

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

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The first paper under this general title was published in this Revista, volume 6: 10-23; 1936. In the present instalment, I again wish to discuss species that were taken by Mr. J. F. Zikán, at and near Campo Bello, State of Rio de Janeiro, at an average altitude of from 700 to 800 meters, and at higher altitudes on the nearby mountains. I am greatly indebted to Mr. Zikán for his friendly co-operation in collecting these fragile flies, which are only too often neglected by the general collector of insects. The types of the novelties are preserved in my collection of Tipulidae of the World.

### Records of distribution

*Tanypremna (Tanypremna) porteriana* Alexander. — January 29, 1935, male; March 23, 1935, female; types.

*Brachypremna nigrofemorata* Alexander. — February 29, 1936, female; type.

*Brachypremna variitibia* Alexander. — November 23, 1935, altitude 1300 meters, female; type.

*Holorusia horni* Alexander. — November 23, 1935, at light, female.

*Holorusia ocellata* (Enderlein). — July 5, 1929, altitude 1100 meters, female.

*Holorusia zikáni* Alexander. — November 17, 1935, male.

*Tipula monilifera* Loew. — November 25, 1934, male; December 16, 1935, female; January 24, 1936, male.

*Limonia (Neolimnobia) hypocrita* Alexander. — October 15, 1935, numerous specimens at light; November 21, 1935, males swarming about one-half meter above ground beneath a tree at dusk.

*Limonia (Rhipidia) annulicornis* (Enderlein). — October 15, 1935, male, at light.

*Hexatoma (Eriocera) chrysoptera* (Walker). — January 11, 1936, altitude 900 meters, female.

*Neognophomyia hirsuta* (Alexander). — January 24, 1936, male and female.

*Toxorhina (Ceratocheilus) maculipennis* Alexander. — October 15, 1935, male, at light.

### Descriptions of new species

#### *Ozodicera (Ozodicera) zikániana*, sp. n.

Size relatively small (wing, male, 16-18 mm.); general coloration of mesonotum brownish yellow, with four scarcely indicated brownish yellow to pale reddish brown stripes; pleura yellow, unmarked; femora uniformly yellow; wings with a very strong yellow to brownish yellow tinge, the costal border more saturated; abdominal tergites yellow, on the second and succeeding segments with narrow black lateral stripes; sub-terminal segments black; hypopygium fulvous.

Male. — Length, about 16-17 mm.; wing, 16-18 mm.

Female. — Length, about 18-19 mm.; wing, 16-17 mm.

Frontal prolongation of head light brown, nasus short; palpi black. Antennae with scape and pedicel obscure yellow; flagellum testaceous, the outer segments passing into brownish black, pectinations black; branches subequal in length to the segments in both sexes. Head buffy, the anterior vertex a little brighter, narrowly bordered by brown behind the antennal fossae.

Mesonotum obscure yellow, with four scarcely indicated, more brownish yellow to pale reddish brown stripes that are most insensibly bordered by darker; setae of interspaces very small and inconspicuous, yellow; posterior sclerites of notum brownish yellow to pale reddish brown. Pleura yellow, unmarked. Halteres pale, the knobs weakly darkened. Legs with the coxae and trochanters yellow; femora somewhat darker yellow throughout; remainder of legs passing through light brown to dark brown or black; none of the leg-segments with darker tips. Wings with a very strong yellow to brownish yellow tinge, the prearcular and costal regions more saturated

yellow; stigma very pale brown, a trifle darker than the adjoining costa; veins pale brown.

Abdominal tergites yellow, on the second and succeeding segments with narrow black lateral stripes; subterminal segments black; hypopygium fulvous. Male hypopygium with the apex of basistyle unblackened and not produced into spinous armature; inner dististyle pale.

Holotype, ♂, Campo Bello, altitude 1300 meters. November 23, 1935 (Zikán). Allotopotype, ♀, in copula and pinned with type. Paratopotypes, 10 ♂♀, altitude 1200-1600 meters, November 23 to December 2, 1935 (Zikán).

I take pleasure in naming this interesting crane-fly in honor of Mr. J. F. Zikán, who has discovered many new and rare Tipulidae in the vicinity of Campo Bello. The species is quite distinct from the other described medium-sized members of the subgenus *Ozodicerca* in the almost immaculate brownish yellow praescutum, the very strongly tinted wings, and the lack of a dark median stripe on the abdominal tergites. Among the described species, it perhaps agrees most nearly with the still insufficiently known *Ozodicerca gracilis* (Westwood) which has fuscous and subfuscous coloration throughout the body and appendages.

*Ozodicerca (Ozodicerca) cinereipennis*, sp. n.

Size large (wing, female, 25 mm.); mesonotal praescutum buffy-yellow, with four conspicuous, opaque, dark brown stripes, the intermediate pair narrowly separated; pleura yellowish gray, without distinct brown markings; femora obscure yellow, the tips narrowly brownish black; wings with a strong gray tinge, the prearcular region, costal field and a seam along vein *Cu* brown; ground-color of abdominal tergites reddish brown, beyond the basal segments the color almost obliterated by dark brown stripes.

Male — Length, about 26-27 mm.; wing, 20-21 mm.

Female — Length, about 36 mm.; wing, 25 mm.

Frontal prolongation of head, including nasus, dark brown; palpi brownish black. Antennae with scape and pedicel brownish yellow; flagellar segments yellowish brown, darker outwardly, the pectinations black; pectinations subequal in length to or a little shorter than the segments, especially in the female. Head brown, the anterior vertex and posterior orbits a trifle more yellowish; anterior vertex narrower than the diameter of scape.

Mesonotal praescutum buffy-yellow to greenish yellow, with four conspicuous, opaque, dark brown stripes that are entirely distinct from one another, the intermediate pair separated only by a capillary ground vitta; centers of scutal lobes less distinctly darkened; remainder of mesonotum light brown, heavily yellowish gray pruinose. Pleura almost uniformly yellowish gray, without distinct markings except where evidently produced by rubbing. Halteres with stem brownish yellow, the knobs darker. Legs with the coxae yellowish gray; trochanters yellow; femora obscure yellow, the tips narrowly brownish black, the amount subequal on all legs; tibiae yellowish brown, the tips very narrowly and weakly infumed; tarsi brown, passing into black. Wings with a strong gray tinge, the prearcular region, cells *C* and *Sc*, and vein *Cu* more clouded with brown; stigma small, pale brown; veins brown. In more heavily patterned specimens, with indications of a weak dusky cloud on anterior cord. Venation as in the genus.

Abdominal tergites reddish brown, with three dark brown stripes that widen on the posterior segments, obliterating the ground-color; basal sternites reddish brown, the outer segments darker; hypopygium more brightened. Male hypopygium with both dististyles pale.

Holotype, ♂, Campo Bello, altitude 700-800 meters, February 26, 1936. Allotopotype, ♀, March 30, 1936. Paratopotype ♂, March 14, 1936 (Zikán).

*Ozodicera (Ozodicera) cinereipennis* is much larger than the other described species of the subgenus having grayish wings and the femoral tips darkened. The opaque praescutal stripes are very distinct against the ground-color of the thorax and show no tendency to become confluent.

*Ozodicera (Dihexaclonus) umbriifera*, sp. n.

Mesonotal praescutum brownish yellow with four pale brown stripes that are narrowly bordered by darker brown; basal flagellar segments brownish black; flagellar pectinations unequal, the shorter one arising from the base of the longer branch, instead of from the segment itself; legs black, in female with a broad, obscure yellow ring in central portion, the bases and tips black; wings with a very strong yellowish brown tinge, the stigma and costal border darker brown; abdominal tergites reddish brown, with three darker brown stripes, the outer segments uniformly darkened; male hypopygium with both dististyles blackened.

Male — Length, about 19 mm.; wing, 19.5 mm.

Female — Length, about 26 mm.; wing, 19 mm.

Frontal prolongation of head rather dark brown, the nasus brownish black; palpi black. Antennae with the scape brownish black; pedicel more yellowish brown; flagellum brownish black, the incisures of the branch-bearing segments restrictedly obscure yellow; branches black; branch of the second flagellar segment simple, about two-thirds the length of the segment; succeeding branches unequally bifid, the short branch arising from the base of the longer, instead of from the segment itself; longest branch shorter than the segment bearing it. Head brownish gray; anterior vertex narrower than the diameter of the scape (♂) or subequal in width (♀).

Ground-color of praescutum brownish yellow, with four pale brown stripes that are narrowly bordered by still darker brown, the cephalic portion of the intermediate stripes paler; scutum brown, the lateral portions of the lobes paler; scutellum and mediotergite yellowish gray, the surface insensibly variegated by darker, possibly caused by rubbing. Pleura yellowish gray. Halteres dark brown. Legs with the coxae light yellowish gray; trochanters obscure yellow; femora black, more uniformly so in male, in female with a broad, central, more yellowish ring, the base broadly, the apex more narrowly, blackened; remainder of legs brownish black to black. Wings with a very strong, rich yellowish brown tinge, the stigma and cells *C* and *Sc* darker brown and about concolorous; no darkened cloud on anterior cord, as in *fumipennis*; veins brown.

Abdominal tergites reddish brown, with three darker brown stripes that expand behind to darken the outer segments and hypopygium; basal tergite a trifle more pruinose. Male hypopygium with the outer dististyle brownish black, with a small blackened tooth on mesal edge near base; inner dististyle blackened.

Holotype, ♂, Campo Bello, altitude 1000 meters, December 6, 1935 (Zikán). Allotopotype, ♀, in copula and pinned with type.

The nearest ally is *Ozodicera (Dihexaclonus) fumipennis* Loew, which differs in the coloration and structure of the antennal branches, the distinct thoracic pattern, differently colored legs, and the presence of a darkened cloud surrounding the anterior cord of the wings.

*Helius (Helius) fragosus*, sp. n.

Rostrum black; head gray, the posterior vertex with a dark brown triangle; mesonotum obscure yellow, the praescutum with three dark stripes; pleura black; halteres yellow; legs with the femora yellow, the tips narrowly black; tibiae yellow, the extreme base and tip blackened; wings yellow, the costal portion more saturated, the disk with a restricted dark brown pattern; abdominal sternites yellow, each with a pair of black dashes, widely separated by the midline.

Female — Length, about 7.5 mm.; wing, 6.8-7 mm.

Rostrum black, about one-third longer than the head; palpi black. Antennae black throughout, relatively small, shorter than the combined head and rostrum; flagellar segments oval, with verticils that exceed the segments. Head light ashy-gray, the center of the posterior vertex occupied by a dark brown triangle, its point directed forward.

Cervical region black. Pronotum dark brown, paler laterally. Mesonotum rather conspicuously convex, obscure yellow, with three dark stripes, the median one black in front, paling to dark brown before the suture; lateral stripes brown, much less distinct; scutum broadly obscure yellow medially, the lateral portion of the lobes infuscated, being a direct continuation of the lateral praescutal stripes; scutellum and postnotum chiefly dark brown. Pleura black, vaguely marked with paler on the propleura, posterior anepisternum and extensively so on the pleurotergite. Halteres pale yellow, the knobs a little more saturated. Legs with the coxae and trochanters yellow; femora yellow, the tips rather narrowly (0.5-0.6 mm.) but conspicuously blackened, the amount approximately equal on all legs; tibiae yellow, the extreme base and tip blackened; tarsi yellow, the outer segments more darkened. Wings yellow, the prearcular and costal regions, together with the wing-tip, more saturated yellow; a conspicuous dark brown pattern, including the oval stigma, and small seams at origin of  $R_s$ , along anterior cord, tip of vein  $R_3$  and as a conspicuous seam along about the basal two-thirds of vein  $Cu$ ; somewhat paler brown clouds include the posterior cord, outer end of cell  $1st\ M_2$ , a spot in cell  $M_1$  adjoining tip of vein  $Cu_1$ , and washes in the basal portions of both Anal cells; restricted darkenings at extreme wing-tip and at ends of both Anal veins; veins pale, darker in the clouded areas. Venation:  $Sc_1$  ending short-

ly beyond fork of  $R_s$ , the latter slightly angulated at origin; cell  $1st\ M_2$  rectangular, relatively large;  $m-cu$  at fork of  $M$ .

Abdominal tergites brownish yellow, the caudal and lateral borders of the segments narrowly blackened, with a paler brown, central, median vitta; sternites bright yellow, each segment with an elongate black dash on either side, widely separated; subterminal segment narrowly blackened on caudal border; cerci horn-yellow.

Holotype, ♂, Campo Bello, altitude 700-800 meters, at light, October 15, 1935 (Zikán), Paratopotype, ♀.

*Helius (Helius) fragosus* is entirely distinct from all species of the genus so far discovered. It appears to belong to the typical group of *Helius* rather than to the aberrant *mirabilis* group of species.

*Austrolimnophila polypilota*, sp. n.

Mesonotal praescutum ochreous on anterior portion, the posterior part and remaining sclerites of notum brown; antennae relatively short; halteres long and slender; legs yellow, the tips of the femora narrowly dark brown; wings whitish subhyaline, extensively variegated with abundant brown dots and streaks over the entire surface; petiole of cell  $M_1$  a little shorter than  $m$ ;  $m-cu$  about its own length beyond the fork of  $M$ ; male hypopygium with the outer dististyle an oval, densely hairy cushion, its outer apical angle produced into a blackened curved spine.

Male — Length, about 13 mm.; wing, 13 mm.

Rostrum dark brown; palpi black. Antennae relatively short, if bent backward ending some distance before the wing-root; scape brown, pedicel and basal flagellar segments yellow, the outer flagellar segments passing into brown; flagellar segments cylindrical, with verticils that slightly exceed the segments in length. Front, anterior vertex and posterior orbits gray; posterior portions of head dark brown; anterior vertex relatively narrow, a little less than the diameter of the scape.

Pronotum dark brown, the sides narrowly yellow. Mesonotal praescutum ochreous on anterior portion, the posterior half or nearly so abruptly brown; posterior sclerites of notum chiefly darkened. Pleura variegated obscure yellow and dark brown, the latter color on the anepisternum, ventral sternopleurite, meron, pteropleurite and pleurotergite, more extensive than the pale ground-color. Halteres long and slender, pale yellow, the knobs very weakly darkened. Legs with the fore

coxae yellow, middle and posterior coxae infuscated on basal portions, the tips yellow; trochanters yellow; femora obscure yellow, the tips rather narrowly (0.8 mm.) dark brown; tibiae and tarsi light yellow, only the terminal tarsal segment weakly darkened. Wings with the ground-color whitish subhyaline, extensively variegated with abundant brown dots and transverse streaks that are more abundant and crowded in the costal and radial portions to virtually suffuse the area; bases of cells *Cu* and *1st A*, together with cell *1st M*<sub>2</sub> and outer medial field most nearly free from dark markings; veins dark, yellow in the restricted ground-areas. Venation:  $R_{2-3}$  subequal to  $R_{1-2}$ ; *Rs* angulated and spurred at origin; petiole of cell *M*<sub>1</sub> a little shorter than *m*; *m-cu* about its own length beyond the fork of *M*; anterior arculus apparently preserved, the veins in this area much crowded.

Abdominal tergites dark brown, the caudal borders of the segments narrowly pale; subterminal segments narrowly more darkened; sternites obscure yellow, the narrow basal rings dark brown, the outer sternites more darkened. Male hypopygium with the caudal border of the ninth tergite with a broad U-shaped notch. Interbases very small, appearing as short, gently bent rods, the ends triangularly dilated, truncate. Outer dististyle an oval, densely hairy cushion, its outer apical angle produced into a blackened curved spine. Inner dististyle longer, appearing as a slender flattened rod, gradually narrowed to the obtuse tip, the structure appearing more or less like a boomerang.

Holotype, ♂, Campo Bello, altitude 700-800 meters, November 14, 1935, at light (Zikán).

From other regional species of the genus having abundantly spotted wings, as *Autrolimnophila bradleyi* Alexander and *A. microsticta* Alexander, the present fly differs conspicuously in all details of coloration, and, especially, in the structure of the male hypopygium. In its thoracic coloration, it somewhat suggests Austrolasian species of the *antiqua* group.

*Polymera (Polymera) fuscitarsis*, sp. n.

Mesonotum pale reddish brown; thoracic pleura with a very broad, black, dorsal stripe, the ventral pleurites pale testaceous; legs dark brown; wings brownish gray, the prearcular and costal portions slightly more yellow;  $Sc_1$  ending opposite fork of  $R_{2+3+4}$ ; *Rs* short, subequal to  $R_{1+2}$  and only



about one-half longer than  $R_{2+3+4}$ ;  $R_{2+3}$  and  $R_3$  subequal; cell  $M_1$  present.

Male — Length, about 5 mm.; wing, 5.3-5.5 mm.; antenna, about 8 mm.

Rostrum and palpi yellow. Antennae ( $\delta$ ) elongate, about one-half longer than the body; black, the incisures of the more basal flagellar segments pale; flagellar segments strongly binodose. Head with the front and vertex light ashy-gray, the posterior part of head brown.

Mesonotum uniformly pale reddish brown. Pleura with a very broad, black, longitudinal stripe, occupying the entire dorsal portion, extending to the abdomen; sternopleurite and meron pale testaceous. Halteres weakly infuscated. Legs with the coxae whitish, the bases of the fore pair a little darkened; trochanters pale yellow; remainder of legs dark brown, with no sign of white on any of the tarsi. Wings brownish gray, the prearcular and costal portions slightly more yellowish; veins pale brown, more yellow in the costal areas. Macrotrichia of veins long and conspicuous. Venation:  $Sc_1$  ending opposite fork of  $R_{2+3+4}$ ;  $Rs$  short, subequal to  $R_{1+2}$  and only about one-half longer than  $R_{2+3+4}$ ;  $R_{2+3}$  subequal to or a little shorter than  $R_3$ ; cell  $M_1$  present but small;  $m-cu$  about its length beyond the fork of  $M$ .

Abdominal tergites dark brown, the lateral borders even darker; sternites medium brown, the lateral margins conspicuously black; hypopygium black.

Holotype,  $\sigma$ , Campo Bello, altitude 700-800 meters, December 15, 1935 (Zikán). Paratopotype,  $\sigma$ , April 9, 1936.

Other species of *Polymera* with darkened fore and middle tarsi include *P. (P.) grisea* Alexander, *P. (P.) inornata* Alexander and *P. (P.) pulchricornis* Alexander. *P. grisea* is still known only from the unique type which has lost the posterior legs; it is well-distinguished from the present fly by the short  $Sc$  and  $R_{1+2}$ . *P. inornata* has no dark pleural stripe and the strongly yellowish wings have the venation quite distinct, with  $Rs$  nearly three times  $R_{2+3+4}$ . The most similar species is *P. pulchricornis* which has the thoracic pattern much as in the present fly and with all legs similarly darkened, but with the venational details quite distinct, with  $Rs$  much exceeding either  $R_{1+2}$  or  $R_{2+3+4}$  and with  $m-cu$  at or close to the fork of  $M$ . The pleural stripe is paler and narrower, while the legs are paler throughout.

*Hexatoma (Eriocera) ferax*, sp. n.

General coloration velvety-black, the praescutum with three dull black stripes; vertical tubercle orange, the lobes low and rounded; legs black, the posterior femora with a narrow yellow ring at near two-thirds the length of the segment; wings cross-banded light yellow and dark brown, the former color including most of the prearcular field and all of cells *C* and *Sc*, as well as broad complete bands beyond arculus and before cord; veins beyond cord without trichia;  $R_{2+3+4}$  relatively long, exceeding one-half  $R_3$  alone; abdomen dull black, tergites two to four with more grayish basal rings.

Female — Length, about 15 mm.; wing, 12.5 mm.

Rostrum and palpi black. Antennae with scape brown; pedicel and flagellum black; antennae (♀) 10-segmented; flagellar segments gradually decreasing in length outwardly, the last subequal to the penultimate; segments with erect coarse setae. Vertical tubercle orange, low and rounded, split by a linear notch; posterior portion of head more darkened.

Pronotum dull black. Mesonotal praescutum with the ground-color velvety-black, with three dull black stripes that are nearly confluent just before the suture; centers of scutal lobes dull black, the remainder of scutum more velvety-black; posterior sclerites of notum intensive black; thoracic vesture very short and sparse. Pleura black. Halteres black. Legs with the coxae and trochanters black; fore and middle legs entirely black; hind legs black, each femur with a narrow (1 mm.) yellow ring at near two-thirds the length of the segment. Wings conspicuously banded light yellow and dark brown; the yellow color includes the prearcular field, with the exception of the extreme wing-base; cells *C* and *Sc*, a broad complete cross-band at and beyond the arculus and a second complete band lying chiefly before the cord, passing the latter to include the basal third of cell 1st  $M_2$  and almost all of cell  $M_4$ ; the brown areas thus include a broad incomplete band just before midlength of the wing, extending from vein  $R_1$  to the posterior margin in the Anal cells, and the broad wing-tip; wings bright yellow in the flavous areas, more infuscated in the brown portions. Veins beyond cord without macrotrichia, excepting a series on vein  $Sc_2 + R_1$ . Venation:  $R_{2+3}$  subequal to  $R_2$ , the latter about one-half  $R_{1+2}$ ;  $R_{2+3+4}$  relatively long, exceeding one-half of  $R_3$  alone; basal section of  $M_{1+2}$  longer

than *m-cu*, the latter shortly beyond fork of *M*; cell *M*<sub>1</sub> lacking.

Abdomen dull black, tergites two to four with the basal rings grayish, vaguely brightened by yellow undertones; genital shield and basal halves of the long slender cerci black, the tips of the latter reddish horn-color.

Holotype, ♀, Campo Bello, altitude 700-800 meters, in forest, November 15, 1935 (Zikán).

*Hexatoma (Eriocera) ferax* is very different from the other Neotropical species having banded brown and yellow wings, in the pattern of the legs, with only the posterior femora ringed with yellow, and in the nature of the wing-pattern, with the costal border broadly yellow, interrupting the brown crossbands.

*Sigmatomera pictipennis*, sp. n.

Mesothorax uniformly dark liver-brown; prothorax yellowish brown; scape brown, the tip blackened; flagellar segments black basally and on lower face, the upper face pale brown; head with the anterior vertex gray, posterior vertex dark brown; wings light yellow, the prearcular and costal regions more saturated yellow; *Rs*, cord and longitudinal veins beyond the latter brownish black; central portions of most cells of wing with pale brown, longitudinal streaks; a conspicuous brown area at arculus; an oblique supernumerary crossvein in cell *R*<sub>3</sub>; abdomen, including ovipositor, brownish black.

Female — Length, about 14 mm.; wing, 13.5 mm.

Rostrum light brown, subnitidous; palpi yellowish brown. Antennae with the scape brown basally, more blackened at tip; pedicel dark brown; flagellar segments black basally, the lower face similarly blackened, the upper face pale brown, not clearly delimited and restricted as in *varicornis*; flagellar segments moderately sigmoid. Head with the narrow anterior vertex gray, the posterior vertex dark brown, the occipital region more yellowish brown; anterior vertex at narrowest point less than the diameter of scape.

Pronotum yellowish brown. Mesonotum uniformly dark liver-brown, without markings. Propleura yellowish brown, the mesopleura dark liverbrown; dorso-pleural membrane a little paler. Halteres obscure yellow. Legs with the fore coxae obscure yellow, the remaining coxae dark liver-brown; trochanters obscure yellow; femora yellow, the tips rather narrowly dark brown; tibiae a little more obscure yellow, the tips

weakly and narrowly infuscated; tarsi brownish yellow, the terminal segment infuscated. Wings with the ground-color light yellow, the prearcular, costal and stigmal regions more saturated butter-yellow; central portions of all cells excepting *C*, *Sc* and  $R_1$  with pale brown, longitudinal streaks; *Rs*, the cord and veins beyond the latter brownish black, the color slightly involving the adjoining membrane; veins  $R_3$  and  $R_4$  a trifle paler brown; a conspicuous dark cloud surrounding the arculus; cell *2nd A*, except at base, and the adjoining portion of cell *1st A*, strongly infuscated; veins as described above, those in the prearcular and costal regions, together with almost all of *Cu*, *1st A* and *2nd A*, yellow. Venation:  $R_{2+3+4}$  with a single spur, jutting basad into cell  $R_1$ ; an oblique supernumerary crossvein before midlength of cell  $R_3$ .

Abdomen, including genital shield and ovipositor, polished brownish black.

Holotype, ♀, Campo Bello, altitude 700-800 meters, at light, October 15, 1935 (Zikán).

The nearest allied species is *Sigmatomera varicornis* Alexander, likewise from Campo Bello, which differs evidently in the diagnostic features listed above. Since the material upon which these two species is so restricted, the possibility is not excluded that the present fly represents the female sex of *varicornis*. However, this seems to me to be highly improbable unless individual variation and sexual dimorphism in the genus is much greater than we have hitherto believed. The conspicuous dark streaks in the wing-cells of the present fly are barely suggested in certain cells of *varicornis* by pale dark washes.

*Treniepholia (Paramongoma) petulans*, sp. n.

General coloration dark gray, the humeral and lateral portions of the praescutum yellow; femora yellow basally, passing into black, the tips abruptly snowy-white; tibiae white at both ends, the broad central portion black; tarsi white; wings relatively narrow, before the cord almost hyaline, the outer cells weakly darkened; stigma dark brown, conspicuous; *Rs* somewhat angulated at near midlength;  $R_2$  just before fork of  $R_{3+4}$ ; cell *2nd A* narrow; abdominal tergites brownish black, sternites obscure yellow, the subterminal segments darkened; hypopygium obscure yellow.

Male — Length, about 8 mm.; wing, 7 mm.

Rostrum very small, pale yellow. Antennae with scape and pedicel yellow, flagellum black; segments oval, with short

verticils. Head dark gray, the center of the vertex behind more darkened; anterior vertex much reduced.

Pronotum obscure yellow, with a group of erect brown setae. Mesonotal praescutum with the dorsum largely covered by three confluent, dark gray stripes, the humeral region rather bright yellow, the broad lateral margins more obscurely so; scutum dark gray to almost blackish; scutellum and medio-tergite dark gray. Pleura chiefly obscure yellow, the anepisternum and pleurotergite slightly pruinose. Halteres with the stem yellow, the knobs dusky. Legs with the coxae and trochanters yellow; femora yellow at base, on the distal third passing into black, the tips rather narrowly (0.7 mm.) and abruptly snowy-white; tibiae snowy-white, with a broad (6 mm.) black ring occupying the central portion, the white base a trifle more extensive (2.5 mm.) than the similarly colored apex (2-2.2 mm.); tarsi snowy-white, only the last segment infuscated. Wings relatively narrow, almost hyaline before the cord, distad of this point weakly darkened; a dusky streak in outer end of cell *R* beneath the outer portion of *Rs*; stigma dark brown, conspicuous; veins brownish black, conspicuous, *C* and *Sc* somewhat paler. Venation: *Rs* somewhat angularly bent at near midlength;  $R_{3+4}$  a little shorter than  $R_{1+2}$ ,  $R_2$  thus just before fork of the former; cell *1st M*<sub>2</sub> relatively long, exceeding vein  $M_{1+2}$  beyond it; distance on margin between veins  $Cu_1$  and *1st A* a little longer than the length of *m-cu*; cell *2nd A* narrow.

Abdominal tergites brownish black; sternites obscure yellow.

Holotype, ♂, Campo Bello, altitude 1200 meters, November 23, 1935 (Zikán).

The only approximately similar described species is *Trentepohlia* (*Paramongoma*) *leucozona* (Alexander) of Mexico, which differs conspicuously in the coloration of the body, and in details of pattern of the wings and legs.

*Gonomyia* (*Progonomyia*) *saturata*, sp. n.

Mesonotal praescutum reddish brown, without clearly defined stripes; rostrum black; head, pronotum and lateral pretergites light yellow; thoracic pleura with a dorsal brown stripe; legs yellow, the outer tarsal segments brownish black; wings strongly and uniformly suffused with yellow, the veins a little darker;  $R_{2+3+4}$  a little shorter than the unusually long

$R_{3+4}$ ; cell *2nd M*<sub>2</sub> deep; *m-cu* about one-third its length beyond the fork of *M*; genital shield dark brown at base, obscure yellow on outer portion.

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

Rostrum and palpi black. Antennae with scape and pedicel light yellow; basal segment of flagellum pale, the remainder brownish black, oval, with long, unilaterally arranged verticils. Head light yellow, the posterior portions of occiput more darkened; anterior vertex broad.

Pronotum light yellow, the pleura abruptly dark brown. Lateral pretergites light yellow. Mesonotum deep reddish brown, without distinct praescutal stripes; praescutum in front with a weak bloom to appear slightly pruinose; a very delicate dark median vitta on praescutum, reaching the suture; scutal lobes weakly darkened, the median area more reddish brown; scutellum darker brown; mediotergite dark reddish brown. Pleura with a conspicuous, brown, dorsal, longitudinal stripe, extending from the cervical region to the sides of the mediotergite; ventral pleurites more reddish; dorso-pleural membrane pale. Halteres infuscated. Legs with the coxae and trochanters pale; remainder of legs yellow, the tip of the basitarsus and all of the succeeding tarsal segments brownish black. Wings with a uniform, strongly saturated, yellow coloration, without markings; veins a little darker yellow than the ground. Venation: *Rs* nearly straight;  $R_{2+3+4}$  a trifle shorter than the unusually long  $R_{3+4}$ ;  $R_3$  oblique; cell *2nd M*<sub>2</sub> deep; *m-cu* about one-third its length beyond the fork of *M*.

Abdomen blackish, possibly discolored by the presence of eggs within; posterior borders of the outer segments narrowly gray; genital shield dark brown at base, obscure yellow on outer half; cerci horn-yellow, powerfully constructed, moderately upcurved.

Holotype, ♀, Campo Bello, altitude 700-800 meters, December 29, 1935, at light (Zikán).

The nearest allied species is *Gonomyia (Progonomyia) eriopterooides* Alexander (Paraguay) which agrees very closely in most details of coloration and structure. The present fly has a single darkened pleural stripe and the venational details distinct, as the shorter *Rs*, which is subequal in length to the combined veins  $R_{2+3+4}$  and  $R_{3+4}$ , the deeper and narrower cell *2nd M*<sub>2</sub>, the position of *m-cu* closer to the fork of *M*, and the slightly narrower cell *2nd A*.