

RECORDS AND DESCRIPTIONS OF BRAZILIAN
CRANE-FLIES

(*DIPTERA, TIPULIDAE*) (1)

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Under the above general title I am proposing to record new and insufficiently-known crane-flies from Brazil and to furnish figures of species that have not been illustrated. The total number of species in the country is very large and much further work remains to be done before we have any complete picture of the fauna. The various species will be numbered consecutively throughout the series of reports in order to facilitate reference.

1. *Longurio (Longurio) styx*, sp. n.

General coloration black, subnitidous; antennae (male) short, 13-segmented, brownish black throughout; halteres and legs black, the latter relatively long and slender; claws (male) toothed; wings with a strong blackish tinge; vein R_{1+2} subobsolete, appearing as a pale suberect vein that parallels the free tip of Sc_2 ; male hypopygium with the tergite deeply emarginate; outer dististyle with the outer fifth narrowed into a yellowed blade, the outer margin bearing four stout black spinoid setae.

MALE — Length about 14 mm.; wing 11 mm.; antenna about 1.3 mm.

Frontal prolongation of head very short, without nasus, blackened above, obscure yellow laterally; palpi relatively short, black. Antennae (male) short, as shown by the measurements, brownish black throughout, 13-segmented; flagellar segments beyond the first oval, gradually becoming more elongate; verticils much longer than the segments. Head broad, deep velvety black, the orbits behind the antennal bases restrictedly brightened; eyes large, with abundant ommatidia.

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Thorax black, the surface nitidous to subnitidous; vestiture very small and sparse; dorsopleural membrane darkened. Halteres black, the extreme base of stem obscure brownish yellow. Legs black throughout, relatively long and slender; claws (male) with a long and very slender tooth just before midlength. Wings (fig. 1) with a strong blackish tinge, the prearcular and costal fields somewhat darker; stigma small, subcircular, still darker; obscure whitish longitudinal streaks in cells R , M , R_1 and both Anal cells, the last larger and more conspicuous; veins brownish black. Macrotrichia on outer radial and medial veins, including R_3 , nearly the outer half of R_{4+5} , most of M_1 and M_2 , and the distal section of M_3 . Venation: Sc_1 preserved as a pale element; R_{1+2} subobsolete, appearing as a pale semierect vein that parallels the free tip of Sc_2 ; petiole of cell M_1 about one-half longer than m ; $m-cu$ about one-third its own length before fork of M_{3+4} ; cell 2nd A relatively broad.

Abdominal tergites black; sternites brownish black, the basal rings obscure brownish yellow; hypopygium black. Male hypopygium (fig. 3) with the ninth tergite, $9t$, large, the caudal margin with a deep V-shaped notch, the lateral lobes more obtuse; surface of tergite with abundant setae of moderate size. Outer dististyle, d , broad basally, narrowed and bladelike on about the outer fifth, the proximal part darkened, the outer blade yellow; outer margin of the latter with four strong black spinoid setae; more basally on style with several longer and more slender elongate setae. Inner dististyle subequal in length to the outer, relatively slender, its apex narrowly obtuse.

HOLOTYPE, ♂, Boracéia, São Paulo, altitude 850 meters, February 10, 1950 (Rabello & Travassos); type returned.

The most similar regional species include *Longurio* (*Longurio*) *insidiosa* (Alexander), *L. (L.) ixion* (Alexander) and *L. (L.) rabelloi* (Alexander), all of which differ conspicuously in the coloration of the body, legs and wings, and particularly in the structure of the male hypopygium.

In the past, attempts have been made to separate the supposed genus *Macromastix* Osten Sacken, 1886, as distinct from *Longurio* Loew, 1869, *Tanypremna* Osten Sacken, 1886, and others. It now appears to me that *Macromastix* must fall into the synonymy of the older name *Longurio*, but that *Tanypremna* may perhaps be maintained as a distinct subgenus. As indicated elsewhere it now appears that a condition comparable to that recognized in the genus *Limonia* Meigen likewise holds in the more generalized Tipulinae and that there will be a marked reduction in the number of names maintained at the present time.

2. *Limonia (Dicranomyia) microsomoides*, sp. n.

General coloration of mesonotum brownish yellow, the praescutum with four brown stripes; antennae black throughout; front and anterior vertex silvery, the latter broad; knobs of halteres infuscated; femora obscure yellow, the tips darker; claws (male) with a single long spine; wings narrow, whitish subhyaline, stigma oval, brown; Sc_1 nearly as long as $m-cu$; male hypopygium with the spines of the rostral prolongation of the ventral dististyle widely separated, the more basal one from a stout basal tubercle.

MALE — Length about 5 mm.; wing 5.5 mm.

Rostrum brownish black; palpi black. Antennae black throughout; flagellar segments suboval, their ends truncate, verticils slightly exceeding the segments. Head with the front and anterior vertex silvery, with a brown central stripe, the posterior part of head more brownish gray; anterior vertex broad, about twice the diameter of scape.

Pronotum brownish gray, restrictedly darkened medially above. Mesonotal praescutum opaque brownish yellow with four conspicuous brown stripes, the intermediate pair ending some distance before the suture; posterior sclerites of notum pale brown, gray pruinose, the scutal lobes variegated with darker. Pleura chiefly whitish gray, clearer gray on the anepisternum and ventral sternopleurite; dorsopleural region more buffy. Halteres with stem yellow, knob infuscated. Legs with the coxae and trochanters yellow, the fore coxae more infuscated; femora obscure yellow, clearer basally, the tips gradually more darkened; tibiae pale brown, the tips and the tarsi brownish black; claws (male) with a single strong tooth near base. Wings narrow, whitish subhyaline, more yellowed basally; stigma oval, brown, conspicuous; cord and outer end of cell $1st M_2$ vaguely darkened; veins brown, yellowed in the brightened basal part. Venation: Sc short, Sc_1 ending just before origin of Rs , Sc_2 some distance from its tip, Sc_1 alone nearly as long as $m-cu$; Rs about one-half longer than the basal section of R_{4+5} ; cell $1st M_2$ small, shorter than any of the veins beyond it; $m-cu$ shortly before fork of M .

Abdomen brown, the ventral dististyles of the male hypopygium whitened. Male hypopygium (fig. 4) with the tergite very deeply but narrowly notched, the lobes rounded, provided with several long setae. Basistyle, b , darkened, the ventromesal lobe pale, simple. Dorsal dististyle a gently curved rod, gradually narrowed to the acute tip, slightly more widened beyond midlength. Ventral dististyle, d , small, its area somewhat less than that of the basistyle; rostral prolongation large, the two spines slightly unequal, widely separa-

ted, the more basal one from a stout basal tubercle. Gonapophysis, *g*, with the mesal-apical lobe slender.

HOLOTYPE, ♂, Campos do Jordão, São Paulo, altitude 1600 meters, December 1945 (John Lane); Alexander Collection.

The present fly is closest to *Limonia* (*Dicranomyia*) *microsoma* Alexander, differing in the coloration, wing venation and structure of the male hypopygium, particularly the ventral dististyle.

3. *Limonia* (*Geranomyia*) *latitudinis*, sp. n.

Size relatively large (wing, male, 9 mm.); rostrum brownish black, nearly one-half as long as body; general coloration of praescutum chestnut brown, the humeral region more yellowed; halteres infuscated, the base of stem more yellowed; legs obscure yellow; wings with a strong yellow suffusion, very restrictedly patterned with brown; *Sc* long; cell *1st M*₂ about as long as the distal section of vein *M*₁₊₂; male hypopygium with the aedeagus unusually broad, especially across the base.

MALE — Length, excluding rostrum, about 9 mm.; wing 9 mm.; rostrum about 4.2 mm.

Rostrum elongate, nearly one-half as long as either the wing or remainder of body, brownish black. Antennae with scape and pedicel intensely black; flagellum broken. Head dark grey, with a narrow light gray median vitta extending the entire length of the dorsum, more silvery grey in front; anterior vertex about three-fourths as wide as the diameter of scape.

Pronotum light brown, sparsely gray pruinose. Mesonotal praescutum with the disk chiefly chestnut brown, the humeral region more yellowed, the lateral borders obscure yellow, sparsely pruinose; scutal lobes light brown, the median region more pruinose; scutellum infuscated medially at base, the posterior border extensively obscure yellow; postnotum obscure yellow, sparsely pruinose except on lateral and posterior borders, pleurotergite more pruinose. Pleura chiefly brownish yellow, vaguely patterned with clearer yellow, the surface pruinose. Halteres infuscated, the base of stem more yellowed. Legs with the coxae and trochanters yellow; remainder of legs obscure yellow, the terminal tarsal segments more blackened. Wings with a strong yellow suffusion, cell *Sc* still more so; stigma oval, pale brown; very small brown spots at supernumerary crossvein in cell *Sc*, origin of *Rs*, *Sc*₂, cord and outer end of cell *1st M*₂; veins yellow, darker in the patterned areas. Venation: *Sc* long, *Sc*₁ ending about opposite three-fifths *Rs*, *Sc*₂ near its tip; *Rs* angulated and short-spurred close to origin, thence straight; free tip of *Sc*₂ and *R*₂ in transverse alignment; cell *1st M*₂ long-rectangular, about equal in

length to distal section of vein M_{1+2} ; $m-cu$ close or just before the fork of M , a little shorter than the distal section of Cu_1 .

Basal abdominal tergites medium brown, the outer segments somewhat darker, their borders slightly more brightened; sternites obscure yellow. Male hypopygium with the tergite transverse, its caudal border broadly and gently emarginate, the low lateral lobes with numerous setae. Basistyle with ventromesal lobe stout, dark brown, paling to yellow at tip. Dorsal dististyle a strongly curved rod, very gradually narrowed into a long terminal spine. Ventral dististyle large and fleshy, its area about two and one-half times that of the basistyle, the proximal half pale, the outer part more darkened; rostral prolongation short, its apex obtuse or truncate; two rostral spines arising from small individual tubercles placed close together at near midlength and near base of prolongation, subequal in length or the more basal spine a trifle shorter than the outer. Gonapophysis with the mesal-apical lobe narrowed into a nearly straight dusky spinous point. Aedeagus very broad, especially at base, terminating in two small simple lobes.

HOLOTYPE, ♂, Nova Teutônia, Santa Catarina, August 27, 1937 (Plaumann). PARATOPOTYPE, 1 ♂; Alexander Collection.

In its venation and wing pattern, the present fly suggests species such as *Limonia (Geranomyia) rabula* Alexander and *L. (G.) stoica* Alexander, but is quite distinct in details of coloration and structure of the male hypopygium. The unusually broad aedeagus is noteworthy.

4. *Helius (Helius) hatschbachi*, sp n.

Allied to *mirabilis*; general coloration of thorax yellow, the scutellum and mediotergite brownish black; legs yellow, the tips of the femora narrowly brownish black; wings pale yellow with a handsome brown pattern that is restricted to the vicinity of the veins; R_s angulated and spurred near origin; cell $1st M_2$ strongly pointed at proximal end; $m-cu$ about three-fourths its length before fork of M ; abdomen yellow, the eighth segment blackened; tergites three to seven with paired brown spots at their basal lateral angles.

MALE — Length about 6 mm.; wing 5.8 mm.

Rostrum brown, palpi brownish black, the former relatively long, about equal in length to the remainder of head. Antennae with scape and pedicel dark, flagellum much paler, obscure yellow. Head gray; anterior vertex narrow.

Pronotum and most of mesonotum orange yellow, the praescutum and scutum unmarked; scutellum and mediotergite abruptly brownish black, parascutella and pleurotergite yellow. Pleura, including the dorsopleural membrane, yellow. Halteres yellow. Legs

yellow, the tips of the femora narrowly but conspicuously brownish black; terminal tarsal segments broken. Wings with the ground pale yellow, hardsofely patterned with brown; prearcular and costal fields clear light yellow; brown areas at stigma, origin of R_s , cord and outer end of cell $1st M_2$, most extensive over the anterior cord; tip of vein R_3 ; a darkened cloud on vein Cu at and before midlength of the basal section; veins yellow, brown in the patterned areas. Venation: R_s angulated and spurred near origin; branches of R_s diverging strongly, cell R_3 at margin more than twice as wide as cell R_2 ; cell $1st M_2$ strongly pointed at proximal end which lies about opposite one-half to three-fifths the length of R_s , the cell a little shorter than the distal section of vein M_3 ; $m-cu$ from three-fourths to four-fifths its length before the fork of M .

Abdomen yellow, the basal lateral angles of tergites three to seven with a conspicuous blackened spot, producing a total of five pairs of such areas; eighth segment uniformly blackened to form a subterminal ring; hypopygium light yellow. Male hypopygium with the lateral spines appearing as flattened blades, each extended into a long straight point, the opposite end being a shorter curved arm with pale membranous margins. Basistyle unarmed. Outer dististyle slender, the apex a strongly curved spine, with a smaller straight subterminal point. Inner dististyle longer, the distal third narrowed. Aedeagus only slightly curved.

HOLOTYPE, ♂, Matinhos, Paraná, June 1941 (Hatschbach, received through John Lane); Alexander Collection.

Named in honor of G. Hatschbach. The most similar described species is *Helius (Helius) larotya* Alexander, which differs conspicuously in the pattern of the body, wings and legs, and in the venation, including the shape of cell $1st M_2$ and the position of $m-cu$.

Austrolimnophila Alexander

Mediophragma, subgen. n.

Characters as in typical *Austrolimnophila* but with a supernumerary crossvein in cell M_1 of the wings.

TYPE OF SUBGENUS — *Austrolimnophila (Mediophragma) delectissima*, sp. n. (Neotropical: southeastern Brazil).

Other included species are *Austrolimnophila (Mediophragma) bifidaria* Alexander, *A. (M.) caparaoensis* Alexander, and *A. (M.) microspilota* Alexander, all of southeastern Brazil, and *A. (M.) paraguayana* Alexander, of Paraguay. All species are distinguished among themselves by the coloration of the body and pattern of the wings. The subgenotype is the largest and most conspicuous of all the species so far discovered.

5. *Austrolimnophila (Mediophragma) delectissima*, sp. n.

Size very large (wing, female, over 15 mm.); mesonotum chiefly dark brown, the posterior half of praescutum yellow, merging with the concolorous pleura; femora yellow, the tips abruptly black; wings pale yellow with a heavy brown pattern that is chiefly costal in distribution, the cells of the posterior half more nearly immaculate; abdominal tergites dark brown, their posterior borders narrowly yellow.

FEMALE — Length about 17 mm.; wing 16 mm.

Rostrum and palpi black. Antennae with the scape black, pruinose; pedicel brownish yellow, flagellum brown; flagellar segments long-cylindrical, the longest verticils exceeding the segments. Head with the front, anterior vertex and narrow posterior orbits light gray, the remainder of the vertex dark brown, the narrowed posterior part tinged with reddish, with a pair of darkened spots on the occiput; anterior vertex elevated, very narrow, slightly more than one-half times the diameter of the scape.

Pronotum dark brown above, paling to yellow on sides. Mesonotal praescutum obscure yellow on sides and posterior half, the anterior part brown, more intense medially; scutum dark brown, the posterior lateral parts of the lobes produced laterad into a ridge that extends to the wing root; scutellum somewhat paler brown, the parascutella obscure yellow; mediotergite obscure yellow on cephalic part, the remainder brown, darkest laterally; pleurotergite darkened posteriorly near the suture, the remainder yellow. Pleura uniformly pale yellow, including the dorsopleural membrane. Halteres with the stem pale brown, the knob a trifle darker. Legs with all coxae and trochanters yellow; femora yellow, the tips abruptly and conspicuously black, involving about a tenth of the segment; tibiae yellow, the extreme bases blackened; tarsi yellow. Wings with the ground color pale yellow, with a heavy brown pattern that is chiefly costal in distribution, including the prearcular field, cell *Sc* and a narrow border that encroaches on cell *R* at base and at origin of *Rs*, sending a spur backward along the cord to *Cu*; the darkened costal area includes also cells *R*₁ and *Sc*₂ and most of cells *R*₂ and *R*₃, these interrupted by a yellow spot in cell *R*₂ and a series of four in cell *R*₃; cell *R*₄ with nearly the outer half darkened, the subbasal part yellow; small brown spots over the outer end of cell 1st *M*₂, fork of *M*₁₊₂ and over the supernumerary crossvein in cell *M*₁; small darker marginal clouds at ends of veins *M*₃, *M*₄, *Cu*₁ and 2nd *A*, the latter two largest; cell *C* yellow, alternating with about ten slightly larger brown spots, the latter unequal in size; veins yellow, darkened in the patterned areas. Venation: *Rs* long, angulated and spurred at origin; *R*₂₊₃₊₄ long, straight, nearly twice the somewhat more arcuated basal section

of R_5 ; cell M_1 deep, the supernumerary crossvein at near two-thirds the length; petiole of cell M_1 shorter than m ; $m-cu$ before the fork of M , the distance varying from about one-fifth to one-third its own length.

Abdominal tergites dark brown, their posterior borders narrowly yellow, the lateral margins of the posterior rings more broadly yellow; sternites yellow; genital shield dark brown; cerci relatively short, strongly upcurved to the acute tips.

HOLOTYPE, ♀, Boracéia, São Paulo, altitude 850 meters, August 22, 1949 (Travassos and others); type returned.

Comparisons with related species of the subgenus are indicated above.

6. *Hexatoma (Eriocera) margaritae*, sp. n.

General coloration of thorax and abdomen brownish black, without pattern, the second abdominal sternite yellowed; head fiery orange; antennae (female) 6-segmented, basal two segments orange, flagellum brownish black; halteres and legs black, the femoral bases restrictedly yellow; wings dark brown, with scattered yellow areas; a supernumerary crossvein in cell R_3 beyond midlength; ovipositor with cerci very long and slender.

FEMALE — Length about 15 - 16 mm.; wing 12 - 12.5 mm.; antenna about 2 mm.

Rostrum very reduced, dark brown; palpi brownish black. Antennae (female) 6-segmented; scape orange, pedicel brownish orange, flagellum brownish black; first flagellar segment stouter and longer, nearly equal to the remaining segments combined; terminal segment about one-half longer than the penultimate. Head fiery orange; vertical tubercle directed cephalad, entire.

Thorax brownish black, without pattern; vestiture of praescutal interspaces short and sparse. Halteres blackened. Legs black, the femoral bases restrictedly yellowed. Wings with the ground color dark brown, patterned with yellow areas, these slightly variable in extent, distributed as follows: Before origin of R_s lying across vein M in both cells R and M ; base of cell R_1 ; an extensive band just before cord, consisting of spots in cells $1st M_2$ and M_4 , and, in cases, R_5 ; two additional conspicuous spots over R_2 and tip of R_{1+2} and at the supernumerary crossvein in cell R_3 ; veins brown, yellow in the pale spots. Relatively abundant macrotrichia on outer veins, including the outer branches of M . Venation: R_s long, subequal to the distal section of R_5 ; R_{2+3+4} from one and one-half to twice R_{2+3} ; a supernumerary crossvein in cell R_3 beyond midlength; cell M_1 lacking; cell $1st M_2$ about as long as the distal section of vein M_3 ;

m-cu nearly its own length beyond the fork of *M*; vein *2nd A* nearly straight.

Abdomen brownish black, with more than the proximal half of the second sternite yellow; genital shield orange, the preceding segment obscure yellow. Ovipositor with the cerci very long and slender, very gently upcurved.

HOLOTYPE, ♀, Rio de Janeiro - São Paulo Road at kilometer 47, February 2, 1944 (H. Monteiro). PARATOPOTYPE, ♀, November 9, 1943 (P. Wygodzinsky); Alexander Collection.

This very attractive species is named for Mabel Marguerite Miller, devoted wife and colleague of the writer. The fly is entirely distinct from the other numerous members of the subgenus now known from Tropical America in the presence of a supernumerary crossvein in cell *R*₃ of the wings. Other regional species that possess such a crossvein in other cells include *Hexatoma (Eriocera) acuña* Alexander, of Cuba, with this element in cell *R*₄, and *H. (E.) beebeana* Alexander, of Venezuela, with it in cell *R*₅.

7. *Gonomyia (Gonomyia) subappendiculata*, sp. n.

Allied to *remota* and *appendiculata*; mesonotum dark brown, including the scutellum; antennal scape and pedicel orange, flagellum black; thoracic pleura whitish yellow, striped longitudinally with brownish black; wings with *Sc* short, cell *1st M*₂ closed; abdominal tergites dark brown, the lateral borders obscure yellow, sternites and hypopygium yellow; male hypopygium with the terminal spine of the phallosome slender, gently curved to the acute tip.

MALE — Length about 5 mm.; wing 5.3 mm.

Rostrum and palpi black. Antennae with the scape and pedicel orange, flagellum black; flagellar segments passing into elongate-cylindrical. Head above orange, the center of the vertex darkened.

Pronotum and pretergites pale yellow. Mesonotum dark brown, the central region of scutum obscure orange; lateral praescutal borders before suture pale yellow, concolorous with the pretergites; scutellum dark brown, the parascutella yellowed; postnotum with the anterior or cephalic half or more of both the mediotergite and pleurotergite pale yellow, the posterior part brownish black, forming the posterior end of the dorsal pleural stripe; mediotergite with an extension cephalad from the darkened posterior portion. Pleura striped longitudinally with brownish black and whitish yellow, the dorsal dark line extending from the ventral cervical region across the dorsal pleura to the mediotergite, as described; lower stripe restricted to the ventral sternopleurite and bases of the middle and hind coxae. Halteres with stem dusky, knob dark brown. Legs with

the coxae yellow, the middle and hind pairs darkened basally, as described; trochanters brown; remainder of legs dark brown to brownish black. Wings with a weak brownish tinge, the stigmal region diffusely more darkened; veins brown. Venation: Sc short, Sc_1 ending a distance before origin of R_s that is about equal to one third the length of the latter, Sc_2 at extreme tip of Sc_1 ; basal section of R_s virtually lacking or punctiform; cell R_3 large; cell $1st M_2$ closed; $m-cu$ just beyond fork of M .

Abdominal tergites dark brown, the lateral borders of posterior half of the third and succeeding tergites obscure yellow, the amount decreasing on the outer segments; sternites uniformly pale yellow; hypopygium obscure yellow, the styli more obscured. Male hypopygium (fig. 5) with the apical lobe of basistyle, b , about one-third as long as the outer dististyle, the latter with a long erect spine on margin beyond midlength. Inner dististyle, d , with the apical lobe feebly darkened, obtuse at tip, posterior lobe a gently curved dusky rod with a seta on inner face at near midlength. Phallosome, p , with the basal spines unequal; terminal spine slender, gently curved to the acute tip.

HOLOTYPE, ♂, Boracéia, São Paulo, altitude 850 meters, October 11, 1948 (Travassos and others); type returned.

Various allied species, including *Gonomyia (Gonomyia) appendiculata* Alexander and *G. (G.) remota* Alexander, have cell $1st M_2$ closed as in the present fly, differing in slight details of structure of the male hypopygium, particularly the inner dististyle and phallosome. It is the first representative of the group to be discovered in southeastern Brazil.

8. *Gonomyia (Lipophleps) melanacantha*, sp. n.

Allied to *inermis*; mesonotum dark brown, scutellum extensively obscure orange; antennae black throughout; rostrum orange; wings with a strong dusky tinge; Sc short, Sc_1 ending a distance before origin of R_s subequal to the length of the latter; male hypopygium with the dististyle single, unarmed, provided with a single fasciculate bristle; the supposed tergal armature consists of eight or nine strong black spines in a close group, the lateral pair stouter and more or less branched.

MALE — Length about 4.5 mm.; wing 4.8 mm.

Rostrum orange; palpi black. Antennae black throughout; basal flagellar segments short-oval, the outer ones elongate; intermediate segments with very long verticils. Head gray.

Pronotum and pretergites yellowish white. Mesonotum dark brown, sparsely pruinose; scutellum obscure orange, infuscated medially at base; mediotergite more heavily pruinose; pleurotergite

chiefly obscure yellow. Pleura dark brown, heavily pruinose to appear blue-gray; a conspicuous whitened longitudinal stripe beginning behind the fore coxa, widened behind, reaching the abdomen. Halteres infuscated, the knob restrictedly obscure yellow. Legs with the coxae and trochanters yellowish brown, the fore pair dark; remainder of legs brownish black. Wings with a strong dusky tinge, the prearcular and costal fields more whitened; stigma vaguely more darkened than the ground; veins brown, paler in the costal region. Venation: Sc short, Sc_1 ending a distance before origin of R_s subequal to the length of the later, Sc_1 alone more than one-half R_s ; cell $1st M_2$ closed; $m-cu$ close to the fork of M .

Abdominal tergites dark brown, paler laterally; sternites chiefly obscure yellow. Male hypopygium (fig. 6) with the basistyle, b , long and slender. Dististyle, d , single, terminal in position, appearing as an oval yellow blade, terminating in a single fasciculate seta that is nearly as long as the style itself. Phallosome, p , consisting of three principal elements, the longest, presumed to be the aedeagus, a slender simple rod; other elements in part more blackened, the largest narrowed to a weakly bilobed blackened beak. What appears to represent tergal armature, t , is shown on the slide as a compact group of black spines, the lateral one on either side short and stout, unequally bifid; between the lateral pair, about six or seven more slender and slightly longer blackened spines; basad of this group of spines, the surface with smaller and paler scabrous points.

HOLOTYPE, ♂, Boracéia, São Paulo, August 1947 (John Lane); Alexander Collection.

Among the numerous described regional species of the subgenus, the various members of the *inermis* group seem to be the closest allies of the present insect, such species including *Gonomyia* (*Lipophleps*) *inermis* Alexander, *G. (L.) parinermis* Alexander, and *G. (L.) subinermis* Alexander. These have the dististyle much as in the present fly but with the phallosome and supposed tergal armature quite distinct. The unusually strong single bristle on the dististyle should be noted.

9. *Tasiocera* (*Dasymolophilus*) *boraceae*, sp. n.

General coloration brown; halteres dark brown; legs brownish yellow with darkened setae; wings with a weak brown tinge, the prearcular field more yellowed; venation much as in *Molophilus*, with vein R_2 lying basad of $r-m$; male hypopygium with the dististyle dilated on less than the proximal half, thence narrowed into a long curved spine, the tip acute; phallosome appearing as a flattened triangular plate, the lateral angles directed outward into acute spines.

MALE.— Length about 2.8 mm.; wing 3.5 mm.

Head broken. Pretergites whitened. Mesonotal praescutum brownish yellow with three darker stripes, the median one broader and darker; humeral triangles clearer yellow; interspaces with strong erect setae; posterior sclerites of notum brown, the scutellum obscure brownish yellow with a pair of strong setae on disk. Pleura brown. Halteres dark brown, with long coarse darkened setae, the base of stem narrowly pale. Legs with coxae and trochanters testaceous yellow; remainder of legs brownish yellow with darkened setae. Wings (fig. 2) with a weak brownish tinge, the prearcular field more yellowed; veins and trichia brown. Venation much as in the genus *Molophilus*; R_{2+3} only about twice R_2 , the latter lying some distance basad of level of $r-m$; cell M_2 open; $m-cu$ oblique, about one-half the petiole of cell M_3 ; vein 2nd A ending before the level of the caudal end of $m-cu$.

Abdominal tergites dark brown, sternites more yellowed; hypopygium brownish yellow. Male hypopygium (fig. 7) with the dististyle, d , terminal in position, dilated on less than the proximal half, thence narrowed into a long curved spine, the tip acute; outer margin of the narrowed part with about four setae. Phallosome, p , appearing as a flattened-triangular plate, the lateral angles directed outwardly into acute spines. Aedeagus, a , long and slender.

HOLOTYPE, ♂, Boracéia, São Paulo, altitude 850 meters, August 5, 1948 (Travassos and others); type returned.

The only other Neotropical member of the genus so far made known is *Tasiocera* (*Dasymolophilus*) *brevicornis* Alexander, of southern Chile. This differs conspicuously in the venation and in the structure of the male hypopygium, as described and figured in the original reference (Alexander, Diptera of Patagonia and South Chile, p. 198, pl. 5, fig. 108; pl. 11, fig. 235; 1929). The venation of the present fly is identical with of *Molophilus* and makes the separation of the two supposedly valid genera, *Molophilus* Curtis and *Tasiocera* Skuse, even more difficult.

10. *Molophilus* (*Molophilus*) *trifibra*, sp. n.

Belongs to the *plagiatus* group; general coloration of mesonotum reddish brown; antennae of moderate length, each flagellar segment with one verticil of unusual length; halteres yellow; wings with a weak brownish tinge, the prearcular and costal fields yellowed; male hypopygium with the basal dististyle a strong nearly straight rod that terminates in an acute spine, the outer margin with about three separate major spines, the outermost more appressed; phallosome a deeply bilobed setiferous cushion.

MALE — Length about 3.3 mm.; wing 3.8 mm.

Rostrum and palpi dark brown. Antennae moderately long; scape obscure yellow, the remaining segments dark brown; flagellar segments long-oval, each with an unusually long verticil, the longest more than twice as long as the segment, unilaterally distributed. Head brownish yellow.

Pronotum and pretergites whitened. Mesonotum medium reddish brown, the central part of the postnotum darker; pleurotergite and lateral border of mediotergite more reddish brown. Pleura dark brown, including the dorsopleural membrane. Halteres yellow. Legs with the coxae and trochanters yellow; remainder of legs yellow, the outer tarsal segments weakly darkened. Wings with a weak brown tinge, the prearcular and costal fields yellow; veins and trichia brownish yellow. Venation: R_2 lying distad of level of $r-m$; petiole of cell M_3 a little less than twice the oblique and sinuous $m-cu$; vein $2nd\ A$ long and sinuous, ending nearly opposite the cephalic end of $m-cu$.

Abdomen brownish yellow, somewhat darker laterally; hypopygium yellowish brown. Male hypopygium (fig. 8) with the beak of the basistyle, b , only gently curved, with numerous setae grouped around its base. Outer dististyle with the arms very unequal, the outer much expanded, the slender inner arm pointed at tip. Basal dististyle, bd , a strong nearly straight rod, terminating in an acute spine, the outer margin with about three separated major spines, the basal two largest and most conspicuous, the outer one more appressed; besides the major spines, the surface with a few additional smaller spinous points and setigerous tubercles. Phallosome, p , a deeply bilobed setiferous cushion. Aedeagus, a , long, very slender on the proximal third, slightly dilated beyond this point.

HOLOTYPE, ♂, Boracéia, São Paulo, altitude 850 meters, March 27, 1949 (Travassos and others); type returned.

Molophilus (Molophilus) trifibra is most similar to species such as *M. (M.) raptor* Alexander and allies, differing in the structure of the male hypopygium, particularly the basal dististyle.

11. *Molophilus (Molophilus) oligotrichus*, sp. n.

Belongs to the *plagiatus* group; mesonotal praescutum buffy yellow, with a pale brown central line, the sublateral areas similarly darkened; pronotum and pretergites white, posterior sclerites of notum and the pleura dark brown; halteres pale; legs obscure yellow, the tarsi darkened; wings greyish, the prearcular field more yellowed; male hypopygium with the basal dististyle a compact blackened structure, its outer lateral angle produced into a strong microscopically hairy spine, the inner angle a shorter acute spine.

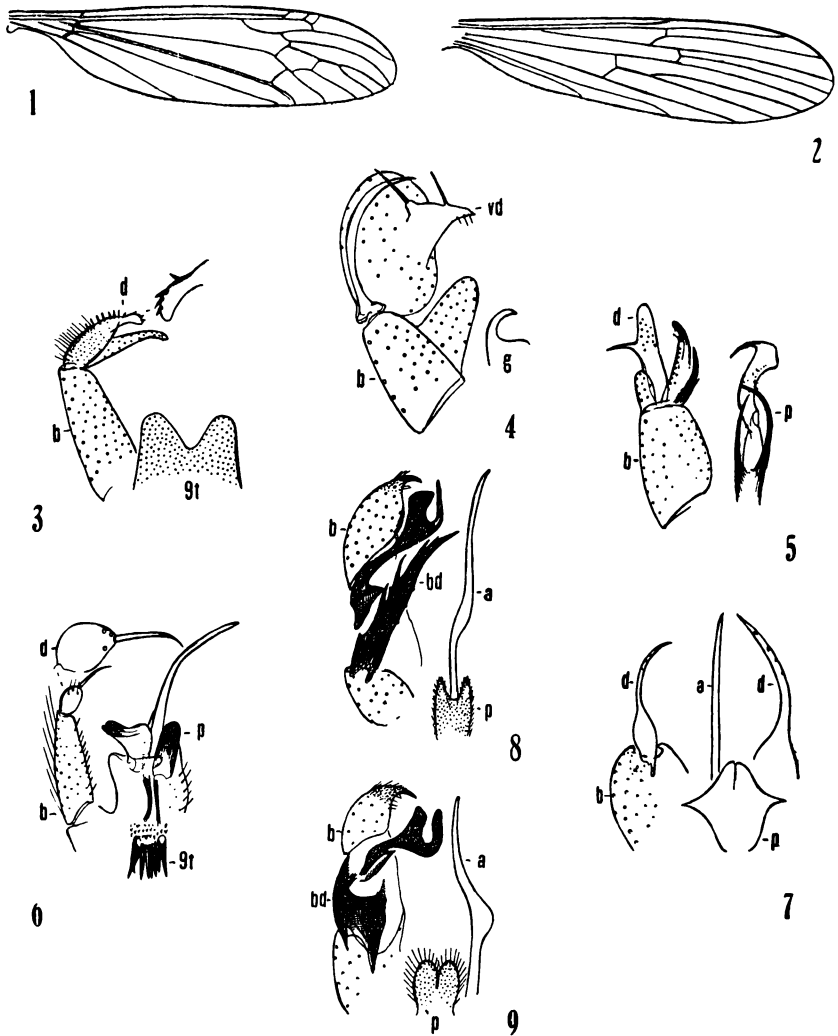
MALE — Length about 3.8 mm.; wing 4 mm.

Head broken. Pronotum and pretergites whitened. Mesonotal praescutum and scutum buffy yellow, restrictedly patterned with pale brown, including a central line on praescutum and weak sublateral darkenings on both the praescutum and scutum; scutellum and postnotum more darkened, the mediotergite most so on the central portion, parascutella pale; suture between the mediotergite and pleurotergite restrictedly yellow. Pleura dark brown. Halteres pale. Legs with the coxae and trochanters yellow; remainder of legs obscure yellow, the tarsi darkened. A single wing remains, badly twisted; general coloration grayish, the prearcular field more yellowed.

Abdomen brownish yellow, narrowly darkened laterally; hypopygium yellow. Male hypopygium (fig. 9) with the beak of the basistyle, *b*, slender, gently curved, dark brown. Outer dististyle with the arms unequal, the outer one broad, its apex truncate. Basal dististyle, *bd*, distinctive, appearing as a very compact structure, its outer lateral angle produced into a strong spine that bears a small hairy lobe on inner margin near base, the remainder of spine with further short setae; opposite or inner angle of style produced into a shorter acute point. Phallosome, *p*, a bilobed setiferous cushion. Aedeagus, *a*, with a conspicuous dilation at near midlength.

HOLOTYPE, ♂, Boracéia, São Paulo, altitude 850 meters, September 1, 1948 (Travassos and others); type returned.

The most similar allied species include *Molophilus* (*Molophilus*) *tridigitatus* Alexander and *M. (M.) triparcus* Alexander, which are readily told by the structure of the male hypopygium, particularly of the basal dististyle.



1 - *Longurio (Longurio) styx*, sp. n.; venation; 2 - *Tasiocera (Dasymolophilus) boraceae*, sp. n.; venation; 3 - *Longurio (Longurio) styx*, sp. n.; male hypopygium; 4 - *Limonia (Dicranomyia) microsomoides*, sp. n.; male hypopygium; 5 - *Gonomyia (Gonomyia) subappendiculata*, sp. n.; male hypopygium; 6 - *Gonomyia (Lipophleps) melanacantha*, sp. n.; male hypopygium; 7 - *Tasiocera (Dasymolophilus) boraceae*, sp. n.; male hypopygium; 8 - *Molophilus (Molophilus) trifibra*, sp. n.; male hypopygium; 9 - *Molophilus (Molophilus) oligotrichus*, sp. n.; male hypopygium. (Symbols: a, aedeagus; b, basistyle; bd, basal dististyle; d, dististyle; g, gonapophysis; p, phallosome; t, tergite; vd, ventral dististyle).