

## Records and descriptions of Brazilian Tipulidae (Dipt.). Part IX

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(With 14 figures)

The new and interesting species of crane-flies described at this time were collected in Espirito Santo, Rio de Janeiro and the Federal District by Mr. Lério Gomes; in Rio de Janeiro by P. Thomas Borgmeier; and in São Paulo by Messrs. John Lane and Lauro Travassos Filho. Except where indicated to the contrary the types of the new species are preserved in my collection of the World Tipulidae.

### Records of distribution

*Brachypremna pictipes* Osten Sacken. — Neu Bremen, Rio Laess, Santa Catharina, November 6, 1936 (F. Hoffmann).

*Limonia (Limonia) praeclara* Alexander. — Nova Teutonia, Santa

Catharina, August 27, 1938 (Plaumann).

*Limonia (Rhipidia) domestica* (Osten Sacken). — Neu Bremen, Santa Catharina, November 6, 1936 (F. Hoffmann).

*Limonia (Rhipidia) longurio* Alexander. — Neu Bremen, November 6, 1936 (F. Hoffmann).

*Limonia (Rhipidia) ocellana* Alexander. — one broken, male, Alto Itatiaya, Rio de Janeiro, March 1941 (Lério Gomes); presumably not from the higher altitudes of the mountain.

*Limonia (Geranomyia) infamosa* Alexander. — One male, Alto Itatiaya, Rio de Janeiro, March 1941 (Lério Gomes), likewise not believed to represent the true temperate zone fauna of the mountain.

*Limonia (Geranomyia) tibialis* (Loew). — Neu Bremen, November 6, 1936 (F. Hoffmann).

*Epiphragma (Epiphragma) imitans* Alexander. — Neu Bremen, November 6, 1936; Nova Teutonia, June 12, 1939 (Plaumann).

*Gynoplistia (Paralimnophila) conspersa* (Enderlein). — Neu Bremen, November 6, 1936 (F. Hoffmann); Nova Teutonia, June 22, 1936; July 31, 1938; Sept. 10, 1939 (Plaumann).

*Trentepohlia (Neomongoma) disjuncta* Alexander. — Therezopolis, Rio de Janeiro, 1940 (E. Freitas); through Souza Lopes.

*Gonomyia (Lipophleps) condensa* Alexander. — Nova Teutonia, June 20, 1939 (Plaumann).

*Gymnastes (Paragymnastes) perexquisita* Alexander. — Nova Teutonia, September 1-13, 1939 (Plaumann).

## Descriptions of new species

### *Brachypremna sappho*, sp. n.

General coloration dark brown and yellow; mesonotal praescutum with four conspicuous dark brown stripes; femora pale brown, the tips abruptly yellow, preceded by a narrow blackened ring; tibiae black, outwardly paling through brown to yellow; tarsi yellow; wings with the ground color cream yellow, handsomely patterned with pale brown, including seams along veins beyond cord and with extensive clouds in the basal cells; abdominal tergites dark brown, the bases of the intermediate segments narrowly ringed with yellow; sternites yellow, the posterior borders narrowly darkened; hypopygium yellow.

Male. — Length, about 13-15 mm.; wing, 18-21 mm.

Female. — Length, about 15-16 mm.; wing, 15-16 mm.

Frontal prolongation of head obscure yellow; nasus elongate, black; palpi yellow, the terminal segment chiefly blackened. Antennae with scape and pedicel yellow, flagellum black; segments rapidly decreasing in length and size outwardly. Head dark brown; anterior vertex narrow, only a little wider than the diameter of the scape.

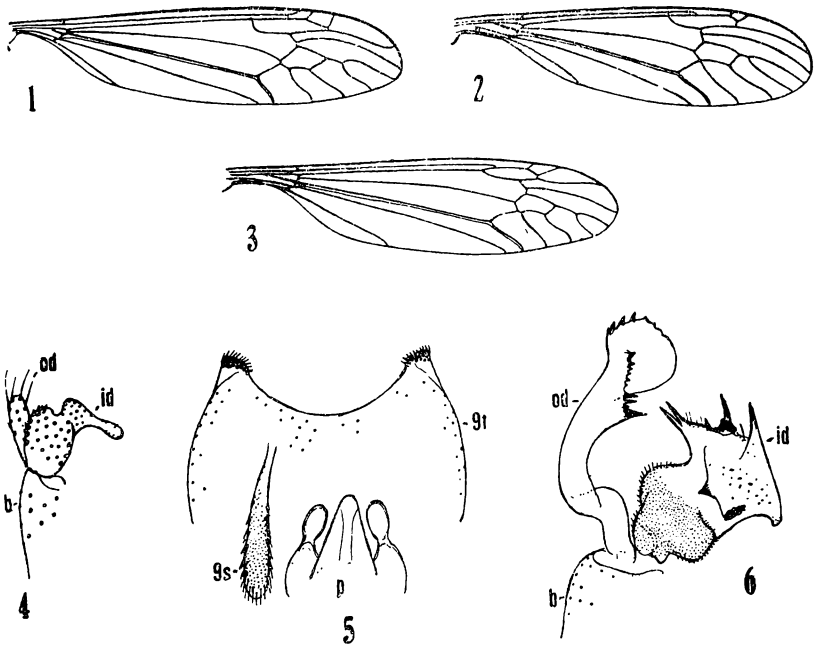


Fig. 1. *Brachyremna sappho*, sp. n.; venation. — Fig. 2. *Macromastix (Macromastix) tijucana*, sp. n.; venation. — Fig. 3. *Tipula tijucensis*, sp. n.; venation. — Fig. 4. *Macromastix (Macromastix) tijucana*, sp. n. male hypopygium. — Fig. 5. *Tipula tijucensis*, sp. n.; male hypopygium, details. — Fig. 6. *Tipula tijucensis*, sp. n.; male hypopygium, details. — (Symbols: *b*, basistyle; *id*, inner dististyle; *od*, outer dististyle; *p*, phallosome; *s*, sternite. *t*, tergite).

Pronotum brown. Mesonotal praescutum obscure brownish yellow, the color almost obliterated by four conspicuous dark brown stripes; scutal lobes dark brown, the median area paler; scutellum broadly dark brown medially, the sides obscure yellow, parascutella more uniformly darkened; mediotergite brownish black, with a conspicuous pale longitudinal stripe on either side of the broader dark central area; pleurotergite chiefly pale. Pleura obscure yellow, conspicuously striped longitudinally with dark brown and black to produce an irregular pattern. Halteres with stem yellow, knob blackened. Legs with the coxae darkened basally, the tips pale; trochanters yellow; femora pale brown or yellowish brown, slightly lighter basally, the tips narrowly but abruptly yellow, preceded by a narrow blackened ring; extreme bases of tibiae pale, the remainder black, outwardly paling to brown and eventually to obscure yellow at extreme tips; tarsi pale yellow. Wings (Fig. 1) with the ground color cream-yellow, handsomely patterned with pale brown, including seams along all veins beyond cord, especially broad and conspicuous at *m-cu*; basad of cord, the distal end of cell *R* darkened, sending a

suffusion caudad across cell *M* at near midlength; Anal cells darkened, the narrow cell *2nd A* heavily and uniformly so except at base; cell *Cu* pale except along vein *1st A*; stigma uniformly dark brown, its center unbroken; extreme tips of veins *M*<sub>2</sub> to *M*<sub>4</sub> inclusive abruptly whitened; rather conspicuous creamy areas before and beyond stigma; cell *C* pale yellow, *Sc* more deeply so; veins brown, *Sc* and *R* more yellow. Venation: *Rs* of moderate length, strongly arcuated at origin; cell *M*<sub>1</sub> petiolate to narrowly sessile; cell *2nd A* moderately wide.

Abdominal tergites dark brown, the second segment broadly ringed with yellow at near midlength, the succeeding two or three segments with bases more narrowly pale; outer tergites uniformly blackened; hypopygium yellow; sternites colored generally as are the tergites but the pale bases much more extensive, exceeding the darkened tips; no darkened median dashes on sternites as common in other species of the genus. Male hypopygium with the dististyle very long and slender, slightly expanded at distal end.

Hab. Brazil (Espírito Santo).

Holotype, male, São João Petropolis, October 1940 (L é r i o G o m e s). Allotopotype, female. Paratopotypes, 12 males and females.

*Brachypremna sappho* is entirely different from the other known species of the genus, differing most evidently in the handsome pattern of the wings. By existing keys to the genus it runs to *B. candida* Alexander, a very different fly.

*Macromastix (Macromastix) tijucana*, sp. n.

Size small (wing up to 10 mm.); general coloration of mesonotal praescutum obscure yellow to buffy, with feebly indicated darker stripes, the lateral praescutal margin and posterior sclerites of the mesonotum darkened; antennae very short in both sexes, the outer flagellar segments with long conspicuous verticils; basal antennal segments yellow, the outer ones black; wings with a strong brownish tinge, stigma darker; abdominal tergites yellow, bordered laterally and caudally with black; hypopygium and ovipositor yellow.

M a l e. — Length, about 7-8 mm.; wing, 9-10 mm.; antenna, 0.7-0.8 mm.

F e m a l e. — Length, about 8.5-9 mm.; wing, 9.5-10 mm.

Frontal prolongation of head light yellow; palpi short, black. Antennae 12-segmented, very small; basal four segments yellow, the remaining flagellar segments black; basal segment of flagellum

elongate, subequal to the next two combined and stout; succeeding segments passing through oval to elongate, the outer segments irregularly cylindrical; verticils of outer segments very long and conspicuous. Head orange; anterior vertex wide; vertical tubercle low and simple.

Pronotum pale brown. Mesonotal praescutum obscure yellow to buffy, with four indistinct and ill-delimited, slightly darker stripes, in cases scarcely differentiated from the ground; lateral praescutal borders and dorso-pleural membrane more darkened; setae of the praescutal interspaces sparse but relatively long and delicate; posterior sclerites of notum more strongly infuscated to dark brown, the mediotergite paler on posterior two-thirds. Pleura and pleurotergite yellow. Halteres infuscated, the base of stem yellow. Legs with coxae and trochanters yellow; femora obscure yellow, the tips very narrowly blackened, the amount subequal on all legs; tibiae and tarsi passing through brown to black. Wings (Fig. 2) with a strong brownish tinge, the prearcular and costal fields somewhat more yellow; stigma long-oval, somewhat darker brown; veins dark brown. Venation:  $R_s$  relatively long, arcuated;  $R_{1-2}$  oblique, entire or with the extreme tip atrophied;  $R_3$  approximately twice  $R_{2-3}$ ; cell *1st*  $M_2$  large; petiole of cell  $M_1$  usually short, subequal to  $m$  or less; cell *2nd*  $A$  relatively narrow.

Abdominal tergites yellow, the lateral borders broadly and conspicuously blackened, the caudal margins of the basal and intermediate tergites less conspicuously so, least evident on fourth segment; segments seven and eight more uniformly and extensively blackened; sternites and hypopygium yellow. Ovipositor with valves short and fleshy, especially the cerci. Male hypopygium (Fig. 4) small and of simple construction; outer dististyle, *od*, small and fleshy, entirely pale, with long coarse setae. Inner dististyle, *id*, of irregular conformation, the rostrum long and pale, constricted at near midlength; outer portion of basal enlargement with 9 to 11 small black spinous points.

Hab. Brazil (Rio de Janeiro).

Holotype, male, Pico da Tijuca, altitude 1018 meters, November 1940 (L é r i o G o m e s). Allotopotype, female, pinned with type. Paratopotypes, 18 males and females, with the types.

The species that is most similar to the present fly is the Chilean *Macromastix* (*Macromastix*) *serotinella* Alexander, which is distinguished by its slightly patterned wings, different body coloration, and very distinct male hypopygium.

*Tipula tijucensis*, sp. n.

Allied to *gutticellula*; mesonotum almost uniformly pale brown, the praescutum unpatterned; wings with disk strongly suffused with brown, the outer medial cells with central darkenings; male hypopygium with the lateral tergal lobes small and narrow, the median emargination correspondingly wide; both dististyles provided with spinous points.

Male. — Length, about 11 mm. wing, 12 mm.; antenna, about 6 mm.

Frontal prolongation of head brown; nasus short but distinct; palpi brownish black. Antennae (male) elongate, one-half the length of wing; scape and pedicel obscure yellow; first flagellar segment yellow on more than basal half, the remainder, with the exception of the apex, blackened; succeeding segments black, the extreme tips of the more proximal segments restrictedly pale; flagellar segments gently incised; verticils shorter than the segments. Head brown, the front and orbits gray; vertical tubercle scarcely developed.

Pronotum pale buffy brown. Mesonotum almost uniformly pale brown, the praescutum without markings; scutal lobes and scutellum slightly more darkened and weakly pruinose; praescutal interspaces with small scattered black setae; scutellum and mediotergite with longer, more conspicuous, pale setae. Pleura obscure yellow, unpatterned. Halteres with stem pale, knob dark brown. Legs with coxae and trochanters yellow; femora obscure yellow; tibiae obscure yellow, the tips narrowly but conspicuously black; tarsi black, the proximal ends of basitarsi a little brightened. Wings (Fig. 3) with the disk strongly suffused with brown, the axillary region and medial field slightly clearer; costal border strongly darkened, including prearcular field and cells *C*, *Sc* and more than the proximal half of *R*; cells at wing-tip in outer radial and medial fields extensively darkened; central portions of cells *R*<sub>5</sub>, *M*<sub>1</sub>, 1st *M*<sub>2</sub>, 2nd *M*<sub>2</sub>, *M*<sub>3</sub> and *M*<sub>4</sub> with conspicuously darkened areas; a similar small dark mark near outer end of cell *M*; veins brown. Venation: *R*<sub>1-2</sub> persistent to subatrophied; *m-cu* a short distance before fork of *M*<sub>3-4</sub>; cell 2nd *A* relatively wide.

Abdominal tergites pale brown, the lateral portions conspicuously blackened; a black subterminal ring; basal sternites and the hypopygium yellow. Male hypopygium (Figs. 5, 6) with the lateral lobes of tergite, *9t*, relatively small and narrow, the median emargination correspondingly wide. Dististyles *id*, *od*, as figured, both provided with blackened points.

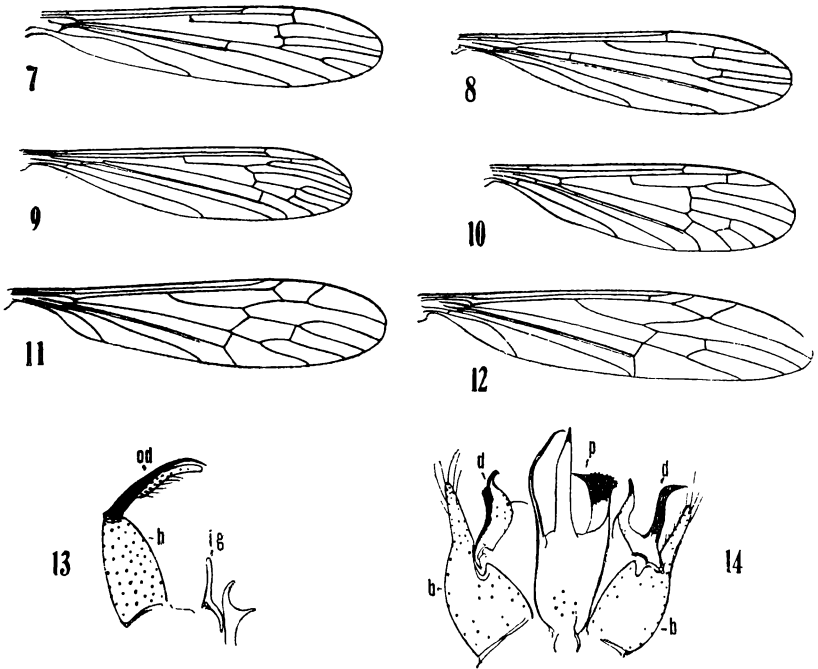


Fig. 7 *Orimarga (Orimarga) tinguana*, sp. n.; venation. — Fig. 8. *Orimarga (Diotrepha) travassosi*, sp. n.; venation. — Fig. 9. *Austrolimnophila (Austrolimnophila) microspilota*, sp. n.; venation. — Fig. 10. *Ctenolimnophila (Campbellomyia) paulistae*, sp. n.; venation. — Fig. 11. *Trentepohlia (Neomongoma) sordidipennis*, sp. n.; venation. — Fig. 12. *Trentepohlia (Paramongoma) neogama*, sp. n.; venation. — Fig. 13. *Orimarga (Diotrepha) travassosi*, sp. n.; male hypopygium. — Fig. 14. *Gonomyia (Lipophleps) carrerai*, sp. n.; male hypopygium. — (Symbols: b, basistyle; d, dististyles; ig, inner gonapophysis; od, outer dististyle; p, phallosome).

Hab. Brazil (Rio de Janeiro).

Holotype, male, Pico da Tijuca, altitude 1018 meters, November 1940 (L é r i o G o m e s).

*Tipula tijucensis* is allied to *T gutticellula* Alexander, which still is known only from the female sex. In the present species, the ground color of the wings is much darker, especially in cell *R*; the area of the darkened streaks in the centers of the outer medial cells mors extensive; and the venational details quite different, as the shorter *Rs* and much longer and more oblique *m-cu*. It is probable that several species having this peculiar type of wing-pattern occur in Brazil since other, still undescribed forms, are known to me.

*Orimarga (Orimarga) tinguana*, sp. n.

General coloration of mesonotum almost uniformly light gray; antennal flagellum light brown or yellowish brown; legs pale yellow, the terminal tarsal segments darkened; wings with a weak brown tinge, sparsely spotted with dark brown; basal section of *R*<sub>4-5</sub> angulated and spurred; *m-cu* about in alignment with *Sc*<sub>2</sub>; vein *2nd A* strongly sinuous on distal half, narrowing the cell.

F e m a l e. — Length, about 7 mm.; wing, 5.5 mm.

Rostrum black, gray pruinose; palpi black. Antennae light brown or yellowish brown; flagellar segments oval. Head gray; anterior vertex of moderate width, about twice the diameter of scape.

Mesonotum almost uniformly light gray to ashy gray, the praescutum without clearly defined stripes. Pleura not visible in the unique type, due to faulty mounting. Halteres with a dusky tinge. Legs pale yellow, the terminal three tarsal segments and the extreme tips of proximal two segments dark brown. Wings (Fig. 7) with a weak brown tinge, especially evident in the outer radial field; wing-base and costal field a little more brightened; conspicuous small brown spots at origin of  $R_s$ ; fork of  $Sc$ ; in cell  $Sc$  shortly before mid-distance between the two latter areas, this mark present on one wing of the unique type only and evidently not constant;  $R_{1-2}$  and  $R_2$ ; anterior cord;  $m-cu$  and fork of  $M_{3-4}$ ; veins pale brown, distal section of  $M_{1-2}$  even paler; veins dark brown where traversing the darker spots. Macrotrichia of veins relatively sparse, entirely lacking on  $R_s$  and its anterior branch; a strong series over most of the length of distal section of  $R_{4-5}$ ; restricted series of trichia at outer ends of veins  $M_{1-2}$  and  $M_3$ ; no trichia on veins  $M_1$ ,  $M_{3-4}$ ,  $M_4$  or  $Cu$ . Venation:  $Sc_2$  at tip of  $Sc_1$ , about opposite two-thirds the length of  $R_s$ , the latter angulated and spurred at origin;  $R_s$  elongate, exceeding vein  $R_3$ ; basal section of  $R_{4-5}$  angulated and with a long spur jutting basad into cell  $M$ ; cell  $R_5$  narrowed at margin; petiole of cell  $M_3$  subequal to cell;  $m-cu$  almost in transverse alignment with  $Sc_2$ ; cell  $2nd A$  wide, especially on basal half, the distal half of veins sinuous.

Abdomen elongate, light brown to yellowish brown, the caudal margins of the segments vaguely darker; terminal segments uniformly brownish black; ovipositor with cerci black at base, the very small, slender valves upcurved to the needle-like points; hypovalvae straight.

Hab. Brazil (Rio, D. F.).

Holotype, female, Tinguá, March 1940 (L é r i o G o m e s).

*Orimarga (Orimarga) tinguana* is most closely allied to *O. (O.) bahiana* Alexander, of eastern Brazil, which has the wings somewhat similarly spotted. The two species differ especially in the details of venation, in the present insect the angulated and spurred basal section of  $R_{4-5}$  and the sinuous outer end of vein  $2nd A$  providing noteworthy characters.



*Orimarga (Diotrepha) travassosi*, sp. n.

General coloration of body brownish black, unpatterned; antennal flagellum pale; halteres dark brown; legs pale yellow; wings with an unusually strong blackish tinge, the base, narrow costal border and outer radial field more heavily blackened;  $Sc_2$  at extreme tip of  $Sc_1$ ;  $Rs$  long, gently arcuated at origin;  $R_{1-2}$  very long, from three to five times  $R_{2-3}$  alone;  $m-cu$  at near one-fourth the length of cell  $M$ ; male hypopygium with slender gonapophyses.

Male. — Length, about 6.5 mm. wing, 4.5 mm.

Female. — Length, about 7 mm. wing, 5.6 mm.

Rostrum and plapi black. Antennae with scape black, flagellum pale brownish yellow; flagellar segments oval; verticils shorter than the segments. Head black.

Cervical sclerites and pronotum black. Mesonotum and pleura dark brownish black, unpatterned. Halteres dark brown. Legs with the coxae brownish black, the middle and hind pairs paler at tips; trochanters obscure yellow; remainder of legs uniformly pale yellow. Wings (Fig. 8) with an unusually strong blackish tinge, the base, narrow costal border and distal portion of outer radial field even more darkened; conspicuous pale streaks in outer end of cell  $R_5$  and in cell  $R$  adjoining vein  $M$ ; veins brown. Macrotrichia on distal portions of veins  $R_{1-2}$  to  $M_3$ , inclusive. Venation:  $Sc_2$  at extreme tip of  $Sc_1$  or even slightly beyond; free tip of  $Sc_2$  opposite fork of  $Rs$ ;  $R_{1-2}$  elongate, exceeding the distance between the tip of  $Sc_1$  and  $R_2$  or from three to five times  $R_{2-3}$  alone;  $R_{4-5}$  longer than  $R_{2-3}$ , arcuated at origin;  $m-cu$  faint, lying far basad at near one-fourth the length of cell  $M$ .

Abdomen black throughout in the male, in the female the small cerci and conspicuous hypovalvae more brownish horn-color. Male hypopygium (Fig. 13) with the dististyles, *od*, slender; basistyle, *b*, unarmed on mesal face. Inner gonapophyses, *ig*, slender.

Hab. Brazil (São Paulo).

Holotype, male, Juquiá, altitude 40 meters, April 7, 1940 (L. Travassos); through Messias Carrera. Allotopotype, female.

I take great pleasure in naming this fly in honor of the collector, Mr. Lauro Travassos Filho, who has collected many interesting Tipulidae in various parts of São Paulo. The species is closest to *O. (D.) myersiana* (Alexander), of British Guiana, which differs in the relatively shorter and broader wings with the venational details distinct, such as

the position of  $Sc_2$  some distance back from the tip of  $Sc_1$  and the shorter, more angulated  $Rs$ . In *myersiana* the macrostichia of the veins are restricted to short series at the distal ends of veins  $R_{4-5}$  and  $M_{1-2}$ .

*Austrolimnophila (Austrolimnophila) microspilota*,  
sp. n.

Size relatively small (wing, female, 10 mm.); mesonotal praescutum obscure buffy yellow, with a blackened triangle on cephalic third; scutum uniformly darkened; halteres long and slender, stem yellow, knob darkened; legs yellow, the femoral tips rather broadly and abruptly blackened; extreme tibial bases darkened; wings white, heavily blotched and spotted with dark brown; cell  $M_1$  short-petiolate; abdominal tergites dark brown, the lateral and posterior borders narrowly pale; sternites obscure yellow; genital segment (female) more or less blackened.

F e m a l e. — Length, about 10 mm.; wing, 10 mm.

Rostrum short, brownish black; palpi black. Antennae relatively short; scape black, pedicel and flagellum uniformly pale yellow; flagellar segments long-oval to cylindrical, with conspicuous verticils, the longest unilaterally distributed. Head brownish black, sparsely pruinose; anterior vertex reduced to a narrow line that is only about one-third the diameter of the scape.

Pronotum black, paler laterally. Mesonotal praescutum obscure buffy yellow, the cephalic third with a median blackened triangle, the point directed behind; scutum conspicuously and abruptly brownish black, including the median area; scutellum and mediotergite brownish testaceous, the latter darkened posteriorly and laterally. Pleura chiefly brownish black, involving almost the entire mesopleura; propleura and meron paler; pleurotergite brownish testaceous, narrowly margined with darker. Halteres long and slender, stem yellow, knob darkened. Legs with the coxae and trochanters yellow; femora yellow, the tips rather broadly and abruptly black; tibiae yellow, the extreme bases blackened; tarsi yellow. Wings (Fig. 9) with the ground color white, heavily blotched and spotted with dark brown, several of the areas more or less confluent to form larger marks, especially at origin of  $Rs$ , cord and in the stigmal field; center of cell  $1st M_2$  and that portion of cell  $R_5$  above it more nearly free of dark markings; veins obscure yellow, darker in the patterned areas. Venation:  $Rs$  long, angulated at origin;  $R_{2-3-4}$  about one-third  $Rs$ ;  $R_2$  some distance from tip of  $R_{1-2}$  so the latter is subequal to vein  $R_{2-3}$ ; cell  $M_1$  short-petiolate;  $m-cu$  more than its own length beyond fork of  $M$ .

Abdominal tergites dark brown, the lateral and posterior borders narrowly pale, the basal rings somewhat darker; sternites obscure yellow, the posterior borders a trifle clearer; genital sternite narrowly darkened basally, genital tergite uniformly blackened; ovipositor with cerci horn-yellow.

Hab. Brazil (São Paulo).

Holotype, female, Juquiá, altitude 40 meters, April 7, 1940 (L. Travassos); through Messias Carrera.

The nearest ally is *Austrolimnophila* (*Austrolimnophila*) *polyspilota* Alexander, of southeastern Brazil, which differs in the larger size, coloration of body, and in the pattern of the legs and wings, the former having the femoral tips much paler brown, the latter with the dotted pattern very abundant and much paler than in the present fly.

*Ctenolimnophila* (*Campbellomyia*) *paulistae*, sp. n.

Mesonotal praescutum and scutal lobes castaneous on their disks, bordered by black; pleura and posterior sclerites of mesonotum uniformly black; antennae black, the first flagellar segment abruptly yellow; legs obscure yellow, the tarsi black; wings brownish yellow, the posterior cells more strongly and uniformly infuscated; a restricted dark pattern on cord, outer end of cell *1st M*<sub>2</sub> and a few additional elements; *R*<sub>2-3-4</sub> about one-third longer than the basal section of *R*<sub>5</sub>; cell *1st M*<sub>2</sub> subequal in length to vein *M*<sub>1-2</sub> beyond it; abdomen black.

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

Rostrum and palpi black. Antennae with scape and pedicel black, the first flagellar segment abruptly yellow, succeeding segments black; flagellar segments short and crowded, subglobular, with long conspicuous verticils; no indication of fusion of any of the flagellar segments. Head dark brown; anterior vertex broad.

Pronotum yellow dorsally, passing into black on the lower portions. Mesonotal praescutum with central portion castaneous, the margins broadly blackened, interrupted by the restricted obscure yellow humeral region; scutum with central portion of each lobe castaneous, bordered by black; median region of scutum pale; scutellum and postnotum black. Pleura uniformly black, the dorsopleural region obscure yellow. Halteres with stem yellow, knob weakly infuscated. Legs with the coxae obscure yellow, the fore pair darker; trochanters yellow; femora and tibiae obscure yellow; tarsi black; segments of legs with abundant, very long, erect to subappressed setae, as in the genus; tibial spurs two, long and conspicuous, enlarged basally and provided with a few aristate

scales, the terminal point long and conspicuous, smooth; claws entirely smooth. Wings (Fig. 10) with the ground color of costal, radial and medial fields brownish yellow, of the cubital and anal fields, as well as cells  $M$  and  $M_4$ , much darker and more uniformly infuscated; a restricted dark brown pattern, including a post-arcular cloud in base of cell  $R$ ; origin of  $R_s$ ; cord and outer end of cell  $1st M_2$ , expanded into a major darkening on anterior cord; outer radial and medial veins conspicuously seamed with brown; stigma oval, dark brown; veins brown. Venation:  $Sc$  long,  $Sc_1$  ending about opposite fork of  $R_s$ ,  $Sc_2$  at its tip;  $R_s$  moderately angulated at origin;  $R_{2-3-4}$  short, about one-third longer than the basal section of  $R_5$ ;  $R_{2-3}$  longer than  $R_{2-3-4}$  or  $R_{1-2}$ ; inner ends of cells  $R_4$ ,  $R_5$  and  $1st M_2$  in approximate transverse alignment; cell  $1st M_2$  subequal in length to vein  $M_{1-2}$  beyond it;  $m-cu$  about two-thirds its length beyond the fork of  $M$ ; cell  $2nd A$  relatively narrow.

Abdomen black, the genital segment more brightened; valves of ovipositor elongate.

Hab. Brazil (São Paulo).

Holotype, female, Batêa, November 1940 (John Lane).

In its lack of supernumerary crossveins on the wing, *Ctenolimnophila* (*Campbellomyia*) *paulistae* is entirely distinct from the two other species of the genus so far described from the Neotropical Region, *Ctenolimnophila* (*Ctenolimnophila*) *decisa* (Alexander) and *C. (C.) bivena* (Alexander). In the light of recent accessions, it seems advisable to place *Campbellomyia* Alexander, 1925, described from several species in New Zealand, as a subgenus of *Ctenolimnophila* Alexander, 1921. In such an arrangement, the present fly would fall in *Campbellomyia* and is the first New World species of this restricted group to be discovered.

*Trentepohlia* (*Neomongoma*) *sordidipennis*, sp. n.

General coloration of thorax and abdomen dark brown to brownish black; head reddish brown, the vertex and posterior orbits narrowly silvery gray; halteres dusky; legs yellow; wings brownish yellow subhyaline, the central half, including cells  $R$  and  $M$ , with the outer radial field, strongly darkened; stigma subcircular, still darker brown; cell  $R_5$  very short-petiolate.

Male. — Length, about 7 mm.; wing, 7 mm.

Rostrum small, dark brown; palpi brownish black. Antennae with scape and pedicel black, flagellum broken. Head reddish brown, the narrow anterior vertex and the posterior orbits silvery gray.

Pronotum and mesonotum dark brown to brownish black, unmarked. Pleura dark brown, the dorsopleural membrane a little paler. Halteres dusky. Legs with the coxae darkened basally, paling to yellow at tips; trochanters yellow; remainder of legs yellow. Wings (Fig. 11) brownish yellow subhyaline, the central half of wing conspicuously darkened, including cells *R* and *M* and the entire outer radial field; stigma subcircular, still darker brown; veins brown, those in costal field paler. Venation:  $Sc_1$  ending just before  $R_2$ ,  $Sc_2$  far from its tip;  $R_{3-4}$  about one-half longer than  $R_2$ ;  $R_3$  moderately erect, paler than  $R_{3-4}$ ; petiole of cell  $R_5$  very short, almost punctiform; cell *1st M*<sub>2</sub> large; *m-cu* shortly beyond fork of *M*, shorter than the distal section of  $Cu_1$ .

Abdominal tergites black; intermediate sternites a little brightened medially; hypopygium yellowish brown.

Hab. Brazil (Rio de Janeiro).

Holotype, male, Petropolis, altitude 2750 feet, 1940 (B o r g m e i e r).

*Trentepohlia (Neomongoma) sordidipennis* is readily told from its nearest described relative, *T (N.) disjuncta* (Alexander) by the brownish black color of the body and the conspicuously darkened wings.

*Trentepohlia (Paramongoma) neogama*, sp. n.

General coloration pale yellow, in cases with the posterior sclerites of mesonotum slightly darkened; halteres dark brown, the base of stem restrictedly pale yellow; femora obscure yellow or brownish yellow, deepening to a brownish black ring before the slightly wider snowy-white tips; tibiae and tarsi white, the former not at all darkened at tips; wings strongly yellow, the stigma intensely so; cell *Cu* narrowly open at wing margin; abdominal tergites with a median brown stripe, more or less broken at the posterior borders of the segments, segment seven more uniformly darkened.

M a l e. — Length, about 8 mm.; wing, 7 mm.

F e m a l e. — Length, about 9-10 mm.; wing, 6.5-7.5 mm.

Rostrum and palpi pale yellow, a little more obscured in the female. Antennae with scape and pedicel light yellow, flagellum passing through dark brown to black; flagellar segments subcylindrical, with relatively short verticils. Head pale brown, the narrow anterior vertex and posterior orbits light gray.

Pronotum and mesonotal praescutum obscure yellow or testaceous yellow, the posterior sclerites more or less darkened, in the allotype female the scutal lobes, scutellum and postnotum

strongly infuscated. Pleura pale yellow. Halteres dark brown, the base of stem restrictedly pale yellow. Legs with the coxae and trochanters pale yellow; femora obscure yellow or pale brownish yellow, the tips abruptly white, preceded by a narrower brownish black ring that on its proximal end passes insensibly into the ground color of the femur, the distal end contrasting abruptly with the whitened tips; tibiae white, in cases vaguely darkened on subbasal third; tarsi white, the terminal segments darkened. Wings (Fig. 12) with a strong yellow tinge, the cephalic half somewhat brighter yellow than the caudal portions; stigmal region abruptly but restrictedly bright yellow; veins pale brown to brownish yellow. Venation:  $R_2$  oblique, close to fork of  $R_{3-4}$ , the latter slightly variable in length in different individuals, from about one-half the second section, of  $M_{1-2}$  to almost punctiform; cell  $Cu$  at margin narrowly open, the distance from one-third to one-half the length of distal section of vein  $Cu_1$ .

Abdominal tergites obscure yellow, with a narrow dark brown stripe on the more basal sclerites, slightly interrupted at their posterior borders; on the intermediate segments more uniformly pale; in the female, the median stripe more extensive but much broken; sternites pale yellow or greenish yellow; a narrow subterminal brown ring, chiefly involving segment seven; hypopygium yellow. Ovipositor with cerci long and slender, only gently upcurved, their tips acute.

Hab. Brazil (Espírito Santo, Rio de Janeiro).

Holotype, male, Morro Argolas, Espírito Santo, April 1940 (L é r i o G o m e s). Allotype, female, Pico da Tijuca, Rio de Janeiro, altitude 1018 meters, November 1940 (L é r i o G o m e s). Paratype, 1 female, Tinguá, Rio D. F March 1940 (L é r i o G o m e s).

The most similar species is *Trentepohlia (Paramongoma) amatrix* Alexander, which is well-distinguished by the pattern of the legs and wings, especially the narrowly pale femoral tips, the distinctly darkened apices of the tibiae, and the conspicuous longitudinal darkening in the central portion of the wings.

*Gonomyia (Lipophleps) carrerai*, sp. n.

Belongs to the *manca* group; mesonotum almost uniformly black, sparsely pruinose, the scutellum and median region of scutum only a trifle paler; thoracic pleura dark brown, striped longitudinally with white; halteres and legs dark brown; wings with a weak brown tinge, the oval stigma slightly darker but

poorly indicated;  $Sc_1$  ending opposite origin of  $Rs$ , branches of  $Rs$  long; male hypopygium with the dististyles of the two sides asymmetrical, one being simple, the other profoundly bifid; basistyles produced beyond point of insertion of dististyles as slender finger-like lobes; phallosome terminating in three distinct points or arms.

Male. — Length, about 3 mm.; wing, 3.5 mm.

Rostrum obscure yellow; palpi black. Antennae black throughout. Head dark brown, variegated with a whitish yellow spot on posterior portion.

Pronotum dark, the pretergites conspicuously white. Mesonotum almost black, the surface sparsely pruinose; scutellum and median area of scutum dark brown, not contrasting materially with the remainder of notum. Pleura dark brown with a conspicuous whitish longitudinal stripe extending from behind the fore coxae, passing beneath the root of halteres to base of abdomen. Halteres uniformly darkened. Legs with the coxae pale brown; trochanters obscure yellow; remainder of legs dark brown, the femoral bases somewhat paler. Wings with a weak brownish tinge, the large oval stigma slightly darker brown but poorly indicated; prearcular field and costal region a trifle whitened; veins brown. Venation:  $Sc_1$  ending opposite origin of  $Rs$ ,  $Sc_2$  a short distance from its tip;  $Rs$  long, only gently arcuated; branches of  $Rs$  long and nearly straight, diverging very gradually from one another; cell  $1st M_2$  much shorter than any of the veins beyond it;  $m-cu$  close to fork of  $M$ .

Abdominal tergites dark brown, the sternites paler; hypopygium somewhat brightened. Male hypopygium (Fig. 14) with the dististyles of the two sides asymmetrical. Basistyle,  $b$ , produced beyond point of insertion of dististyle as a slender fingerlike lobe that is provided with long delicate setae. Dististyle,  $d$ , of one side simple, widest opposite midlength, terminating in a curved black spine; dististyle of opposite side profoundly bifid, each arm slender, the outer one entirely blackened, at near apex bent almost at a right angle into a straight spine; inner arm bearing the fasciculate bristle, only the tip blackened. Phallosome,  $p$ , complex, terminating in three conspicuous elements, one lying nearest the simple dististyle being very long and slender, sinuous, narrowed gradually to an acute point; central phallosomic arm a flattened yellow blade that narrows into a blackened needle-like point; third arm nearest the bifid dististyle shortest of the three phallosomic elements but stout, heavily blackened, the apex

produced into a black spine and further armed with microscopic roughenings.

Hab. Brazil (São Paulo).

Holotype, male, Juquiá, altitude 40 meters, April 7, 1940 (L. Travassos); through Messias Carrera.

I am very pleased to name this species in honor of Mr. Messias Carrera, to whom I am indebted for many interesting species of Tipulidae. The fly is closest to *Gonomyia (Lipophleps) pilosispina* Alexander, of southeastern Brazil, which likewise has the dististyles of the male hypopygium asymmetrical though much less strikingly so than in the present fly.

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