinct group of the genus and, while closely allied to one another, are entirely distinct from the present fly.

## Hexatoma Latreille

### *Hexatoma* (*Eriocera*) *laticostata* sp. n.

General coloration, including halteres and legs, black; antennae (male) 7-segmented; basal segments of flagellum obscure yellow; wings dark brown, the prearcular and costal regions extensively and very conspicuously orange-yellow;  $R_{1+2}$  nearly twice as long as  $R_2$ .

*Male*.—Length, about 10–12 mm.; wing, 9–11 mm.

Rostrum and palpi black. Antennae (male) 7-segmented; scape and pedicel black; flagellum obscure yellow, the terminal two segments darker; basal flagellar segment exceeding in length the next two combined; subterminal segment about three times the length of the terminal and longer than the antepenultimate. Head deep velvety-black throughout; vertical tubercle moderately developed, bifid; setae of head short and sparse, black.

Thorax velvety-black; praescutal stripes not or scarcely differentiated; setae restricted to interspaces, very small and inconspicuous. Halteres and legs entirely black. Wings dark brown, the prearcular and costal regions broadly and conspicuously orange-yellow, including the base of wing to about the level of arcus, cells *C* and *Sc* to the level of the cord, and the extensive central portion of cell  $R_1$  as far caudad as the fork of  $R_5$ ; veins dark, clear luteous in the orange portions. Veins beyond cord glabrous or virtually so, without trichia excepting three or four on basal portion of outer section of vein  $R_5$ . Venation:  $R_{1+2}$  a little less than twice  $R_2$ ;  $R_{2+3}$  about equal to  $R_2$ ;  $R_{2+3+4}$  variable in length, in the type only a little shorter than  $R_3$  alone, in the paratype considerably shorter;  $R_5$  very long, a little more than twice  $R$  alone; veins beyond cord very weak and tending to be evanescent.

Abdomen, including hypopygium, black.

Habitat: Brazil (Rio Grande do Sul). *Holotype*, ♂, Nova Teutonia, October 29, 1935 (F. Plaumann). *Paratopotype*, ♂, March 6, 1936.

*Hexatoma* (*Eriocera*) *laticostata* is very different from all of the numerous species of the subgenus now known from the Neotropics. There is no species with which it may profitably be compared, the nearest ally apparently being *H. (E.) ogloblini* Alexander, of northern Argentina.

**Hexatoma (Eriocera) plaumanni lataurata** subsp. n.

Very similar to typical *plaumanni*, differing as follows: Antennae (female) 10-segmented. Mesonotal praescutum with the humeral and lateral portions broadly golden-yellow, sericeous; in the typical form, these areas are deep velvety-black. Wings with the yellow longitudinal streaks connecting the band at cord with the brightened base differently distributed, being reduced to a mere line in cell *R* and entirely lacking in cell *M* adjoining vein *M*; basal half of cell *Cu* yellow, dark in the typical form; cells *R*<sub>4</sub> and 1st *M*<sub>2</sub> uniformly darkened. Venation: *m-cu* at about one-third the length of cell 1st *M*<sub>2</sub>; vein 2nd *A* more concave, widening cell 1st *A* at midlength. Genital shield and preceding segment of abdomen elongate, deep orange; cerci black with only the tips pale.

Habitat: Brazil (Rio Grande do Sul). *Holotype*, ♀, Nova Teutonia, January 2, 1932 (F. Plaumann).

**Hexatoma (Cladolipes) cisatlantica** sp. n.

Sexes strongly dichrous; male black, the abdomen orange; female uniformly black; antennae 7-segmented in both sexes.

*Male*.—Length, 8–8.5 mm.; wing, 7.2–7.5 mm.; antenna, about 1.5 mm.

*Female*.—Length, 10–11 mm.; wing, 7.5–8.5 mm.

Sexes strongly dichrous.

*Male*.—Rostrum very reduced, black; palpi black. Antennae 7-segmented, black throughout; flagellar segments cylindrical, gradually decreasing in length and thickness; verticils shorter than the segments. Head brownish black, more intensely colored behind; vertical tubercle of moderate height, simple.

Thorax entirely polished black; praescutum nearly glabrous. Halteres black. Legs with the coxae and trochanters black; remainder of legs black, the femoral bases usually obscure brownish yellow, most extensive on the posterior legs where more than half the segment is included; in cases, the femora uniformly blackened. Wings with a strong blackish tinge, more intense in the prearcular and costal regions, paling to gray behind; veins darker. Macrotrichia on veins beyond cord very reduced, including a series for most of the length of the distal section of *R*<sub>5</sub>. Outer medial branches faint and tending to become evanescent. Venation: Cell *R*<sub>3</sub> entirely lacking, as in the subgenus; *R*<sub>2</sub> a trifle longer than *R*<sub>1+2</sub>; *R*<sub>3</sub> long, exceeding twice *R*; only two branches of *M* present; *m-cu* at or just before fork of *M*.

Abdomen with basal segment polished black; remainder, including hypopygium, orange.

*Female*.—Antennae 7-segmented, as in male. Legs black, including the femora. Wings more intensely blackened, in cases the centers of the more posterior cells paler. Abdomen entirely polished black, including the genital shield. Ovipositor with elongate, gently upcurved cerci, dark-colored.

Habitat: Brazil (Rio Grande do Sul). *Holotype*, ♂, Nova Teutonia, November 7, 1935 (F. Plaumann). *Allotopotype*, ♀,

November 11, 1935. *Paratopotypes*, 7 ♂♂, 2 ♀♀, November 6-14, 1935.

The discovery of a new species of the subgenus *Cladolipes* Loew is of unusual interest. The type and hitherto only known species is *Hexatoma (Cladolipes) simplex* (Loew), of Greece, still very rare in collections. The present fly conforms exactly to the characters of the subgenus, excepting that the antennae are 7-segmented in both sexes. It should be reaffirmed that the valves of the ovipositor in both known species are elongate and sclerotized, not short and fleshy as in the allied subgenus *Hexatoma*.

### **Atarba Osten Sacken**

#### **Atarba (Atarba) anthracina** sp. n.

General coloration black, including the antennae and legs; halteres with stem brownish yellow, the knob clear yellow; wings strongly suffused with blackish; *Sc*<sub>1</sub> ending opposite origin of *Rs*.

*Female*.—Length, about 6 mm.; wing, 5.4 mm.

Rostrum and palpi black. Antennae black throughout; flagellar segments long-oval to oval; longest verticils subequal to the segments. Head polished black; anterior vertex wide.

Thorax entirely polished black. Halteres with the stem brownish yellow, the knob clear yellow. Legs intense black throughout. Wings with a strong blackish suffusion, the prearcular, costal and stigmal areas a trifle more saturated; veins brownish black. Conspicuous trichia on longitudinal veins beyond cord, on 1st *A* restricted to two or three at tip of vein. Venation: *Sc*<sub>1</sub> ending opposite origin of *Rs*, *Sc*<sub>2</sub> slightly removed from this tip; *Rs* angulated at origin; branches of *Rs* only gently diverging from one another; cell 1st *M*<sub>2</sub> relatively small, rectangular; *m-cu* shortly beyond fork of *M*.

Abdomen polished black, only the tips of cerci paler.

Habitat: Brazil (Rio Grande do Sul). *Holotype*, ♀, Nova Teutonia, October 20, 1935 (F. Plaumann).

In the intense black color, *Atarba (Atarba) anthracina* is very distinct from all other species of the genus described to this date.

### **Gonomyia Meigen**

#### **Gonomyia (Lipophleps) macintyre** sp. n.

Belongs to the *manca* group; general coloration brownish gray, scutellum yellow; legs brown to black; *Sc* relatively short; male hypopygium with the apex of basistyle produced into a long sinuous spine; a single, simple dististyle; phallosome produced into two arms, one a slender, nearly straight rod, the other broader, bifid and blackened at apex.

*Male*.—Length, about 4–4.2 mm.; wing, 4.7–5.2 mm.

*Female*.—Length, about 5 mm.; wing, 5–5.2 mm.

Rostrum orange; palpi black. Antennae black throughout; flagellar verticils very long, especially in male. Head gray.

Mesonotal praescutum uniformly brown, sparsely pruinose; anterior lateral pretergites light yellow; scutal lobes brownish gray, the posterior callosities yellow; median area of scutum obscure brownish yellow; scutellum yellow, restrictedly darkened medially at base; mediotergite black, heavily pruinose. Pleura and pleurotergite yellow, variegated with dark brown on the propleura, anespisternum, ventral sternopleurite and meron. Halteres yellow. Legs with the fore coxae darkened, the remaining coxae chiefly pale; trochanters yellow; remainder of legs dark brown to black. Wings tinged with brown, the prearcular and costal portions clearer yellow; stigma almost lacking, scarcely darker than the ground; veins brown, paler in the brightened areas. Venation: *Sc* short, *Sc*<sub>1</sub> ending a distance before origin of *Rs* equal to or much exceeding one-half the length of the latter; *Rs* angulated at origin, its branches strongly divergent at margin; cell *R*<sub>3</sub> very wide, cell *R*<sub>6</sub> correspondingly narrowed; *m-cu* at or close to fork of *M*.

Abdominal tergites brown; sternites and hypopygium yellow. Male hypopygium with the apex of basistyle produced into a long sinuous spine, gradually narrowed to the acute blackened tip, exceeding in length the single elongate simple dististyle. Phallosome consisting of two elements, a long slender, nearly straight rod, and a broader structure that is deeply bifid and blackened at tip, both of these phallosomic elements longer than the dististyle.

Habitat: Ecuador (Oriente). *Holotype*, ♂, Banos, Province of Tungurahua, altitude 8,125 feet, July, 1936 (W. Clarke-MacIntyre). *Allotopotype*, ♀, pinned with type. *Paratopotypes*, several ♂ ♀, altitude 6,200–8,125 feet, June–August, 1936.

I take great pleasure in dedicating this fly to the collector, Mr. William Clarke-MacIntyre, who has collected numerous rare and undescribed entomological material in eastern Ecuador. The present species is entirely distinct from the now very numerous species of *Lipophleps* in the structure of the male hypopygium, especially of the basistyles and phallosome.

### Teucholabis Osten Sacken

#### Teucholabis (*Teucholabis*) *liponeura* sp. n.

General coloration yellow, the praescutum with three abbreviated black areas; head gray; pleura darkened, with a vague whitish longitudinal stripe; femora yellow, the tips narrowly and abruptly blackened; wings subhyaline, unmarked except for the stigma; *Sc*<sub>1</sub> ending shortly before midlength of *Rs*; cell 1st *M*<sub>2</sub> open by the atrophy of basal section of *M*<sub>3</sub>; cell 2nd *M*<sub>2</sub> subequal to its petiole.

*Female*.—Length, about 6.5 mm.; wing, 6 mm.

Rostrum and palpi dark. Antennae black; basal segments not visible in the unique type; flagellar segments oval, the verticils much longer than the segments. Head dark gray.

Pronotum yellow. Mesonotal praescutum yellow, with three black areas, representing portions of the usual stripes, the remainder of these being reddish; the black areas occupy the cephalic half of the median stripe and the posterior third of the lateral areas, adjoining the suture; scutum obscure yellow, each lobe with a restricted triangular dark area; scutellum yellow; mediotergite black, yellow laterally on cephalic portion. Pleura weakly darkened, with a vague and ill-defined whitish longitudinal stripe, extending from behind the fore coxae to the meron, widened posteriorly, the surface with short pale pubescence; pleurotergite obscure yellow, more darkened on ventral portion. Halteres pale, the knobs weakly darkened. Legs with the coxae and trochanters obscure yellow, the fore coxae darker; femora yellow, the tips narrowly (0.6–0.7 mm.) but conspicuously blackened, the amount subequal on all legs; tibiae obscure yellow, the tips narrowly blackened; tarsi black. Wings relatively broad, subhyaline, unmarked except for the circular brown stigma; veins brown, those of the costal and basal portions somewhat paler. Venation:  $Sc$  of moderate length,  $Sc_1$  ending shortly before midlength of  $R_s$ ,  $Sc_2$  at about mid-distance between origin of  $R_s$  and tip of  $Sc_1$ ;  $R_s$  somewhat angularly bent at near midlength; anterior branch of  $R_s$  nearly straight, cell  $R_2$  at margin wider than cell  $R_4$ ; cell  $1st\ M_2$  open by atrophy of basal section of  $M_3$ , cell  $2nd\ M_2$  about as long as its petiole;  $m-cu$  just beyond fork of  $M$ .

Abdomen black, the caudal margins of the segments restrictedly pale, the amount somewhat more extensive on the outer tergites; genital shield obscure yellow; cerci horn-colored, strongly upcurved.

Habitat: Brazil (Rio Grande do Sul). *Holotype*, ♀, Nova Teutonia, October 14, 1935 (F. Plaumann).

The nearest allies of the present insect are *Teucholabis* (*Teucholabis*) *omissa* Alexander (Argentina) and *T. (T.) omissinervis* Alexander (Peru), both of which differ conspicuously in the small size and in the venation of the radial and medial fields.

### ***Teucholabis* (*Teucholabis*) *lipophleps* sp. n.**

General coloration dark castaneous, the praescutum with the cephalic ends of the usual praescutal stripes narrowly black; posterior sclerites of mesonotum dark; femora yellow, the tips very vaguely and indistinctly darkened; wings whitish subhyaline, with three pale brown crossbands; cell  $1st\ M_2$  open by atrophy of basal section of  $M_3$ ; cell  $2nd\ M_2$  deep; abdomen black.

*Female*.—Length, about 6.5 mm.; wing, 5.8 mm.

Rostrum relatively short, brown; palpi brownish black. Antennae black, relatively elongate; flagellar segments oval, the basal three or four shorter and more crowded. Head brownish black, polished. without pruinosity.

Pronotum yellow. Mesonotal praescutum polished, dark castaneous, with three black areas, representing the cephalic ends of the usual stripes, the posterior portions being indistinguishable from the ground-color; posterior sclerites of mesonotum dark, including the scutellum. Pleura with the dorsal sclerites blackened, including areas on the anepisternum, dorsal pteropleurite and ventral pleurotergite; ventral sternopleurite more weakly infumed; dorso-pleural area yellow; a broad longitudinal whitish stripe extending from behind the fore coxae to the base of abdomen, more widened behind, passing beneath the root of halteres, the surface with silvery pubescence. Halteres black, the apex of knob a very little brighter. Legs with the coxae and trochanters yellow; femora yellow, the tips very vaguely and indistinctly darkened, the amount subequal on all legs; tibiae obscure yellow, the tips narrowly infuscated; tarsi black, the proximal ends of basitarsi paler. Wings whitish subhyaline, with three pale brown crossbands, the first at level of origin of  $R_s$ , not involving cells  $C$  and  $Sc$ ; second band narrow, at cord, the stigmal portion darker brown; third band apical, involving the wing-tip as far basad as the fork of  $M_{1+2}$ ; veins brown,  $Sc$  yellow. Venation:  $Sc_1$  ending about opposite midlength of  $R_s$ ;  $R_2$  slightly oblique, immediately beyond fork of  $R_s$ ; branches of  $R_s$  generally parallel for most of their length, cell  $R_2$  much more extensive than  $R_4$ ; cell 1st  $M_2$  open by atrophy of the basal section of  $M_3$ ; cell 2nd  $M_2$  deep, nearly twice its petiole;  $m-cu$  just beyond fork of  $M$ .

Abdomen, including the genital shield and bases of cerci, black; outer portions of cerci strongly upcurved, deep horn-yellow.

Habitat: Brazil (Rio Grande do Sul). *Holotype*, ♀, Nova Teutonia, November 6, 1935 (F. Plaumann).

*Teucholabis* (*Teucholabis*) *lipophleps* is entirely different from the other species of the subgenus that have cell 1st  $M_2$  of the wings open. It is the only species in this category of small size and having patterned wings.

### ***Teucholabis* (*Teucholabis*) *fuscoapicalis* sp. n.**

General coloration of praescutum yellow, with a median brown vitta; head dark brown; halteres infuscated; femora obscure yellow, the tips narrowly brownish black, the amount subequal on all legs; wings yellow, the apical sixth strongly infuscated; stigma and a very narrow seam on anterior cord dark brown;  $Sc_1$  ending about opposite midlength of  $R_s$ ,  $Sc_2$  near its tip; cell  $R_2$  at margin more extensive than cell  $R_4$ ; abdomen black, the caudal borders of the sternites and outer tergites pale.

*Female*.—Length, about 7 mm.; wing, 6.8 mm.

Rostrum relatively elongate, about one-half the remainder of head, black; palpi black. Antennae brownish black; flagellar segments oval; verticils subequal in length to the segments. Head dark brown, the anterior vertex and orbits more obscure brownish yellow.

Mesonotal praescutum yellow, with a median brown vitta; posterior sclerites of notum chiefly darkened. Pleura distorted in the unique type, obscure yellow, variegated by dark brown or brownish black. Halteres

infuscated. Legs with the coxae and trochanters yellow, the fore coxae somewhat darker; femora obscure yellow, the tips narrowly brownish black, the amount subequal on all legs; tibiae and basitarsi yellow, the tips very narrowly blackened; remainder of tarsi black. Wings yellow, the apical sixth strongly infuscated, involving cells  $R_2$  to  $M_3$ , inclusive; stigma oval, dark brown, very conspicuous; a very narrow, dark brown seam on anterior cord, virtually restricted to the veins themselves; veins yellowish brown, the anterior cord much darker. Venation:  $Sc$  long,  $Sc_1$  ending about opposite midlength of the long  $Rs$ ,  $Sc_2$  close to its tip; vein  $R_2$  subtransverse, about one-third its length beyond fork of  $Rs$ , cell  $R_2$  at margin more extensive than cell  $R_4$ ;  $m-cu$  at fork of  $M$ .

Abdomen black, the outer tergites with caudal margins narrowly obscure yellow; all sternites black, the caudal margins very broadly pale, the color including the posterior half or more of the segment; genital segment yellow; bases of cerci narrowly blackened, the valves strongly upcurved, horn-yellow.

Habitat: Brazil (Rio Grande do Sul). *Holotype*, ♀, Nova Teutonia, November 14, 1935 (F. Plaumann).

The present fly is readily separated from all other generally similar forms by the wing-pattern, the broadly darkened apex and very narrow seam along the cord being quite distinctive of the species.

#### **Teucholabis (Teucholabis) nigrocorporis sp. n.**

General coloration polished black, only the pleura with appressed silvery pubescence; antennae black; halteres black, the knob light yellow; femora obscure yellow, the tips black, more extensive on the fore pair; wings whitish subhyaline, with three broad dark brown crossbands, the last apical in position; cell  $R_4$  widest before midlength; male hypopygium with the lobe of basistyle and the outer dististyle both terminating in acute black spines.

*Male*.—Length, about 6 mm.; wing, 5.6 mm.

Rostrum and palpi black. Antennae black throughout; basal flagellar segments globular, the outer segments passing into oval; terminal segment about two-thirds the length of the penultimate. Head polished black.

Mesonotum entirely polished black. Pleura polished black, with a ventral longitudinal area of whitish appressed pubescence. Halteres black, the knob light yellow. Legs with the coxae black; trochanters obscure yellow; femora obscure yellow, the tips black, somewhat more extensive on the fore legs where nearly the distal half is included, narrow on the remaining legs; tibiae dark brown, darker at either end; tarsi black; posterior basitarsi swollen on proximal half. Wings whitish subhyaline, heavily crossbanded with dark brown, including an irregular area at level of origin of  $Rs$ , wider and more diffuse in the cubital and anal cells, not involving cells  $C$  or  $Sc$ ; a second narrower fascia at cord, nearly parallel-sided, slightly interrupted by the chiefly pale cell *1st*  $M_2$ ; wing-apex broadly dark, extending basad to level of outer end of cell



1st  $M_2$ ; veins dark. Venation:  $Sc$  moderately long,  $Sc_1$  extending to near two-fifths the length of  $Rs$ ,  $Sc_2$  about mid-distance between origin of  $Rs$  and tip of  $Sc_1$ ;  $Rs$  somewhat angularly bent at near midlength;  $R_2$  about twice  $R_{2+3+4}$ ; branches of  $Rs$  arcuated and divergent before midlength so cell  $R_4$  is widest just before midlength; cell  $R_2$  at margin more than twice as extensive as cell  $R_4$ ; cell 1st  $M_2$  closed, subequal in length to vein  $M_4$  beyond it;  $m-cu$  about one-half its length beyond fork of  $M$ .

Abdomen, including hypopygium, black. Male hypopygium with the lobe of basistyle a slender, gently sinuous, yellow rod that ends in an acute black spine, the base of the latter surrounded by abundant yellow setae. Outer dististyle conspicuously clavate, the basal third very narrow, the apex dilated into an oval head that is set with small scattered spinulae and setae, the inner apical angle produced into a conspicuous straight spine.

Habitat: Brazil (Rio Grande do Sul). *Holotype*, ♂, Nova Teutonia, October 18, 1935 (F. Plaumann).

*Teucholabis* (*Teucholabis*) *nigrocorporis* is closely allied to *T. (T.) polita* Osten Sacken, which differs in the coloration of the legs and in the structure of the male hypopygium. I have given supplementary notes on the type-specimen of *polita* in another paper (Diptera, 4: 23-24; 1927).

#### ***Teucholabis* (*Teucholabis*) *rubriceps* sp. n.**

General coloration of mesonotum varying from polished black to reddish, the scutellum broadly yellow; head reddish; knobs of halteres light yellow; femora with tips blackened, broadly so on fore legs; male with posterior tibiae swollen before tips; wings subhyaline, the stigma and a very narrow seam on anterior cord dark brown; cell  $R_2$  at margin more extensive than cell  $R_4$ ; male hypopygium with the spine of the basistyle with dense setae along mesal margin; outer dististyle a long simple rod; apex of aedeagus greatly expanded.

*Male*.—Length, about 6.5-7 mm.; wing, 6-7 mm.

Rostrum yellow, relatively short; palpi black. Antennae with scape yellow; pedicel and flagellum black; flagellar segments oval; terminal segment about one-half the length of the penultimate. Head with the front and anterior vertex yellow, the posterior vertex polished red to reddish brown.

Pronotum yellow. Mesonotal praescutum variable in color, in the type polished black, with a small yellow median area at the suture; one paratype has the praescutum almost entirely deep reddish, the lateral portions blackened; scutum broadly yellow medially, the lobes black; scutellum yellow; postnotum black. In the paratype above mentioned, the black colorations of the posterior notum are chiefly replaced by reddish. Pleura black on the anepisternum and sternopleurite, the remainder chiefly yellow, the pteropleurite more conspicuously so. Halteres black, the knob light yellow. Legs with the coxae and trochanters yellow; fore femora yellow basally, the outer two-thirds or more black; remaining femora yellow, with the tips somewhat narrowly

(about 1 mm.) blackened; tibiae brownish yellow, narrowly blackened at base and more extensively at tip; tarsi black; in male, the posterior tibiae swollen shortly before tip and the basitarsi dilated on basal portion. Wings subhyaline or with a very weak brown tinge, the bases of the anal cells clearer; stigma triangular, dark brown, connected with a very narrow brown seam on anterior cord; region of arculus and base of cell *Sc* darkened; veins dark brown to black. Venation: *Sc*<sub>1</sub> ending about opposite one-third to one-fourth the length of *Rs*, *Sc*<sub>2</sub> opposite or just beyond the origin of the latter; *R*<sub>2</sub> at or immediately beyond the fork of *Rs*; branches of *Rs* parallel for much of their length, cell *R*<sub>2</sub> at margin more extensive than cell *R*<sub>4</sub>; distal section of *M*<sub>1+2</sub> arcuated beyond *m*; *m-cu* shortly beyond the fork of *M*.

Abdomen black, the caudal margins of the segments narrowly yellow, more conspicuously so on the sternites; hypopygium black. Male hypopygium with the spine of the basistyle straight, of moderate length, simple, much shorter than the outer dististyle; mesal margin with abundant yellow setae and a series of five or six teeth, culminating in a longer terminal spine. Outer dististyle a long simple blackened rod, gently arcuated, the outer margin with scattered appressed spinules, the surface with long erect setae from conspicuous tubercles, the apex narrowed to a spine. Inner dististyle irregularly bifid at apex, both lobes narrowly obtuse or subacute. Aedeagus very dilated and compressed at apex, with a small curved thumb-like lobe at base of the expanded blade.

Habitat: Brazil (Rio Grande do Sul). *Holotype*, ♂, Nova Teutonia, October 30, 1935 (F. Plaumann). *Paratopotypes*, 2 ♂♂, November 23, 1935; March 3, 1936.

*Teucholabis* (*Teucholabis*) *rubriceps* is closest to species such as *T. (T.) dampfi* Alexander and *T. (T.) hilaris* Alexander, differing in the coloration, details of venation and in the structure of the male hypopygium.

### ***Teucholabis* (*Teucholabis*) *laterospinosa* sp. n.**

General coloration yellow; head reddish; praescutum with three confluent polished black stripes; pleura chiefly pale; knobs of halteres yellow; fore femora black, the bases narrowly yellow; remaining femora almost uniformly brownish yellow; wings whitish subhyaline, the stigma and a narrow seam on anterior cord brownish black; proximal half of cell *Sc* darkened; vein *Sc* short, *Rs* strongly arcuated; cells *R*<sub>2</sub> and *R*<sub>4</sub> at margin subequal; male hypopygium with the outer dististyle bearing a conspicuous spine on mesal edge at about two-thirds the length.

*Male*.—Length, about 5 mm.; wing, 5.2 mm.

Rostrum relatively short, yellow; palpi dark brown. Antennae with scape and pedicel yellow, flagellum dark brown; flagellar segments conspicuous, subglobular to short-oval, the outer segments a little more elongate. Head reddish.

Pronotum reddish yellow. Mesonotal praescutum with the ground-color yellow, chiefly covered by three confluent polished black stripes

restricting the ground to humeral triangles and a yellow median area at the suture; median area of scutum and cephalic portions of the lobes yellow, the remainder of lobes polished black; scutellum yellow; mediotergite black, a little more reddish on cephalic portion; pleurotergite black, contrasting abruptly with the chiefly yellow pleura; ventral sternopleurite brownish black; a longitudinal stripe on ventral pleurites, covered with an appressed whitish pubescence. Halteres brownish black, the knob clear light yellow. Legs with the coxae and trochanters yellow; fore femora black, with only the proximal fifth or sixth yellow; remaining femora uniformly brownish yellow, the tips not or scarcely darkened; tibiae brownish yellow, the posterior tibiae (male) with a swollen black subterminal ring; tarsi black, the proximal third of posterior basitarsus (male) dilated. Wings whitish subhyaline; stigma and a narrow seam on anterior cord brownish black; proximal half of cell *Sc* darkened; veins dark brown to black. Venation: *Sc* short, *Sc*<sub>1</sub> ending about opposite the basal sixth of the strongly arcuated *Rs*, *Sc*<sub>2</sub> a short distance before origin of the latter; *R*<sub>2</sub> at fork of *Rs*; branches of *Rs* parallel for most of their length, the anterior branch a little curved cephalad at tip, *R*<sub>5</sub> deflected very strongly caudad, so cell *R*<sub>4</sub> at margin is fully as extensive as cell *R*<sub>2</sub>; cell 1st *M*<sub>2</sub> relatively elongate, subequal to vein *M*<sub>3</sub> beyond it; *m-cu* just beyond the fork of *M*.

Abdomen black, the caudal margins of the more basal segments, especially of the sternites, narrowly yellow; hypopygium black. Male hypopygium with the spine of the basistyle elongate, glabrous, at apex obliquely narrowed to an acute point. Outer dististyle relatively stout, bearing a conspicuous spine on mesal edge at near two-thirds the length; surface of style with numerous spinulae and scattered elongate setae. Inner dististyle with apex broadly rounded, the lateral portion of apex with two short blunt teeth; a conspicuous black tubercle on face of style at base. Aedeagus greatly compressed on distal portion.

Habitat: Brazil (Rio Grande do Sul). *Holotype*, ♂, Nova Teutonia, January 24, 1936 (F. Plaumann).

The present species is closest to *Teucholabis* (*Teucholabis*) *nigrosignata* Alexander, of Cuba, differing in the details of body-coloration, the venation, and details of the wing-pattern, and in the structure of the male hypopygium, especially of the dististyles.

### **Helobia St. Fargeau**

#### **Helobia colombiana sp. n.**

General coloration grayish brown, the praescutum with three, narrow, darker brown stripes; pleura with a narrow, dark brown, longitudinal stripe; pattern of wings heavy and distinct; male hypopygium with the outer dististyle very strongly bifid, the arms with coarse conspicuous teeth; gonapophyses entirely blackened, the outer margin of both lobes with slender teeth.

*Male*.—Length, about 4.2 mm.; wing, 5.2 mm.

Rostrum and palpi brownish black. Antennae black; flagellar segments short-oval, with short verticils. Head dark brownish gray.

Pronotum dark, variegated by obscure yellow. Mesonotal praescutum grayish brown, variegated by three narrow, darker brown stripes, the lateral pair traversing the black pseudosutural foveae; humeral region of praescutum restrictedly yellow; scutum grayish brown, each lobe with a slightly darker brown line along mesal edge; scutellum light brown, darker medially; mediotergite brownish gray. Pleura brownish gray, with a narrow, darker brown, longitudinal stripe extending from behind the fore coxae, crossing the suture between the anespisternum and sternopleurite and onto the pteropleurite, the latter more yellowish. Halteres with base of stem light yellow, the remainder black. Legs with the coxae obscure brownish yellow, the fore pair darker basally; trochanters obscure yellow; femora obscure yellow, deepening to dark brown before the narrow pale tips; tibiae and tarsi passing through pale brown to black. Wings grayish, with a heavy brown pattern, including the cord, outer end of cell *1st M*<sub>2</sub>, *Sc*<sub>2</sub>, origin of *Rs*, tips of outer radial veins, supernumerary crossvein, and in the Anal field; veins brown. Venation as in the genus.

Abdomen dark brown, restrictedly yellow on lateral portions; hypopygium dark. Male hypopygium with the outer dististyle very strongly bifid, much more so than in *hybrida*, the lower or more cephalic arm longer and stouter than the outer arm, about equal in length to the stem of the style; both arms provided with coarse conspicuous teeth on their outer faces. Gonapophyses entirely blackened, including the small lateral lobe, the whole outer surface with numerous slender teeth. In *hybrida*, the lateral lobe or branch is pale, shaped more or less like a duck's head, without teeth.

Habitat: Colombia. *Holotype*, ♂, Usme, 25 kilometers south of Bogota, altitude 10,000 feet, June 9, 1936 (P. C. Stone).

*Helobia colombiana* is quite distinct from the widespread, more northern *H. hybrida* (Meigen) in the structure of the male hypopygium. The small *H. macroptera* (Philippi) of Chile and Argentina is again entirely distinct from both of the above, the male hypopygium being of very different structure.