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### RECORDS AND DESCRIPTIONS OF NEOTROPICAL CRANE-FLIES (TIPULIDÆ, DIPTERA), IX

BY CHARLES P. ALEXANDER

AMHERST, MASS.

The preceding part under this general title was published in 1930 (JOURNAL N. Y. ENTOMOLOGICAL SOCIETY, 38: 109-120). The crane-flies discussed at this time were collected in the Greater Antilles by Doctors J. G. Myers and P. D. Sanders; in Chile by Mr. D. S. Bullock; and in Santa Catharina, Brazil, by Mr. Friedrich Schade. I wish to express my deepest thanks to the above-mentioned entomologists for the privilege of retaining the types of the species here described.

#### Genus *Limonia* Meigen

##### ***Limonia* (*Dicranomyia*) *clavigera* new species.**

General coloration brownish gray; antennæ black throughout; wings grayish subhyaline, the oval stigma pale brown; *Sc* short, *Sc*<sub>1</sub> about one-half as long as *Rs*; cell 1st *M*<sub>2</sub> closed; male hypopygium with the ventral dististyle fleshy, the outer apical region bearing a long tail-like fleshy extension that terminates in a blackened club.

MALE.—Length about 4.5 mm.; wing 5.3 mm.

Rostrum and palpi black. Antennæ black throughout; flagellar segments oval, clothed with a delicate white pubescence; verticils short and inconspicuous. Head brownish gray, clearer gray on the orbits.

Mesonotum brownish gray, the præscutum with three darker brown stripes; scutal lobes brown, the median region and posterior sclerites dark, heavily pruinose. Pleura pruinose. Halteres pale, the knobs blackened. Legs with the coxæ and trochanters yellowish; femora yellowish brown,

their bases brighter, the outer ends darkened; tibiae and tarsi black. Wings grayish subhyaline, the oval stigma pale brown; veins black, those of the cord and outer end of cell *1st M*<sub>2</sub> stouter and semi-obiterated. Venation: *Sc*<sub>1</sub> ending opposite or just before the origin of *Rs*, *Sc*<sub>2</sub> some distance from its tip, *Sc*<sub>1</sub> alone about one-half *Rs*; cell *1st M*<sub>2</sub> closed, relatively small; second section of *M*<sub>1+2</sub> only about two-fifths the distal section; *m-cu* before the fork of *M*.

Abdominal tergites black, the extreme caudal margins paler; sternites brown; hypopygium black, the ventral dististyle conspicuously pale. Male hypopygium with the tergite transverse, the median area of the caudal margin gently emarginate. Basistyle small, the ventromesal lobe large. Ventral dististyle large and fleshy, on the outer apical region bearing a long fleshy tail-like extension that is approximately as long as the remainder of the style, its apex dilated into a blackened club; rostral prolongation stout, blackened, with two approximated spines. Gonapophyses blackened, the mesal apical lobe gently curved.

Habitat.—Chile.

Holotype, ♂, Angol, Malleco, November 23, 1929 (D. S. Bullock).

*Limonia (Dicranomyia) clavigera* is highly isolated and peculiar in the tail-like extension of the ventral dististyle of the male hypopygium.

***Limonia (Dicranomyia) trinitatis*** new species.

General coloration gray, the præscutum behind with four short blackish spots or shortened stripes; antennæ black throughout; wings whitish subhyaline, with a diffuse gray pattern that is somewhat reticulated; *Sc* short, *Sc*<sub>1</sub> longer than *Rs*; cell *M*<sub>2</sub> open by the atrophy of *m*.

FEMALE.—Length about 4 mm.; wing 4.6 mm.

Rostrum and palpi black. Antennæ black throughout; flagellar segments short-oval. Head gray; anterior vertex narrow.

Mesonotal præscutum brownish gray, near the suture with four short velvety-black spots or short stripes, most evident when viewed slightly from the front; median region of anterior part of præscutum less evidently infuscated; scutal lobes dark gray, darkened medially, the median region and disk of scutellum clearer gray; scutellum darkened behind; postnotal mediotergite grayish brown. Pleura gray, indistinctly lined with brown, the posterior dorso-pleural region more ochreous. Halteres pale. Legs with the coxæ infuscated basally, their apices paling to yellow; trochanters yellow; femora yellow, the tips passing into brown; tibiae brownish yellow, the tips narrowly darkened; tarsi passing into brown. Wings whitish subhyaline, with a very diffuse gray pattern that is more or less reticulate, occurring as ill-delimited spots and clouds in all the cells, more darkened in the costal region; veins light brown. Venation: *Sc*<sub>1</sub> ending just before the

origin of  $R_s$ ,  $Sc_2$  some distance from its tip,  $Sc_1$  alone exceeding  $R_s$ ;  $R_s$  arcuated, about one-half longer than the even more strongly arcuated basal section of  $R_{4+5}$ ; cell  $M_2$  open by the atrophy of  $m$ ;  $m-cu$  about one-third its length before the fork of  $M$ .

Abdomen dark brown, sparsely pruinose. Valves of ovipositor relatively short and stout.

Habitat.—Cuba.

Holotype, ♀, Buenos Aires, Trinidad Mts., forest capping limestone (diente perro) peak, altitude 2600 feet, September 15, 1929 (J. G. Myers); Coll. No. C 203.

*Limonia (Dicranomyia) trinitatis* is very distinct from *L. (D.) reticulata* (Alexander) in the ground-color of the body, the venation, and the diffuse gray pattern of the wing.

### Genus *Polymera* Wiedemann

***Polymera (Polymerodes) catharinæ* new species.**

Size small (wing, ♂, 3.5 mm.); antennæ black throughout; thoracic dorsum brownish black; pleura yellowish brown, with a broad black stripe; legs brownish black, the tarsi only slightly paler; wings narrow, tinged with blackish; cell  $M_1$  lacking, cell  $M_3$  short and sprawly;  $Sc_1$  and  $R_s$  long; vein 2nd  $A$  short; macrotrichia of veins short and relatively inconspicuous.

MALE.—Length about 3 mm.; wing 3.5 mm.; antenna about 5 mm.

Rostrum and palpi black. Antennæ (♂) elongate, black throughout; flagellar segments only weakly binodose, the basal node shorter than the apical. Head black.

Thoracic dorsum brownish black, the posterior sclerites a trifle paler. Pleura yellowish brown to dark brown, with a broad black stripe. Halteres dusky. Legs brownish black, the outer segments only a trifle paler. Wings with a strong blackish tinge; pale longitudinal streaks adjoining veins  $M$  and 1st  $A$ ; veins brownish black. Wings conspicuously narrower than in other species of the subgenus. Macrotrichia of veins short and relatively inconspicuous. Venation:  $Sc_1$  ending beyond three-fourths the length of  $R_s$ ,  $Sc_2$  some distance from its tip,  $Sc_1$  alone exceeding  $m-cu$ ;  $R_s$  elongate, angulated at origin, nearly three times  $R_{2+3+4}$ ;  $R_{1+2}$  longer than  $R_{2+3+4}$ ; cell  $M_3$  short and sprawly; cell 2nd  $A$  short, vein 2nd  $A$  ending opposite the origin of  $R_s$ ; anterior arculus weakly preserved.

Abdomen black, the sternites more brownish black.

Habitat.—Brazil.

Holotype, ♂, Jaraguá, Santa Catharina, August 24, 1929 (F. Schade).

By means of my key to the species of the subgenus *Polymerodes* (Can. Ent., 52: 143; 1920), the present species runs to

couplet 2, disagreeing with the included species in the broad pleural stripe. The species is further characterized by the unusually narrow wings, with the macrotrichia of the veins short and inconspicuous.

### Genus *Shannonomyia* Alexander

#### *Shannonomyia myersiana* new species.

General coloration of mesonotum reddish yellow; antennæ ( $\delta$ ) elongate, exceeding the body; pleura chiefly darkened; wings gray, the small stigma pale brown; macrotrichia in outer cells of wing; cell  $M_2$  open by atrophy of  $m$ .

MALE.—Length about 5 mm.; wing 6.5 mm.; antenna about 6 mm.

FEMALE.—Length about 6 mm.; wing 5.5 mm.

Rostrum and palpi black. Antennæ ( $\delta$ ) elongate, exceeding the body in length; scapal segments blackish, the flagellum pale brown, the outer segments again more darkened; flagellar segments elongate-cylindrical, with conspicuous erect setæ that are much shorter than the segments; outer segments shorter, the setæ equal to or exceeding the segments. In the female, the flagellar segments are long-oval, gradually decreasing in size outwardly, the basal segment being nearly as long as the succeeding two taken together. Head dark gray, the anterior vertex more yellowish pollinose.

Mesonotal præscutum reddish yellow, more darkened medially; pseudo-sutural foveæ and tuberculate pits lacking; posterior sclerites of mesonotum more brownish yellow, especially the scutal lobes. Pleura chiefly dark brown, somewhat paler ventrally. Halteres relatively elongate, pale. Legs with the coxæ and trochanters pale; remainder of legs brownish yellow, the outer segments a little darkened. Wings broader in male than in female, grayish, the small stigma pale brown; veins pale brown. Abundant macrotrichia in the outer ends of cells beyond the cord, more extensive in male (cells  $R_2$  to  $M_4$ , inclusive); in female more sparse, in cells  $R_3$  to  $M_3$ , inclusive. Venation:  $Sc_1$  ending opposite the fork of  $R_s$ ,  $Sc_2$  at its tip;  $R_2$  at or close to fork of  $R_{3+4}$ ; vein  $R_3$  nearly straight, parallel to distal end of  $R_{1+2}$ ;  $R_4$  deflected strongly caudad on outer end; inner ends of cells  $R_4$ ,  $R_5$  and 1st  $M_2$  in transverse alignment; cell  $M_2$  open by atrophy of  $m$ ;  $m-cu$  more than one-half its length beyond the fork of  $M$ .

Abdominal tergites dark brown, the sternites paler. Male hypopygium with the outer dististyle blackened and bifid at tip. Ovipositor with elongate valves.

Habitat.—Jamaica.

Holotype,  $\delta$ , Blue Mts., altitude 6000 feet, January 30, 1930 (J. G. Myers); Coll. No. 982.

Allotopotype,  $\text{♀}$ , altitude 5447 feet, January 29, 1930 (J. G. Myers); Coll. No. 975.

*Shannonomyia myersiana* is named in honor of the collector, Dr. John G. Myers, to whom I am greatly indebted for many Tipulidæ from all parts of the world. The reference of the species to this genus seems correct, despite the elongate antennæ of the male and the macrotrichia of the outer cells of the wing. The aberrant crane-fly described by the present writer from Panama as *Gnophomyia olssoni* (JOURN. N. Y. ENT. SOC., 27: 144; 1919) seems unquestionably to be allied to *myersiana* and the two forms may best be considered as representing a highly specialized offshoot of *Shannonomyia*.

***Shannonomyia brevicula* new species.**

General coloration reddish brown; antennæ short; head silvery gray; pronotum and lateral pretergites silvery gray; wings tinged with yellow, with a sparse brown pattern, including small spots along cord, outer end of cell 1st  $M_2$  and as marginal seams;  $R_s$  relatively short, arcuated at origin; cell  $R_3$  unusually small, vein  $R_3$  being shorter than  $R_{3+4}$ ; cell 1st  $M_2$  closed, elongate, shorter than vein  $M_{1+2}$  beyond it.

MALE.—Length about 4 mm.; wing 4.3 mm.

Rostrum and palpi brownish black. Antennæ short, the basal segments pale yellow, the outer segments brown. Head silvery gray, the genæ a little darker.

Pronotum above and lateral pretergites likewise light whitish or silvery gray. Mesonotum opaque reddish brown, the præscutum very narrowly and indistinctly darkened medially; scutal lobes more darkened; scutellum and postnotal mediotergite dusky, weakly pruinose. Pleura yellowish brown, clearer yellow ventrally. Halteres pale yellow. Legs with the coxæ and trochanters yellow; remainder of legs long and slender, yellow, the tips of the tibiæ weakly darkened; terminal tarsal segments slightly infuscated. Wings with a yellowish tinge, sparsely patterned with brown, including small spots at areculus, origin of  $R_s$ , fork of  $Sc$ ,  $R_2$ , along cord and outer end of cell 1st  $M_2$ ; marginal spots on  $R_3$ ,  $R_4$ ,  $M_{1+2}$ ,  $M_3$ ,  $M_4$ ,  $Cu_1$  and the anal veins; veins pale, darker in the infuscated areas. Venation:  $Sc$  short,  $Sc_1$  ending about opposite three-fourths the length of the relatively short  $R_s$ ,  $Sc_2$  close to its tip; cell  $R_3$  very short, vein  $R_3$  being shorter than  $R_{3+4}$ ; vein  $R_4$  deflected strongly cephalad at outer end; cell 1st  $M_2$  elongate but shorter than vein  $M_{1+2}$  beyond it;  $m-cu$  more than one-half its length beyond the fork of  $M$ .

Abdominal tergites dark brown, the sternites paler; hypopygium obscure yellow.

Habitat.—Cuba.

Holotype, ♂, Buenos Aires, Trinidad Mts., in tree-fern arroyo, altitude 2300 feet, September 16, 1929 (J. G. Myers); Coll. No. C 205.

*Shannonomyia brevicula* is very distinct from the other Antillean species of the genus. The shape of cell  $R_3$  is much as in *S. triangularis* (Alexander) of Porto Rico but the medial field of wing is entirely different.

### Genus *Atarba* Osten Sacken

#### ***Atarba* (*Atarba*) *bifurcula* new species.**

General coloration yellow, each scutal lobe with two black areas; antennal flagellum weakly bicolorous; femora yellow, with a narrow brown subterminal ring; wings yellow, with a heavy brown pattern, including a dark brown stigmal spot; male hypopygium with the *ædeagus* shaped like a tuning-fork, the arms being approximately twice the length of the stem.

MALE.—Length about 6 mm.; wing 6.3 mm.

FEMALE.—Length 6.5 mm.; wing 6–6.5 mm.

Rostrum yellow; basal segment of palpus yellow, the remaining segments brownish black. Antennæ with the scapal segments yellow, the basal flagellar segments bicolorous, on the first segment the basal half yellow, the remainder dark brown; on the succeeding segments with less than the basal fourth of the segment yellow, the amount of this color decreasing outwardly, flagellar segment seven being uniformly darkened; flagellar segments ( $\delta$ ) more elongate than in *punctiscuta*. Head polished yellow, more or less obscured, in the allotype blackened.

Mesonotal præscutum shiny yellow to chestnut yellow, in the female with a capillary darker median vitta; scutum yellow, each lobe with two polished black areas, the lateral one larger; scutellum and postnotal mediotergite more or less blackened. Pleura yellow to chestnut-yellow, highly polished. Halteres pale, the knobs infuscated. Legs with the coxæ and trochanters yellow; femora yellow, before tips with a narrow dark brown annulus, the extreme apex brownish yellow; tibiæ and tarsi yellow, the three terminal segments of the latter blackened. Wings with a strong yellow suffusion, conspicuously patterned with dark brown, including the stigma and narrow seams at arculus, origin of *Rs*, along cord and outer end of cell *1st M*<sub>2</sub>; in the female, the pattern is even heavier, the seams being broader and with the basal halves of cells *M* and *Cu* conspicuously washed with brown. Venation: *Sc* relatively short, *Sc*<sub>1</sub> ending about opposite one-fourth to two-fifths the length of *Rs*; branches of *Rs* diverging very gradually; cell *1st M*<sub>2</sub> short-rectangular; *m-cu* close to fork of *M*.

Abdomen yellow, in male with a subterminal dark brown ring. In female, the tergites more uniformly brownish black, the sternites yellow. Male hypopygium with the outer dististyle toothed only on distal fourth. Inner dististyle longer, the outer half curved. *Aedeagus* profoundly bifid, the long arms approximately twice the stem.

Habitat.—Brazil.

Holotype, ♂, Jaraguá, Santa Catharina, September 21, 1929 (F. Schade).

Allotopotype, ♀.

Paratopotype, ♀, October 2, 1929 (F. Schade).

*Atarba bifurcula* is allied to *A. punctiscuta* Alexander (Paraguay) in the coloration of the body and legs. The wing-pattern is much heavier, especially the conspicuous stigma, and the details of venation are distinct. The peculiar structure of the ædeagus will probably be found to occur also in *punctiscuta*. The wing-pattern of the present species is more conspicuous than in any other known species of *Atarba*.

### Genus *Aphrophila* Edwards

#### ***Aphrophila carbonaria*** new species.

General coloration intense black, sparsely pruinose; antennæ entirely black; knobs of halteres darkened; male hypopygium with the region of the tergite extended caudad into a single point.

MALE.—Length about 5 mm.; wing 6 mm.

Rostrum, palpi and antennæ black. Head black, sparsely pruinose.

Thorax black, sparsely pruinose, the præscutum with a slightly elevated more intensely blackened line; dorso-pleural region paler. Halteres pale, the knobs brown. Legs with the coxæ dark brown; trochanters brownish yellow; femora black, the bases yellow, very narrow on the fore legs, broader on the posterior legs, where about the basal half is included; tibiæ and tarsi black. Wings with a slight brownish tinge; stigma oval, pale brown; a dusky axillary wash; a vague darkening along vein *Cu*; veins dark brown, the cord, outer end of cell 1st  $M_2$  and anterior branches of *Rs* paler. Venation: *Rs* relatively long, exceeding  $R_{2+3+4}$ ; *m-cu* close to fork of *M*.

Abdomen black, the male hypopygium a little paler. Hypopygium with the dististyle quite as in *chilena*. Region of tergite extended into a single median point between the basistyles, in *chilena* this area being broader and conspicuously bidentate.

Habitat.—Chile.

Holotype, ♂, Angol, Malleco, November 25, 1929 (D. S. Bullock).

Associated in collections with *Aphrophila chilena* Alexander. *A. carbonaria*, and the species next described as *A. multidentata*, are allied to *A. chilena* but evidently distinct.

**Aphrophila multidentata** new species.

General coloration brownish gray, the præscutum with three dark brown stripes; antennæ black throughout; caudal half of postnotal mediotergite blackened; halteres pale; axillary region of wing not darkened; ovipositor with dorsal margin of each tergal valve with from 12 to 14 small teeth.

FEMALE.—Length about 5.3 mm.; wing 6.2–6.3 mm.

Rostrum and palpi dark brown. Antennæ black throughout. Head dark brown, the anterior vertex light silvery gray.

Mesonotal præscutum brownish gray, with three dark brown stripes, the broad median stripe further divided by a capillary elevated line; centers of scutal lobes darkened; median region of scutum, and the scutellum testaceous yellow; postnotal mediotergite bicolorous, the cephalic half yellowish testaceous, the posterior half blackened. Pleura plumbeous. Halteres obscure yellow. Legs with the coxæ brownish yellow; trochanters yellow; femora brownish yellow; tibiæ and tarsi brown. Wings tinged with grayish yellow, the small stigma brown; axillary region not darkened; veins brown, *Sc* and the prearcular veins more yellowish.

Abdomen dark brown, the pleural membrane yellow; genital segment brownish yellow, the tergal valves of ovipositor chestnut brown. Tergal valves of ovipositor with a series of from 12 to 14 small teeth, the more basal ones not conspicuously larger. In *chilena*, these valves have a series of about 7 teeth, the basal ones being larger and more conspicuous.

Habitat.—Chile.

Holotype, ♀, Angol, Malleco, February 1, 1930 (D. S. Bullock).

Paratopotype, ♀.

Genus *Trentepohlia* Bigot**Trentepohlia (Paramongoma) cubitalis** new species.

General coloration pale yellow; wings yellow, stigma lacking; a conspicuous brown seam on distal half of vein *Cu*<sub>1</sub>.

FEMALE.—Length about 6 mm.; wing 5.5 mm.

Rostrum and palpi yellow. Antennæ brown throughout. Head dull ochreous yellow.

Mesonotum light yellow, the præscutal bristles black, small but conspicuous. Pleura light yellow. Halteres yellow. Legs yellow, the terminal tarsal segments scarcely darker. Wings pale yellow, without stigma; a conspicuous brown seam on distal half of *Cu*<sub>1</sub>; veins pale yellow, darker in the clouded area. Venation: *R*<sub>2</sub> about one-half longer than *R*<sub>3+4</sub>; *R*<sub>3</sub> diverging strongly from *R*<sub>4</sub>; *m-cu* shortly before fork of *M*.

Abdominal tergites yellow, the bases of the segments weakly infuscated to produce a slight bicolorous appearance; sternites and genital segment pale yellow. Ovipositor with elongate tergal valves.



Habitat.—Brazil.

Holotype, ♀, Jaraguá, Santa Catharina, September 29, 1929 (F. Schade).

*Trentepohia cubitalis* is very different from the other described species of *Paramongoma*. The venation is of the general type of *T. (P.) longifusa* (Alexander), differing in the details of length and course of veins.

### Genus *Teucholabis* Osten Sacken

#### ***Teucholabis (Teucholabis) catharinensis* new species.**

Size large (length over 10 mm.); general coloration reddish, the præscutum with three darker stripes; head black; femora yellow, the tips narrowly black; wings yellow with three pale brown crossbands; male hypopygium with the spine of the basistyle long, the apical flanges not serrate, merely setiferous.

MALE.—Length about 11 mm.; wing 9.5 mm.

FEMALE.—Length about 14 mm.; wing 8.5 mm.

Rostrum only a little shorter than the remainder of the head, dark reddish, the tip more blackened; palpi black. Antennæ with the basal segment reddish brown, the remainder black; flagellar segments black, long-oval, becoming more attenuate outwardly. Head black, with more or less distinct violaceous reflexions, paling to reddish behind.

Pronotum obscure yellow. Mesonotal præscutum yellow, highly polished, with three darker stripes, the lateral stripes more blackish than the reddish brown median area; posterior sclerites of mesonotum yellow, the scutal lobes extensively dark brown, the scutellum more or less darkened at base. Pleura pale, extensively variegated with black, including a dorsal area involving the propleura and anepisternum, the ventral sternopleurite and an area on the pleurotergite; entire pleura with a dense appressed silvery pubescence to produce a pruinose appearance. Halteres yellow, the knobs blackened, their extreme tips again pale. Legs with the coxæ yellow, the outer face weakly darkened; trochanters yellow; femora yellow, the tips narrowly blackened, the amount subequal on all legs; tibæ and tarsi yellow, the tips of the latter black. Wings yellow, with three conspicuous pale brown crossbands, the second at the cord, the last narrowest, including the wing-apex; stigmal area subtriangular, darker than the crossbands; veins yellow, darker in the infuscated areas, especially along the cord and outer end of cell 1st  $M_2$ . Venation:  $Sc_1$  ending opposite or beyond mid-length of  $R_s$ ,  $Sc_2$  some distance from its tip;  $R_2$  oblique in position, considerably longer than the arcuated  $R_{1+2}$ ; cell 1st  $M_2$  closed.

Abdomen (♂) reddish, the sternites narrowly darkened sublaterally. In female, the abdomen more blackened, the caudal margins of the segments paler; genitalia of both sexes reddish. Male hypopygium with the spine

of basistyle long and acute, the mesal face before apex with appressed setulæ; marginal flange at apex of basistyle smooth, conspicuously setiferous, not serrated as in *melanocephala*. Outer dististyle a simple yellow rod that narrows to a small blackened spine, the outer surface with coarse setæ. Inner dististyle bifid.

Habitat.—Brazil.

Holotype, ♂, Jaraguá, Santa Catharina, December 24, 1929 (F. Schade).

Allotopotype, ♀, November 17, 1929 (F. Schade).

*Teucholabis catharinensis* runs to *T. melanocephala* (Fabricius), from which it differs especially in the large size, wing- and leg-pattern and structure of the male hypopygium.

**Teucholabis (Teucholabis) nigrosignata** new species.

General coloration reddish yellow; head yellow; mesonotal præscutum with three incomplete black stripes, the outer ones occupying the lateral margins of the sclerite; femora yellow, the tips broadly and equally blackened; wings whitish subhyaline, with the stigma and narrow seams on cord and outer end of cell *1st M*<sub>2</sub> darkened; *Sc* short, *Sc*<sub>2</sub> before origin of the arcuated *Rs*; branches of *Rs* divergent, cell *R*<sub>2</sub> at margin conspicuously narrower than cell *R*<sub>4</sub>.

MALE.—Length about 4.5 mm.; wing 4.5 mm.

FEMALE.—Length about 4.5 mm.; wing 4.2 mm.

Rostrum obscure yellow; palpi brown. Antennæ with the first scapal segment obscure yellow; second segment yellowish brown; flagellum black; basal flagellar segments subglobular to very short-cylindrical, the outer segments more slender, passing into oval. Head yellow, more infuscated behind and on the genæ.

Pronotum yellow. Mesonotal præscutum reddish yellow, with three incomplete black stripes, the median stripe becoming obsolete at about mid-length, the outer stripes occupying the lateral margins of the sclerite, in some cases obsolete behind, in others extended across the suture onto the cephalic-lateral portions of the scutal lobes; median region of scutum and the scutellum light yellow; postnotal mediotergite dark with the base yellow or with a median yellow triangle, the point directed backward. Pleura reddish, with a ventral longitudinal whitish stripe that occupies the dorsal sternopleurite, the meral region, and sends a spur dorsad onto the pteropleurite; pleurotergite black. Halteres dusky, the knobs yellow. Legs with the coxæ and trochanters reddish yellow; femora yellow, the tips broadly and conspicuously blackened, the amount subequal on all legs; tibiæ obscure yellow at base, soon passing into black; tarsi black. Wings whitish subhyaline, with a restricted dark pattern; stigma subcircular, brownish black; narrow dark seams along cord and outer end of cell *1st M*<sub>2</sub>; veins

dark brown, the costal region at near midlength paling to yellow. Venation: *Sc* short, *Sc*<sub>1</sub> ending about opposite one-fourth the length of the strongly arcuated *Rs*, *Sc*<sub>2</sub> some distance from its tip and before the origin of *Rs*; *R*<sub>2</sub> at fork of *Rs*; anterior branch of *Rs* gently sinuous to nearly straight, at outer end deflected slightly cephalad so cell *R*<sub>2</sub> is conspicuously narrower than cell *R*<sub>1</sub>; cell 1st *M*<sub>2</sub> widened outwardly, the lower face longer than vein *M*<sub>4</sub> beyond it; *m-cu* at or shortly before fork of *M*.

Abdominal segments black, ringed caudally with reddish yellow, the amount of the latter increasing outwardly, the subterminal segments more uniformly pale; hypopygium black. Sternal pocket (♂) broadly U-shaped. Male hypopygium with the spine of the basistyle nearly as long as the outer dististyle. Outer dististyle simple, the apex glabrous, the margin at near midlength with a series of from 6 to 8 acute serrations. Inner dististyle with the blade-like apical portion expanded, terminating in a bidentate beak.

Habitat.—Cuba.

Holotype, ♂, Trinidad Mts., in cafetal, altitude 2000 feet, September 14, 1929 (J. G. Myers); Coll. No. C 189.

Allotopotypes, ♀.

Paratopotypes, 2 ♂♀.

*Teucholabis nigrosignata* is distinct from all of the now numerous Neotropical species of the genus. The venation is most nearly approached by species such as *T. bruneri* Alexander and *T. submolesta* Alexander, but the species is very distinct.

### Genus *Gonomyia* Meigen

#### ***Gonomyia* (*Progonomyia*) *quinqueplagiata* new species.**

General coloration yellow; thoracic dorsum with five polished black areas, three being on the præscutum and representing the anterior ends of the præscutal stripes; wings yellow, the small stigma pale brown; *R*<sub>2</sub> less than its own length beyond the fork of *Rs*; male hypopygium with the outer dististyle a flattened, pale, parallel-sided blade; inner dististyle flattened, pale, the outer angle produced into a spine.

MALE.—Length about 4 mm.; wing 5.2 mm.

Rostrum obscure yellow; palpi brownish black. Antennæ with the scapal segments bright yellow; flagellum black, the base of the first segment paler; flagellar segments oval, becoming smaller outwardly. Head yellow.

Pronotum yellow, darkened laterally. Mesonotal præscutum reddish yellow, clearer yellow laterally, with three circular to oval polished black areas that represent the cephalic ends of the præscutal stripes; scutal lobes chiefly covered by extensive black areas; scutellum brownish yellow, the caudal margin clearer yellow; postnotal mediotergite yellow, the lateral margins

of the sclerite conspicuously darkened. Pleura yellow, with two longitudinal areas of blue pruinosity, appearing as more or less distinct longitudinal stripes. Halteres relatively elongate, dusky, the bases of the knobs darkened, the apices brightening to yellow. Legs with the coxæ and trochanters yellow; femora and tibiæ brownish yellow, the tips of the latter narrowly darkened; tarsi passing into black. Wings relatively long and narrow, yellow, the small stigma pale brown; veins brown, those in the basal and costal regions more yellow. Venation:  $Sc$  long,  $Sc_1$  ending at near two-thirds the length of the long  $Rs$ ;  $E_2$  less than its length beyond fork of  $Rs$ ,  $R_{3+4}$  considerably longer than  $E_3$ ;  $R_4$  long and gently sinuous, nearly four times  $E_3$ ;  $m-cu$  at fork of  $M$ .

Abdomen yellowish brown, the hypopygium yellow. Male hypopygium with the outer dististyle a pale flattened blade that is nearly parallel-sided, or gently expanded outwardly, the tip more truncate. Inner dististyle a flattened pale blade, the outer angle produced into a spine. Aedeagus broad-based, the apical half narrowed, the apex simple.

Habitat.—Brazil.

Holotype, ♂, Jaraguá, Santa Catharina, November 8, 1929 (F. Schade).

*Gonomyia (Progonomyia) quinqueplagiata* is very different from other described species of the subgenus, being most nearly allied to species such as *thiosema* Alexander.

**Gonomyia (Lipophleps) cubana** new species.

Belongs to the *manca* group; thoracic pleura brownish gray, striped longitudinally with white; knobs of halteres yellow; wings with a strong brown suffusion; male hypopygium with the dististyle simple, entirely fleshy; phallosome consisting of four chitinized structures, the two larger more heavily chitinized.

MALE.—Length about 3 mm.; wing 3 mm.

Rostrum orange-yellow; palpi brownish black. Antennæ black throughout. Head yellow, the center of the vertex darkened.

Anterior lateral pretergites pale yellow. Mesonotum grayish brown; scutellum yellow, the central portion at base brownish gray; postnotum gray. Pleura brownish gray, with a broad white longitudinal stripe extending from behind the fore coxæ to the abdomen; dorsopleural region pale yellow; a yellowish area beneath the wing-root. Halteres pale yellow, the outer portion of stem dusky. Legs with the coxæ and trochanters yellow; remainder of legs broken. Wings with a strong brown suffusion, the stigmal region a little darker; veins pale brown. Venation:  $Sc_1$  ending a distance before the origin of  $Rs$  that is nearly the length of the latter; cell  $1st M_2$  closed;  $m-cu$  a short distance before the fork of  $M$ .

Abdominal tergites dark brown, the lateral margins obscure yellow; hypopygium and sternites more uniformly pale. Male hypopygium with the

basistyle elongate; dististyle single, very pale throughout, scarcely differentiated from the apex of basistyle, terminating in two fasciculate setæ. Phallosome consisting of four chitinized structures, the longest straight on basal half, the outer half curved, narrowed to an acute point; a second heavily chitinized structure is broadly expanded at base, thence narrowed to a blunt blackened point, the surface before apex with scattered setulæ. Besides the above pair of structures, there are two slender paler rods, unequal in length, one presumably being the aedeagus.

Habitat.—Cuba.

Holotype, ♂, Trinidad Mts., in cafetāl, altitude 2000 feet, September 14, 1929 (J. G. Myers); Coll. No. C 189.

*Gonomyia (Lipophleps) cubana* is distinguished from the other described species of the *manca* group that have a simple entirely fleshy dististyle (*duurvoorti* Alexander, *haploa* Alexander, *inermis* Alexander, *manca* Osten Sacken, *maya* Alexander, *phoroclenia* Alexander and *tergofimbriata* Alexander) by the structure of the phallosome.

***Gonomyia (Lipophleps) sandersi*** new species.

Belongs to the *manca* group; thoracic pleura striped; wings grayish, the costal region a trifle more whitish; male hypopygium with the basistyle produced beyond the point of insertion of the dististyle into a stout fleshy lobe; outer dististyle a curved chitinized hook; phallosome without paired blackened apophyses.

MALE.—Length about 3–4 mm.; wing 2.9–3.5 mm.

Rostrum brownish black; palpi black. Antennæ with the scapal segments orange, the flagellum brownish black. Head yellow, the center of the vertex darkened.

Anterior lateral pretergites sulphur yellow. Mesonotal præscutum grayish brown, the interspaces slightly more reddish brown, the lateral margins paling to yellow; scutum yellow, the centers of the lobes chiefly blackened; scutellum black, the margin broadly yellow; postnotal mediotergite yellow with a blackish lunate area on cephalic margin, the posterior margin more reddish brown. Pleura purplish, enclosing a conspicuous white longitudinal stripe, the ventral sternopleurite and meron more yellowish; dorso-pleural region broadly brownish yellow. Halteres dusky, the knobs light yellow. Legs with the coxæ and trochanters yellow; femora brownish yellow, the tips darker; tibiæ and tarsi brownish black. Wings grayish, the stigmal region a trifle darker; costal and basal regions more whitish; veins light brown, somewhat paler in the costal region. Venation:  $Sc_1$  ending a short distance before the origin of  $Rs$ , the latter weakly angulated to short-spurred at origin; cell 1st  $M_2$  closed; *m-cu* at or before the fork of  $M$ .

Abdominal tergites chiefly yellow, the median and caudal portions of the segments more infuscated; sternites and hypopygium yellow. Male hypopygium with the outer angle of basistyle produced caudad beyond the point of insertion of the dististyles into a short blunt lobe that is longer and stouter than the fleshy dististyle. Outer dististyle a curved chitinized hook that is almost as in *scimitar* and *puer*. Phallosome entirely pale, without paired blackened apophyses as in *scimitar*; a setiferous structure on either side that terminates in two small finger-like fleshy lobes; longest arm of phallosome a compressed blade, the apex obtusely rounded.

Habitat.—Cuba.

Holotype, ♂, Soledad, November 1, 1929 (P. D. Sanders).

Paratopotype, ♂; paratype, ♂, rocky creek in Seboruco forest, Soledad, October 11, 1929 (J. G. Myers); Coll. No. C 260.

*Gonomyia (Lipophleps) sandersi* is named in honor of the collector of the type, Dr. P. D. Sanders, student of the Psychodidæ. The species is related to *G. (L.) puer* Alexander, differing in the subapical insertion of the dististyles. In the latter respect, and in the structure of the dististyles, it agrees even more closely with *G. (L.) scimitar* Alexander, which, however, differs conspicuously in having paired blackened apophyses.