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NEW OR LITTLE-KNOWN TIPULIDÆ
(DIPTERA).—LIV. NEOTROPICAL SPECIES.

New or little-known Tipulidæ (Diptera).—LIV. Neotropical Species. By CHARLES P. ALEXANDER, Ph.D., F.R.E.S., Massachusetts State College, Amherst, Massachusetts, U.S.A.

At this time I am describing a series of crane-flies from the Oriente of Ecuador, collected by William Clarke-Macintyre and his native collectors, the family of Elias Velastegui. Most of the specimens were taken at Abitagua on the Rio Pastaza, evidently a very prolific locality for this group of Diptera. The references cited below * give an idea of the conditions obtaining in this part of the Oriente. I am greatly indebted to Mr. Clarke-Macintyre and collectors for the opportunity of studying this extensive series of Tipulidæ. The types are preserved in my collection.

* Chapman, Frank M. "The Distribution of Bird-life in Ecuador." Bull. Amer. Mus. Nat. Hist. lv. pp. 1-784 (1926).

Shelford, Victor E. (and others). 'Naturalist's Guide to the Americas,' pp. 662-674 (1926).

Spruce, Richard. 'Notes of a Botanist on the Amazon and Andes' (1908).

TANYPREMNA Osten-Sacken.

1886. *Tanypremna* Osten-Sacken, Biol. Centrali-Americana, Dipt. i. p. 19.

LIMONIODES, subgen. nov.

Characters as in the typical subgenus, differing as follows:—Antennæ 13-segmented; segments simple, with long verticils. Claws toothed. Wings (fig. 1) with distal section of vein R_{1+2} entirely atrophied so the radial field is almost exactly as in the genus *Limonia* (compare figs. 1 and 4); R_s long, arcuated, about three times $m-cu$. Microtrichia present in most cells beyond cord, especially near veins; in basal cells lacking or virtually so.

Type of subgenus, *Tanypremna* (*Limoniodes*) *sulphurella*, sp. n. (Neotropical).

The present fly is somewhat similar to the subgenus *Tanypremnodes* Alexander (type, *leucoplaca*) in the complete atrophy of vein R_{1+2} , but differs conspicuously in the simple antennæ and great reduction in number of microtrichia in the cells before cord of wing. The venation of the radial field is amazingly like that of species of the genus *Limonia* Meigen, and there can be no question of the homologies of the veins. This shows that the distal end of the main radial vein consists of the free tip of Sc_2 and that the atrophied element is R_{1+2} . The methods by which this peculiar condition has been attained have been discussed by the present writer in various papers, the most recent being in the section on the Tipulidæ in Curran's 'Families and Genera of the North American Diptera,' pp. 38–39 (1934).

Tanypremna (*Limoniodes*) *sulphurella*, sp. n.

General coloration of notum chestnut-brown; pleura with a transverse darkened girdle; front wide, silvery; legs with the genua restrictedly brightened; tibial tips narrowly whitish; outer tarsal segments dirty white; wings sulphur-yellow, the stigma not or scarcely defined; abdominal segments ringed with yellow at near mid-length.

Male.—Length about 14–15 mm.; wing 11–12 mm.; antennæ about 1 mm.

Frontal prolongation of head very short, black; palpi black. Antennæ with the scape and pedicel yellow, flagellum black. Front and anterior vertex wide, con-

spicuously silvery; posterior sclerites of head abruptly dark brown, the genæ paling to yellow.

Pronotum obscure yellow. Mesonotum almost uniformly chestnut-brown, the præscutum darker brown on sides before suture; præscutal setæ very small and reduced in number; scutal lobes darker brown; scutellum paler, more testaceous brown; mediotergite brown, the anterior third darker. Pleura yellow, conspicuously banded transversely with dark brown, including a complete girdle on mesepisternum, including the dorso-pleural membrane, anepisternum and sternopleurite; pleurotergite similarly darkened, the propleura and the pteropleurite remaining of the ground-colour. Halteres brownish black throughout. Legs with the coxæ and trochanters greenish testaceous; femora restrictedly pale basally, the remainder black with the extreme tips greenish white; tibiæ black, the extreme bases and slightly wider tips greenish white, this more extensive on posterior legs; basitarsi black, the outer ends and remainder of tarsi dirty brownish white, most conspicuous on fore legs. Wings (fig. 1) with a strong sulphur-yellow tinge; stigma scarcely indicated by a faint darkening; in cases wing-tip narrowly darkened; veins black. Strong macrotrichia on distal ends of veins beyond cord. Venation as discussed under the subgenus; Sc_1 entire; cell 1st M_2 large, widest across base; petiole of cell M_1 subequal to or shorter than m ; $m-cu$ at near two-thirds the length of M_{3+4} . In one paratype specimen $r-m$ in both wings is obliterated by a relatively long fusion of veins R_{4+5} and M_{1+2} .

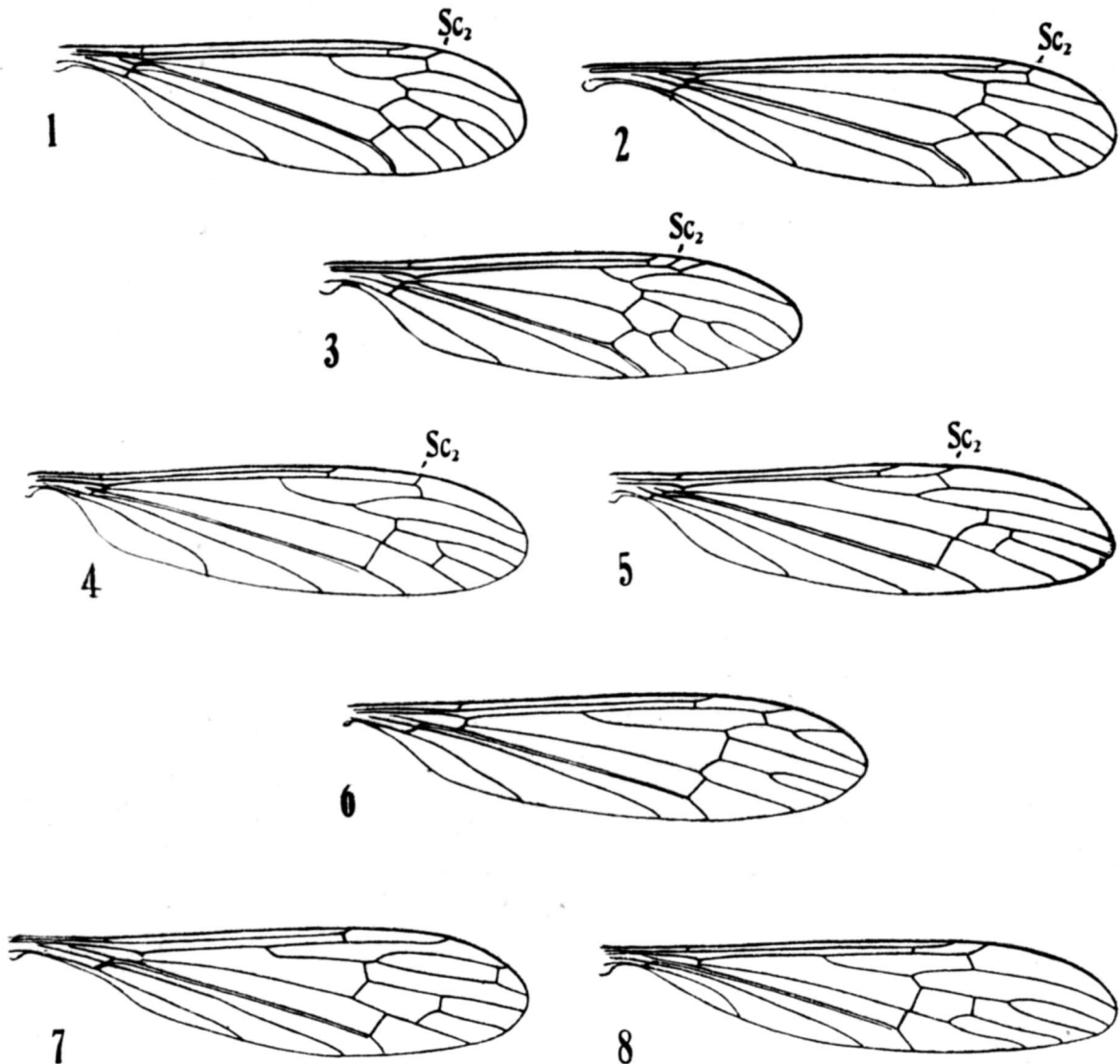
Abdomen elongate, tricoloured, the segments brownish black apically, more reddish basally, with a narrow, more yellowish to nacreous ring at near mid-length; hypopygium dark brown. Male hypopygium with the tergite relatively extensive, the caudal margin broadly emarginate. Basistyle elongate. Outer dististyle a little longer than the inner, narrowed to a slender apex. Inner dististyle elongate, terminating in a slender beak that is shaped more or less like a pruning-knife; surface of style with about twenty-five conspicuous black spinous setæ.

Hab. Ecuador (Oriente).

Holotype, ♂, Abitagua, altitude 1200 metres, April 3, 1937 (*Macintyre*).

Paratopotypes, 5 ♂♀, April 4-18, 1937.

Tanypremna (*Limoniodes*) *sulphurella* is very different from all members of the genus so far described. The radial sector is longer and more arcuated than in any other known species.



Venation of Tipulidæ from Ecuador.

- Fig. 1.—*Tanypremna* (*Limoniodes*) *sulphurella*, sp. n.
 Fig. 2.—*Tanypremna* (*Tanypremnella*) *crystallina*, sp. n.
 Fig. 3.—*Tanypremna* (*Tanypremna*) *carbonipes*, sp. n.
 Fig. 4.—*Limonia* (*Limonia*) *velasteguii*, sp. n.
 Fig. 5.—*Protohelius* *cisatlanticus*, sp. n.
 Fig. 6.—*Hexatoma* (*Eriocera*) *patens*, sp. n.
 Fig. 7.—*Elephantomyia* (*Elephantomyia*) *supernumeraria* Alexander.
 Fig. 8.—*Trentepohlia* (*Promongoma*) *mirabilis*, sp. n.

TANYPREMNELLA, subgen. nov.

Characters as in the typical subgenus, differing as follows:—Antennæ 10-segmented in both sexes, elongate in male; flagellar segments cylindrical, with abundant

erect setæ scattered over the entire segment, exceeding in length the sparse verticils. Tibial spurs on all legs; claws toothed. Wings (fig. 2) without microtrichia on basal four-fifths of wing, present in outer ends of cells beyond cord. Venation: Sc_1 preserved; R_{1+2} atrophied, the combined vein R_1 and R_2 weakly angulated, in alignment with the short transverse free tip of Sc_2 ; Rs short but longitudinal in position, a little more than one-half R_{2+3} ; cell 1st M_2 large, irregularly pentagonal to hexagonal, widest opposite $r-m$; vein Cu_2 lying far from Cu_1 . Male hypopygium with the ninth tergite transverse, the caudal margin truncate or convexly rounded, not notched. Inner dististyle oval to subcircular in outline. Ovipositor with relatively short fleshy cerci, with setæ scattered over the entire length.

Type of subgenus, *Tanypremna* (*Tanypremnella*) *crystallina*, sp. n. (Neotropical). *T. (T.) transfasciata*, sp. n., likewise belongs here.

This new subgeneric group is closest to the subgenus *Limoniodes*, differing especially in the 10-segmented antennæ, which are of an unusual length for a member of this genus. Both groups have R_{1+2} atrophied, but the present fly shows the point of departure represented by a slight angulation where R_1 and R_2 unite. The great reduction in number of microtrichia on the wing-surface of both of these groups is not found in the five other subgeneric groups now placed in *Tanypremna*.

Tanypremna (*Tanypremnella*) *crystallina*, sp. n.

General coloration yellowish brown, the pleura with an ill-defined transverse brown girdle; antennæ (male) of moderate length, between one-third and one-fourth the length of body; wings crystal clear, the tip weakly darkened; $r-m$ elongate; abdominal tergites conspicuously bicoloured.

Male.—Length about 9–10 mm.; wing 10.5–11.5 mm.; antenna about 2.5–3 mm.

Female.—Length about 9 mm.; wing 11 mm.; antenna about 1.2 mm.

Frontal prolongation of head short, yellowish brown; nasus distinct; palpi dark brown. Antennæ moderately elongate in male, short in female, as shown by

measurements; scape and pedicel yellow, flagellum black; flagellar segments gradually decreasing in length outwardly, the last shortest. Head dark grey, the centre of anterior vertex and posterior border of occiput more blackened; head beneath light yellow.

Pronotum moderately darkened. Mesonotal præscutum yellowish brown, with indications of three slightly darker brown nitidous stripes; scutum and scutellum dark brown the parascutella and postnotum a little paler. Pleura and pleurotergite yellow, the mesepisternum with an ill-delimited brown transverse girdle, occupying the dorsopleural membrane and anterior portion of the anepisternum and sternopleurite. Halteres elongate, black, the base of stem restrictedly pale. Legs with the coxæ and trochanters yellow; femora dark brown; tibiæ brownish black, the tips broadly snowy-white, narrowest (about distal seventh or eighth) on fore legs, widest (about distal fourth or fifth) on posterior pair; basitarsi brownish black, on about the distal fourth (fore legs) to half (posterior legs) snowy-white, the remaining segments similarly whitened. Wings (fig. 2) almost crystal clear, the tip weakly darkened, the colour produced, in part at least, by the microtrichia; the large stigma and cell *Sc* dark brown; veins black. Macrotrichia numerous and well distributed on longitudinal veins beyond cord. Venation: as defined under the subgenus; *m-cu* shortly before fork of M_{3+4} , the position slightly variable; *r-m* elongate, from two-thirds the length to subequal to basal section of R_{4+5} .

Abdominal tergites conspicuous bicolorous, brownish black, ringed on basal third or more with yellow, the amount of the latter decreasing on outer segments, least on segments six and seven; segment eight entirely black; hypopygium yellow; sternites more uniformly yellow, only the intermediate segments bicoloured. Male hypopygium with the caudal margin of tergite truncate on central portion, the sides broadly rounded.

Hab. Ecuador (Oriente).

Holotype, ♂, Abitagua, altitude 1200 metres, April 20, 1937 (*Macintyre*). *Allotopotype*, ♀, pinned with type. *Paratopotypes*, several, chiefly ♂♂, April 2–21, 1937.

This handsome fly requires comparison only with the species next defined.

Tanypremna (Tanypremnella) transfasciata, sp. n.

Male.—Length about 9 mm. ; wing 10.2 mm. ; antennæ about 6.5 mm.

Differs from *T. (T.) crystallina*, sp. n., as follows :—

Frontal prolongation of head orange, the nasus very short and obtuse. Antennæ very long, in male exceeding two-thirds the length of body, as shown by the measurements, the segments gradually decreasing in length outwardly. Head orange-yellow, vaguely darkened medially behind.

Pronotum larger, conspicuously dark brown medially, abruptly pale yellow on sides. Mesonotum bright yellowish-brown. Pleura pale yellow, with a very conspicuous, clearly delimited, dark brown girdle, extending from the lateral borders of the præscutum before the suture, occupying the entire mesepisternum and mesosternum. Femoral tips narrowly and abruptly darkened. Wings less darkened apically ; *r-m* obliterated or virtually so by approximation and punctiform contact of vein R_{4+5} with M_{1+2} . Male hypopygium with the caudal margin of tergite more broadly truncated.

Hab. Ecuador (Oriente).

Holotype, ♂, Jatun Yacu, altitude 700 metres, March 1937 (*Macintyre*).

Tanypremna (Tanypremna) carbonipes, sp. n.

General coloration of mesonotum obscure yellow, the præscutum with four brown stripes ; scutal lobes extensively blackened ; pleura yellow, with a narrow transverse brown girdle ; tibiæ and tarsi uniformly black ; wings with a brownish yellow tinge, cells *C* and *Sc* more suffused yellow ; stigma and conspicuous seams on cord dark brown ; *Rs* gently arcuated ; cell Sc_2 at margin relatively wide, the free tip of Sc_2 and vein R_1 beyond it subequal ; cell 1st M_2 wide ; abdominal tergites bicoloured, the basal half yellow, the outer half brown ; subterminal segment more uniformly darkened.

Male.—Length about 18 mm. ; wing 14 mm.

Female.—Length about 22 mm. ; wing 14.5 mm.

Frontal prolongation of head yellow, short, with distinct nasus ; palpi black. Antennæ with scape yellow,

pedicel brownish yellow, flagellum black, the segmentation poorly indicated. Head yellow, more reddish on orbits; anterior vertex broad.

Mesonotal præscutum obscure yellow, with four brown stripes, the intermediate pair separated only by a capillary pale vitta; pseudosutural foveæ large, black; a circular black spot at lateral end of suture; scutum obscure yellow, the lobes extensively blackened; scutellum yellow; postnotum pale, the mediotergite darkened on central portion. Pleura yellow, with a narrow transverse brown girdle on mesepisternum, beginning as a narrow line near the pseudosutural foveæ, widened below, broadest on the sternopleurite; pleurotergite with a ventral darkening. Halteres pale, the knobs greenish. Legs with the coxæ and trochanters pale; femora yellow basally, passing into brown, the tips narrowly dark brown; tibiæ and tarsi black; claws relatively small, each with a conspicuous tooth. Wings (fig. 3) with a brownish yellow tinge, cells *C* and *Sc*, with the outer radial cells, more suffused yellow; stigma and confluent seams on cord dark brown; *Cu* and veins beyond cord vaguely seamed with dusky; veins dark, yellow in the costal portion. Venation: *Rs* gently arcuated, straight in *invaripes*; vein *R*₁ beyond the free tip of *Sc*₂ long, subequal to the latter element, in *invaripes* very short so cell *Sc*₂ is much narrower; cell 1st *M*₂ wide, at mid-length only a little narrower than long, vein *m* subequal to the basal section of *M*₃; *m-cu* at near two-thirds the length of vein *M*₃₊₄.

Abdominal tergites bicoloured, the basal half yellow, the outer half brown, the subterminal segments more uniformly darkened; sternites more uniformly yellow, especially the seventh sternite in male; hypopygium chiefly darkened. Ovipositor with cerci straight, relatively slender.

Hab. Ecuador (Oriente).

Holotype, ♂, Abitagua, altitude 1200 metres, April 20, 1937 (*Macintyre*). *Allotopotype*, ♀, April 3, 1937.

The nearest ally of the present fly is *Tanypremna* (*Tanypremna*) *invaripes* Alexander (southern Brazil), which differs in the pattern of the mesonotum, pleura, and abdomen, and in the wing-pattern and venation, especially the outer radial field and cell 1st *M*₂.

Limonia (Limonia) macintyreii, sp. n.

Belongs to the *eiseni* group; flagellar verticils of unusual length; a broad black dorsopleural stripe; legs slender, dark brown to black; wings tinged with brownish yellow, heavily patterned with brown, the areas at arculus and origin of *Rs* reaching costa in front; areas at fork of *Sc* and stigma forming a Y-shaped figure in conjunction with a conspicuous seam along cord; *Sc* long; male hypopygium with the mesal-apical lobe of gonapophysis a strongly curved black spine, the tip acute.

Male.—Length about 5–6 mm.; wing 5.5–7 mm.

Female.—Length about 5.5 mm.; wing 6.5 mm.

Rostrum and palpi black. Antennæ black throughout; flagellar segments oval, with short apical pedicels; verticils unusually long in both sexes, but more especially so in male, nearly one-fourth the length of the entire antenna, unilaterally distributed. Head black, the front and narrow anterior vertex light silvery grey.

Pronotum obscure yellow above, darkened laterally. Mesonotum chestnut-brown, without distinct markings excepting the still darker lateral margin of præscutum, scutal lobes, and scutellum; mediotergite dark, sparsely pruinose. Pleura obscure yellow, with a broad black longitudinal stripe extending from the cervical region, passing through base of halteres to abdomen; ventral sternopleurite less distinctly darkened, pruinose. Halteres infuscated, especially the knobs, the extreme base of stem restrictedly pale. Legs with the coxæ and trochanters yellow; remainder of legs long, dark brown to black. Wings tinged with brownish yellow, with a heavy brown pattern, as follows:—Postarcular, reaching costa; origin of *Rs*, reaching costa; fork of *Sc* and stigma, these areas converging behind to form a Y-shaped pattern along cord; outer end of cell 1st M_2 and marginal spots at ends of veins R_3 , R_{4+5} , *Cu*, 1st *A*, and 2nd *A*, the last large; a dusky clouding in outer radial and medial fields and as a narrow axillary seam; a more or less distinct brown cloud in cell *M* adjoining vein *Cu*; veins pale, darker in the clouded areas. Venation: *Sc* long, Sc_1 ending shortly before level of fork of *Rs*, Sc_2 near its tip; *Rs* relatively long, angulated to nearly square at origin; inner end of cell 1st M_2 arcuated, lying far proximad of that of cell R_5 ; *m-cu* close to fork of *M*.

Abdominal tergites black, the incisures restrictedly paler; intermediate sternites chiefly obscure yellow, the caudal margins of the individual segments narrowly black; male hypopygium black, the small ventral dististyles abruptly white. Male hypopygium with the ventromesal lobe of basistyle relatively large. Ventral dististyle much smaller than the basistyle, the body small, semioval, the beak broadly compressed, as in the group; rostral spines two, short and pale, blunt at tips, placed close together on face of rostrum, surrounded by abundant delicate setulæ; at base of rostrum two exceptionally long, modified setæ. Dorsal dististyle lying in notch of the ventral, straight, the apex acutely decurved. Ædeagus nearly parallel-sided, the apex obtuse. Gonapophyses with mesal-apical lobe a strongly curved black spine, the tip acute.

Hab. Ecuador (Oriente).

Holotype, ♂, Abitagua, altitude 1200 metres, April 7, 1937 (*Macintyre*). *Allotopotype*, ♀. *Paratopotype*, 1 ♂, April 4, 1937.

I take very great pleasure in naming this distinct species in honour of Mr. William Clarke-Macintyre, through whose conscientious efforts our knowledge of the Tipulidæ of Ecuador has been vastly increased. From the other members of the *eiseni* group, including *caribæa* Alexander (Cuba), *eiseni* Alexander (Central America), and *indomita* Alexander (southern Brazil), the present species is most readily told by the nature of the wing-pattern and the structure of the male hypopygium, notably of the gonapophyses.

Limonia (Limonia) velasteguii, sp. n.

Belongs to the *eiseni* group; allied to *amazonica*; mesonotal præscutum reddish brown, with a darker brown median stripe, the lateral borders restrictedly darkened; wings patterned with brown; abdominal tergites bicoloured, the usual pattern reversed, the apices of the individual segments broadly yellow; male hypopygium with the rostral prolongation slender.

Male.—Length about 7 mm.; wing 7.8–8 mm.

Rostrum and palpi black. Antennæ black throughout; flagellar segments long-oval to subcylindrical, with short glabrous apical pedicels; longest verticils exceeding

twice the length of the segments. Head black, the narrow front and anterior vertex, together with the orbits, grey.

Mesonotal præscutum reddish brown, with a darker brown median stripe, the extreme lateral borders, behind the pseudosutural foveæ, similarly darkened; posterior sclerites of notum dark brown. Pleura dark brown, the meral region paler. Halteres dusky, the extreme base of stem yellow. Legs with the coxæ dark brown, the tips narrowly paler; trochanters yellow; femora brownish yellow, with a narrow brown subterminal ring; tibiæ and tarsi brownish yellow, the terminal tarsal segments dark brown; claws with a slender appressed postmedian and a stouter basal spine. Wings (fig. 4) with a brownish tinge; stigma oval, darker brown; restricted brown clouds at origin of *Rs*, along cord and along outer end of cell 1st M_2 ; veins dark brown. Venation: *Sc* relatively long, Sc_1 ending about opposite two-thirds the length of *Rs*, Sc_2 near its tip; *Rs* angulated to short-spurred at origin; cell 1st M_2 about equal in length to vein M_3 beyond it; *m-cu* close to fork of *M*; cell 2nd *A* relatively wide.

Abdominal tergites bicoloured, the basal half to two-thirds of the individual segments dark brown, the apices yellow, the amount of the latter decreasing on outer segments; hypopygium chiefly brownish yellow. Male hypopygium with the dorsal dististyle reduced. Ventral dististyle with the rostral prolongation produced into a narrow point. Gonapophyses with the mesal-apical lobes long, gradually narrowed to an obtuse point.

Hab. Ecuador (Oriente).

Holotype, ♂, Abitagua, altitude 1200 metres, April 18, 1937 (*Macintyre*). *Paratopotype*, ♂, April 2, 1937.

I am pleased to name this distinct fly in honour of the family of Elias Velastegui, native collectors for Mr. Clarke-Macintyre. The nearest described ally seems to be *Limonia* (*Limonia*) *amazonica* (Alexander) of Amazonian Brazil, which differs in the abdominal pattern and in the structure of the male hypopygium, notably the ventral dististyle. The paratype above-mentioned differs considerably in colour from the type, but seems undoubtedly to be conspecific. Both individuals show the reversal of pattern of the abdomen and agree closely in the

structure of the male hypopygium. The paratype shows the femoral tips uniformly darkened and the wing-pattern much heavier and more extensive, especially the areas at origin of *Rs* and along the cord.

Protohelius cisatlanticus, sp. n.

General coloration brownish black; antennæ (male) about one-half the length of body; legs black, the tarsi paling to yellow; wings with a strong blackish tinge; R_{1+2} atrophied; *m-cu* close to fork of *M*.

Male.—Length about 6 mm.; wing 7 mm.; antennæ about 3 mm.

Rostrum and palpi black. Antennæ about one-half the length of body, 15-segmented, black throughout; flagellar segments cylindrical, beyond the first subequal in length; each segment with short strong verticillate setæ before mid-length. Head brownish black; eyes large.

Mesonotum dark brown, the scutellum and posterior portion of scutum a little paler. Pleura brown. Halteres dark brown, the base of stem obscure yellow. Legs with the coxæ and trochanters brownish yellow; femora and tibiæ black; tarsi paling to yellow; claws simple. Wings (fig. 5) with a strong blackish tinge; veins brownish black. Macrotrichia on veins beyond cord, more sparse and scattered on M_4 . Venation: Sc_1 ending about opposite four-fifths the length of *Rs*, Sc_2 some distance from tip; *Rs* straight, in alignment with the long basal section of R_{4+5} ; R_{1+2} atrophied; R_2 pale but distinct, subequal in length to R_{1+2} ; inner end of cell 1st M_2 arcuated so *r-m* is beyond mid-length of the cell; veins issuing from cell 1st M_2 long; *m-cu* close to fork of *M*.

Abdomen, including hypopygium, brownish black; surface of abdomen with conspicuous erect setæ. Male hypopygium with the dorsal dististyle blackened, curved, with a small lateral spine on lower margin at point of curvature; ventral dististyle more slender and a little longer, yellow, with a long blackened lobe on basal fourth of lower face, this provided with about four very long conspicuous setæ.

Hab. Ecuador (Oriente).

Holotype, ♂, Abitagua, altitude 1200 metres, November 6, 1936 (*Macintyre*).

The discovery of a species of the genus *Protohelius* in the New World is of exceptional interest, the two species hitherto described, *P. issikii* Alexander and *P. tinkhami* Alexander, being from eastern Asia. The present fly is of unusual significance in that it illustrates the manner in which the venation of the genus *Helius* may have been derived from more generalized types by the successive atrophy of veins R_{1+2} and R_2 . This is well illustrated by the genus *Electrolabis* Alexander (Lower Oligocene: Baltic Amber) *, which seems undoubtedly to be the ancestral type from which *Protohelius* has been derived. In the Old World species of the genus, both R_{1+2} and the free tip of Sc_2 are preserved †, but in the present fly one of these elements has atrophied. I am interpreting the persistent vein as being the free tip of Sc_2 , and thus assume that R_{1+2} has entirely atrophied. It should be noted further that vein R_2 is paler and weaker than usual, and is evidently in process of atrophy.

Hexatoma (Eriocera) patens, sp. n.

Size small (wing, male, 6 mm.); antennæ (male) relatively long, exceeding one-half the length of body; mesonotum polished black, the pleura and pleurotergite obscure yellow; halteres dark brown; wings with a brown tinge, unmarked; abundant macrotrichia on all outer veins of wing; cell R_3 short; cell 1st M_2 open by atrophy of basal section of M_3 ; abdominal tergites and hypopygium black.

Male.—Length about 5.5 mm.; wing 6 mm.; antennæ 3 mm.

Rostrum short, brown; palpi black. Antennæ 7-segmented, relatively long, exceeding one-half the length of body, brownish black throughout; flagellar segments gradually decreasing in length outwardly, the first exceeding in length the succeeding two combined; terminal segment a small oval button; flagellar segments with a short dense erect pubescence and slightly longer, more decumbent verticils. Head polished dark brown; anterior vertex wide.

* Alexander, C. P., "Crane-flies of the Baltic Amber (Diptera)." Bernstein-Forschungen, ii. pp. 58–59, figs. 68, 69, 70 (1931).

† Alexander, C. P., "New or little-known Tipulidæ from Eastern Asia (Diptera).—II." Philippine Journ. Sci. xxxv. pp. 466–468, pl. i. fig. 5, 5 a (1928).

Mesonotum polished black ; præscutal setæ very sparse to almost lacking. Pleura, including pleurotergite, obscure yellow. Halteres dark brown. Legs with the coxæ and trochanters obscure yellow ; femora obscure yellow passing into brown ; tibiæ yellowish brown ; tarsi black. Wings (fig. 6) with a brownish tinge, unpatterned ; stigma lacking ; veins brown. Abundant macrotrichia on all longitudinal veins beyond cord, on the entire length of *Rs*, distal half of *M* and distal end of *Cu*. Venation : *Sc* long, *Sc*₁ ending shortly before fork of the long *Rs* ; *R*₃₊₄ present, longer than *R*₁₊₂ and two-thirds *R*₂₊₃₊₄, cell *R*₃ thus relatively short ; cell 1st *M*₂ open by atrophy of basal section of *M*₃ ; *m-cu* shortly beyond the fork of *M*.

Abdominal tergites black ; sternites dull black, the caudal margins of the segments somewhat paler ; hypopygium black.

Hab. Ecuador (Oriente).

Holotype, ♂, Abitagua, altitude 1200 metres, April 5, 1937 (*Macintyre*).

Hexatoma (*Eriocera*) *patens* is very different from all of the numerous Neotropical members of the subgenus so far discovered. The open cell 1st *M*₂ is found elsewhere only in the Australian *H. (E.) aperta* (Alexander).

ELEPHANTOMYIA Osten-Sacken.

1859. *Elephantomyia* Osten-Sacken, Proc. Acad. Nat. Sci. Philadelphia for 1859, p. 220.

ELEPHANTOMYINA, subgen. nov.

Characters as in *Elephantomyia*, s. s., differing especially in the venation (fig. 7). A strong supernumerary cross-vein in cell *R*₃, connecting with vein *R*₃ shortly before tip of latter ; *r-m* connecting with *Rs* a short distance before its fork. Tibial spurs lacking.

Type of subgenus, *Elephantomyia* (*Elephantomyina*) *supernumeraria* Alexander (Neotropical).

Elephantomyia (*Elephantomyina*) *supernumeraria* Alexander.

1921. *Elephantomyia supernumeraria* Alexander, Proc. Acad. Nat. Sci. Philadelphia for 1921, pp. 60-61.

Hitherto known only from the type-males, from the Napo River, Peru, collected June 8, 1920, by Parish.

Female.—Length, excluding rostrum, about 8.5 mm.; wing 8 mm.; rostrum about 6 mm.

Characters as in male, differing as follows:—Size much larger. Wings with *m-cu* about its own length beyond fork of *M* or at near one-third the length of cell. Abdominal sternites three to seven, inclusive, each with a large whitish yellow median spot on distal half. Valves of ovipositor slender.

Allotype, ♀, Abitagua, Oriente, Ecuador, altitude 1200 metres, April 7, 1937 (*Macintyre*).

Elephantomyia (*Elephantomyia*) *subhumilis*, sp. n.

Rostrum nearly as long as body; head light grey; mesonotum almost uniformly brownish yellow; femora and tibiæ brown, the tarsi paling to yellow; stigma distinct; *Rs* long, about one-half longer than cell 1st *M*₂; abdomen obscure yellow, in male darkened subterminally male hypopygium without a dense setiferous cushion on mesal face of basistyle; inner dististyle nearly straight.

Male.—Length, excluding rostrum, about 5.5 mm.; wing 5.8 mm.; rostrum about 5 mm.

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

Rostrum nearly as long as body, brownish black throughout. Antennæ dark brown, the verticils very long. Head with the front and anterior vertex light grey, the posterior vertex a little darker; anterior vertex narrow, about equal in width to the diameter of scape; eyes large.

Mesonotum almost uniform brownish yellow, unmarked; setæ of præscutal interspaces relatively small and inconspicuous. Pleura brownish yellow to pale brown. Halteres pale. Legs with the coxæ and trochanters yellow, fore coxæ a trifle darker; femora and tibiæ brown, the outer tarsal segments paling to yellow; legs with scattered bristles, more erect and conspicuous on the tibiæ. Wings subhyaline, the prearcular and basal portions, including the costal border, light yellow, the outer fields more greyish; stigma oval, brown; veins brown, yellow in the basal and costal regions. Venation: *Sc*₂ ending about opposite four-fifths the length of the long *Rs*, *Sc*₁ nearly atrophied; branches of *Rs* generally parallel to one

another for most of their length, a little diverging at outer ends; cell 1st M_2 relatively short and broad, the greatest width about two-thirds the length; $m-cu$ at near one-third the length of cell 1st M_2 , longer than the second section of Cu_1 ; cell 2nd A moderately wide.

Abdomen obscure yellow, darker laterally; segment seven in male darkened; hypopygium yellow. In female the tergites slightly more darkened on posterior portions. Male hypopygium with the mesal face of basistyle without a dense cushion of setæ, as in *humilis*. Outer dististyle longer and more slender, the base narrow, surface glabrous. Inner dististyle nearly straight, not conspicuously narrowed on distal portion, the surface with long coarse setæ.

Hab. Ecuador (Oriente).

Holotype, ♂, Abitagua, altitude 1200 metres, April 7, 1937 (*Macintyre*). *Allotype*, ♀.

Elephantomyia (*Elephantomyia*) *subhumilis* is most similar to *E. (E.) humilis* Alexander (Colombia), differing especially in the details of venation and in the structure of the male hypopygium.

Elephantomyia (*Elephantomyia*) *setulistyla*, sp. n.

General coloration of præscutum obscure yellow, with a broad, dark brown, median stripe; rostrum a trifle shorter than body; femora and tibiæ dark brown, the tarsi paling to yellow; wings subhyaline, the outer cells weakly darkened; stigma brown; $m-cu$ close to mid-length of cell 1st M_2 ; abdomen dark brown, the hypopygium a little brightened; outer dististyle terminating in two slender spines, the surface with conspicuous erect setulæ.

Male.—Length, excluding rostrum, about 4.5 mm.; wing 5 mm.; rostrum 4 mm.

Rostrum a trifle shorter than body, brownish black throughout. Antennæ black throughout; outer flagellar segments elongate, with very long verticils. Head dark.

Mesonotal præscutum obscure yellow, with a broad, dark brown, median stripe; scutellum darkened medially and on mesial portions of lobes, paler laterally; scutellum and postnotum dark brown. Pleura dark brown, the posterior sclerites a little paler. Halteres with stem yellow, knob infuscated. Legs with coxæ dark; trochanters obscure yellow; femora and tibiæ dark brown;

tarsi paling to yellow ; tibial spurs not evident. Wings subhyaline, the outer cells weakly more darkened ; prearcular region brightened ; stigma long-oval, brown ; veins brown, paler in the basal areas. Venation : Sc_1 ending about opposite two-thirds the length of the relatively short Rs ; branches of Rs generally parallel to one another for most of their length ; cell 1st M_2 about equal in length to the longest vein beyond it ; $m-cu$ close to mid-length of cell, longer than distal section of vein Cu_1 ; cell 2nd A moderately wide.

Abdomen dark brown ; hypopygium a little brightened. Male hypopygium with the outer dististyle relatively large, flattened, terminating in a long, slightly decurved spine, with a slightly smaller spine on outer margin at near three-fourths the length of style ; surface of style with abundant erect setulæ. Inner dististyle broad at base, strongly narrowed on apical third.

Hab. Ecuador (Oriente).

Holotype, ♂, Abitagua, altitude 1200 metres, April 7, 1937 (*Macintyre*).

Elephantomyia (*Elephantomyia*) *setulistyla* is most generally similar to *E. (E.) humilis* Alexander (Colombia), differing in the patterned thorax and in the structure of the male dististyles, as the setulose outer style.

Elephantomyia (*Elephantomyia*) *brunneipennis*, sp. n.

Size small (wing 5 mm.) ; mesonotum uniformly dark brown, unpatterned ; legs black, the tarsi paling to dark brown ; wings with a strong brown tinge, the stigma barely differentiated ; branches of Rs parallel to one another for their entire length ; $m-cu$ beyond mid-length of cell 1st M_2 ; abdominal tergites black, sternites yellow.

Sex ?—Wing 5 mm.

Head broken.

Mesonotum uniformly dark brown unpatterned. Pleura chiefly dark. Halteres with stem dusky, knob infuscated. Legs with coxæ and trochanters brownish yellow ; remainder of legs brownish black, the tarsi paling to dark brown ; femora and tibiæ with several conspicuous erect subspinous bristles, additional to the normal more delicate appressed setæ. Wings with a strong brown suffusion, the stigma barely differentiated against the

ground; veins brown. Venation: Sc long, Sc_1 ending about opposite four-fifths the length of Rs , Sc_2 at tip of Sc_1 ; Rs weakly angulated at origin; branches of Rs parallel to one another for their entire length; cell 1st M_2 about equal in length to vein M_3 beyond it; $m-cu$ at near three-fifths the length of the lower face of cell 1st M_2 ; cell 2nd A relatively narrow.

Abdominal tergites black, sternites yellow; outer portion of abdomen broken.

Hab. Ecuador (Oriente).

Holotype, sex?, Abitagua, altitude 1200 metres, April 19, 1937 (*Macintyre*).

Elephantomyia (*Elephantomyia*) *brunneipennis* is most closely related to *E. (E.) humilis* Alexander, differing in the dark colour of the body, the almost uniformly black legs, and the strongly infumed wings, with the stigma scarcely indicated.

TRENTEPOHLIA Bigot.

1854. *Trentepohlia* Bigot, Ann. Soc. Ent. France, (3) ii. p. 473.

PROMONGOMA, subgen. nov.

Characters as in the subgenus *Mongoma* Westwood, differing in details of venation. Vein R_3 entirely atrophied, as in *Anchिमongoma* and *Plesiomongoma*; vein R_5 fused with M_{1+2} for some distance beyond the outer end of cell 1st M_2 , this distance subequal to vein m , giving the superficial appearance of a vein and cell M_1 (fig. 8); cell Cu at margin widely open, the distance between Cu_1 and 1st A greater than the length of the distal section of Cu_1 .

Type of subgenus, *Trentepohlia* (*Promongoma*) *mirabilis*, sp. n. (Neotropical).

The remarkable fly that is made the type of the new subgenus *Promongoma* is one of the most striking Tipulidæ known to me. The first impression given by the venation of the insect is that there is but a single branch of Rs remaining, as in *Toxorhina* Loew, and that the medial field is four-branched, much as in *Limnophila* Macquart (fig. 8). The true explanation of the venation is given under the subgeneric diagnosis, and has been produced by the entire atrophy of vein R_3 and the unusual fusion of veins R_5 and M_{1+2} .

The seven subgenera of *Trentepohlia* so far defined may be separated as follows :—

- | | | |
|---|----|----------------------------------|
| 1. Vein R_3 entirely atrophied..... | 2. | |
| Vein R_3 present | 4. | |
| 2. Only two outer medial veins, M_{1+2} and M_4 , present. (Oriental.) | | <i>Anchimongoma</i> Brunetti. |
| Three branches of M , M_{1+2} , M_3 , and M_4 present | 3. | |
| 3. Veins R_5 and M_{1+2} fused to opposite the level of outer end of cell 1st M_2 ; cell Cu closed by apical fusion of veins Cu_1 and 1st A . (Oriental, Australasian.) .. | | <i>Plesiomongoma</i> Brunetti. |
| Veins R_5 and M_{1+2} fused for some distance beyond the level of the outer end of cell 1st M_2 , forming a petiole to cell R_5 ; cell Cu widely open at margin. (Neotropical.) | | <i>Promongoma</i> , subgen. nov. |
| 4. Vein and cell M_3 present; four veins, R_5 , M_{1+2} , M_3 , and M_4 , issuing from cell 1st M_2 | 5. | |
| Vein and cell M_3 lacking; three veins, R_5 and two branches of M , issuing from cell 1st M_2 | 6. | |
| 5. Cell Cu widely open at wing-margin, the distance greater than the length of the distal section of Cu_1 . (Neotropical.) .. | | <i>Neomongoma</i> Alexander. |
| Cell Cu closed at wing-margin, very narrowly open only in the Oriental <i>flava</i> Brunetti, the distance less than one-half the distal section of Cu_1 . (Palæotropical.) | | <i>Mongoma</i> Westwood. |
| 6. Cell M_2 open by the atrophy of m and both sections of vein M_3 ; cell Cu closed by apical fusion of veins Cu_1 and 1st A . (Palæotropical.) | | <i>Trentepohlia</i> Bigot. |
| Cell 1st M_2 closed; cell Cu open at wing-margin. (Tropicopolitan, chiefly Neotropical.) | | <i>Paramongoma</i> Brunetti. |

Trentepohlia (*Promongoma*) *mirabilis*, sp. n.

General coloration obscure brownish yellow; femora testaceous yellow, the tips narrowly white, preceded by a brown subterminal ring; tibiæ and tarsi white, in male the tibiæ extensively darkened on central portion; wings yellow, the stigma dark brown, conspicuous.

Male.—Length about 10 mm.; wing 9 mm.

Female.—Length about 11–12 mm.; wing 9–9.5 mm.

Rostrum and palpi dark brown. Antennæ with scape and pedicel obscure yellow, flagellum black; flagellar segments oval, with verticils of moderate length. Front and the very reduced anterior vertex silvery, the posterior

vertex infuscated, the genæ grey ; a weak median carina on posterior vertex.

Entire thorax obscure brownish yellow, without distinct markings ; dorsal pleural region a trifle darker. Halteres infuscated, the base of stem restrictedly paler. Legs with the coxæ and trochanters obscure yellow ; remainder of legs long and slender ; femora testaceous yellow, near outer end deepening to form a brown subterminal ring, the tip abruptly white ; tibiæ and tarsi white in female, in the male the tibiæ more infuscated, with the narrow bases and slightly wider tips white. Wings (fig. 8) with a yellow tinge, the costal portion somewhat more intensely so ; stigma small, oval, dark brown ; veins yellow. Venation as described under the subgenus ; position of *m-cu* slightly variable, from just before to just beyond the fork of *M*. In the type-male the fusion of veins *R*₅ and *M*₁₊₂ beyond cell 1st *M*₂ is slightly less than in the females.

Abdominal tergites dark brown, the caudal borders of the segments narrowly paler brown ; sternites more yellowish, especially in male. Ovipositor with the cerci elongate, gently upcurved, dark brown.

Hab. Ecuador (Oriente).

Holotype, ♂, Abitagua, altitude 1200 metres, August 15, 1937 (*Macintyre*). *Allotopotype*, ♀, April 4, 1937. *Paratopotype*, ♀, April 3, 1937.

Trentepohlia (*Promongoma*) *mirabilis* is so distinct from all other known members of the genus that any comparison is unnecessary. The most similar species in the Neotropics is *T.* (*Neomongoma*) *disjuncta* (Alexander).

Teucholabis (*Teucholabis*) *sultana*, sp. n.

Mesonotal præscutum yellow, varied with black ; head black ; halteres dark throughout ; femora yellow, the tips broadly blackened ; wings brown, variegated before and beyond cord with cream-yellow areas ; *Sc*₁ ending about opposite two-thirds the length of *Rs* ; branches of *Rs* parallel to one another for almost their entire length ; abdomen black ; male hypopygium with the basistyle produced at apex into a needle-like spine ; outer dististyle profoundly bifid ; ædeagus terminating in a slender black spine.

Male.—Length about 6 mm. ; wing 6 mm.

Female.—Length about 5.5 mm. ; wing 5 mm.

Rostrum and palpi black, the former about equal in length to remainder of head. Antennæ black throughout ; flagellar segments oval. Head black.

Pronotum yellow. Mesonotal præscutum yellow, in male with three relatively small isolated black spots, representing the anterior ends of the median and lateral stripes ; in female the black colour much more extensive, consisting of three confluent black stripes, restricting the ground to the humeral region ; scutum yellow in male, the cephalic-lateral angles restrictedly blackened, in female the lobes chiefly black ; scutellum and mediotergite obscure yellow. Pleura yellow, unmarked in male, in female with a transverse black girdle that occupies the entire mesepisternum. Halteres infuscated. Legs with the fore and middle coxæ and trochanters yellow ; posterior coxæ and trochanters black ; femora yellow, the tips broadly blackened, more extensively so on fore legs and to a greater degree in female than in male ; tibiæ brownish yellow, restrictedly darkened at both ends ; tarsi black. Wings variegated brown and cream-yellow, the dark colour including the prearcular region, cells *C* and *Sc*, a band at cord, and the entire wing-tip beyond level of outer end of cell 1st *M*₂, the two latter areas interconnected at anterior and posterior wing-margins ; a dark cloud at end of vein 2nd *A* and another including the basal third of cell *Cu* ; a weak cloud at origin of *Rs* ; veins brown, pale yellow in the cream-coloured areas. Venation : *Sc* relatively long, *Sc*₁ ending about opposite two-thirds *Rs* ; *R*₂ from one-half to about its own length beyond fork of *Rs*, transverse to oblique ; branches of *R*₂ parallel to one another for almost their entire length, cell *R*₂ at margin thus very extensive ; cell 1st *M*₂ subequal to longest vein beyond it, longer in female ; *m-cu* shortly beyond fork of *M*.

Abdomen, including hypopygium, black. Male hypopygium with the basistyle produced at apex into a needle-like spine ; face of basistyle with a narrow blackened flange. Outer dististyle profoundly bifid, both arms long, simple, the inner arm shorter, terminating in a short spine with numerous setæ around its base ; outer arm a little longer, with long coarse setæ, the apex short-spinous.

Inner dististyle complex, bearing a slender lateral arm on outer margin at base; apex of main arm of style bidentate by a shallow notch. Ædeagus relatively broad, terminating in a slender black spine.

Hab. Ecuador (Oriente).

Holotype, ♂, Abitagua, altitude 1200 metres, April 19, 1937 (*Macintyre*). *Allotopotype*, ♀.

Teucholabis (*Teucholabis*) *sultana* is closest to *T. (T.) læta* Alexander (Peru), differing in details of coloration of the head, thorax, legs, and abdomen.

Teucholabis (*Teucholabis*) *longispina*, sp. n.

Allied to *trifasciata*; general coloration black, the pronotum obscure brownish yellow; knobs of halteres yellow; posterior femora entirely black; wings whitish subhyaline, trifasciate with brown, the outer band apical; abdomen, including hypopygium, black; basistyle with apical spine small; outer dististyle elongate, at near mid-length dilated and strongly setiferous, the apex produced into a long glabrous spine; ædeagus at apex produced into two triangular flange-like points.

Male.—Length about 5.5 mm.; wing 5.3 mm.

Rostrum about equal to remainder of head, black; palpi black. Antennæ black throughout; basal flagellar segments oval, the outer segments short and crowded. Head black.

Pronotum and pretergites obscure brownish yellow. Mesonotum uniformly polished black, the præscutum with sparse erect setæ. Pleura black, the dorsal sternopleurite and meral region with a sparse grey pruinosity. Halteres with stem black, knob pale yellow. Legs with the coxæ and trochanters black; fore and middle femora with about the basal half brownish yellow, the distal half black; posterior femora entirely black; tibiæ brownish black, the tips blackened; tarsi black. Wings whitish subhyaline, heavily patterned with brown, as follows:—Cell *Sc*; a narrow band at level of origin of *Rs* and fork of *Sc*, in cell *Cu* extended somewhat more basad; a narrow band at cord, deepest in stigmal region, paler at posterior end of band; wing-tip broadly darkened, the colour extending back as far as level of outer end of cell 1st *M*₂, the extreme base of cell *M*₃ pale; veins brown, scarcely darker in the clouded portions. Venation:

Sc relatively short, *Sc*₁ ending about opposite one-third the length of *Rs*, *Sc*₂ some distance from tip; *Rs* nearly straight on basal half, thence arcuated; *m-cu* about twice *R*₂₊₃₊₄; branches of *Rs* generally parallel to one another or with anterior branch a little arcuated on basal half, slightly widening cell *R*₃ at that point; cell 1st *M*₂ relatively long; *m-cu* about one-half its length beyond fork of *M*.

Abdomen, including hypopygium, black. Male hypopygium with spine of basistyle subterminal, relatively small, broad-based, narrowed rapidly into a slender spine; flange on face of basistyle blackened, the margin with about six or seven irregular denticles. Outer dististyle elongate, narrowed at base, swollen at near mid-length, the distal third directly prolonged into a long, slender, nearly straight, glabrous spine; dilated central portion with abundant long coarse setæ, at near its base with a single curved spine. Inner dististyle simple, the beak bidentate. Ædeagus at apex produced into two small triangular flange-like points.

Hab. Ecuador (Oriente).

Holotype, ♂, Abitagua, altitude 1200 metres, April 4, 1937 (*Macintyre*).

In its general appearance the present species is very similar to *Teucholabis* (*Teucholabis*) *trifasciata* Enderlein, differing especially in the coloration of the legs and structure of the male hypopygium, notably of the spine of the basistyle, the outer dististyle, and the ædeagus.

Teucholabis (*Teucholabis*) *nigropostica*, sp. n.

Allied to *trifasciata*; general coloration of head, thorax, and abdomen polished black; pronotum above obscure yellow; knobs of halteres pale yellow; legs black, the bases of the fore and middle femora yellow, the posterior femora uniformly black; wings whitish subhyaline, with three dark brown bands, the basal one narrow, parallel-sided; *Sc*₁ ending about opposite one-fourth the length of *Rs*; *R*₂ at fork of *Rs*; *m-cu* at fork of *M*; male hypopygium with the spine of basistyle short, spike-like; outer dististyle simple, apex not spinous; ædeagus at apex produced laterad into a long blackened spine.

Male.—Length about 5.5 mm.; wing 4.5 mm.

Female.—Length about 5 mm.; wing 4.5 mm.

Rostrum black, a little longer than the remainder of head; palpi black. Antennæ black throughout. Head entirely polished black.

Pronotum obscure yellow above, infuscated on sides; anterior lateral pretergites light yellow. Mesonotum uniformly polished black, the præscutum almost without setæ. Pleura black, with a narrow pruinose longitudinal stripe beginning behind the fore coxæ, passing beneath the halteres. Halteres blackened, the knobs pale yellow. Legs with the coxæ and trochanters black; fore and middle femora yellow basally, the tips broadly blackened, on fore legs including nearly the distal two-thirds; posterior femora entirely black; tibiæ and tarsi black. Wings whitish subhyaline, with three dark brown bands; first band at level of origin of *Rs*, narrow, parallel-sided; second band at cord, slightly wider, narrowest at near mid-length, slightly paler at posterior portion in cells *Cu* and 1st *A*; outer band apical, relatively narrow, leaving the basal third to fourth of cells 2nd *M*₂ and *M*₃ pale; cell *Sc* dark throughout; outer end of cell 1st *M*₂ narrowly seamed with brown; veins dark brown. Venation: *Sc*₁ ending about opposite one-fourth the length of the long *R*₂; *R*₂ at fork of *Rs*, in alignment with the remainder of the anterior cord; branches of *Rs* nearly parallel to one another, a little divergent at near mid-length; *R*₅ strongly divergent on distal fourth; cell 1st *M*₂ long, subequal to vein *M*₃ beyond it; *m-cu* at fork of *M*.

Abdomen, including hypopygium, black. Male hypopygium with the spine of basistyle short and spike-like. Outer dististyle of moderate length, consisting of a simple, gently curved structure, the entire surface with unusually long coarse setæ; apex not spinous. Inner dististyle with beak bidentate, the teeth separated by a very shallow notch; a quadrate basal lobe, the apex subtruncate. Ædeagus at apex produced laterad into a long blackened spine.

Hab. Ecuador (Oriente).

Holotype, ♂, Abitagua, altitude 1200 metres, April 5, 1937 (*Macintyre*).

By existing keys the present fly runs to *Teucholabis* (*Teucholabis*) *trifasciata* Enderlein, differing in the coloration of the legs, the different wing-pattern, and especially in the structure of the male hypopygium.

Teucholabis (Teucholabis) scabrosa, sp. n.

General coloration of mesonotum brown, without conspicuous markings; femora yellow, the tips very narrowly dark brown; wings broad, subhyaline, stigma dark brown; Sc_1 ending about opposite mid-length of R_s ; male hypopygium with the apical blade of basistyle bispinous at tip; outer dististyle with the surface unusually roughened by coarse setæ and abundant scabrous points.

Male.—Length about 5.5 mm.; wing 5.5 mm.

Rostrum and palpi black. Antennæ black throughout; flagellar segments oval, the verticils much longer than the segments. Head dull brownish grey, restrictedly brightened behind.

Pronotum and pretergites pale yellow. Mesonotal præscutum brown, without markings, the humeral and lateral portions restrictedly yellow, the interspaces with scattered erect setæ; posterior sclerites of notum brown, the scutum behind the suture even darker. Pleura yellow, with a more or less distinct brown longitudinal stripe, extending from the fore coxæ to the postnotum, passing above root of halteres. Halteres with stem pale, knob dusky. Legs with the fore coxæ and trochanters darkened, the others yellow; femora yellow, the tips very narrowly but distinctly dark brown; tibiæ yellow, the tips even more restrictedly darkened; basitarsi pale; remainder of tarsi dark brown; claws toothed. Wings broad, subhyaline, the base slightly more yellow; stigma circular, dark brown; veins pale brown, more yellowish in the basal portions. Venation: Sc_1 ending nearly opposite mid-length of the long R_s , Sc_2 some distance from tip; R_2 subequal to R_{2+3+4} , both longer than R_{1+2} ; branches of R_s generally parallel to one another for almost the entire length of anterior branch, the posterior one, R_5 , thence bent very strongly caudad, ending at wing-tip and greatly widening cell R_3 ; cell 1st M_2 relatively narrow, subequal in length to vein M_4 beyond it; $m-cu$ shortly beyond fork of M .

Abdomen dark brown, the caudal margins of the segments paler; hypopygium brightened. Male hypopygium with the apical blade of basistyle short and stout, flattened, at apex bispinous, the longer apical spine directed strongly laterad, outer end of blade with several

erect setæ; lateral flange of basistyle conspicuously blackened, the margin entire or merely crenulate, not serrate. Outer dististyle a straight rod, the entire surface with long conspicuous setæ, interspersed with abundant scabrous points, producing an unusually roughened appearance. Inner dististyle complex, terminating in three blackened points, two of which are acute blackened spinous points, the outer beak-like portion a flattened blade terminating in several teeth of various sizes. Ædeagus pale, the apex produced into a flattened trough-like point, not markedly produced; ventral surface of ædeagus before the apex with an extensive group of long setæ from conspicuous punctures.

Hab. Ecuador (Oriente).

Holotype, ♂, Abitagua, altitude 1200 metres, April 2, 1937 (*Macintyre*).

Teucholabis (*Teucholabis*) *scabrosa* is very distinct from all other described species. It is apparently most nearly related to species such as *T. (T.) inulta* Alexander (Brazil), yet differs in all details of structure of the male hypopygium.

Toxorhina (*Toxorhina*) *curvata*, sp. n.

General coloration brown, the lateral borders of præscutum conspicuously pale grey; pleura testaceous yellow, with a longitudinal brown stripe; wings ochreous, the veins a little darker than the ground; abdomen bicoloured, the incisures dark, the central portion of the individual segments yellow; male hypopygium with the apical spine of basistyle strongly curved; posterior portion of dististyle produced into a long pale tail-like extension.

Male.—Length, excluding rostrum, about 6.5 mm.; wing 5.5 mm.

Female.—Length, excluding rostrum, about 8 mm.; wing 6 mm.; rostrum about 6.5 mm.

Rostrum black, in female exceeding the wing in length, in type-male partly concealed beneath body and length uncertain, but apparently proportionately shorter than in female. Antennæ dark brown, the large pedicel a little brighter, obscure orange. Head buffy grey.

Pronotum dark brown. Mesonotal præscutum brown, the lateral borders pale grey, the disk without clearly

delimited stripes; posterior sclerites of notum brown, very sparsely pruinose. Pleura testaceous yellow, with a longitudinal brown stripe across the dorsal sclerites. Halteres dusky. Legs with the coxæ and trochanters yellow; remainder of legs brown, the tibial tips not darkened. Wings ochreous, the veins a little darker than the ground. A few trichia on *Rs* but none on its branch. Venation: *m-cu* close to fork of *M*.

Abdomen bicolorous, the incisures dark, including both base and apex of segments, the central portion of the segments yellow; hypopygium pale. Male hypopygium with the basistyle terminating in a slender spine, the distal third curved, much like a shepherd's crook. Dististyle consisting of a subquadrate blackened structure, the surface densely spinulose, the outer angle produced into a long pale appendage that is nearly twice as long as the body of style. Arms of ædeagus relatively short.

Hab. Ecuador (Oriente).

Holotype, ♂, Abitagua, altitude 1200 metres, April 20, 1937 (*Macintyre*). *Allotopotype*, ♀.

Toxorhina (*Toxorhina*) *curvata* is quite different from other described species in the structure of the male hypopygium. The identity of *T.* (*T.*) *longicollis* Pierre (Venezuela) is very problematical. The figures of the describer (*Encycl. Ent., Diptera*, i. pp. 80–81, figs. 6–121 (1924)) are either highly inaccurate or else represent a type of venation and male hypopygium quite unknown in the genus.