

NEW SPECIES OF CRANE FLIES FROM SOUTH AMERICA. PART VII¹

(Family Tipulidae, Order Diptera)

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The majority of the species described at this time are from *Brazil*, where they were chiefly included in shipments of these flies received from Messrs. Parish and Schade, a few others having been collected by Davis and Shannon. Still further material was taken by Mr. Shannon in *Argentina* and *Peru* and is now contained in the United States National Museum. Still fewer specimens are from *Paraguay* where they were taken by Mr. Schade. I am greatly indebted to all of the above-mentioned entomologists for their continued interest in developing the crane-fly fauna of Tropical America. Except where indicated to the contrary, the types of the novelties are preserved in my private collection of these flies.

Tanypremna Osten Sacken

Tanypremna invaripes sp. n.

Thoracic pleura variegated yellow and dark brown; femora brownish yellow, tibiae and tarsi uniformly brownish black or black; wings pale brownish yellow, cells *C* and *Sc* clearer yellow; stigma and a conspicuous cloud on anterior cord brown; outer longitudinal veins seamed with brown; abdomen with basal segments yellow, the extreme caudal borders dark; outer segments more uniformly darkened.

Male.—Length, about 20 mm.; wing, 13.5 mm.

Frontal prolongation of head yellow, darker beneath; palpi obscure yellow. Antennae short; scape yellow; pedicel light brown; basal segment of flagellum yellow, the succeeding segments brownish black, cylindrical, with long, conspicuous verticils. Head brown, paler on the orbits.

Pronotum dark medially, yellow on sides. Mesonotal praescutum brownish yellow, with three dark brown stripes; posterior sclerites of notum more or less darkened, but partially destroyed by Psocids in the unique type, and the coloration cannot be more accurately described. Pleura yellow, the ventral sternopleurite weakly darkened; pleurotergite

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darkened. Halteres dark brown, the extreme base of stem pale. Legs with the coxae pale, the outer face weakly darkened, on the posterior coxae appearing as a narrow streak; trochanters yellow, with a dark spot on lower face; femora brownish yellow; tibiae and tarsi uniformly brownish black or black, without white annuli on any of the segments. Wings with the ground-color pale brownish yellow, cells *C* and *Sc* clearer yellow, especially the latter; cell *Sc* in prearcular field more infumed; stigma small, dark brown; a conspicuous brown cloud on anterior cord; vein *M* and the veins beyond the cord vaguely seamed with pale grayish brown; veins dark brown, brighter in costal field. Venation: Tip of *Sc*₁ atrophied, lying close to free tip of *Sc*₂, the latter in turn close to and parallel with *R*₁₊₂, narrowing cell *Sc*₂.

Abdomen moderately elongate, yellow, the extreme caudal borders of the segments ringed with brown; outer segments with the dark color more extensive, on the subterminal segments including most of the sclerites; hypopygium pale.

HABITAT: Brazil (Rio Grande do Sul). *Holotype*, ♂, Nova Teutonia, December 2, 1934 (*ex* Parish).

The nearest allied species is *Tanypremma fuscitarsis* Alexander (Colombia) which has similarly darkened tarsi but is quite distinct in all other regards. It should be noted that the present fly is the only species of the genus in Tropical America that does not have white rings on the legs.

Tipula Linnaeus

Tipula lustralis sp. n.

Head brownish black; mesonotum dark reddish brown, the praescutum with vague indications of four slightly more brownish stripes; pleura dark brown; legs black, the femoral bases yellow; wings with a strong brown tinge, cells *C* and *Sc*, together with the stigma, dark brown; veins almost without trichia; *Sc*₁ preserved; cell *M*₁ very short-petiolate; cell 1st *M*₂ elongate; abdomen black, including the cerci; hypovalvae very short and slender, their tips just exceeding the bases of the cerci.

Female.—Length, about 15 mm.; wing, 11 mm.

Frontal prolongation of head, with the palpi, black; nasus apparently very reduced or lacking. Antennae broken. Head brownish black.

Mesonotum chiefly dark reddish brown, the praescutum with vague indications of four slightly more brownish stripes; scutal lobes variegated with more brownish areas. Pleura chiefly dark brown. Halteres dusky, their knobs broken. Legs with the coxae dark brown; trochanters obscure yellow; remainder of legs black, the femoral bases yellow, in amount involving about the basal third to fifth; spur-formula 1-2-2. Wings with a strong brown tinge, cells *C* and *Sc*, together with the stigma, even darker brown; veins brown. Macrotrichia of veins beyond cord lacking. Venation: *Sc*₁ preserved, ending about opposite midlength of *R*₂₊₃; *Rs* relatively long, in alignment with the long *R*₂₊₃; *R*₁₊₂ entire; cell *M*₁ with very short petiole to subsessile; cell 1st *M*₂ elongate, parallel-sided; *m-cu* on *M*₄ shortly beyond origin.

Abdomen black, the extreme caudal borders of segments more silvery. Ovipositor with cerci large and powerful, coal-black, the ventral margins entire but provided with a fringe of setae; hypovalvae short and very slender, pale, their tips just passing the bases of the cerci.

HABITAT: Brazil (Rio Grande do Sul). *Holotype*, ♀, Nova Teutonia, October 17, 1934 (*ex* Parish).

The reference of this curious fly to *Tipula* must be regarded as being somewhat provisional but seems to be correct. The species shows several points of resemblance to *Habromastix* yet scarcely appears to belong there. The coloration of the body and wings, and the peculiar structure of the ovipositor, especially the cerci, will serve to separate the fly from all other generally similar forms in South America.

Helius St. Fargeau

Helius (*Helius*) *albogeniculatus* sp. n.

General coloration of mesonotum rich brown, the pleura black; knobs of halteres dark brown; femora dirty white, the tips narrowly snowy white, preceded by a broader black subterminal ring; tibiae white, the bases narrowly clearer white, followed by a narrow darkened ring; tarsi white; wings pale brown; stigma oval, dark brown; distal ends of outer radial cells weakly darkened; *m-cu* at fork of *M*; abdominal tergites dark brown, sternites paler, the subterminal segments black.

Male.—Length, about 4.5 mm.; wing, 4.8 mm.

Rostrum black, subequal in length to remainder of head; palpi black. Antennae black throughout. Head apparently dark-colored, moldy in type.

Pronotum black. Mesonotum with praescutum and scutum rich brown, the posterior sclerites darker. Pleura black. Halteres pale, the knobs dark brown. Legs with the coxae darkened; trochanters somewhat brighter; femora dirty white, deepening to a black subterminal ring before the snowy white apex; tibial bases narrowly snowy white, subequal in degree to the femoral tips; immediately beyond the white base a weakly darkened ring; remainder of tibia chiefly white; tarsi white. Wings almost uniformly suffused with pale brown; stigma oval, dark brown; distal ends of outer radial cells weakly darkened; disk of wing on either side of cord not brightened as in *myersiellus*; veins pale brown. Venation: *Rs* a little shorter than in *myersiellus*; basal section of *R*₄₊₅ distinct; *m-cu* at fork of *M*.

Abdominal tergites chiefly dark brown; sternites paler, the subterminal segments black; hypopygium brownish yellow.

HABITAT: Brazil (Rio de Janeiro). *Holotype*, ♂, Campo Bello, Itatiaya, altitude 3,500 feet, January, 1930 (*ex* Schade).

The nearest ally is *Helius* (*Helius*) *myersiellus* Alexander (British Guiana-Brazil Border), which has the legs with similar snowy white genua but differs conspicuously in the details of coloration of the legs and wings.

Helius (Helius) leucoplaca sp. n.

General coloration of thorax brownish yellow; head gray, the rostrum subequal in length to remainder of head; knobs of halteres dark brown; legs black, the distal fourth of tibiae and the tarsi snowy white; wings subhyaline, iridescent; inner end of cell *1st M*₂ arcuated; *m-cu* at fork of *M*; abdomen dark brown.

Female.—Length, about 6 mm.; wing, 5.8 mm.

Rostrum nearly as long as remainder of head, dark brown; palpi brownish black. Antennae with the scape obscure yellow; pedicel enlarged, oval, brown; flagellum black. Head with the narrow anterior vertex light gray, the posterior sclerites a little darker gray.

Pronotum brownish yellow. Mesonotal praescutum gibbous, yellow laterally, weakly darkened medially; posterior sclerites of notum light yellowish brown. Pleura brownish yellow. Halteres yellow, the knobs dark brown. Legs with the coxae and trochanters yellowish testaceous; femora brownish black, the bases restrictedly paler; tibiae black, with a little more than the distal fourth snowy-white; tarsi snowy white, the terminal segments weakly darkened. Wings subhyaline, iridescent, the stigma only vaguely darker; veins brown. Venation: *Rs* straight, shorter than its anterior branch, the latter gently sinuous; posterior branch (*R*₄₊₅) straight; *r-m* and basal section of *R*₄₊₅ distinct and subequal; cell *1st M*₂ large, its inner end arcuated, vein *M*₃₊₄ subequal to *M*₄ alone; *m-cu* at fork of *M*.

Abdomen dark brown, the elongate valves of the ovipositor much paler.

HABITAT: Peru. *Holotype*, ♂, Iquitos, March-April, 1931 (Shannon); type in the United States National Museum.

Helius (Helius) leucoplaca is very different from all other described species. The black legs, with unusually broad white tips, suggest the wide-spread *H. (H.) albitarsis* (Osten Sacken), a very different fly having *m-cu* at near midlength of cell *1st M*₂ and with the white of the legs not involving the tibiae.

Limonia Meigen**Limonia (Limonia) contradistincta** sp. n.

General coloration pale yellow, the thorax variegated by dark brown, including two convergent lines on the scutellum; legs black, the femora with the extreme tips and a subterminal ring narrowly yellowish; wings strongly tinged with yellow, the costal portion more saturated; a heavy dark brown pattern, including seams along cord and outer end of cell *1st M*₂, together with a seam the entire length of vein *Cu*.

Female.—Wing, 7.2 mm.

Type badly damaged by insect pests.

General coloration of thorax pale yellow, the praescutum apparently with a median black vitta; scutellum yellow, with two brownish black lines that converge behind, becoming confluent at posterior border, continued across the mediotergite as a central dark vitta. Pleura yellow.

Legs with the coxae and trochanters yellow; femora black, the extreme tips and a subequal subterminal ring restrictedly yellow, the amount not exceeding one-fourth of the black ring between them; tibiae and tarsi black. Wings with a strong yellow tinge, the costal border more saturated yellow; a restricted but very conspicuous dark brown pattern, including the tip of *Sc* and a confluent seam on the angulated basal portion of *Rs*, the latter slightly widened; narrow seams on free tip of *Sc*₂ and *R*₂, cord and outer end of cell 1st *M*₂; a broad seam the entire length of vein *Cu*, involving the membrane on both sides of the vein; outer radial and medial veins, as well as outer ends of the anal veins, narrowly seamed with dark; veins yellow, darkened where traversing the brown areas. Venation: *Sc* short, *Sc*₁ ending a short distance beyond the origin of *Rs*, *Sc*₂ a little removed from its tip and likewise beyond *Rs*; free tip of *Sc*₂ lying just beyond *R*₂ but in approximate transverse alignment with it; *R*₃ sinuous toward outer end; *M*₃₊₄ a little longer than *M*₄ alone; *m-cu* just before fork of *M*; anal veins diverging at bases.

HABITAT: Brazil (Rio Grande do Sul). *Holotype*, a broken ♀, Nova Teutonia, September 16, 1934 (*ex* Parish).

The nearest allies of the present striking fly include other Neotropical members of the subgenus, as *Limonia* (*Limonia*) *melaxantha* Alexander, L. (*L.*) *osterhoui* (Alexander) and *L.* (*L.*) *repanda* Alexander. The present species differs from all other described forms in the leg-pattern and in the unbroken dark seam along vein *Cu* of the wings.

Limonia (*Limonia*) *multisignata* sp. n.

Belongs to the *insularis* group; general coloration black; front silvery; halteres black, the extreme base of stem yellow; legs black, the tarsi paling to brownish yellow; wings with a strong dusky tinge, conspicuously variegated by large, darker brown, costal markings that alternate with cream-colored areas; *R*₂ short but distinct.

Female.—Length, 7–10 mm.; wing, 6.5–10 mm.

Rostrum and palpi black. Antennae black, the outer flagellar segments paling to brown; basal flagellar segments oval, with short apical necks; segments beyond basal third progressively more elongate, the terminal segment about a fifth longer than the penultimate. Head dull black; front silvery; anterior vertex narrow, about one-half the diameter of the scape.

Thorax almost uniformly black or brownish black, the four usual praescutal stripes barely indicated by a more reddish tinge; pleura similarly variegated by a somewhat paler color on the anepisternum and pleurotergite. Halteres black, the extreme base of stem yellow. Legs with the coxae brownish black; trochanters obscure yellow; femora brown, passing into brownish black, the genua insensibly brightened; tibiae black; tarsi paling to brownish yellow. Wings with a strong dusky tinge, conspicuously variegated by large darker brown and more cream-colored areas; the brown areas appear as circular clouds at origin of *Rs*, tip of *Sc* and stigma; the pale areas lie before and beyond the origin of *Rs* and before and beyond the stigma; centers of cells of the disk less

evidently brightened; veins pale brown. Venation: Sc long, Sc_1 ending just before fork of R_s , Sc_2 at its tip; R_s long, angulated at origin; vein Sc_2+R_1 deflected strongly caudad, so vein R_2 is short to very short, the free tip of Sc_2 correspondingly lengthened; basal section of R_{4+5} weakly to strongly arcuated; $m-cu$ at or close to fork of M .

Abdomen brownish black, the genital segment and valves of ovipositor paler; cerci very slender, gently upcurved.

HABITAT: Brazil (Rio Grande do Sul). *Holotype*, ♀, Nova Teutonia, August 8, 1934 (*ex Parish*). *Paratopotypes*, 8 ♀♀, August 8–September 5, 1934.

The present fly is closest to *Limonia (Limonia) insularis* (Williston) and *L. (L.) fumosa* (Alexander), of northern South America and the Lesser Antilles, differing most evidently in the conspicuous wing-pattern and details of venation, especially of the radial field.

Limonia (Rhipidia) breviramosa sp. n.

Antennae with flagellar segments short-unipectinate in both sexes, involving ten flagellar segments; flagellum black, with the penultimate and antepenultimate segments abruptly white; mesonotal praescutum with a median dark stripe, its anterior end more velvety-black; pleura with a narrow but conspicuous black longitudinal stripe; tips of femora darkened; fore femora with a broad dusky ring at near midlength; wings white, with conspicuous brown and gray clouds; $m-cu$ before fork of M ; basal abdominal tergite light yellow; male hypopygium with two, very short rostral spines.

Male.—Length, about 6–7 mm.; wing, 6.2–7.5 mm.

Female.—Length, 7–8 mm.; wing, 7.5–9 mm.

Rostrum and palpi black. Antennae black, the penultimate and antepenultimate segments in both sexes white; apical pedicels of flagellar segments eight and nine pale; flagellum (male) short-unipectinate, the branches involving all flagellar segments excepting the last two; branch of first flagellar segment only a little shorter than the others; longest branch (at near midlength of the flagellum) subequal in length to or a little longer than the basal enlargement of the segment. In the female, the individual flagellar segments are a little shorter than in the male but the branches are proportionately fully as long or even slightly longer. Head dark gray, with a dark linear area on posterior vertex; anterior vertex narrow.

Mesonotal praescutum gray, with a conspicuous black median stripe; anterior end of this stripe and extreme anterior portion of lateral stripes deeper black; in the type female, the median stripe is more evidently bifid at posterior end and the humeral and lateral portions of the praescutum are yellow; median area of scutum and scutellum paler than the brownish black lateral portions of the same; mediotergite pruinose, variegated by more blackish areas. Pleura chiefly grayish yellow, with a very conspicuous but relatively narrow black longitudinal stripe, extending from the cervical region to the base of halteres; indications of a much narrower and very ill-defined more ventral stripe on the ster-

nopleurite. Halteres black, the base of stem bright yellow, the apex of knob more obscurely yellow. Legs with the coxae brownish yellow; trochanters yellow; femora yellow, the tips rather narrowly but conspicuously brownish black; fore legs in both sexes with a broad dusky ring just before midlength of femora; tibiae brownish yellow, the tips weakly darkened; tarsi passing through yellowish brown to black. Wings with the ground-color white, clouded with brown and gray, including a series of five costal areas, the last stigmal, the third at origin of R_s ; cord and outer end of cell *1st M*₂ more narrowly seamed with brown; extensive paler gray clouds in all cells, appearing as a subapical darkening in the outer radial and medial cells, becoming very extensive in the basal medial, cubital and anal cells; axilla broadly white; veins pale, darker in the clouded areas. Venation: Sc long, Sc_1 ending opposite two-thirds the length of R_s , Sc_2 not far from its tip; free tip of Sc_2 and R_2 in transverse alignment; *m-cu* shortly before fork of M .

Abdominal tergites dark brown, the basal segment yellow; sternites obscure yellow, the hypopygium brownish yellow. In the female and in some male specimens the tergites are more bicolorous, being variegated by obscure yellow on basal portion of each segment. Male hypopygium with caudal margin of tergite very gently emarginate. Dorsal dististyle gently curved, the tip suddenly narrowed into a straight spine. Ventral dististyle large, the rostral spines two, unusually small, much shorter than the apex of the prolongation beyond the point of their insertion. Gonapophyses with mesal-apical lobe terminating in a curved blackened hook, the margin before this point irregularly and weakly toothed.

HABITAT: Brazil (Rio Grande do Sul). *Holotype*, ♂, Nova Teutonia, September 25, 1934 (*ex Parish*). *Allotopotype*, ♀. *Paratopotypes*, 2 ♂♂, 1 ♀, September 25–26, 1934.

The present species is very distinct from other members of the subgenus having unipectinate flagellar segments. The coloration of the antennae is much as in *Limonia (Rhipidia) domestica* (Osten Sacken), with subpectinate antennae and the present fly serves well to connect the members of the *domestica* group with those of the *uniseriata* group of the subgenus.

Limonia (Rhipidia) neglecta sp. n.

General coloration of thorax obscure yellow, the praescutum with three brown stripes; antennae (♂) with nine bipectinate segments, the branches relatively short; pleura with a very conspicuous brownish black longitudinal stripe; halteres dark brown; legs dark brown, the tarsi not or scarcely brightened; wings with a strong brown tinge, with five darker costal areas that alternate with more whitish interspaces; vein R_{1+2} projecting as a long spur; abdominal tergites dark brown, the sternites bicolorous; male hypopygium with the ventro-mesal lobe of basistyle complex; rostral spines of ventral dististyle short.

Male.—Length, about 5.5 mm.; wing, 6 mm.

Rostrum dark gray; palpi black. Antennae (male) dark brown, the apical pedicels of the segments not or scarcely paler than the basal

enlargements; flagellar segments two to ten bipectinate, the longest branches about twice the segments or a trifle longer; flagellar segment one simply produced; flagellar segment ten with the branches very unequal in length, possibly an abnormality of the type, one branch being longer than the segment, the other much shorter; flagellar segment eleven simply produced, the lobe being subequal in length to the apical pedicel; terminal segment longer than the penultimate, narrowed on distal third; longest verticils exceeding the segments in length. Head dark gray.

Pronotum brownish black, vaguely brightened sublaterally. Mesonotal praescutum obscure yellow, a little brighter on the humeri, with three brown stripes; the broad median area with narrow black lateral dashes at near midlength, lateral stripes short and narrow, with their anterior ends confluent with the median stripe or nearly so; interspaces restricted; median area of scutum, together with the scutellum, obscure yellow, the latter a little darker on sides; mediotergite dark brown. Pleura yellow, the dorsal sclerites and dorsopleural membrane occupied by a conspicuous brownish black longitudinal stripe, beginning on the cervical sclerites, narrowed behind. Halteres dark brown, the base of stem narrowly yellow. Legs with the coxae and trochanters yellow; femora pale basally, passing into dark brown; tibiae and tarsi brown, the latter scarcely brightened. Wings with a strong brown tinge, the costal border variegated by five darker brown areas, alternating with more whitish interspaces; the first two dark areas lie very close together, the others being a little wider than their interspaces, the fifth dark area being the stigmal; bases of anal cells vaguely brightened; veins dark brown, with long conspicuous black trichia. Venation: *Sc* long, *Sc*₁ ending about opposite two-thirds the length of *Rs*, *Sc*₂ at its tip; *R*₁₊₂ jutting beyond the free tip of *Sc*₂ as a conspicuous spur; *m-cu* shortly beyond fork of *M*.

Abdomen with the tergites and hypopygium dark brown; sternites yellow, their posterior borders dark brown, a little more expanded on the sides. Male hypopygium with the ventro-mesal lobe of basistyle unusually complicated for a member of this subgenus, being expanded outwardly into a more or less bilobed structure, the more cephalic lobe with an area of long setae, the upper lobe being further produced into a small lobule. Rostral spines shorter than apex of prolongation of ventral dististyle beyond the point of their insertion. Ventro-mesal lobe of gonapophyses narrow, blackened, with smooth margins.

HABITAT: Brazil (Rio Grande do Sul). *Holotype*, ♂, Nova Teutonia, August 9, 1934 (*ex* Parish).

Limonia (Rhipidia) neglecta bears a general resemblance to *L. (R.) bipectinata* (Williston) of the Lesser Antilles and runs to this species by means of existing keys to the subgenus. It is very different in the coloration of the body and wings, in the structure of the antennae of the male and in details of venation.

***Limonia (Rhipidia) improperta* sp. n.**

Allied to *multiguttata*; general coloration light brown, very weakly pruinose, the praescutum with a broad median brown stripe; legs pale yellow; wings subhyaline, with an unusually heavily dotted pattern of pale gray; slightly larger areas above origin of *Rs* and at stigma; *m-cu* before fork of *M*; male hypopygium with the rostral prolongation of the ventral dististyle relatively short, the two long spines placed close to midlength, each spine being subequal in length to the prolongation itself.

Male.—Length, about 5.5 mm.; wing, 6 mm.

Rostrum and palpi brown. Antennae brown, the flagellar segments with short white apical pedicels; subbasal flagellar segments a little produced on lower face but scarcely subpectinate; terminal segment nearly twice the penultimate. Head dark gray; anterior vertex reduced to a narrow strip that is less than the diameter of the scape.

Mesonotum light brown, very weakly pruinose; praescutum with a broad median brown stripe and very small linear lateral dashes before the suture; scutal lobes weakly darkened; scutellum narrowly gray in center, slightly darkened on either side of midline; mediotergite pale, with a narrow dusky median line. Pleura chiefly pale, sparsely pruinose. Halteres pale, the knobs weakly darkened. Legs with the fore coxae weakly infumed, the remaining coxae and all trochanters pale; remainder of legs pale yellow. Wings subhyaline, with an unusually heavy dotted pale gray pattern in all cells; a very slightly darker and more extensive pattern in costal field, including a common area at end of *Sc* and origin of *Rs*; stigma small. Venation: *Sc*₁ ending shortly beyond origin of *Rs*, *Sc*₂ a short distance from its tip; *R*₂ and free tip of *Sc*₂ very pale, in approximate transverse alignment; *m-cu* a short distance before fork of *M*; cell *1st M*₂ small.

Abdomen yellow, the lateral line narrowly darker; hypopygium pale. Male hypopygium with the dorsal dististyle long and only gently curved, slightly widened outwardly, at apex suddenly narrowed into an acute spine. Rostral prolongation of ventral dististyle relatively short, the two spines long, gently curved, borne close to midlength of the prolongation; each spine is equal to or even a little longer than the prolongation itself; in allied forms, as *multiguttata*, the prolongation is very long, with the spines placed beyond three-fourths the length.

HABITAT: Brazil (Rio Grande do Sul). *Holotype*, ♂, Nova Teutonia, August 25, 1934 (*ex* Parish).

The nearest ally of the present fly seems to be *Limonia (Rhipidia) multiguttata* (Alexander) of Middle America, which differs most evidently in the structure of the male hypopygium, as discussed above.

***Limonia (Zelandoglochina) pervincta* sp. n.**

Mesonotal praescutum yellow, with three black stripes, the median one confined to anterior third of sclerite; a broad black longitudinal stripe on thoracic pleura; femora yellow, with two black rings, one terminal, the two enclosing a narrow yellow annulus; wings light yellow,

with a heavy brown pattern; abundant macrotrichia in apical cells of wing; abdominal tergites weakly bicolorous.

Female.—Length, about 7.5 mm.; wing, 8 mm.

Rostrum relatively short, subequal in length to remainder of head, black; palpi black. Antennae black throughout; flagellar segments oval to long-oval, the apical pedicels not or scarcely indicated; terminal segment a little longer than the penultimate. Head black, very slightly pruinose; anterior vertex relatively wide, exceeding the diameter of the scape.

Pronotum obscure yellow, black on sides. Mesonotal praescutum yellow, conspicuously variegated with three black stripes, the median one highly polished, restricted to the cephalic third of the sclerite where it expands over the front border; posterior two-thirds of the median area reddish and but slightly differentiated against the ground-color; lateral black stripes a little less polished, placed on extreme lateral border of sclerite and thus widely separated from the median area; scutal lobes reddish brown, the median area pale yellow; scutellum and mediotergite brownish black. Pleura yellow, with a very conspicuous brownish black dorsal longitudinal stripe extending from the cervical region to the pleurotergite, becoming a little widened behind; suture between pleurotergite and mediotergite narrowly pale. Halteres brown, the base of stem light yellow. Legs with the coxae and trochanters yellow; femora yellow, with two black rings at and near distal end, enclosing a subequal yellow ring, the subterminal dark annulus a little wider than the darkened tip; tibiae obscure yellow, the tips narrowly and weakly darkened; tarsi dark brown. Wings light yellow, heavily patterned with brown, as follows: An area in bases of cells *R* and *M*, in the latter cell embracing more than one-third the length and being further extended along vein *M* to the cord; a large common area at tip of *Sc* and origin of *Rs*; stigmal area, confluent with a large circular cloud at fork of *Rs*; seams along cord and outer end of cell *1st M*₂; wing-apex, more extensive in outer radial field, where the seam extends basad along vein *R*₄₊₅ to the cord; slightly paler, extensive brown washes at near midlength of cell *Cu* and near outer ends of Anal cells; axillary region broadly pale; veins pale, brown in the clouded areas. Stigma with very abundant black trichia; entire apex of wing with trichia in radial field extending to basad of cord, in medial field more restricted, the trichia dark in the clouded portions, paler in the ground areas. Venation: *Sc* relatively short, extending to shortly beyond the base of *Rs*, *Sc*₂ at tip of *Sc*, *Rs* angulated at origin; *m-cu* at fork of *M*.

Abdominal tergites dark brown, the caudal borders a little paler, more testaceous; sternites more distinctly bicolorous, the basal rings of the segments dark brown, the apices yellow, the amount of the latter greatest on the basal segments, becoming narrower on the outer segments; ovipositor with the valves horn-colored.

HABITAT: Argentina (Patagonia). *Holotype*, ♀, Correntoso, Lago Nahuel Huapi, November, 1926 (Shannon); type in the United States National Museum.

The nearest relative is *Limonia (Zelandoglochina) multiarmata* Alexander (Patagonia and southern Chile), which differs conspicuously in the pattern of the thorax, darkened femora, and a different distribution of the wing-pattern.

Hexatoma Latreille

Hexatoma (Eriocera) jurata sp. n.

General coloration black, the mesonotal praescutum with four dull black stripes that are narrowly bordered by more velvety black; legs and halteres black throughout; wings brown, conspicuously variegated by light yellow, including a broad yellow crossband before the cord, the prearcular field and bases of cells *Cu* and *1st A*; veins beyond cord with very sparse macrotrichia; abdomen black, the segments without scoriaceous bands.

Male.—Length, about 13 mm.; wing, 14 mm.

Rostrum and palpi black. Antennae with scape and pedicel obscure orange; flagellum black; antennae short, the flagellar segments gradually decreasing in length outwardly. Head fiery orange; vertical tubercle notched medially, the lobes obtuse.

Mesonotal praescutum black, dusted with a brownish yellow pollen; four dull black stripes that are narrowly bordered by more velvety black; posterior sclerites of notum black, dusted with dark pollen. Pleura dull black. Halteres brownish black. Legs black throughout. Wings brown, conspicuously variegated by light yellow, including a broad crossband chiefly before the cord, its outer edge just crossing the cord into the bases of cells *R*₄, *R*₅, *1st M*₂ and basal half of *M*₄; anterior prearcular field broadly yellow; cell *Sc* entirely yellow; approximately the basal half of cells *Cu* and *1st A* yellow; veins brown, more yellowish brown in the pale areas. Macrotrichia of veins beyond cord very sparse, the distal section of *R*₅ with only two or three. Venation: *R*₂ more than one-half longer than *R*₂₊₃ and about one-half *R*₁₊₂; *m-cu* one-third longer than the distal section of *Cu*₁ and placed at near midlength of the lower face of cell *1st M*₂.

Abdomen black, the segments without shining or scoriaceous bands; hypopygium reddish brown.

HABITAT: Brazil (Rio de Janeiro). *Holotype*, ♂, Campo Bello, Itatiaia, altitude 3,500 feet, October 1, 1929 (*ex* Schade).

The nearest allied species are *Hexatoma (Eriocera) caminaria* (Wiedemann) and *H. (E.) taenioptera* (Wiedemann), both from Brazil. I have been privileged to re-examine the holotype specimens of both of these flies through the friendly interest of Dr. Hans Zerny, of the Vienna Museum. Both species have the details of coloration of body and wings quite distinct, including an entirely dark prearcular field and with the cubital and anal cells but little brightened. Additional notes on these two species have been supplied by me in an earlier paper (Trans. Ent. Soc. London, 1922: 53, 56); I now feel virtually certain that the remarkable leg-pattern described by Wiedemann in the case of *taenioptera* really pertains to some other genus of the Tipulidae, presumably *Tanypremna*.

Hexatoma (Eriocera) propinqua sp. n.

Mesonotal praescutum reddish brown, yellow pollinose, with three brownish black stripes, the broad median vitta bisected for most of its length by a gray line; femora yellow, the tips blackened, with a broad, paler, brownish black ring at near midlength; wings brown, variegated by yellow, this color including the prearcular field; abdomen with basal rings of tergites two to four yellow, of tergites five to seven nacreous, the posterior rings black; genital shield obscure orange.

Female.—Length, 23 mm.; wing, 15.5 mm.

Rostrum and palpi brownish black. Antennae with the scape brownish yellow; pedicel brown; flagellum broken. Vertical tubercle clear light yellow, its summit weakly bifid; posterior portion of head somewhat more obscure yellow.

Pronotum brownish black, sparsely pruinose. Mesonotal praescutum with the ground-color reddish brown, yellow pollinose, obliquely striped with brown dashes; three brownish black stripes, the broad median one entire only on cephalic portion, becoming split at near one-eighth the length, the posterior end of the stripe subobsolete; lateral stripes distinct; scutum gray, each lobe with a conspicuous black area; scutellum and mediotergite black, pruinose. Pleura brown, the surface sparsely pruinose; dorso-pleural membrane dark. Halteres dark brown. Legs with the coxae and trochanters dark brown; femora yellow, the tips rather narrowly but conspicuously blackened; a broad, slightly paler dark ring at near midlength of the segment; tibiae yellow, the extreme bases blackened, the distal third more broadly darkened; tarsi passing through brown to black. Wings brown, variegated by yellow, including the prearcular field and a confluent area embracing the basal two-thirds of cell *1st A*; a relatively narrow, irregular, yellow band before cord; cell *Sc* yellow; cell *R* before the origin of *Rs* less evidently brightened; stigmal area a little darker than the remainder of the ground; veins brown, brighter in the flavous areas. No macrotrichia on veins beyond cord, excepting a loose series of 10 to 12 on outer section of vein *Rs*. Venation: Much as in *virgulativentris*; vein *R* about two-thirds *Rs*.

Abdomen with basal segment black, sparsely pruinose; tergites two to four with basal rings yellow, the broader apical rings black; tergites five to seven with the basal rings nacreous, the apices black; sternites obscure yellow, the subterminal segments somewhat darkened. Genital shield and preceding segment obscure orange; cerci chiefly black, the tips paler.

HABITAT: Brazil (Rio de Janeiro). *Holotype*, ♀, Campo Bello, Itatiaya, altitude 3,500 feet, October 10, 1929 (*ex* Schade).

The present fly seems to be most nearly allied to *Hexatoma (Eriocera) virgulativentris* (Enderlein) of Colombia, which, while having a generally similar pattern of the legs, wings and abdomen, yet differs in many important features, as the entire median praescutal stripe, the details of the wing-pattern, and the arrangement and proportions of the abdominal fasciae.

Hexatoma (Eriocera) variegata sp. n.

Mesonotal praescutum with three broad brown confluent stripes, the anterior ends of the lateral pair narrowly darkened; humeral and lateral portions of praescutum broadly golden-yellow; legs dark brown, the femoral bases paler; wings pale buffy-yellow, with a heavy brown pattern, distributed chiefly as broad seams to the veins and crossveins; anterior prearcular region light yellow; R_2 about twice R_{2+3} ; abdominal tergites two to four yellow, the caudal portions broadly blackened.

Sex (?)—Wing, 10 mm.

Head broken.

Mesonotal praescutum chiefly brown, the usual lateral stripes narrowly darker at their anterior ends and abruptly bordered by golden-yellow on the lateral and humeral portions of the sclerite; scutal lobes chiefly darkened; scutellum and mediotergite paler. Pleura chiefly destroyed by pests. Legs with the femora dark brown, their bases paler; tibiae and tarsi dark brown; one pair of legs, detached in the unique type, has the femora obscure yellow, with the tips narrowly darkened. Wings with the ground-color pale buffy-yellow, heavily patterned with brown, distributed chiefly as broad seams to the veins and crossveins; cells C and Sc darkened; cord and outer end of cell $1st M_2$ broadly seamed with brown; wing-tip extensively darkened but leaving pale centers in cells R_4 to M_4 , inclusive; a narrow broken dark crossband at level of origin of R_5 ; base of cell R narrowly darkened; cell $1st A$ pale except at outer end; cell $2nd A$ uniformly darkened; anterior prearcular field bright yellow; veins pale. Sparse macrotrichia on veins beyond cord, there being about four on basal third of R_3 and a loose series of five or six on distal third of R_5 . Venation: R_2 about twice R_{2+3} ; R_{1+2} without trichia, about twice the basal section of R_5 ; $m-cu$ about one-third its length beyond the fork of M .

Abdomen with the basal tergite darkened; tergites two to four with the base yellow, the caudal border broadly blackened, the dark areas not transverse but with the median area more extensively darkened than the sides; terminal abdominal segments broken.

HABITAT: Brazil (Rio de Janeiro). *Holotype*, Sex?, Campo Bello, Itatiaya, altitude 3,500 feet, December 15, 1929 (*ex* Schade).

The nearest ally of the present fly seems to be *Hexatoma (Eriocera) amazonicola* (Alexander), which differs widely in the coloration of the body and wings.

Lecteria Osten Sacken**Lecteria (Psaronius) brevisector** sp. n.

General coloration obscure yellow, the praescutum with four very slightly different brown stripes; a vague dusky median line from the suture to base of abdomen; tips of femora narrowly darkened; wings pale yellow, the margin and many of the veins narrowly but conspicuously bordered by brown; vein R_3 entirely atrophied; R_5 angulated and

spurred at origin, cell R_1 being of an unusual width for a member of the subgenus.

Sex(?)—Wing, 16 mm.

Rostrum and palpi light brown, terminal segment of the latter subglobular. Antennae brown throughout; flagellar segments passing into cylindrical, the outer segments with long conspicuous verticils. Head strongly narrowed behind, brown, with a sparse pollen; anterior vertex wide.

Pronotum brownish yellow. Mesonotal praescutum with the ground-color obscure yellow, with four very slightly differentiated brown stripes, the intermediate pair separated on the anterior end by a dark spot; pseudosutural foveae large and conspicuous, black; posterior sclerites of notum grayish brown, with indications of a very vague, median, brown line extending from the suture to the base of abdomen; a brownish spot at extreme cephalic-lateral portion of scutal lobes, just behind the suture. Pleura brown, rather heavily gray pruinose. Halteres obscure yellow, the knobs weakly darkened. Legs with the coxae reddish brown, gray pruinose; trochanters reddish brown; femora yellow, the tips narrowly and rather weakly infuscated; tibiae and basitarsi yellow, the tips narrowly darkened; remaining tarsal segments brown. Wings pale yellow, the prearcular and costal regions a trifle brighter yellow; cell C weakly darkened near outer end; a restricted but conspicuous dark pattern, including a narrow seam that entirely encircles the wing beyond the stigma; narrow seams at origin of R_s , along cord and outer end of cell 1st M_2 , R_2 , fork of M_{1+2} , and as seams along veins M , 1st A and 2nd A ; veins yellow, somewhat darker in the clouded portions. Venation: Vein R_3 entirely obliterated by atrophy and fusion, as in *abnormis*, *brevitibia* and *manca*; R_s short; angulated and spurred at origin, lying at an unusual distance from vein R_1 so that cell R_1 is of greater width than in any other species of the subgenus; in the type, a weak crossvein or spur in cell R_1 about opposite the fork of R_s .

Abdomen with the basal segment brown, the second segment more reddish brown; abdomen broken beyond segment two.

HABITAT: Brazil (Bahia). *Holotype*, Sex?, Ilheos, July, 1930 (Davis and Shannon); type in the United States National Museum.

The present fly is most nearly allied to *Lecteria (Psaronius) brevitibia* (Alexander), differing especially in the pattern of the wings and in the details of venation, notably the short, angulated and spurred R_s , and the unusually wide cell R_1 .

Trentepohlia Bigot

Trentepohlia (Paramongoma) tucumana sp. n.

General coloration of thorax uniform yellowish brown; antennal flagellum black, the segments long-oval, with short verticils; legs pale brown, the tarsi slightly more brownish yellow; wings pale yellowish brown, stigma darker brown; R_2 shortly before the fork of R_{3+4} ; *m-cu*

and distal section of Cu_1 diverging at a strong angle; abdominal tergites obscure yellow, with a conspicuous brown median stripe.

Male.—Length, about 7 mm.; wing, 7.5 mm.

Rostrum brown; palpi black. Antennae with scape and pedicel yellowish brown; flagellum black; flagellar segments long-oval, with short verticils. Head light brown; anterior vertex reduced to a linear strip.

Mesonotum and pleura almost uniformly yellowish brown, without well-defined praescutal stripes. Halteres dusky, the base of stem somewhat brighter. Legs with the coxae and trochanters obscure brownish yellow; femora and tibiae uniformly pale brown; tarsi a very little paler, more brownish yellow. Wings uniformly tinged with very pale yellowish brown; stigma relatively small, brown; scarcely evident darker seams along cord and vein Cu ; veins pale brown. Venation: R_2 shortly before fork of R_{3+4} suberect; cell $1st M_2$ moderately elongate; basal section of M_3 arcuated and much longer than the second section of M_{1+2} ; $m-cu$ at fork of M ; $m-cu$ and distal section of Cu_1 diverging at an angle of about 120° ; distance on margin between tips of veins Cu_1 and $1st A$ about one-fourth the length of $m-cu$.

Abdominal tergites obscure yellow, with a conspicuous brown median stripe that is slightly interrupted at the bases of the segments; sternites more uniformly yellow, the subterminal sternites a trifle darker.

HABITAT: Argentina. *Holotype*, ♂, Tucuman, March, 1926 (Shannon); type in the United States National Museum.

The most generally similar species is *Trentepohlia* (*Paramongoma*) *roraimicola* Alexander, of Mount Roraima (British Guiana-Brazil Border), which differs especially in the details of coloration and wing-venation, as the more erect vein R_3 , with R_2 at the fork of R_{3+4} , the even more elongate cell $1st M_2$, and the much less divergence of the veins $m-cu$ and distal section of Cu_1 .

Gonomyia Meigen

Gonomyia (*Lipophleps*) *sana* sp. n.

Belongs to the *manca* group; mesonotum grayish brown, without evident markings; scutellum obscure yellow, darkened medially; legs chiefly brownish black; wings with a faint brown tinge, the costal and prearcular regions more yellowish; male hypopygium with the dististyle a powerful, strongly curved, darkened arm, the latter narrowed into a more blackened spinous point, with pale membrane on outer margin at point of narrowing.

Male.—Length, about 3.3 mm.; wing, 3.7 mm.

Rostrum brownish black; palpi black. Antennae with scape black beneath, obscure yellow above; pedicel yellow; flagellum black. Head above chiefly yellow, more or less darkened medially.

Pronotum obscure yellow. Pretergites light yellow. Mesonotum grayish brown, without evident markings; scutal lobes extensively dark brown, the median area obscure yellow; scutellum obscure yellow, darkened medially; mediotergite chiefly pale, the cephalic portion a little

darkened. Pleura obscure yellow, with a broad ventral whitish stripe, bordered both above and beneath by narrow dark lines, extending from and including the fore coxae to the base of abdomen. Halteres pale, the knobs broken. Legs with the femora yellowish brown, the tips darker; tibiae and tarsi brownish black. Wings with a faint brown tinge; cells C and Sc_1 together with the prearcular region, more yellow; stigma long-oval, pale brown; veins brown. Venation: Sc_1 ending opposite origin of R_s , Sc_2 a short distance from tip; R_s about three-fifths as long as its anterior branch; $m-cu$ at fork of M .

Abdominal tergites dark brown, the sternites yellow; hypopygium yellowish. Male hypopygium with the outer lobe of basistyle conspicuous, extending caudad about to level of the dististyle. Dististyle consisting of a small oval fleshy lobe that terminates in a powerful fasciculate bristle, and a powerful, strongly curved, darkened arm, its outer end narrowed into a more blackened strong spine; at point of narrowing on outer margin with a small amount of pale membrane. Phallosome without blackened points.

HABITAT: Paraguay. *Holotype*, ♂, Villarica, September, 1930 (F. Schade).

The nearest ally of the present fly appears to be *Gonomyia (Lipophleps) sandersi* Alexander (Cuba), which differs in the details of structure of the male hypopygium, as the stout lobe of the basistyle, much more slender and more elongate dististyle, and the details of the phallosome.

Teucholabis Osten Sacken

Teucholabis (Paratropesa) nigrocoxalis sp. n.

Allied to *chalybeia*; general coloration of thorax and abdomen polished black, without clearly defined blue reflexions; prothorax yellow; knob of halteres light yellow; fore and middle coxae yellow, posterior coxae and trochanters black; fore femora chiefly black, middle and hind femora yellow; wings yellowish subhyaline, with vaguely indicated pale brown crossbands; $r-m$ obliterated by fusion of veins R_5 and M_{1+2} ; abdomen black, the caudal borders of the intermediate tergites very narrowly ringed with yellow; sternites extensively yellow.

Male.—Length, 7.5–8 mm.; wing, 7–8 mm.

Rostrum dark, pruinose with silvery; palpi brownish black. Antennae with scape and pedicel reddish brown, flagellum black; flagellar segments passing through short-oval to more elongate, the outer segments progressively lengthened. Front reddish, the posterior portions of head polished black.

Prothorax light yellow. Mesonotum polished black, in cases with slight blue reflexions. Pleura black, the dorso-pleural membrane and tegular callosities light yellow; a transverse band of silvery pubescence extends from the wing-root to the mid-coxae on the pteropleurite; metapleura with a similar patch of pubescence. Halteres black, the knobs light yellow. Legs with the fore and middle coxae and trochanters light yellow, the posterior coxae and trochanters polished black or

brownish black; fore femora black, the bases narrowly yellow; middle and hind femora yellow; fore tibiae and tarsi black; middle tibiae and basitarsi yellow, the outer tarsal segments brownish black; posterior tibiae obscure yellow, the tips weakly darkened; tarsi black, the basitarsi dilated. Wings yellowish subhyaline, with vaguely indicated pale brown crossbands, including the wing-tip beyond the level of the outer end of cell *1st M*₂, and a broader more diffuse area before the cord, in cells *R*, *M*, *Cu* and *1st A* involving most of the cells; stigma narrowly triangular; cell *Sc* chiefly dark brown; veins brown. Venation: *r-m* obliterated by fusion of veins *R*₅ and *M*₁₊₂; cell *1st M*₂ closed.

Abdomen black, the caudal borders of the intermediate tergites very narrowly ringed with yellow; sternites extensively yellow, the bases of the segments blackened; hypopygium black.

HABITAT: Brazil (Rio Grande do Sul). *Holotype*, ♂, Nova Teutonia, October 2, 1934 (*ex Parish*). *Paratopotypes*, 2 ♂♂, October 22–30, 1934.

The nearest allied species is *Teucholabis (Paratropesa) chalybeia* Alexander (Colombia). By my most recent key to the Neotropical species of the subgenus (*Konowia*, 12 : 44–45; 1933), the fly runs to *chalybeia*, differing in the reduction of the blue body reflexions, more especially of the abdomen, and in the details of coloration, as the blackened posterior coxae and trochanters.

***Teucholabis (Teucholabis) inulta* sp. n.**

Mesonotum polished yellow, with three black stripes, the median one not reaching the suture behind; lateral stripes confluent with the median vitta, their anterior ends extended laterad to margin; head reddish, the central portion of vertex darkened; rostrum black; halteres dusky; femora yellow, bi-annulate with black; wings subhyaline, the cells basad of cord insensibly washed with darker; extreme wing-tip in cell *R*₃ darkened; stigma distinct, dark brown; veins pale brown, more yellowish in costal field; abdominal tergites black, basal sternites yellow, the outer segments darkened; male hypopygium with the basistyle produced caudad into slender terminal lobes.

Male.—Length, 8–9 mm.; wing, 8.3–9 mm.

Female.—Length, 9–10 mm.; wing, 8–8.5 mm.

Rostrum black, paler ventrally, subequal in length to remainder of head; palpi black. Antennae with scape yellow, pedicel and flagellum black; flagellar segments oval, with long, unilaterally-arranged verticils. Head dark reddish, the central portion of the posterior vertex, as well as the entire anterior vertex and front, black.

Pronotum obscure yellow, a little darkened medially behind. Mesonotal praescutum polished yellow, with three black stripes, the median one not reaching the suture behind, isolating a conspicuous yellow median area; median stripe confluent with the lateral pair, the latter with anterior ends produced laterad to border of sclerite, the posterior ends produced caudad across suture onto scutal lobes; central portion of scutum yellow, the lobes extensively blackened; scutellum and para-

scutella yellow; mediotergite yellow on anterior half, blackened on posterior portion. Pleura chiefly darkened, covered with a dense appressed silvery pubescence, the silvery coloration involving the ventral anepisternum, sternopleurite and dorsal pteropleurite; meron pale; a polished black area on dorsal anepisternum and pleurotergite; dorso-pleural membrane yellow; a group of long setae on pleurotergite beneath wing-root. Halteres dusky. Legs with fore coxae darkened; middle and hind coxae pale; femora yellow, bi-annulate with black, including broad tips and much narrower rings at or near midlength of the segment, this latter ring broader and more conspicuous on the posterior legs; in female, this median annulus is very faint to hardly discernible; tibiae obscure yellow, the tips narrowly darkened; basal segments of tarsi yellow, narrowly tipped with darker; outer tarsal segments black. Wings subhyaline, the cells basad of cord insensibly washed with darker; extreme wing-tip in cell R_3 darkened; stigma distinct, dark brown; veins pale brown, more yellowish in costal field. Venation: Sc_1 ending nearly opposite midlength of Rs , Sc_2 removed from tip; R_2 oblique, longer than the arcuated R_{1+2} or than R_{2+3+4} ; veins R_3 and R_4 elongate, extending generally parallel to one another; cell $1st M_2$ closed; *m-cu* shortly beyond fork of M .

Abdominal tergites black; basal sternites chiefly light yellow, the outer segments more uniformly blackened; pleural membrane brownish yellow; hypopygium chiefly yellow. In female, the centers of the individual tergites more reddish brown. Male hypopygium with the basistyle produced caudad into long fingerlike lobes that extend caudad to opposite the level of the longest styli; mesal face of basistyle produced into a blade that is further armed with a long erect spine just before apex, the mesal edge of stem of style with abundant setae. Outer dististyle a long, dusky, gently curved lobe, provided with several coarse setae, at and near apex with abundant spinulae. Apical spine of aedeagus small and weak.

HABITAT: Brazil (Rio Grande do Sul). *Holotype*, ♂, Nova Teutonia, October 9, 1934 (*ex* Parish). *Allotopotype*, ♀, September 25, 1934. *Paratopotypes*, 2 ♂♂, 5 ♀♀, September 25–October 24, 1934.

Despite the virtually unmarked wings, the present fly seems to be most closely related to *Teucholabis* (*Teucholabis*) *melanocephala* (Fabricius) and allies, all species of which having cells $1st M_2$ closed likewise have the wings conspicuously cross-banded with darker.

***Teucholabis* (*Teucholabis*) *dedecora* sp. n.**

Mesonotal praescutum yellow, with three polished black stripes that are more or less confluent; median stripe deepest in color on anterior third; mediotergite yellow, the posterior portion black; pleura with two polished black areas, separated by a pale pruinose longitudinal stripe that includes the meron; halteres dusky throughout; femora obscure yellow, the distal portions of the fore and middle legs slightly darkened;

wings with a faint yellow tinge; wing-tip narrowly and insensibly darkened; stigma oval, dark brown; veins R_{2+3+4} and R_{1+2} subequal, a trifle shorter than R_2 alone; m longer and more arcuated than the basal section of M_3 ; abdominal tergites black, including hypopygium.

Male.—Length, 6–6.5 mm.; wing, 6.5–7 mm.

Rostrum black, subequal in length to remainder of head; palpi black. Antennae black throughout; flagellar segments oval, with verticils that are considerably longer than the segments. Head dull black.

Pronotum obscure yellow, narrowly darkened laterally. Mesonotal praescutum with the ground-color yellow, with three polished black stripes that are more or less confluent, the median stripe deepest in color on anterior third, becoming more reddish behind; median region of scutum pale, the lobes behind chiefly more reddish; scutellum brownish black, paler beneath; mediotergite obscure yellow on cephalic portion, the posterior border with two large contiguous black areas. Pleura polished black, forming two longitudinal areas, the more dorsal including the anepisternum, dorsal pteropleurite and pleurotergite, confluent with the posterior mediotergite, the lower stripe on the ventral sternopleurite; the pale area between is heavily pruinose, extending from behind the fore coxae to the base of abdomen, including the entire meron. Halteres dusky throughout. Legs with the fore coxae darkened, the posterior and middle coxae paler but heavily pruinose; trochanters obscure yellow; femora obscure yellow, the distal portion of the fore femora, and less extensively of the middle pair, slightly darkened; tibiae brown, the tips passing into black; tarsi black; proximal half of posterior basitarsus slightly dilated. Wings with a faint yellow tinge; stigma oval, dark brown; wing-tip narrowly and insensibly darkened; veins brown, those of the prearcular and costal fields more yellow. Venation: Sc_1 ending nearly opposite midlength of Rs , Sc_2 some distance from its tip; R_{2+3+4} and R_{1+2} subequal, a trifle shorter than R_2 alone; m a little longer and more arcuated than the basal section of vein M_3 ; cell *1st* M_2 gently widened distally; $m-cu$ just beyond fork of M .

Abdominal tergites black; sternites black basally, the outer halves of the individual segments brownish yellow; hypopygium black. Male hypopygium with the basistyle not or scarcely produced at apex; mesal edge produced into three slender black spines, the innermost with delicate setulae at base. Outer dististyle expanded on basal half, the outer portion more slender, with long coarse setae. Aedeagus terminating in a long curved blackened spine.

HABITAT: Brazil (Rio Grande do Sul). *Holotype*, ♂, Nova Teutonia, September 25, 1934 (*ex* Parish). *Paratopotypes*, 2 ♂♂, September 25–26, 1934.

I know of no very near relative. The species most nearly resembling the present fly are *Teucholabis* (*Teucholabis*) *furva* Alexander (Guatemala) and *T. (T.) miniata* Alexander (Panama), both of which have similarly darkened halteres and wings of this general pattern, but are entirely different in the details of coloration and in the structure of the male hypopygium.

Molophilus Curtis

Trichomolophilus subgen. n.

Characters as in *Eumolophilus*, differing especially in the very numerous macrotrichia in the cells of the wing, these including the entire surface beyond the arculus. *Venation*: Cell R_3 short-petiolate by the presence of a short element R_{2+3+4} , sessile in all other species of the genus; R_2 subequal to R_{2+3} ; fork of M symmetrical, the basal deflection of M_{1+2} not in direct longitudinal alignment with M , as is the case in *Eumolophilus*. Legs with conspicuous erect setae, arranged to form conspicuous paddles, occurring on all legs, best-developed on posterior tibiae. Fore femora and tibiae very short, together shorter than the basitarsi.

Type of subgenus—*Molophilus* (*Trichomolophilus*) *multisetosus* sp. n. (Southern Brazil).

The chief characters to separate this group from *Eumolophilus* Alexander lie in the abundant macrotrichia of the cells of the wings, these exceeding the condition found in any previously described member of either *Molophilus* or *Dasy-molophilus*, and in the short-petiolate cell R_3 of the wing, this being sessile in all other species of the genus *Molophilus*, now exceeding 300 in number. The short fore femora and tibiae and lengthened fore basitarsus indicate a close alliance with *Eumolophilus*, despite the differences above outlined.

Molophilus (*Trichomolophilus*) *multisetosus* sp. n.

General coloration black; legs with long hair-paddles; wings with abundant macrotrichia in all cells; cell R_3 short-petiolate.

Male.—Length, about 3.5 mm.; wing, 4 mm.

Rostrum and palpi black. Antennae with scape and pedicel black; flagellum broken. Head brownish black.

Mesonotum dull black, the anterior lateral pretergites restrictedly obscure yellow. Pleura black, with conspicuous white setae. Halteres black, the knobs conspicuously and abruptly white, with white setae. Legs with the coxae and trochanters black; femora black, with conspicuous erect black setae, those at extreme tip snowy-white; tibiae, especially of the middle and hind legs, with conspicuous erect setae; fore tarsus with extreme proximal end and tip of basitarsus white; base and tip of second tarsal segment white; hind legs with femora and tibiae of normal size, the genua slightly whitened; basitarsus entirely snowy white, the remainder of posterior tarsi black. Wings with the ground-color obscure yellow, with vague darker clouds along cord and, less evidently, across basal cells and as a subapical band; entire wing-surface densely covered with dark trichia, more abundant in the darkened areas

mentioned and contributing to the dusky appearance; veins moderately dark. Venation as discussed under the subgenus; vein *2nd A* ending shortly before level of posterior end of *m-cu*.

Abdomen, including hypopygium, black. Male hypopygium (as viewed in the dry type specimen) with elongate ventral lobes of the basistyles.

HABITAT: Brazil (Rio de Janeiro). *Holotype*, ♂, Campo Bello, Itatiaya, altitude 3,500 feet, January 29, 1930 (*ex* Schade).

The present fly is obviously allied to, yet strikingly distinct from, the three species of the subgenus *Eumolophilus* so far described, *pennipes* Alexander, *sabethoides* Edwards and *thaumastopodus* Alexander, all Neotropical, and as far as now known, restricted to Brazil. The conspicuously hairy wings, with distinct venation, readily serve to separate the present fly from the above named species of *Eumolophilus*.

AN INTRODUCTION TO ENTOMOLOGY, by JOHN HENRY COMSTOCK. Eighth Edition, 1,044 pages, 1,228 figures. Comstock Publishing Company, Inc., Ithaca, N. Y. Price, \$5.00.

Probably no entomological text written to the present time has enjoyed such popularity as Comstock's Introduction to Entomology. The soundness of subject matter and care with which the original work was cast has made only a few changes necessary from time to time.

In the eighth edition the discussion of chitin has been modernized and the numbering of the pages has been juggled somewhat. The Order Protura is placed now among the Hexapoda, the Hemimeridae are in the Order Dermaptera, the Suborder Idiogastra has been referred back to the Suborder Chalastogastra, and a new order, the Protura, or Telson-tails has been appended. New pages introduce the Apterygota and Pterygota.

A half-tone portrait of Professor Comstock appears as a frontispiece. The binding of the new book appears to be sufficiently strong to take care of the hard use to which this text is generally put.—B. J. L.