JOURNAL

OF THE

New York Entomological Society

Vol.	LVI	September,	1948	No.	3
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RECORDS AND DESCRIPTIONS OF NEOPTROPICAL CRANE-FLIES (TIPULIDÆ, DIPTERA), XXIII

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The preceding part under this general title was published in this JOURNAL (vol. 55: 173–184; June 1947). The types of the novelties described herewith are preserved in my collection through the appreciated kindness of the various collectors. Two species are based on materials in the United States National Museum, sent to me for determination by Dr. Alan Stone.

Genus Austrolimnophila Alexander

Austrolimnophila (Austrolimnophila) bulbulifera, new species.

General coloration of thorax yellow, the pleura with a transverse brown girdle occupying the mesepisternum; femora obscure yellow, the tips narrowly blackened, remainder of legs brown, the tarsi extensively whitened; wings subhyaline, restrictedly patterned with brown; m-cu about three-fourths its length beyond the fork of M; male hypopygium with the median region of tergite produced into a narrow lobe, its tip shallowly emarginate; dististyle complex, the main body with long coarse nodulose setæ; face of style with a low blackened flange.

MALE.-Length about 11 mm.; wing 10 mm.; antenna about 1.9 mm.

Rostrum and palpi black. Antennæ short; scape and pedicel obscure yellow, flagellum black; flagellar segments subcylindrical to cylindrical, the longest verticils unilaterally arranged, much longer than the segments. Head brown.

Pronotum testaceous, paling to yellow on the sides and on the propleura. Mesonotal præscutum obscure yellow, the stripes not or scarcely indicated; lateral præscutal borders slightly darkened, representing the upper end of the pleural girdle described below; scutum and scutellum chiefly pale; mediotergite dark brown; pleurotergite yellow, its posterior border more darkened. Pleura pale yellow, with a narrow dark brown transverse girdle extending from the præscutum, as described, across the entire mesepisternum and sternum. Halteres elongate, stem obscure yellow, knob dark brown. Legs with the coxæ and trochanters pale yellow; femora obscure yellow, the tips narrowly blackened; tibiæ and proximal half (hind) to three-fourths (fore) of basitarsi medium brown, the remainder of basitarsi and segments two to four white, the terminal segment infuscated. Wings with the ground yellow on cephalic third, more gravish on posterior portions; a restricted brown pattern, including spots at origin of Rs, cord, outer end of cell 1st M_{2} , R_{2} and adjoining veins, fork of M_{1+2} , and near outer end of cell R_{3} ; a faintly indicated dusky wash in center of cell R; veins dark brown, conspicuous. Venation: Sc_1 ending shortly beyond the fork of R_{2+3+4} , Sc_2 a short distance from its tip; R_{2+3+4} about one-half longer than m-cu; R_{1+2} shorter than R_{2+3+4} ; anterior cord oblique, cell R_3 most proximad; petiole of cell M_1 about twice m; m-cu about three-fourths its own length beyond the fork of M.

Abdominal tergites dark brown, the caudal margins of the more basal segments narrowly yellow, the outer segments more uniformly darkened; hypopygium chiefly black; sternites bicolored, chiefly yellow, with a narrow blackened ring before midlength. Male hypopygium with the tergite produced caudad into a medium depressed-flattened lobe, its apex shallowly emarginate. Basistyle on mesal face near apex with a small tubercle tufted with long yellow setæ. Interbase a small curved yellow structure, the tip acute. Dististyle complex, the main body more or less triangular, extended into a long slender rostrum, the concave mesal face of style with several strong yellow setæ that are provided for most of their length with globular excrescences; on face of style a low blackened lobe or flange, its surface with dense microscopic setulæ.

Habitat.--Southeastern Brazil.

Holotype, S, Boracea, São Paulo, altitude 800 meters, August 1947 (John Lane).

Although generally similar to species such as Austrolimnophila (Austrolimnophila) candiditarsis Alexander, A. (A.) pallidistyla Alexander, and other regional forms, the type of structure of the male hypopygium is more as in the various species of the subgenus Limnophilella Alexander, as A. (L.) multipicta Alexander, all of which have the much retracted m-cu crossvein. I am deeply indebted to Dr. John Lane for many fine Tipulidae from São Paulo and Rio de Janeiro.

Genus Pseudolimnophila Alexander

Pseudolimnophila plutoides, new species.

Allied to pluto; size large (wing, male, over 9 mm.); general coloration

black, the præscutum and scutal lobes more reddish brown; legs and wings strongly blackened; R_{2*3+4} from two to three times as long as R_2 ; abdomen dark brown, the hypopygium more yellowish brown.

MALE.—Length about 9-10 mm.; wing 9-10 mm.; antenna about 1.5 mm. Rostrum and palpi black. Antennæ black, the pedicel a very little paler; flagellar segments passing through long-oval to subcylindrical, the verticils, especially of the outer segments, long and conspicuous. Head black; anterior vertex relatively broad, about two and one-half times the diameter of the scape.

Pronotum black. Mesonotal præscutum and scutal lobes dark reddish brown, virtually unpatterned; posterior sclerites of notum more brownish black. Pleura, including the dorsopleural membrane, blackened. Halteres infuscated. Legs with the coxæ brownish black; trochanters obscure yellow; remainder of legs dark brown, the femoral bases restrictedly obscure yellow. Wings with a strong blackish tinge, especially in the outer radial field; stigma and narrow seams over cord and outer cell 1st M_2 still darker brown; veins brown. Venation: Rs long, subequal to vein R_4 ; R_{2*3*4} from two to three times R_2 ; veins R_3 and R_4 extending generally parallel to one another, the former arched at near midlength, slightly widening the cell at this point; cell M_1 more than three times its petiole; m-cu at near two-fifths to three-fifths the length of cell 1st M_2 .

Abdomen dark brown, the hypopygium a trifle brighter, more yellowish brown. Male hypopygium with the ninth tergite bilobed, the lobes narrower than the U-shaped median notch. Outer dististyle with the entire mesal face densely covered with erect setæ. Gonapophyses small, bispinous.

Habitat .--- Peru.

Holotype, \mathcal{S} , Carpish, Huanuco, in dwarf fog forest, altitude 2800 meters (9100 feet), November 4, 1946 (Woytkowski). Paratopotype, \mathcal{S} , November 14, 1946.

The nearest ally of the present fly is *Pseudolimnophila pluto* Alexander, from the Tropical Zone of Amazonian Ecuador, a smaller and much paler fly. The male hypopygia of the two species are very similar and indicate a close relationship.

Genus Teucholabis Osten Sacken

Teucholabis (Euparatropesa) lætifica, new species.

Size small (wing, female, 5 mm.); allied to *lindneri*; head, pronotum and pleura orange; mesonotum shiny black, restrictedly patterned with yellow; femora yellow, the tips blackened, broadest on the fore femora; wings whitish subhyaline, restrictedly patterned with brown; dark areas at arculus and origin of Rs interconnected in the costal field; Sc_1 ending about opposite one-third the length of Rs; R_2 nearly twice R_{2+3+4} ; abdominal tergites dark brown, sternites obscure yellow.

FEMALE.-Length about 5 mm.; wing 5 mm.

Rostrum reddish yellow, shorter than remainder of head; palpi brown. Antennæ with scape and pedicel yellow, flagellum brown; flagellar segments oval, much shorter than the verticils. Head orange.

Pronotum orange. Mesonotum shiny black, restrictedly patterned with yellow, including the suture and most of the scutum, the lobes of the latter with polished black centers; humeral region of præscutum extensively yellow; pleurotergite black. Pleura uniformly orange yellow. Halteres with stem weakly darkened, knobs light yellow. Legs with all coxæ and trochanters orange or orange-yellow; femora yellow, the tips broadly black, on the fore legs including the outer three-fourths, on middle and hind legs about the distal fifth or sixth; fore tibiæ and tarsi black; middle and hind tibiæ dirty white, blackened at base and tip; middle basitarsi obscure yellow at proximal end, remainder of tarsi black. Wings whitish subhyaline, restrictedly patterned with brown; dark areas at arculus and origin of Rs, interconnected without a break in cells C and Sc, the latter area completely crossing the wing, widest in cell Cu; a narrower but darker band at cord, extending from C to Cu, deepest in color at the stigma, nearly parallel-sided; no darkening at wing-tip; veins brownish yellow, darker in the patterned areas. Venation: Sc1 ending about opposite one-third the length of Rs, Sc2 a short distance before the origin of the latter; B_2 nearly twice B_{2+3+4} or R_{1+2} ; cell R_3 small, vein R_4 subequal to R_{3+4} ; cell M_2 open by atrophy of basal section of M_3 , cell 2nd M_2 subequal in length to its petiole; m-cu about two-thirds its length beyond the fork of M; vein 2nd A nearly straight for most of its length. In lindneri, the darkened area at and beyond arculus and that at origin of Rs broadly interrupted in cells C and Sc; vein Sclonger, ending beyond one-third the length of Rs; R2 at fork of Rs; m-cu at or close to the fork of M.

Abdominal tergites dark brown, sternites obscure yellow; subterminal segment orange; genital shield extensively darkened. Ovipositor with the valves orange; cerci strongly upcurved.

Habitat.—Peru.

Holotype, Q, Yarinacocha, Loreto, near Pucallpa, on the Upper Ucayali River, altitude 180 meters (Schunke).

Teucholabis (Euparatropesa) lastifica is closest to T. (E.) lindneri Alexander, of the Bolivian Chaco (Konowia, 12: 42-44, figs. 1-2; 1933), differing in the coloration of the body, especially the mesonotum and pleura, and in the details of wing pattern and venation, as compared above.

Teucholabis (Teucholabis) atrolata, new species.

Antennæ dark brown throughout; anterior vertex black, elevated into a small tubercle; præscutum yellow, with three chestnut brown stripes, darker behind; scutellum broadly yellow behind; pleura brown, heavily pruinose with silvery; femora yellow, the tips and a medial band broadly blackened, mid-femur with the base similarly darkened; wings subhyaline, with three dark bands, the apical one narrow; costal fringe short; abdomen yellow, sternites two to six with broad black lateral areas; male hypopygium with the spine of the basistyle relatively large; strongly curved; outer dististyle long and slender, unequally bidentate at tip; inner dististyle conspicuously bifd, both arms terminating in points.

MALE.-Length about 9.5-10 mm.; wing 7.5-8 mm.

Rostrum obscure yellow medially above, dark brown on sides; palpi black. Antennæ dark brown; flagellar segments passing through oval, longoval to elongate-cylindrical, the verticils long and conspicuous. Front yellow; anterior vertex narrow, black, raised into a small tubercle near its anterior end; posterior vertex paler brown or yellowish brown.

Pronotum chiefly yellow, variegated with chestnut brown. Mesonotal præscutum with three chestnut brown stripes, paler in front, darker and almost contiguous behind, the humeral triangles yellow, lateral præscutal borders more obscure; median region of præscutum before suture and the central portion of scutum more grayish yellow; scutal lobes extensively darkened, almost black, their posterior portions yellow; scutellum broadly yellow behind, the base more testaceous yellow; mediotergite testaceous yellow, with almost the posterior half dark brown. Propleura chestnut; remainder of pleura darker brown, heavily silvery pruinose; mid-mesosternum narrowly yellow, the posterior thoracic sternites entirely yellow. Halteres yellow, knob brown, the apex paler. Legs with coxæ orange-yellow, the middle and posterior pairs more pruinose; trochanters chestnut-yellow; femora yellow, the tip broadly and conspicuously blackened; middle femora with a basal and a median dark ring, alternating with yellow annuli, the black tip a little narrower than the subterminal yellow ring; darkened basal annulus wider than the subbasal yellow one; hind femora similar but with the basal darkening less evident; tibiæ yellow, the tip narrowly to scarcely darkened; tarsi yellow, the outer two segments blackened. Wings subhyaline, trivittate with brown, including a broad complete band at cord, darkest at stigma; wing-tip narrowly darkened; subbasal band at level of origin of Rs and across vein 2nd A; veins yellow, darker in the patterned areas. Costal fringe short. Venation: Sc_1 ending about opposite midlength of Rs, Sc_2 at near one-fifth the length; R_2 slightly oblique, in cases weakly sinuous; m-cu about one-third to one-half its length beyond the fork of M.

Abdomen conspicuous hairy; tergites and hypopygium yellow; sternites yellow, segments two to six each with a conspicuous brownish black lateral darkening. Sternal pocket of segment five close to the posterior end of segment, more or less triangular in outline, the longest setæ at the sides; pocket of segment six consisting of six or seven strong curved setæ in a vertical row on either side, directed mesad. Male hypopygium with the apical spine of the basistyle relatively large, strongly curved, the apical third narrowed into a long straight spine; mesal flange coarsely and irregularly toothed. Outer dististyle long and slender, unequally bidentate at apex, the surface with long scattered sets. Inner dististyle conspicuously bifid, the larger beak terminating in a strong spine; lateral lobe terminating in a short conical point.

Habitat.-Panama (Canal Zone).

Holotype, \mathcal{S} , Barro Colorado Island, January—March 1944 (Zetek No. 5126); United States National Museum. Paratopotypes, 2 $\mathcal{S}\mathcal{S}$; one of these is much paler, including the leg pattern and may not prove conspecific.

The allied species include Teucholabis (Teucholabis) angustapicalis Alexander, T. (T.) catharinensis Alexander, T. (T.) melanocephala (Fabricius), T. (T.) neosalva Alexander, T. (T.) perangusta Alexander, and T. (T.) salva Alexander, all having the legs and wings banded and with the sternal pockets of the fifth and sixth abdominal segments of approximately the same type. The present fly differs in coloration of the body, legs and wings, especially the unusually heavy leg pattern. There are further differences in the male hypopygium, especially the basistyle and inner dististyle.

Teucholabis (Teucholabis) hypomela, new species.

Allied to *flavithorax*; size small (wing, female, 6 mm.); pronotum black; mesonotum and dorsal part of pleura orange, the ventral pleura and sternum black; legs with all coxæ and trochanters black; remainder of legs black, the basal two tarsal segments obscure yellow; wings with a strong brownish suffusion; Sc_1 ending about opposite three-fifths Rs; vein R_2 transverse, about one-half R_{2*3*4} ; ovipositor with the cerci yellow.

FEMALE.-Length about 6 mm.; wing 6 mm.

Rostrum and palpi black. Antennæ black throughout; basal flagellar segments subglobular, the outer ones more oval. Head black.

Pronotum black, the sides of the scutellum orange. Mesonotum orange, the cephalic third of the præscutum with a triangular black area. Propleura, sternopleurite, anepisterum and meral region black, the remainder of mesonotum and the pleurotergite orange. Halteres infuscated. Legs with all coxæ and trochanters blackened; femora and tibiæ black, the basal two tarsal segments obscure yellow, the outer tarsal segments black. Wings with a strong brownish suffusion, stigma a trifle darker; veins dark brown. Venation: Sc relatively long, Sc_1 ending about opposite three-fifths Rs, Sc_2 at near one-third the length; vein R_2 transverse, about one-half $R_{2:4:4}$ and longer than $R_{1:2}$; cell 1st M_2 slightly widened outwardly, m slightly longer and more arcuated than the basal section of M_s ; *m-cu* about one-half its length beyond the fork of M.

Abdomen black; cerci slender, yellow strongly upcurved.

Habitat.—Peru.

Holotype, \Im , Yahuarmayo, February 8, 1910 (C. H. T. Townsend); United States National Museum.

The most similar species are *Teucholabis* (*Teucholabis*) cuneiformis Alexander, T. (T.) dileuca Alexander, T. (T.) rufithorax (Wiedemann), T. (T.) rufula Alexander, and T. (T.) schineri Enderlein, occurring from Mexico to southeastern Brazil, all differing in details of coloration of the body and legs and in the venation. The black prothorax and narrowly blackened pleura and mesosternum, in conjunction with the small size, should be emphasized.

Teucholabis (Teucholabis) subargentea, new species.

Allied to *argentea*; general coloration polished black, the mesonotum variegated with yellow; pronotum pale yellow; pleura black, with a broad silvery white stripe; femora yellow, the tips of the fore pair blackened; wings yellowed, crossbanded with brown; sternal pockets of male strongly developed; male hypopygium with the inner dististyle very unequally bidentate, with two approximated sets on disk of style; ædeagus a moderately compressed blade, the lower edge with two long setse.

MALE.-Length about 6.5 mm.; wing 7-7.1 mm.

Rostrum orange; palpi black. Antennæ black throughout; flagellar segments passing through subglobular, short-oval to long-oval, the verticils longer than the segments. Head dull black.

Pronotum and pretergites pale yellow. Mesonotum polished black, the posterior portions of the scutal lobes, posterior border of scutellum and lateral margins of mediotergite obscure brownish yellow. Dorsal thoracic pleura chiefly polished black, the dorsopleural region yellow; a broad silvery white longitudinal stripe extending from behind the fore coxæ to base of abdomen, widened behind; ventral sternopleurite blackened, the remainder of venter pale. Halteres black, the apices of the knobs obscure yellow. Legs with the fore coxæ blackened the remaining coxæ yellow; trochanters yellow; femora yellow, the tips of the fore pair blackened, of the remaining femora scarcely darkened; fore and middle tibiæ and tarsi black; hind tibiæ obscure yellow, the tips narrowly blackened; tarsi black; posterior basitarsi dilated on about the proximal fourth. Wings with a weakly yellowed ground, the prearcular and costal fields more whitened; a medium brown crossbanded pattern, including a narrow band at cord, crossing the wing from the dark brown oval stigma to the posterior margin; wing tip broadly darkened, extending basad about to the level of the outer end of cell 1st M_2 , the posterior

margin of cell M_3 pale; a third band at one-third the wing length, extending from R to the anal margin at vein 2nd A; veins light brown, darker in the patterned areas. Venation: Sc_1 ending just beyond midlength of Rs, Sc_2 a moderate distance from its tip; R_2 about twice R_{2+3+4} ; branches of Rs extending generally parallel to one another, cell R_2 correspondingly wide at margin; cell R_4 slightly widened at basal third; m-cu close to fork of M.

Abdominal tergites dark brown, sternites paler; sternal pockets dark colored and conspicuous; hypopygium black. Sternal pocket of segment five large and conspicuous, with very numerous setæ; sternite six with a narrowly transverse oval area on posterior half; on anterior half of sternite with a vertical row of six or seven very long setæ that are directed mesad, the rows widely separated. Male hypopygium with the appendage of the basistyle subterminal in position, stout at base, the outer third narrowed into a straight spine; two darkened marginal lobes nearer mesal part of style. Outer dististyle a sinuous elongate rod that is gradually narrowed into a terminal spine, the surface with long coarse setæ from scabrous tubercles. Inner dististyle with beak very unequally bidentate, the outer spine elongate; two approximated elongate bristles on disk of style. Aedeagus a moderately compressed flattened blade, at apex produced into a blackened beak or spine; surface just back from tip with a few microscopic scabrous points; lower edge of aedeagus with two long setæ.

Habitat.—Southeastern Brazil.

Holotype, & Boracea, São Paulo, altitude 800 meters, August 1947 (John Lane). Paratopotypes, 4 d.

The most similar described species is the smaller *Teucholabis* (*Teucholabis*) argentea Alexander, which differs in the details of coloration and in the structure of the male hypopygium.

Teucholabis (Teucholabis) elissa, new species.

Allied to *laterospinosa*; mesonotum chiefly blackened, prothorax reddish yellow; rostrum reddish; halteres dusky, the knobs yellow; wings subhyaline on proximal half, very weakly infuscated beyond the cord; stigma dark brown, the cord narrowly seamed; apical lobe of basistyle of male hypopygium tumid, terminating in a straight spine; outer dististyle unequally bispinous at apex; surface of ædeagus with about 15 strong setæ.

MALE.—Length about 4.5-5 mm.; wing 4.8-5.5 mm.

Rostrum reddish; palpi brown. Antennæ with the scape and pedicel obscure yellow, flagellum brownish black; basal flagellar segments subglobular, the outer ones passing into oval; proximal segments abruptly narrowed into very short apical necks, producing a moniliform effect. Head reddish.

Prothorax reddish yellow. Mesonotum chiefly black, the humeral region of praescutum, suture, scutellum, and, in cases, about the cephalic fourth of the mediotergite reddish to yellow; pleurotergite black. Pleura reddish yellow, the ventral sternopleurite more infuscated; posterior pleurites somewhat brighter and more or less pruinose. Halteres dusky, knobs yellow. Legs with the coxæ and trochanters yellow; fore femora chiefly black, the basal fifth yellow; tibiæ dark brown, the tips and the tarsi black; middle and hind femora yellow; tibæ and basitarsi obscure yellow, the outer tarsal segments black; posterior tibiæ at near five-sixth the length with a slightly swollen glandular area. Wings subhyaline on proximal half, very weakly to scarcely infuscated beyond the cord; stigma short-oval, dark brown, sending a much narrower seam back over the cord; cell Sc above the arculus restrictedly darkened; veins brown. Venation: Sc short, Sc₁ ending just beyond origin of Rs, Sc_2 some distance before this origin; R_2 at or just beyond the fork of Rs; branches of Rs parallel to one another on about the basal half, R_5 thence bent strongly caudad to the wing tip, cell R_4 very wide at margin, greater than cell R_2 ; cell 1st M_2 closed; m-cu at or close to the fork of M.

Abdominal tergites and the hypopygium black; sternites weakly bicolored, black, the narrow apices yellow, the amount of pale color decreasing on the outer segments. Sternal pocket of segment five comprised of a transverse semicircular row of relatively short setæ; sternite six without a well-defined pocket. Male hypopygium with the apical lobe of basistyle a tumid structure that terminates abruptly in a straight spine; mesal flange of basistyle blackened but smooth. Outer dististyle a strong darkened club, gradually widened beyond the base, the apex truncate, the outer angle thence produced into a strong spine that is about one-half the length of the base, the inner apical angle with a much smaller spine; inner margin of basal part of style with a series of strong serrations or spines. Inner dististyle with the apex unequally bifid, the lower arm or flange with marginal microscopic serrulations; a strong basal lobe bearing three very long setæ. Ædeagus conspicuously compressed into an obtuse blade, the apical part a low darkened knob; surface of ædeagus with about 15 strong setæ.

Habitat.-Peru.

Holotype, S, Chanchamayo, Junin, altitude 1300 meters, February 10, 1941 (Schunke). Paratopotypes, 5 SS, August 15, 1941–February 10, 1942 (Schunke).

The most similar species include *Teucholabis* (*Teucholabis*) laterospinosa Alexander and T. (T.) tullochi Alexander, which differ in the details of coloration and structure of the male hypopygium.

Genus Gnophomyia Osten Sacken

Gnophomyia (Eugnophomyia) glabripennis, new species.

Size large (wing, male, over 8 mm.); general coloration of body, antennæ, halteres and legs black; wings with a strong blackish ground, the centers of most of the cells more whitened to produce a streaked appearance; cells of wings glabrous; male hypopygium with the dististyle elongate, its tip narrowly obtuse, the lower surface with abundant very long black setæ; on outer face of style at base with a small obtuse lobe; ædeagus strongly recurved at midlength.

MALE.-Length about 7.5 mm.; wing 8.3 mm.

Rostrum and palpi black. Antennæ black throughout; flagellar segments subcylindrical; terminal segment much larger than the penultimate. Head dull black.

Thorax uniformly dull black. Halteres and legs black. Wings with a strong blackish ground, the centers of most of the cells beyond wing base whitened to produce a streaked appearance; veins brownish black. Cells of wing without macrotrichia. Venation: Sc_1 ending a short distance before level of fork of Rs, Sc_1 alone longer than r-m; Rs long; vein R_2 oblique, its cephalic end entire to subatrophied and lying more basad than the posterior portion; cell 1st M_2 a little shorter than vein M_4 ; m-cu at near one-third the length of cell 1st M_2 or about one-half its length beyond the fork of M; vein 2nd A sinuous.

Abdomen, including hypopygium, black. Male hypopygium generally as in the subgenus; apex of basistyle produced beyond the point of insertion of the dististyle into an elongate conical point, the tip subacute. Dististyle a little longer and larger than the apex of the basistyle, its tip narrowly obtuse; lower surface with abundant very long black setæ; on outer face at base with a small obtuse lobe. Ædeagus strongly recurved at midlength, the basal part more expanded.

Habitat .--- Peru.

Holotype, S, Chanchamayo, Junin, altitude 1350 meters, March 10, 1941 (Schunke).

Gnophomyia (Eugnophomyia) glabripennis is readily told from all other regional species by the glabrous wings. All other species have numerous macrotrichia in the outer cells. In general appearance, the present fly is most like Gnophomyia (Eugnophomyia) funerea Alexander, from which it is further distinguished by the streaked wings and the structure of the male hypopygium.

Genus Gonomyia Meigen

Gonomyia (Gonomyia) subunicolor, new species.

Allied to unicolor; general coloration of mesonotal prescutum and scutum dark brown, the posterior sclerites of the notum more yellowed; antennæ black, the proximal half of scape yellow; legs blackened; wings with a weak brownish tinge; Sc_1 ending a short distance beyond origin of Rs; R_{2+3+4} long; cell 1st M_2 closed; male hypopygium having much the structure of

unicolor but the gonapophyses very reduced, appearing as small flattened black blades.

MALE.-Length about 4 mm.; wing 4.5 mm.

Rostrum narrowly yellow basally, the palpi and mouthparts black. Antennæ with the proximal half of scape yellow, the remainder of organ black; flagellar segments long-oval, with elongate verticils. Head dark gray.

Pronotum yellowish brown. Mesonotal præsutum and scutum chiefly dark brown, the sides paler; scutellum and postnotum more yellowed. Pleura yellow; the propleura and mesepisternum more infuscated. Halteres brownish black. Legs with the coxæ yellow, the fore pair slightly more darkened; trochanters infuscated; remainder of legs blackened. Wings with a weak brownish tinge, the long-oval stigma slightly darker brown; veins dark brown. Venation: Sc_1 ending a short distance beyond origin of Rs, Sc_2 opposite this origin; Rs in direct alignment with R_5 , the usual basal deflection of the latter lacking; R_{2*3*4} long, nearly twice vein R_3 ; cell 1st M_2 rectangular with m-cu at near one-third the length.

Abdomen with tergites brown, the sternites more yellowed; hypopygium brownish yellow. Male hypopygium with the styli much as in *unicolor* and with the phallosome much as in this species but differing in an important regard, the length and shape of the gonapophyses; in the present fly these appear as small flattened black blades that extend caudad only to the level of the apices of the lateral plates of the phallosome; in *unicolor* the apophyses appear as long blackened rods, much exceeding the ædeagus in length, the tips acutely pointed. The outer portion of the phallosome, presumed to be the ædeagus, shows two narrow blackened lines or sclerotized strips.

Habitat.--Panama.

Holotype, S, Cerro Pena, near El Valle, November 1946 (Noël L. H. Krauss).

The present fly is undoubtedly close to *Gonomyia* (*Gonomyia*) unicolor Alexander (Mexico, Salvador, Guatemala) but differs in the important genitalic character discussed above.

Gonomyia (Lipophleps) spiniterga, new species.

Size large (wing, male, over 5 mm.); mesonotum dark brown, the posterior border of scutellum broadly yellow; pleura with a whitish stripe; legs dark brown; wings with a strong dusky tinge; Sc short, Sc_1 ending some distance before origin of Rs; male hypopygium with the tergite provided with conspicuous blackened spinous setæ; dististyle single, terminal in position, bilobed.

MALE.-Length about 5 mm.; wing 5.2 mm.

Rostrum orange; palpi black. Antennæ relatively long, blackened; flagellar segments elongate, especially the outer ones; verticils of the more proximal segments very long. Head above chiefly dark colored. Pronotum and pretergites light yellow. Mesonotum dark brown, the surface pruinose, more heavily so behind; scutellum with posterior border broadly yellow. Pleura black, heavily pruinose, with a broad more whitish longitudinal stripe extending from behind the fore coxe to the base of abdomen, slightly widened behind. Halteres with stem pale, knob dusky. Legs with the coxe yellow, more or less darkened basally, the surface pruinose; trochanters dusky; remainder of legs dark brown. Wings with a strong dusky tinge, the prearcular and costal fields more whitened; stigma very slightly darker, very diffuse; veins brown, paler in the brightened portions. Venation: Sc short, Sc_1 ending a distance before origin of Rs only a little less than the length of the latter; anterior branch of Rs curved strongly cephalad, nearly parallel to R_{1+2} ; cell 1st M_2 closed.

Abdominal tergites brown; sternites obscure yellow. Male hypopygium with the tergite conspicuously armed with blackened spinous setæ, including a marginal row of six or seven on either side, the more basal ones larger and stouter. Basistyle elongate, slender. Dististyle single, terminal in position, bilobed, the outer lobe a sinuous rod that terminates in a blackened spine, the inner lobe fleshy, tipped with a single very strong fasciculate bristle; a few other setæ on this lobe. Phallosome consisting essentially of a single long straight spine, the tip blackened and acute; at base of spine more dilated and with two smaller pale acute points.

Habitat.—Southeastern Brazil.

Holotype, 3, Boracea, São Paulo, altitude 800 meters, August 1947 (John Lane).

In the strongly developed spinous armature of the tergite of the male hypopygium, the present fly agrees most closely with *Gonomyia* (*Lipophleps*) ctenophora Alexander and G. (L.) juquiana Alexander, differing in the large size and in all details of structure of the male hypopygium.