

Studia Entomologica, vol. 2, fasc. 1-4, setembro 1959

Insecta Amapaensia. — Diptera: Tipulidae

By Charles P. Alexander



Insecta Amapaensia. — Diptera: Tipulidae

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(With 6 figures)

I am greatly indebted to Dr. John Lane for the privilege of studying the crane-flies taken on the recent expedition to Amapá in northeastern Brazil. Although only fifteen species were included in the collection, no fewer than six proved to be undescribed while several others provided interesting extensions of known range. The types of the novelties and representatives of the other species have been returned to Dr. Lane.

Tipulinae**1. *Brachypremna williamsoni* Alexander**

Brachypremna williamsoni Alexander; Journ. N. Y. Ent. Soc., 20 : 231-232, fig. e (wing); 1912.

The types were from British Guiana, Surinam and Brazil. Amapá: Serra do Navio, September-October 1957 (Lane).

2. *Ozodicera (Ozodicera)* sp.

Amapá: Serra do Navio, October 1957 (Lane). Not further determinable without the male sex.

Limoniinae, Limoniini**3. *Limonia (Geranomyia) cinereinota* (Alexander)**

Geranomyia cinereinota Alexander; Ent. News, 24 : 407-408, pl. 14, fig. 4 (wing); 1913.
Limonia (Geranomyia) cinereinota Alexander; Rev. Ecuat. Ent. Par., 1 : 89-90, fig. 4 (male hypopygium); 1953.

Widely distributed throughout tropical America, including the Greater Antilles, southward to Paraguay.

Amapá: Serra do Navio, October 1957 (Lane).

¹) Contribution No. 1300 from the Entomological Laboratory, University of Massachusetts.

Hexatomini

4. *Polymera (Polymera) hirticornis* (Fabricius)

Chironomus hirticornis Fabricius; Syst. Antliar., p. 46; 1805.

Polymera hirticornis Alexander; Proc. U. S. Nat. Mus., 44 : 532, fig. 3 (wing); 1913.

Polymera (Polymera) hirticornis Alexander; Rev. de Ent., 19 : 184; 1948.

Widely distributed in Brazil.

Amapá: Serra do Navio, September 25, 1957 (Lane).

5. *Polymera (Polymera) niveitarsis* Alexander

Polymera niveitarsis Alexander; Proc. U. S. Nat. Mus., 44 : 532-533, fig. 16 (wing); 1913.

Polymera (Polymera) niveitarsis Alexander; Rev. de Ent., 19 : 184; 1948.

Widespread in tropical America, from Guatemala, southward into Brazil.

Amapá: Serra do Navio, October 1957 (Lane).

6. *Polymera (Polymera) superba* Alexander

Polymera superba Alexander; Proc. U. S. Nat. Mus., 44 : 530-531, fig. 2 (wing); 1913.

Polymera (Polymera) superba Alexander; Rev. de Ent., 19 : 184; 1948.

Widespread in tropical America, from Panama to Ecuador and Brazil.

Amapá: Serra do Navio, September-October 1957 (Lane).

Eriopterini

7. *Gnophomyia (Eugnophomyia) fuscocostata*, sp. n.

Size small (wing of female less than 5 mm); general coloration dull black, without brightened colors on body; antennae, halteres and legs black; wings strongly darkened, the anterior border noticeably so; abundant macrotrichia in cells beyond cord, with fewer in outer ends of cells *R* and *M*; cell *1st M*₂ relatively long, subequal to vein *M*₄; ovipositor with basal shield intensely black; cerci blackened basally.

Female. — Length about 5.5 mm; wing 4.8 mm.

Rostrum and palpi black. Antennae black, scape more pruinose; flagellar segments short-oval, well separated, subequal to the verticils. Head dull black; anterior vertex broad, nearly four times the diameter of the scape.

Prothorax, including the pretergites, black. Mesonotum dull

pseudosutural foveae black; posterior sclerites of notum and the pleura dull black; dorsopleural membrane dark. Halteres brownish black. Legs brownish black throughout (posterior pair lacking). Wings strongly darkened, particularly the prearcular and costal fields; cells of posterior third of wing distinctly paler; pale longitudinal streaks in cell *R* adjoining vein *M* and behind the basal third of vein *1st A*; veins dark brown. Relatively abundant macrotrichia in cells beyond cord, sparser and more scattered more basally, including very sparse series in outer ends of cells *R* and *M*, and in outer ends of cells *Cu* and *1st A*, all macrotrichia restricted to outer half of wing. Venation: *Sc*₁ ending just before the fork of *Rs*, *Sc*₂ close to its tip; *R*₂ at fork of *R*₂₋₃₋₄; *R*₃ and *R*₄ divergent, cell *R*₂ at margin a little less extensive than cell *R*₃; cell *1st M*₂ relatively long, subequal to vein *M*₄; *m-cu* about one-third its length beyond the fork of *M*.

Abdomen black. Ovipositor with the basal shield intensely black; valves blackened basally, the tips of the slender cerci a trifle paler.

Holotype female, Serra do Navio, Amapá, September 1957 (Lane).

The only other described regional species of *Eugnophomyia* of small size include *Gnophomyia (Eugnophomyia) excordis* Alexander and *G. (E.) juniniana* Alexander. These are distinguished from the present fly by details of coloration and venation and, especially, the distribution of macrotrichia in the wing cells.

8. *Gnophomyia (Gnophomyia) magica* Alexander

Gnophomyia (Gnophomyia) magica Alexander; Rev. de Ent., 16 : 391; 1945.

The type female was from the headwaters of the Mazaruni River, Pakaraima Mountains, British Guiana.

Amapá: Serra do Navio, October 1957 (Lane).

9. *Teucholabis (Paratropesa) laneana*, sp. n.

Belongs to the *singularis* group, allied to *collaris*; mesothorax chiefly polished black, with bluish reflections, prothorax whitened; fore femora with outer half clavate, black, middle femora unmodified, brownish yellow, posterior femora with base and apex blackened, the intermediate half brownish yellow; wings

the broad apex, inner band narrow, at and before cord; Sc_1 ending about opposite the origin of R_s ; cell R_3 small, vein R_3 suberect; fusion of vein R_5 with M_{1-2} extensive; male hypopygium with very numerous setae at apex of aedeagus.

Male. — Length about 6-6.2 mm; wing 5.8-6 mm.

Rostrum brown; palpi brownish black. Antennae black, the proximal three segments obscure yellow basally; flagellar segments short-oval, the outer ones more elongate, with conspicuous verticils. Head polished black, with slight greenish reflections.

Pronotal scutum white, scutellum black. Mesonotum uniformly polished black, with bluish reflections. Pleura blue black, propleura whitened; dorsopleural membrane yellowish white; pteropleurite and metapleura with whitish pubescence; mesosternum black, remainder of sternum whitened. Halteres with stem black, knob white. Legs with the fore and middle coxae and trochanters testaceous yellow, the posterior pair black; fore femora obscure yellow basally, the outer half black, clavate, remainder of leg black; middle femora and tibiae brownish yellow, tarsi brownish black; posterior femora black on basal third, the outer fifth weakly clavate, black, the intermediate nearly one-half brownish yellow; tibiae and basitarsi brownish yellow, the tips and remainder of tarsi black. Wings with the ground whitened, with two pale brown crossbands, the more extensive one apical, extending basad to crossvein m ; inner band at and before the cord, extending from R_s to the tip of vein $1st A$, more narrowed behind, lying chiefly on proximal side of the cord; no darkening of membrane on basal third of wing; stigma darker brown, triangular; cells and veins at and immediately beyond arculus darker, remaining veins paler brown, darker along the cord. Venation: Sc_1 ending about opposite origin of R_s ; R_2 at fork of R_s , interstitial with vein R_5 ; cell R_3 small, vein R_3 suberect; fusion of veins R_5 and M_{1-2} greater than the outer section of vein M_{1-2} ; $m-cu$ at fork of M .

Abdominal tergites black, the posterior borders of the intermediate segments narrowly gray; sternites obscure yellow, patterned with black; hypopygium black. Sternal pocket very conspicuous, blackened, bifurcate. Male hypopygium (Fig. 1) with the apex of the basistyle, b , narrowed, terminating in a short spine; mesal face of style near base with a slightly larger lobe. Dististyles, d , two, subterminal; outer style a small pale rod, narrowed outwardly, terminating in a slender spine, the inner margin with about six strong setae; inner style large, conspicuously

bilobed, the blackened beak flattened, the more basal arm or lobe pale, cylindrical, with five strong setae on outer third, with a few smaller interpolated hairs. Aedeagus, *a*, terminating in a small blackened spine, before apex dilated and provided with nearly 100 darkened setae; accessory outer lobe obtuse, with about seven longer and paler setae.

Holotype, male, Serra do Navio, Amapá, October 1957 (Lane). Paratopotype, male.

I take great pleasure in dedicating this handsome fly to my long-time friend and co-worker on the Diptera, Dr. John Lane. It is quite distinct from other members of the *collaris* subgroup in the pattern of the body and wings, venational details, and in the structure of the male hypopygium. The structure and pattern of the legs is much as in *Teucholabis (Paratropesa) collaris* (Osten Sacken).

10. *Teucholabis (Teucholabis) amapana*, sp. n.

General coloration of entire body polished black; rostrum relatively long, subequal to the remainder of head; knobs of halteres obscure brownish yellow; femora obscure yellow with about the outer third blackened; posterior basitarsus of male dilated on proximal third; wings whitened, stigma conspicuous, dark brown; *Sc* long; male hypopygium with a conspicuous marginal spine on the outer dististyle; aedeagus broad, with a long slender apical spine.

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

Rostrum black, relatively long and slender, nearly equal to the remainder of head; palpi black. Antennae black throughout; flagellar segments oval, with conspicuous verticils. Head black.

Thorax uniformly polished black, only the very restricted anterior pretergites vaguely brightened. Halteres with stem black, knob obscure brownish yellow. Legs with all coxae black; trochanters yellowish brown; femora obscure yellow, the tips blackened, including the outer third or slightly more on the posterior legs; tibiae brown, the tips, with the tarsi, black; posterior basitarsi with about the proximal third dilated. Wings whitened, variegated only by the conspicuous dark brown stigma; prearcular field slightly more yellowed; veins brown, paler at base and in the costal field. Venation: *Sc* long, *Sc*₁ ending beyond midlength of *Rs*, *Sc*₂ slightly removed; *R*₂ about twice *R*₂₋₃₋₄ and longer than *R*₁₋₂; anterior branch of *Rs* nearly straight, outer third of *Rs* deflected strongly to the apex, cell *R*₄ at margin about two-

thirds as extensive as cell R_2 ; cell 1st M_2 narrow, longer than vein M_4 ; $m-cu$ about one-third its length beyond the fork of M .

Abdomen, including hypopygium, black. Sternal pocket of segment five greatly developed; setae of sternite six conspicuous. Male hypopygium (Fig. 2) with the outer spine of the basistyle, b , subterminal, elongate, a little shorter than the style itself, appearing as a nearly straight rod, on outer third more curved, narrowed into a simple spine; inner margin of spine fringed with long scattered pale setae; mesal flange of basistyle darkened, the margin entire or very feebly toothed. Dististyles, d , two, subterminal; outer style longer, at near midlength on inner margin with a slender curved spine, surface of style with scattered setae, apex a short slender spine; inner style conspicuously bilobed, the outer darkened blade terminating in a spine, the lower point subobsolete; inner lobe with six setae in a compact group, with a further outer bristle of unusual length. Aedeagus, a , broad, the lower apical angle produced into a long slender spine, the apex of aedeagus not protruded beyond the level of the spine. surface entirely glabrous.

Holotype, male, Serra do Navio, Amapá, October 1957 (Lane).

The most similar regional species is *Teucholabis (Teucholabis) lugubris* Alexander, the male of which is still unknown to me. This differs evidently from the present fly in the coloration of the thorax and legs.

11. *Teucholabis (Teucholabis) pleurolinea*, sp. n.

General coloration of thoracic notum light brown; pleura with a broad dorsal longitudinal brown stripe; rostrum long; head dull brownish gray; halteres dark brown; femora obscure yellow, tips rather narrowly brownish black; wings subhyaline, stigma small, dark brown; Sc relatively short, Sc_1 ending about opposite one-third the length of R_s ; vein R_5 deflected strongly caudad on outer third, cell R_4 being very extensive; male hypopygium with the spinelike appendage of the basistyle conspicuous, not fringed with setae; outer dististyle a simple club; aedeagus flattened, at tip decurved into a long spine.

Male. — Length about 4.8 mm; wing 4.8 mm.

Rostrum elongate, black, subequal to the remainder of head; palpi black. Antennae black; flagellar segments oval, shorter than the verticils; pale pubescence conspicuous. Head dull brownish gray; anterior vertex broad.

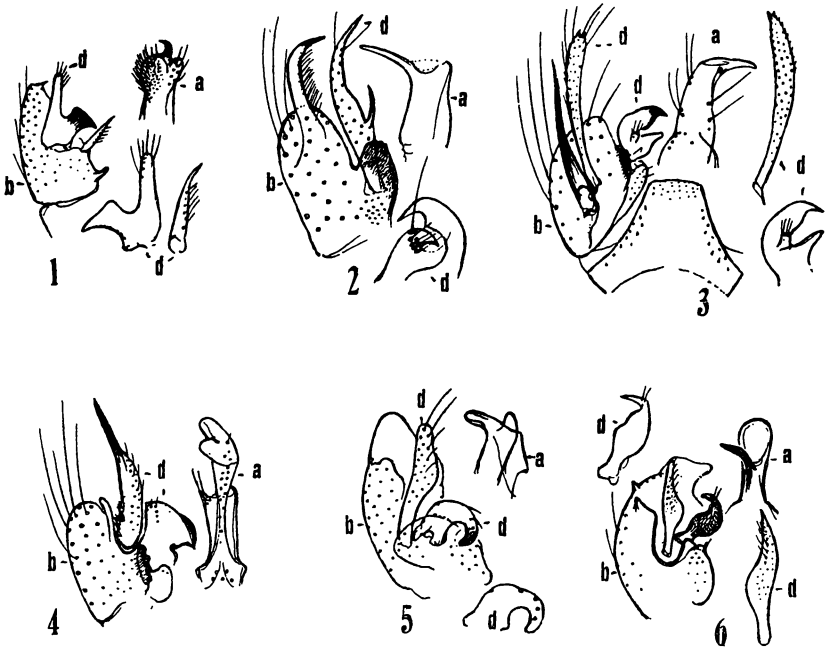


Fig. 1. *Teucholabis (Paratropesa) laneana*, sp. n. — Fig. 2. *Teucholabis (Teucholabis) amapana*, sp. n. — Fig. 3. *Teucholabis (Teucholabis) pleurolinea*, sp. n. — Fig. 4. *Teucholabis (Teucholabis) subgateata*, sp. n. — Fig. 5. *Teucholabis (Teucholabis) subpulchella*, sp. n. — Fig. 6. *Teucholabis (Teucholabis) pulchella* Alexander. — Male hypopygia. — (Symbols: a, aedeagus; b, basistyle; d, dististyles).

Pronotum dull yellow, narrowly darker along ventral edge. Mesonotal praescutum almost uniformly light to medium brown; scutal lobes darker, posterior angles obscure yellow; scutellum brownish yellow to light brown. Pleura obscure yellow, with a broad and conspicuous brown longitudinal stripe, extending from the cervical region to the base of abdomen, broadest on the mesepisternum; ventral pleurites yellow. Halteres dark brown. Legs with the coxae and trochanters yellow; femora obscure yellow, tips rather narrowly but conspicuously brownish black; tibiae brownish yellow, the tips more narrowly darkened; tarsi passing into black; dilated area on posterior basitarsus long and conspicuous, occupying about the proximal third of segment. Wings subhyaline to very faintly darkened; stigma small, oval, dark brown; veins brown. Venation: Sc relatively short, Sc_1 ending about opposite one-third the length of Rs , Sc_2 at or close to its tip; R_2 from one-third to one-half its length beyond the fork of Rs ; vein R_5 deflected very strongly caudad on outer third, ending beyond wing tip, cell R_4 at margin very extensive,

exceeding cell R_2 ; cell 1st M_2 longer than vein M_4 ; $m-cu$ beyond fork of M .

Abdominal tergites dark brown, sternites and hypopygium distinctly paler, obscure brownish yellow, most evident on the posterior borders of the segments. Setal groups on sternites five, six and seven. Male hypopygium (Fig. 3) with the outer appendage of basistyle, b , elongate, narrowed very gradually into a long black spine, without long hair fringes as in many related species; mesal flange black, very conspicuous, the margin crenulated. Two dististyles, d , the outer an elongated simple club, gradually dilated outwardly, the apex terminating in a long seta and a microscopic spine; inner style shaped about as figured, axillary tubercle provided with about six strong setae, mostly apical. Aedeagus, a , a powerful yellowed flattened structure, the apex decurved into a long spine, the setal arrangement as shown.

Holotype, male, Serra do Navio, Amapá, October 1957 (Lane). Paratopotype, male, September 25, 1957 (Lane).

Although the present fly is superficially much like *Teucholabis* (*Teucholabis*) *subgalatea* sp. n., with which it was associated, it is quite distinct in the structure of the male hypopygium, which is more like *T. (T.) parishiana* Alexander and a few allied forms.

12. *Teucholabis* (*Teucholabis*) *stygica* Alexander

Teucholabis stygica Alexander; Trans. Amer. Ent. Soc., 40 : 234, pl. 3, fig. 6 (wing); 1914.

Teucholabis (Teucholabis) stygica Alexander; Rev. de Ent., 17 : 381; 1946.

The type female was from Bartica, British Guiana, taken in February 1913 by the late H. S. Parish.

Amapá: Serra do Navio, October 1957 (Lane).

This specimen has lost the head with its distinctive elongate rostrum but I regard the determination as being correct.

13. *Teucholabis* (*Teucholabis*) *subgalatea*, sp. n.

General coloration of notum reddish brown, the thoracic pleura with a broad dark brown longitudinal stripe; rostrum long, about two-thirds the antennae; femora and tibiae obscure yellow, the tips narrowly darkened; wings subhyaline, stigma small, oval, brown; male hypopygium with the apical spine of basistyle very reduced; two dististyles; aedeagus elongate, at apex expanded into a bilobed hood.

Male. — Length about 5-5.2 mm; wing 4.8-5.2 mm.

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

Rostrum black, slightly longer than the remainder of head; palpi black. Antennae with basal segments black, flagellum dark brown; basal flagellar segments short-oval, the outer ones smaller, oval; antenna of male only about one-third longer than the rostrum. Head brown, the surface faintly pruinose, the orbits more conspicuously so.

Pronotum yellow. Mesonotal praescutum chiefly shiny reddish brown, without clearly defined pattern, the lateral borders more yellowed; posterior sclerites of notum reddish brown. Pleura with a broad and conspicuous dark brown longitudinal stripe extending from the propleura and cervical region to the abdomen, broadest on the mesepisternum; ventral pleurites obscure yellow; dorsopleural region pale. Halteres brown to dark brown. Legs with the coxae and trochanters obscure yellow; femora and tibiae obscure yellow, the tips narrowly dark brown; basitarsus brownish yellow on proximal portions, darker outwardly, remainder of tarsi black; posterior tarsi relatively short, basitarsus dilated and modified on proximal third in male. Wings subhyaline; stigma small, oval, brown; veins brown, those at base a trifle more yellowed. Venation: Sc long, Sc_1 ending opposite or shortly beyond midlength of Rs ; R_2 just beyond fork of Rs ; vein R_5 deflected to wing apex but cell R_2 fully twice as extensive as cell R_4 ; cell $1st M_2$ long, about twice vein M_4 .

Abdominal tergites dark brown, basal sternites obscure yellow; hypopygium obscure brownish yellow. Male hypopygium (Fig. 4) with the basistyle, b , obtuse at apex, virtually unarmed, the usual outer spine reduced to a very small pale blade that is scarcely evident; mesal flange low, its margin coarsely scalloped. Dististyles, d , subterminal; outer style a long rod, the basal two-thirds dilated and pale, with abundant coarse marginal setae, the basal margin with acute teeth, outer third of style narrowed into a strong blackened spine, its tip acute; inner style a large compressed blade, the beak more blackened, terminating in a small spine, outer apical angle paler, with a marginal row of about five strong spines. Aedeagus, a , distinctive, elongate, the outer part expanded at apex into a hood formed of two flattened blades presenting a bilobed appearance, the stem with strong setae; basal expanded part of aedeagus produced at lower ventral angle into a point, below which are two strong setae.

Holotype, male, Serra do Navio, Amapá, September 25, 1957

(Lane). Allotopotype, female, pinned with type. Paratopotypes, 10 males and females, September 25-October 1957 (Lane).

The closest relative of the present fly appears to be *Teucholabis* (*Teucholabis*) *galatea* Alexander, which has the aedeagus somewhat the same yet differing in all details.

14. *Teucholabis* (*Teucholabis*) *subpulchella*, sp. n.

Allied to *pulchella*; thorax orange, the praescutum entirely polished black; legs black, the bases of the fore and middle femora obscure yellow; wings whitened, with three brown crossbands, the narrow central one at cord darker; Sc_1 ending just beyond midlength of Rs ; male hypopygium with the basistyle terminating in a large glabrous lobe, without apical spine; outer dististyle broadest at near midlength, the apical part stout; aedeagus without setae.

Male. — Length about 6.5-7 mm; wing 6.5-7 mm.

Rostrum, palpi and antennae black; flagellar segments oval, with conspicuous verticils. Head black.

Pronotum orange. Mesonotal praescutum entirely and uniformly polished black, remainder of notum and the entire pleura orange. Halteres with stem dusky, knob black. Legs with the fore and middle coxae and trochanters orange, the posterior pair brownish black; remainder of legs black, the bases of the fore and middle femora broadly obscure yellow, including more than the proximal third, posterior femora uniformly black. Wings with the ground whitened, heavily crossbanded with brown to form three unequal areas, the central one at cord narrower and darker than the others; outer band including the wing tip, basally not quite reaching the outer end of cell *1st M*₂; inner band extending from the origin of Rs to the end of vein *2nd A*, slightly more widened at *Cu*; stigma, cord and outer end of cell *1st M*₂ darker; veins brownish black, still darker in the more intense areas. Venation: Sc long, Sc_1 ending just beyond midlength of Rs , Sc_2 slightly removed; R_2 about one-half its length beyond the fork of Rs ; veins R_4 and R_5 extending generally parallel to one another, cell R_4 at margin slightly more than one-third as extensive as cell R_2 ; cell *1st M*₂ widened outwardly, M_{3-4} subequal to or longer than M_4 ; *m-cu* at or just beyond the fork of M .

Abdomen, including hypopygium, polished black. Male hypopygium (fig. 5) generally as in *pulchella*, differing in several

details. Basistyle, *b*, compact, terminating in a large obtuse glabrous lobe; mesal or lower lobe similarly very large and obtuse, provided with setae; no marginal spines on basistyle. Dististyles, *d*, two; outer style broadest at near midlength, the outer half narrower but stout; inner style a simple strongly curved rod, basal half broad, thence gradually narrowed to the obtuse blackened tip, outer margin with four or five strong setae. Aedeagus, *a*, relatively small, the apical part weakly ridged or flanged; no setae on aedeagus.

Holotype, male, Serra do Navio, Amapá, September 25, 1957 (Lane). Paratopotype, male, October 1957 (Lane).

The closest ally is *Teucholabis (Teucholabis) pulchella* Alexander, which is discussed briefly below in comparison with the present fly.

Teucholabis (Teucholabis) pulchella (Psyche, 20 : 44, fig. *b* [venation], fig. 1 [♂ hypopygium, diagrammatic], 1913) was described from Pará, eastern Brazil. I am re-describing the characteristic male hypopygium and providing a figure (Fig. 6) for comparison with *subpulchella*.

Male hypopygium compact and massive. Basistyle, *b*, with the outer glabrous apical lobe much smaller; outer apical margin of style that surrounds the cavity containing the dististyles with two small but conspicuous spines; no conspicuous flaplike development of the mesal lobe. Two dististyles, *d*, shaped generally as in *subpulchella*; outer style with distal third more slender, inner style more acute at tip. Aedeagus, *a*, conspicuously produced beyond the spinous point, without setae.

15. *Molophilus (Eumolophilus) thaumastopodus* Alexander

Molophilus thaumastopodus Alexander; Proc. U. S. Nat. Mus., 44 : 510-511; 1913.

Molophilus (Eumolophilus) thaumastopodus Alexander; Rev. de Ent., 18 : 343-344; 1947.

The types were from Pará, eastern Brazil.

Amapá: Serra do Navio, October 23, 1957 (Lane).