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## STUDIES ON THE CRANE-FLIES OF MEXICO PART V<sup>1</sup>

(Order Diptera, Superfamily Tipuloidea)

CHARLES P. ALEXANDER  
Amherst, Massachusetts

The present report is based entirely on some extensive series of Tipulidae collected in the State of Chiapas by Dr. Alfons M. Dampf, chiefly in 1935. Dr. Dampf writes as follows concerning this very rich collection: "The material is the result of a two months collecting in the virgin forests of the Sierra Madre during the year 1935. I arrived at the coffee plantation Vergel with the first rains of the wet season and had the opportunity to witness the sudden change of the fauna after the dry time. The country is characterized by deep woodland valleys, sometimes in the form of gorges and by mountain ranges covered with remarkable virgin forest. The collections afford a good opportunity to study the distribution of the species according to altitude."

Certain of the *Mexican Fauna* (M. F.) numbers of Dr. Dampf used in the present report are summarized herewith.

*Finca Vergel*: Situated on the right steep slope of the Valley of the Huixtla River, in coffee plantations that have changed the virgin forest, making it much more clear. The vegetation is very rich and varied. Besides a permanent brook, there are in the rainy season many small rivulets. Altitude 800 meters. Many numbers from M. F. 4123 (May 11) to 4744 (July 2). Additional collections were made at stations higher up the slope, altitude 1000 meters, overlooking the woodclad slopes of the Huixtla Valley; M. F. 4191, and still higher on the crest of the watershed between Rio Huixtla and Rio Despoblado, altitude 1200 meters; M. F. 4192.

*Finca Victoria*: The region is much more virgin than Vergel, full of brooks, rivulets, barrancas and the like—a paradise for the entomologist. Altitude about 900 meters. M. F. Nos. 4342, 4693, 4694, 4709, 4710.

*Finca Aurora*: Trap light covering a valley with brooks and rocks, dense vegetation. Altitude 200 meters. M. F. 4552.

<sup>1</sup>Contribution from the Department of Entomology, Massachusetts State College.

The preceding part under this general title appeared in these Annals (Vol. 21, 101-119, 1928).

*Finca Germania*: Trap lamp, on veranda overlooking valleys, rocks and many brooks. Altitude 1190 meters. M. F. 4571.

The great majority of all the specimens secured were taken at trap lights set in a variety of locations throughout the region. In the present paper a portion of the tribe Eriopterini is considered. Through the continued friendly interest of Dr. Dampf, I have been permitted to retain the types in my collection but duplicates and paratypes of many of the species have been returned to Dr. Dampf for the Government Collection. As before, I express my very deepest thanks to the collector for the privilege of examining this remarkable series of Mexican Tipulidae.

### Gonomyia Meigen

#### Gonomyia (*Progonomyia*) *atroapicata* sp. n.

General coloration yellow; mesonotal praescutum and scutum conspicuously patterned with polished black; antennae black, the scape and pedicel yellow; femora yellow, the tips conspicuously black; wings with a weak brownish yellow tinge, the stigma slightly indicated; *Sc* long; petiole of cell  $R_3$  long, nearly three times vein  $R_3$  alone; cell *2nd M* subequal to its petiole; abdominal tergites bicolored, the basal half darkened; male hypopygium with basistyle unarmed at apex; inner dististyle a flattened blade.

*Male*. Length about 4 mm.; wing, 4.6 mm.

Rostrum and palpi brown. Antennae with scape and pedicel light yellow, flagellum black; flagellar segments long-oval, the verticils exceeding the segments in length. Head light yellow.

Pronotum and pretergites sulphur-yellow. Mesonotal praescutum obscure yellow, conspicuously patterned with three polished black areas, including two oval lateral markings and a similar one on antero-median portion of sclerite; remainder of median praescutal stripe much paler; scutal lobes polished black, the median area pale; scutellum blackened, the posterior border yellow, parascutella yellow; mediotergite chiefly brownish black, the antero-lateral portions broadly yellow. Pleura chiefly yellow. Halteres yellow. Legs with the coxae and trochanters yellow; femora yellow, the tips conspicuously and abruptly black, the amount subequal on all legs; tibiae yellow, the tips narrowly dark brown; tarsi brownish yellow, the terminal two segments darker. Wings with a weak brownish yellow tinge, the small stigma slightly indicated, pale brown; veins brown, the prearcular area and veins *C* and *Sc* yellow. Venation: *Sc* long,  $Sc_1$  ending about opposite four-fifths the length of  $Rs$ ,  $Sc_2$  some distance from its tip, about opposite two-fifths the length of  $RS$ ; petiole of cell  $R_3$  long, nearly three times vein  $R_3$  alone; cell *2nd M* subequal to its petiole; *m-cu* at fork of *M*.

Abdominal tergites bicolored, dark brown, the caudal half of the segments yellow; sternites more uniformly yellow; hypopygium yellow.

Male hypopygium with the basistyle not produced into an apical spine, as in *bifasciolata*. Outer dististyle a pale, long-rectangular blade, the apex truncate. Inner dististyle a broadly flattened blade, the outer angle produced into a curved spine, the inner angle into a blunt lobe having a microscopically serrulated margin, the two angles separated by a rounded notch.

*Holotype*, ♂, Huixtla, Chiapas, altitude 30 meters, November 21, 1930 (A. M. Dampf); M. F. 1944.

*Gonomyia* (*Progonomyia*) *atroapicata* is most generally similar to *G. (P.) bifasciolata* Alexander (Cuba; southern Mexico to Panama), both species having the same peculiar pattern of the mesonotum. The present fly is readily told by the blackened femoral tips, unbanded wings, long petiole of cell  $R_3$  and, especially, the structure of the male hypopygium. The distinctions between the three allied subgenera of *Gonomyia*—*Progonomyia* Alexander, *Ellipteroides* Becker and *Protogonomyia* Alexander—have been given in a separate paper by the writer (Philippine Jour. Sci. 62: 177–178; 1937).

#### ***Gonomyia* (*Euptilostena*) *dampfiana* sp.n.**

General coloration gray, the praescutum with four brown stripes; basal flagellar segments bicolored; femora yellow, the tips brownish black; wings grayish subhyaline, patterned with brown; outer radial cells infumed, enclosing pale marginal droplets;  $Sc_1$  ending opposite midlength of  $R_s$ ,  $Sc_2$  before origin of latter; supernumerary crossvein in cell  $R_4$  at near three-fourths the length of cell; *m-cu* more than twice its length before fork of *M*.

*Male*. Length about 6 mm.; wing, 6 mm.

*Female*. Length about 7 mm.; wing, 6 mm.

Rostrum and palpi black. Antennae with scape and pedicel dark; basal flagellar segments bicolored, dark basally, the distal ends yellow; outer flagellar segments uniformly darkened; flagellar segments long-oval to fusiform. Head above gray, narrowly darkened medially; sides of posterior vertex weakly infumed.

Pronotum gray, lined on sides with yellow. Mesonotal praescutum light gray, with four narrow brown stripes, the intermediate pair narrowed before the level of the transverse black pseudosutural foveae, wider behind; scutum gray, the median line narrowly darkened, each scutal lobe with two brown areas; scutellum and mediotergite brown, with a narrow paler median vitta. Pleura gray, with three very narrow black longitudinal stripes, the most dorsal crossing the anepisternum, the most ventral on the sternopleurite and beneath the halteres. Halteres with stem yellow, knob black. Legs with the coxae pale, narrowly darkened at base, most evidently so on fore legs; trochanters brownish yellow; femora yellow, the tips rather broadly brownish black, the amount subequal on all legs; tibiae yellow, the tips very narrowly darkened; tarsi black, the proximal portion of basitarsi paler. Wings

grayish subhyaline, the prearcular and costal portions more luteous; a conspicuous brown pattern, arranged as follows: Spots at arculus; origin of  $R_s$  and  $Sc_2$ ;  $Sc_1$ ; forks of  $R_s$  and  $M_{1+2}$ ; supernumerary crossvein in cell  $R_4$ ;  $m-cu$ ; stigma dark brown; paler brown washes in outer ends of cells  $R_2$  to 2nd  $R_4$ , inclusive, these enclosing pale marginal droplets; veins pale in the luteous areas, darker outwardly. Venation:  $Sc_1$  ending opposite midlength of  $R_s$ ,  $Sc_2$  a short distance before origin of  $R_s$ ; petiole of cell  $R_3$  long, a little shorter than  $R_s$ ; distance on costa between veins  $R_{1+2}$  and  $R_3$  a little exceeding the length of the latter vein; supernumerary crossvein in cell  $R_4$  at near three-fourths the length of cell;  $m-cu$  more than twice its length before fork of  $M$ .

Abdomen dark brown, the caudal borders of the intermediate segments very narrowly pale; hypopygium dark. Male hypopygium with the ventral lobe of basistyle produced caudad into a long slender fleshy appendage. Both dististyles from the base of this lobe, the outer with a long slender stem, at apex unequally bifid; inner dististyle subequal in length, a simple, flattened, yellow blade, the distal third narrowed into a slender black spine. Cerci darkened basally, the outer ends paler.

*Holotype*, ♀, Vergel, Chiapas, altitude 800 meters, at light, June 12, 1935 (A. M. Dampf); M. F. 4524. *Allotype*, ♂, Finca Germania, altitude 1190 meters, June 20, 1935 (A. M. Dampf); M. F. 4571.

*Gonomyia (Euptilostena) dampfiana* is named in honor of the collector, Dr. Alfons M. Dampf, to whom I am greatly indebted for many appreciated favors in the past. The present fly requires no comparison with any described species since the three known members of the subgenus are all restricted to the Palaearctic and Oriental Regions. The discovery of *Euptilostena* in the New World is thus of considerable interest. The structure of the male hypopygium is more generalized than that of species of the subgenus *Idiocera* Dale (*Ptilostena* Bergroth) and somewhat curiously resembles that of certain Australian species of the genus *Molophilus* belonging to the *ruficollis* subgroup of the *gracilis* group.

#### ***Gonomyia (Lipophleps) aequidens* sp. n.**

Belongs to the *cinerea* group; wings with cell  $M_2$  open; male hypopygium with the outer dististyle present, appearing as a slender pale spine; middle dististyle darkened, the surface squamose, near base bearing a lobe that forks into two approximately equal blackened spines; inner dististyle fleshy, pale.

*Male*. Length about 3.5–4 mm.; wing, 4–4.5 mm.

*Female*. Length about 5.5 mm.; wing, 6 mm.

Rostrum and palpi black. Antennae with scape and pedicel yellow above, dark beneath; flagellum yellow. Head pale yellow, the center of vertex darkened.



Pronotum yellow, narrowly darkened medially; lateral pretergites pale yellow. Mesonotal praescutum gray, with four slightly darker brownish gray stripes; pseudosutural foveae pale brown; scutal lobes dark brown, the median area paler gray, with a narrow dark median vitta; scutellum dark basally, obscure yellow on margin; mediotergite brown, pruinose. Pleura narrowly lined longitudinally with brown and silvery, including further a broader yellowish white ventral stripe extending from the fore coxae to base of abdomen; sternopleurite gray, bordered dorsally by brown. Halteres with stem pale yellow, knob dark brown. Legs with fore coxae dark, variegated with white; remaining coxae and trochanters yellow; fore femora black; mid-femora yellow, the tips (about distal fifth) black; posterior femora yellow, with a scarcely indicated, narrow, brown, subterminal ring; tibiae snowy-white, the narrow bases and slightly wider tips of fore and mid-tibiae blackened, the posterior pair with the ends still more narrowly infumed; tarsi black. Wings with a gray tinge, the costal border white, more extensive in the radial field before and beyond the oval, pale brown stigma; veins brown. Venation:  $Sc_1$  ending a distance before origin of the short  $Rs$  greater than the length of the latter;  $m-cu$  close to fork of  $M$ ; cell  $M_2$  open.

Abdominal tergites dark brown, the caudal borders of the segments narrowly pale; hypopygium yellow. Male hypopygium with the outer dististyle a slender pale spine, shorter than the middle dististyle. Middle dististyle complex, the outer portion dark, sinuous, the outer surface with microscopic spinous points to produce a squamose appearance; beyond midlength with a small darkened lobe; near base with a conspicuous lobe that forks at apex into two nearly equal black spines, one subglabrous, the other with microscopic appressed spines. Inner dististyle an entirely pale fleshy lobe.

*Holotype*, ♂, Vergel, Chiapas, altitude 800 meters, May 11, 1935 (A. M. Dampf); M. F. 4126. *Allotopotype*, ♀, *Paratopotype*, ♂♂; *paratypes*, ♂♂, Vergel, altitude 1000 meters, May 19, 1935; M. F. 4205.

*Gonomyia* (*Lipophleps*) *aequidens* is very distinct from the other members of the group in the structure of the male hypopygium. In the unarmed inner dististyle and retention of the outer dististyle, it is closest to *G. (L.) helophila* Alexander but the middle dististyle is entirely different.

#### ***Gonomyia* (*Lipophleps*) *haploides* sp. n.**

Belongs to the *manca* group; rostrum obscure yellow; antennae black throughout; pleura heavily striped, black, with a broad silvery band; knobs of halteres obscure yellow;  $Sc_1$  ending some distance before origin of  $Rs$ ; male hypopygium with the dististyle simple, fleshy; phallosome with no spinous points other than the slender straight aedeagus.

*Male*. Length about 3.4–3.6 mm.; wing, 4–4.2 mm.

Rostrum obscure yellow; palpi black. Antennae black throughout; basal segment enlarged; verticils very long. Head gray; center of vertex a little darkened; eyes large.

Pronotum above bright yellow, darker on sides; pretergites similarly yellow. Mesonotal praescutum dark brownish gray; pseudosutural foveae black; scutal lobes brownish gray, the median area clear light yellow; scutellum broadly obscure yellow, the central portion at base darkened, parascutella dark; mediotergite dark, the lateral portions obscure yellow; pleurotergite chiefly obscure yellow, bordered beneath by black. Pleura heavily striped, black, with a broad silvery band extending from behind the fore coxae to base of abdomen; dorsopleural region restrictedly obscure yellow. Halteres dusky, the knobs obscure yellow. Legs with coxae and trochanters medium brown; remainder of legs black. Wings broad, with a brownish tinge; stigma scarcely differentiated; veins brown. Venation: *Sc* short, *Sc*<sub>1</sub> ending a distance before origin of *Rs* nearly equal to length of latter; branches of *Rs* strongly divergent; *m-cu* close to fork of *M*.

Abdomen dark brown, the lateral and posterior borders of the segments narrowly paler; hypopygium brownish yellow. Male hypopygium with the dististyle simple, fleshy, unarmed except for two fasciculate setae at apex. Phallosome consisting of a quadrate basal structure, the aedeagus produced from this point to beyond the level of the styli; broad at base, at near midlength abruptly narrowed into a straight slender point, the apex further narrowed into a hair-like spine.

*Holotype*, ♂, Finca Victoria, Chiapas, altitude 900 meters, June 29, 1935 (A. M. Dampf); M. F. 4709. *Paratopotypes*, ♂ ♀, June 28–29, 1935; M. F. 4693 A, 4710; *paratypes*, ♂ ♂, Vergel, altitude 800 meters May 13, 1935, M. F. 4153; May 19, 1935, M. F. 4205; June 1, 1935, M. F. 4384.

*Gonomyia* (*Lipophleps*) *haploides* is most nearly allied to *G. (L.) haploa* Alexander (Mexico), from which it differs especially in the heavily striped thoracic pleura and in the structure of the male hypopygium, notably of the phallosome which has no spinous points other than the slender aedeagus.

#### ***Gonomyia* (*Gonomyia*) *triaculeata* sp. n.**

Belongs to the *subcinerea* group; general coloration of mesonotum dark brown, the pleura pale; rostrum obscure yellow; antennae brownish black throughout; legs black; *Sc*<sub>1</sub> ending about opposite origin of *Rs*, the latter subequal to *R*<sub>2+3+4</sub>; *m-cu* about two-thirds its length beyond the fork of *M*; male hypopygium with the aedeagus bearing three long powerful spines, two near base, one subapical.

*Male*. Length about 3 mm.; wing, 3.6 mm.

Rostrum obscure yellow; palpi brownish black. Antennae brownish black throughout. Head dark gray.

Mesonotum dark brown, the median region of scutum restrictedly paler; posterior sclerites of notum hidden by the mounting medium.

Pleura testaceous yellow, unmarked. Halteres dusky. Legs with the coxae and trochanters yellow; remainder of legs black. Wings subhyaline; stigma faintly darkened; veins dark brown. Costal fringe relatively long and conspicuous. Venation:  $Sc_1$  ending opposite origin of  $R_s$ ,  $Sc_2$  at its tip;  $R_s$  subequal to  $R_{2+3+4}$  and shorter than  $R_4$  alone; vein  $R_3$  oblique;  $m-cu$  about two-thirds its length beyond the fork of  $M$ .

Abdomen dark brown; hypopygium paler. Male hypopygium with the outer lobe of basistyle of moderate length, extending caudad about to level of outer dististyle. Outer dististyle a simple, strongly curved hook, the tip acute. Inner dististyle broad, the outer margin with an acute appressed black spine, the apex of style with two fasciculate setae. Aedeagus with unusual armature, consisting of three powerful spines, additional to the shorter curved apical one; most basal spine slender, gently curved, about one-third the length of aedeagus, directed laterad; second spine arising close to first, directed caudad, long and slender, only a little shorter than the aedeagus itself; third spine subapical, directed cephalad, about two-thirds the length of aedeagus, the tip blackened.

*Holotype*, ♂, Finca Victoria, Chiapas, altitude 900 meters, June 29, 1935 (A. M. Dampf); M. F. 4710 A.

*Gonomyia* (*Gonomyia*) *triaculeata* is readily told from all described species of the genus by the structure of the male hypopygium, especially of the aedeagus.

#### ***Gonomyia* (*Gonomyia*) *microserrata* n. sp.**

Belongs to the *subcinerea* group; mesonotum dark brownish gray, scutellum conspicuously yellow; rostrum and antennae black; pleura slightly variegated with brown and yellow; halteres darkened; legs black; wings with a faint brown tinge;  $Sc_1$  ending opposite origin of  $R_s$ , the latter about two-thirds as long as  $R_{2+3+4}$ ;  $m-cu$  more than one-half its length beyond fork of  $M$ ; male hypopygium with the aedeagus long, near apex bearing a blackened double crest of microscopic retrorse spinules; apophyses symmetrical, each bearing a long appressed spine on mesal edge near base.

*Male*. Length about 5–5.2 mm.; wing, 5.7–6 mm.

*Female*. Length about 6 mm.; wing, 6 mm.

Rostrum and palpi black. Antennae black throughout. Head dark gray.

Pronotum yellowish brown; anterior lateral pretergites yellow. Mesonotal praescutum and scutum almost uniformly dark brownish gray, the humeral region not brightened; pseudosutural foveae black; scutellum yellow, restrictedly darkened at base, parascutella dark; mediotergite dark, more or less pruinose, the cephalic lateral portions yellow. Pleura slightly variegated brown and yellow, the pleurotergite chiefly pale. Halteres darkened, the base of stem pale. Legs with the coxae and trochanters yellowish testaceous; remainder of legs black. Wings with a faint brown tinge, the diffuse stigma darker; veins dark brown. Costal fringe short. Venation:  $Sc_1$  ending opposite origin of

$R_s$ ,  $Sc_2$  near its tip;  $R_s$  relatively short, about two-thirds  $R_{2+3+4}$ , the latter subequal to or somewhat shorter than  $R_4$  alone;  $m-cu$  more than one-half its length beyond the fork of  $M$ .

Abdominal tergites dark brown, sternites obscure brownish yellow; hypopygium yellow, conspicuous. Male hypopygium with the outer lobe of basistyle pale, shorter than the dististyle, at outer apical angle produced into a short spinuous point; lobe clothed with long coarse setae. Dististyle with two long fasciculate setae, near apex further produced into a powerful blackened curved spine, this latter at bend with a single strong seta. Phallosome complex, the long aedeagus expanded near outer end and provided with a blackened flange that bears a double crest of microscopic retrorse spinules; apophyses symmetrical, subtending the aedeagus, each consisting of a pale blade that is expanded and twisted at apex, on mesal edge near base bearing a long slender appressed pale spine that is only a little shorter than the apophysis itself, the slender tip acute and blackened.

*Holotype*, ♂, Finca Germania, Chiapas, altitude 1190 meters, June 20, 1935 (A. M. Dampf); M. F. 4571. *Allotopotype*, ♀. *Paratopotypes*, 12 ♂ ♀.

This large species is readily told from all approximately similar regional forms by the very distinct hypopygial characters, especially of the phallosome.

#### **Gonomyia (Gonomyia) quaesita** sp. n.

Belongs to the *subcinerea* group; general coloration of notum brown, the praescutum darker medially; pleura testaceous-yellow, unmarked; knobs of halteres dusky; legs and antennae black; wings subhyaline;  $Sc$  short,  $R_s$  about three-fifths the length of  $R_{2+3+4}$ ,  $m-cu$  more than one-half its length beyond the fork of  $M$ ; male hypopygium with three dististyles, the outer produced into a long recurved spine, on outer margin near base with a slightly smaller similar appressed spine; phallosome consisting of paired straight apophyses, each terminating in a strong spine.

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

*Female*. Length about 4–4.5 mm.; wing, 4.5–5 mm.

Rostrum testaceous yellow; palpi brownish black. Antennae black throughout; flagellar segments oval, more elongate in female; in male, with long conspicuous verticils. Head brown.

Pronotum pale brown; pretergites yellow. Mesonotal praescutum brown, the median area still darker, the lateral margins paling to yellow; pseudosutural foveae reddish; scutum darkened; scutellum dark, the posterior margin yellowish; mediotergite dark. Pleura, including pleurotergite, uniformly pale testaceous yellow, unmarked. Halteres pale, the knobs dusky. Legs with the coxae and trochanters testaceous yellow; remainder of legs black. Wings subhyaline, the stigma a little darker, diffuse; veins and trichia dark brown. Venation:  $Sc$  short,  $Sc_1$  ending a distance before origin of  $R_s$  equal to from one-third to one-half the length of the latter;  $R_s$  short, nearly straight, about three-fifths the length of  $R_{2+3+4}$ ; cell  $R_3$  small, vein  $R_3$  short, straight,



oblique; distance on margin between veins  $R_{1+2}$  and  $R_3$  about twice the length of latter; basal section of  $R_5$  reduced;  $m-cu$  more than one-half its length beyond fork of  $M$ .

Abdomen dark brown; hypopygium reddish yellow. Male hypopygium with three dististyles; outer style blackened, produced into a long straight recurved spine, on outer margin near base with a slightly smaller similar appressed spine; intermediate style blackened, at apex produced into two subequal, slightly divergent spines, the base of style with two long setae; inner style pale, fleshy, simple, at apex with two pale fasciculate setae. Phallosome consisting of two darkened apophyses, each a simple rod that terminates in an acute spine, the surface of rod with numerous delicate setulae; central portion of phallosome elongate, pale, extending caudad beyond the general level of the apophyses.

*Holotype*, ♂, Vergel, Chiapas, altitude 800 meters, May 30, 1935 (A. M. Dampf); M. F. 4351. *Allotopotype*, ♀, with type. *Paratopotypes*, 2 ♂♂, 1 ♀, May 11, 1935; M. F. 4123.

*Gonomyia (Gonomyia) quaesita* is entirely distinct from all other regional species of the subgenus, the chief distinctions lying in the venation and in the structure of the male hypopygium.

#### ***Gonomyia (Gonomyia) subremota* sp. n.**

Belongs to the *subcinerea* group; general coloration dark brown and yellow; rostrum black; scape and pedicel of antennae yellow, flagellum black; head, including eyes, enlarged in male; dorsopleural region conspicuously yellow; wings with a weak gray tinge;  $Sc$  short,  $R_{2+3+4}$  arcuated, cell 1st  $M_2$  closed,  $m-cu$  at or very close to fork of  $M$ ; abdominal tergites dark brown, the posterior lateral angles of segments pale yellow; hypopygium yellow; male hypopygium with the outer dististyle bearing an erect spine on outer margin beyond midlength; intermediate style a slender glabrous blade; phallosome bearing three powerful blackened spines, the basal pair symmetrical, strongly curved.

*Male*. Length about 4.5 mm.; wing, 5 mm.

*Female*. Length about 5 mm.; wing, 5 mm.

Rostrum and palpi black. Antennae with scape and pedicel clear light yellow above, a trifle darker on ventral portion; flagellum black. Head light yellow, the central portion of vertex with a brown area; head of male large, including eyes; vertex wide.

Pronotum light yellow above, darkened on sides; lateral pretergites and dorsopleural membrane, together with lateral borders of praescutum, broadly sulphur-yellow, conspicuous, the color continued caudad across the mediotergite; disk of praescutum and the scutal lobes dark brown, sparsely pruinose; pseudosutural foveae black; median area of scutum paler, darkened behind; scutellum dark; mediotergite weakly darkened at base and more strongly so on posterior border, the central portion conspicuously yellow, as above described. Pleura yellow, with two narrow brown stripes, the more dorsal extending from the cervical region across the dorsal sclerites, crossing the pleurotergite and including

the posterior border of the mediotergite; ventral stripe still narrower, occupying the sternopleurite. Halteres dark brown. Legs with the coxae yellow, the bases of posterior pair weakly darkened; trochanters yellow; remainder of legs black. Wings with a weak gray tinge; stigma oval, pale brown; veins dark. Costal fringe short. Venation: *Sc* short, *Sc*<sub>1</sub> ending a distance before origin of *Rs* about equal to one-third the length of the latter, *Sc*<sub>2</sub> close to its tip in both sexes; *Rs* long, at least one-half longer than the arcuated *R*<sub>2+3+4</sub>; basal section of *R*<sub>5</sub> short but evident; cell 1st *M*<sub>2</sub> closed; *m-cu* at or very close to fork of *M*.

Abdominal tergites dark brown, the posterior lateral angles of the segments pale yellow; sternites pale brownish yellow medially, clearer yellow on sides; hypopygium yellow. Male hypopygium with the lobe of basistyle small and pale. Outer dististyle a little longer than the others, weakly clavate, the apex terminating in a tiny obtuse point, the style at near two-thirds the length bearing a long acute erect spine. Two inner styles subequal in length, the intermediate a slender glabrous blade from a dilated base, bearing a strong seta on outer margin at near midlength; innermost style a little longer than the last and nearly as long as the outer style, moderately slender, narrowed to the cultriform apex, before which are borne the usual two long pale fasciculate setae, with other coarse normal setae scattered along the face of style. Phallosome bearing three powerful blackened spines, the basal pair approximately equal in size and conformation, very strongly curved; apical spine much smaller but arising from an expanded pale base so that the total length is subequal to either of the basal spines.

*Holotype*, ♂, Vergel, Chiapas, altitude 1200 meters, May 16, 1935 (A. M. Dampf); M. F. 4192. Allotopotype, ♀.

*Gonomyia* (*Gonomyia*) *subremota* is most nearly allied to *G. (G.) remota* Alexander (Mexico, Salvador), differing especially in the structure of the male hypopygium, notably of the dististyles.

#### ***Gonomyia* (*Gonomyia*) *multispicata* sp. n.**

Belongs to the *subcinerea* group; general coloration of mesonotum brownish gray; pleura striped longitudinally with whitish yellow and brownish black; legs black; wings grayish, the small oval stigma darker; *Sc* short, *R*<sub>2+3+4</sub> strongly arcuated, cell 1st *M*<sub>2</sub> closed, *m-cu* before fork of *M*; male hypopygium with three simple dististyles, all apical in position; phallosome bearing three black spines, the terminal one smaller.

*Male*. Length about 4 mm.; wing, 4.4 mm.

Rostrum and palpi black. Antennae with scape and pedicel yellow, flagellum black. Head yellow, the central portion restrictedly darkened.

Pronotum obscure yellow above, darkened on sides. Mesonotal praescutum brownish gray; scutal lobes darkened, the median area obscure yellow; scutellum reddish brown; mediotergite yellow, darkened posteriorly. Pleura whitish yellow, striped longitudinally with brownish black, including a more dorsal stripe across the anepisternum and

central pteropleurite and a ventral line on sternopleurite. Legs with coxae reddish; trochanters testaceous brown; remainder of legs black. Wings with a grayish tinge, the small oval stigma darker; veins dark brown. Venation: *Sc* short, *Sc*<sub>1</sub> ending a distance before origin about equal to one-half the length of *Rs*, *Sc*<sub>2</sub> at extreme tip of *Sc*<sub>1</sub>; *R*<sub>2+3+4</sub> strongly arcuated; cell *1st M*<sub>2</sub> closed; *m-cu* a short distance before fork of *M*.

Abdomen with tergites dark brown, variegated with paler; sternites and hypopygium pale. Male hypopygium with apical prolongation of basistyle short and stout. Three apical dististyles, all simple and subequal in length, not very different from one another in conformation; outer style terminating in an acute spine, widest at near midlength, the surface with abundant setae; middle style narrow, especially on distal portion, with a single strong seta on face at near midlength; inner style a relatively broad plate, the outer apical angle produced into a stout flattened spinous point, the surface with several coarse setae; before apex with two pale fasciculate setae. Phallosome with three blackened spines, including two strongly curved ones near base and a smaller and more slender apical spine from an expanded base.

*Holotype*, ♂, Vergel, Chiapas, altitude 725 meters, May 21, 1935 (A. M. Dampf); M. F. 4259.

The nearest ally of the present fly is the closely related *Gonomyia* (*Gonomyia*) *subremota* sp. n., which, while similar in general appearance, differs conspicuously in the structure of the male hypopygium, especially the dististyles.

#### ***Gonomyia* (*Gonomyia*) *expansa* sp. n.**

Belongs to the *subcinerea* group; general coloration dark brown and yellow, the pleura with two narrow brown stripes; rostrum black; antennae with scape and pedicel yellow, flagellum black; wings subhyaline, stigma pale brown; vague pale brown washes on cord, outer end of cell *1st M*<sub>2</sub> and in bases of cells *Cu* and *1st A*; *Sc* short; cell *1st M*<sub>2</sub> closed; *m-cu* shortly before fork of *M*; male hypopygium with the outer dististyle a pale blade, expanded at near midlength and here produced into a darkened marginal tubercle.

*Male*. Length about 4.3–4.5 mm.; wing, 4.8–5 mm.

*Female*. Length about 5 mm.; wing, 5 mm.

Rostrum and palpi black. Antennae with scape and pedicel yellow, flagellum black; antennae (male) relatively long and slender, if bent backwards extending to beyond wing-root; flagellar segments elongate-oval to subcylindrical, with moderately long verticils. Head yellow, the central portion of vertex marked with dark brown.

Pronotum yellow and brown; lateral pretergites light yellow. Mesonotal praescutum and scutal lobes dark brownish gray, the central region of scutum a little paler; lateral border of praescutum restrictedly yellow; a yellow spot on posterior portion of each scutal lobe; scutellum obscure brown; mediotergite testaceous yellow, the posterior portion darkened, being a continuation of the dorsal dark pleural stripe. Pleura

yellow, with two narrow dark brown stripes, the more dorsal extending from above the fore coxae to the mediotergite, as described; ventral stripe occupying the ventral sternopleurite and meron. Halteres brownish black. Legs with the coxae and trochanters yellow, the posterior coxae narrowly darkened at bases; remainder of legs black. Wings subhyaline; stigma oval, pale brown; vague pale brown clouds on cord, outer end of cell *1st M*<sub>2</sub>, and as a wash in bases of cells *Cu* and *1st A*; veins dark brown. Costal fringe short. Venation: *Sc* short, *Sc*<sub>1</sub> ending a distance before origin of *Rs* about equal to two-thirds the length of the latter, *Sc*<sub>2</sub> at its extreme tip in male, some distance removed from tip in female; *R*<sub>2+3+4</sub> nearly as long as *Rs*, moderately arcuated; *r-m* at or close to fork of *Rs*, basal section of *R*<sub>5</sub> thus obliterated; cell *1st M*<sub>2</sub> closed; *m-cu* shortly before fork of *M*.

Abdominal tergites dark brown, the caudal-lateral angles of the individual segments light yellow; sternites more uniformly yellow; hypopygium yellow. Male hypopygium with the lobe of basistyle pale, moderately elongate. Outer dististyle an elongate pale blade, at near midlength slightly expanded and at margin at this point produced into a low darkened tubercle. Intermediate style a slender, gently curved pale blade, parallel-sided, the tip obtusely rounded; shortly before apex with a powerful seta. Inner dististyle nearly as long as the intermediate, with two fasciculate setae at apex, additional to normal setae. Phallosome conspicuous, consisting chiefly of a strongly sinuous slender blackened rod or spine, the tip acute, superimposed over the pale aedeagus.

*Holotype*, ♂, Finca Lubeca, Chiapas, altitude 850 meters, June 21, 1935 (A. M. Dampf); M. F. 4582. *Allotype*, ♀, Vergel, altitude 800 meters, June 10, 1935; M. F. 4502. *Paratype*, ♂, Finca Germania, altitude 1190 meters, June 24, 1935; M. F. 4571.

The structure of the outer dististyle of the male hypopygium is much as in *Gonomyia* (*Gonomyia*) *tuberculata* Alexander (Mexico), which has cell *M*<sub>2</sub> of the wings open and with the other dististyles quite differently constructed.

### Rhabdomastix Skuse

#### Rhabdomastix (*Rhabdomastix*) *mexicana* sp. n.

General coloration of notum opaque light gray, the praescutum with four brown stripes; antennae with basal segments yellow, the outer ones darker; pseudosutural foveae black; knobs of halteres dark brown; wings with a weak brown tinge, stigma darker; *R*<sub>2+3+4</sub> shorter than the straight *R*<sub>4</sub>; vein *R*<sub>3</sub> oblique, about equal in length to the distance on costa between the tips of veins *R*<sub>1+2</sub> and *R*<sub>3</sub>.

*Female*. Length about 7.5 mm.; wing, 6.3 mm.

Rostrum pale; palpi black. Antennae with the scape obscure yellow; pedicel and basal two or three flagellar segments pale yellow; outer flagellar segments passing into brown; basal segment of flagellum nearly as long as segments two and three combined. Head brownish gray, the front yellow.



Pronotum brownish gray, variegated with yellow; pretergites light yellow on lateral portions. Mesonotal praescutum opaque light gray, with four brown stripes, the intermediate pair confluent in front; pseudosutural foveae subcircular in outline, black; posterior sclerites of notum brownish gray, the scutal lobes darker. Pleura brown, very sparsely pruinose. Halteres with stem pale yellow, knob dark brown. Legs with the coxae and trochanters pale yellow, the fore coxae a trifle darker; remainder of legs broken. Wings with a weak brown tinge, the oval stigma darker brown; indications of a very weak darkened cloud on cord; veins brown. Macrotrichia of veins beyond cord very sparse, there being about five or six on distal fourth of each of veins  $R_5$  and  $M_{1+2}$ . Venation:  $Sc$  long,  $Sc_1$  ending about opposite four-fifths the length of  $R_5$ ;  $R_{2+3+4}$  shorter than the straight  $R_4$ ;  $R_3$  oblique, about equal in length to the distance on costa between the tips of veins  $R_{1+2}$  and  $R_3$ ; cell 1st  $M_2$  small, the second section of vein  $M_{1+2}$  only about one-fourth as long as the outer section.

Abdomen dark brown, the caudal borders of the segments narrowly light gray.

*Holotype*, ♀, Vergel, Chiapas, altitude 800 meters, June 3, 1935 (A. M. Dampf); M. F. 4417.

The nearest described relative of the present fly is *Rhabdomastix* (*Rhabdomastix*) *isabella* Alexander, likewise from Chiapas. It is readily told by the diagnostic features listed, especially the opaque gray coloration of the body, and in the details of venation, especially of the radial field.

#### ***Rhabdomastix* (*Rhabdomastix*) *longiterebrata* sp. n.**

*Female*. Length about 8 mm.; wing, 6.5 mm.

Closely related to *R. (R.) mexicana* sp. n., differing especially in the venation and structure of the ovipositor.

Head broken. General coloration of thorax much as in *mexicana*. legs almost uniformly yellowish brown, the outer tarsal segments somewhat darker. Wings more grayish; stigma darker brown, clearly delimited. Macrotrichia of veins more numerous, involving almost the entire length of distal section of  $R_5$  and outer ends of distal sections of both  $M_{1+2}$  and  $M_3$ . Venation:  $Sc$  short,  $Sc_1$  ending opposite three-fifths the length of  $R_5$ ;  $R_3$  nearly perpendicular, short, the distance on costa between veins  $R_{1+2}$  and  $R_3$  nearly twice its length;  $R_4$  arcuated, subequal to  $R_{2+3+4}$ ; cell  $R_3$  at margin only a little more than one-half that of cell  $R_4$ ; in *mexicana*, cell  $R_3$  is approximately two-thirds as extensive as  $R_4$ ; cell 1st  $M_2$  small, relatively short and broad, the distal section of  $M_{1+2}$  nearly four times the second section.

Ovipositor with the cerci unusually long and very slender, more than one-third longer than the corresponding condition in *mexicana*.

*Holotype*, ♀, Vergel, Chiapas, above a waterfall in a damp valley, altitude 800 meters, June 1, 1935 (A. M. Dampf); M. F. 4384.

**Erioptera** Meigen**Erioptera (Erioptera) laetipleura** sp. n.

Mesonotal praescutum brown, the cephalic third and humeral region light yellow; dorsal pleura and pronotum with a conspicuous black stripe, ventrad of which is a slightly wider white stripe; knobs of halteres more or less darkened; femora pale, with dark vestiture, including flattened scales as well as setae; terminal tarsal segments yellowish; wings with a strong dark brown tinge; vein *2nd A* moderately sinuous; male hypopygium with two slender dististyles.

*Male*. Length about 2.8 mm.; wing, 3.2 mm.

*Female*. Length about 3–4 mm.; wing, 3.5–4.4 mm.

Rostrum and palpi brown. Antennae brownish black throughout; flagellar segments oval. Head with central portion of vertex dark brown, the front and orbits pale.

Pronotum black, the color continued longitudinally and obliquely across the dorsal pleurites as a broad stripe, passing beneath the halteres, reaching the abdomen. Mesonotal praescutum with the cephalic third and the humeral margin light yellow, the remainder of praescutum brown, the usual interspaces narrowly darker brown, the median stripe feebly indicated on the yellow anterior portion of the sclerite but becoming obsolete behind at near midlength of the sclerite; posterior sclerites of notum more uniformly dark brown. Pleura with a dorsal black stripe, as above described; ventrad of this, a slightly wider white stripe extending from the cervical region to above the hind legs; ventral pleurites brownish black. Halteres with stem light yellow, knob more or less infuscated, least so in allotype male. Legs with the fore coxae pale, remaining coxae dark brown; trochanters yellow; legs chiefly dark, the color produced by abundant setae and elongate flattened scales; extreme tip of femur whitened, preceded by a vague subterminal darkening; tip of tibia and the tarsi passing into more yellowish. Wings with a strong dark brown tinge, the veins and macrotrichia dark. Venation: Vein *2nd A* moderately sinuous.

Abdomen brownish black, with conspicuous erect setae. Male hypopygium with two slender dististyles, the outer one terminating in an acute decurved spine, with a smaller similar spine on outer margin close to apex. Inner style simple, a little expanded on outer third, before apex on lower margin with a small fleshy lobule. Ovipositor with the cerci reddish horn colored, strongly upcurved.

*Holotype*, ♀, Vergel, Chiapas, altitude 800 meters, June 3, 1935 (A. M. Dampf); M. F. 4416. *Allotype*, ♂, Santa Isabel, Chiapas, altitude 800 meters, November 16, 1930; M. F. 1880. Paratypes, 1 ♀ with allotype; 1 broken individual, apparently ♀, Finca Germania, altitude 1190 meters, June 20, 1935; M. F. 4571 A.

*Erioptera (Erioptera) laetipleura* is very different from all species of the subgenus hitherto made known. The presence of

scales on the legs had not been described in the subgenus *Erioptera* but had been detected in *Empeda* and in the allied genus *Gymnastes* Brunetti.

***Erioptera* (*Mesocyphona*) *fuscodiscalis* sp. n.**

Femora with a single dark subterminal ring; wings brownish yellow; anterior cord with a conspicuous dark brown blotch; male hypopygium with two slender dististyles, the outer one stouter, at apex with numerous coarse setae; gonapophyses appearing as slender black spines.

*Male*. Length about 3 mm.; wing, 3.4–3.5 mm.

*Female*. Length about 3.5 mm.; wing, 4 mm.

Rostrum and palpi black. Antennae black throughout; flagellar verticils long. Head brown, the anterior vertex light gray.

Pronotum pale medially, dark brown sublaterally. Mesonotal praescutum with three pale yellowish brown stripes, clearly delimited by dark brown interspaces and dark lateral margins; scutum pale yellowish brown, each lobe bordered externally and internally by slightly darker brown lines; scutellum pale; mediotergite variegated with obscure yellow and brown. Pleura conspicuously striped with dark brown and silvery, the latter color including a stripe above the mid-coxae, expanded behind; a broad ventral band on the mesal region. Halteres yellow, knobs dark brown. Legs with the fore coxae darkened, remaining coxae and all trochanters yellow; femora yellow, with a brown subterminal ring; tibiae and tarsi yellow. Wings with a brownish yellow tinge, darkest before cord and in outer radial field; prearcular and costal regions, as well as a blotch near cord, clearer yellow; a conspicuous dark brown discal area on anterior cord; veins pale, darker in the clouded areas. Venation: Cell *2nd M*<sub>2</sub> open by atrophy of basal section of *M*<sub>3</sub>, as in subgenus.

Abdomen, including hypopygium, brown; pleural membrane still darker. Male hypopygium with both dististyles apical, slender; outer style with a stout stem, at apex a little expanded and bearing a dense brush of coarse setae, with additional longer, more delicate bristles intermixed; inner dististyle fused with the outer on about the basal fourth, slightly shorter than the outer, pale; stem slender, at apex weakly expanded into an oval head. Gonapophyses appearing as slender black spines.

*Holotype*, ♂, Finca Germania, Chiapas, altitude 1190 meters, June 20, 1935 (A. M. Dampf); M. F. 4571. *Allotopotype*, ♀. *Paratopotypes*, several ♂ ♀; *paratypes*, ♂ ♀, Vergel, altitude 1000 meters, June 3, 1935, M. F. 4416; June 26, 1935, M. F. 4643; July 2, 1935, M. F. 4744; Finca Victoria, altitude 900 meters, June 29, 1935; M. F. 4709, 4710.

*Erioptera* (*Mesocyphona*) *fuscodiscalis* is amply distinct from all described members of the genus. The structure of the male hypopygium is entirely different from anything hitherto found in *Mesocyphona*.

**Molophilus** Curtis**Molophilus (Molophilus) miraculus** sp. n.

Belongs to the *plagiatus* group; mesonotal praescutum and scutum pale brown, the posterior sclerites and pleura dark brown; antennae short; male hypopygium with the basal dististyle profoundly bifid near base, the outer arm a slender curved rod, the inner arm much more powerful, before apex produced mesad into a strong spine.

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

Rostrum and palpi black. Antennae short, dark throughout; flagellar segments oval. Head dark.

Pronotum dark. Mesonotal praescutum and scutum uniformly pale brown or testaceous brown, the posterior sclerites darker. Pleura dark brown. Halteres pale yellow. Legs with the coxae and trochanters brownish yellow; remainder of the legs brown, the outer tarsal segments somewhat darker. Wings with a gray tinge, the prearcular field a little brightened; veins pale brown, the macrotrichia dark. Venation:  $R_2$  lying shortly beyond level of  $r-m$ ; petiole of cell  $M_3$  about twice  $m-cu$ ; vein 2nd  $A$  ending opposite  $m-cu$ .

Abdomen dark brown; hypopygium more yellowish brown. Male hypopygium with the ventral lobe of basistyle relatively small, the apical beak slender. Outer dististyle with arms slender, the inner one longest. Basal dististyle profoundly bifid near base, the outer arm a slender curved rod; inner arm much more powerful, before apex produced mesad into a strong straight spike-like spine that is about one-half the length of the arm itself; apex of arm beyond the spike produced into two or three smaller spinous points.

*Holotype*, ♂, Vergel, Chiapas, altitude 1000 meters, June 3, 1935 (A. M. Dampf); M. F. 4416.

*Molophilus miraculus* is entirely distinct from all other Neotropical species of the genus, the basal dististyle of the male hypopygium being quite different from any other known form.

**Molophilus (Molophilus) ductilis** sp. n.

Belongs to the *plagiatus* group; size small (wing, ♂, 3 mm. or less); general coloration dark brown; antennae relatively short; male hypopygium with the basal dististyle an unusually long, slender, simple rod, the basal portion with numerous appressed spinulae.

*Male.* Length about 2.3–2.5 mm.; wing, 2.8–3 mm.

*Female.* Length about 3 mm.; wing, 3–3.2 mm.

Rostrum dark brown, palpi black. Antennae moderately long, dark brown throughout; flagellar segments oval, with very long verticils. Head dark brown.

Mesonotum almost uniformly dark brown, the posterior sclerites a little darker. Pleura dark brown. Halteres infuscated, the base of stem restrictedly pale. Legs with the coxae and trochanters brownish yellow; remainder of legs brown, the outer segments passing into black. Wings with a weak brownish tinge, the basal portions a little more yellowish;



veins pale brown; trichiae, including the long dense costal fringe, dark brown. Venation:  $R_2$  nearly opposite  $r-m$ ; petiole of cell  $M_3$  about one-half to three-fourths longer than  $m-cu$ ; vein *2nd A* ending about opposite or shortly beyond  $m-cu$ .

Abdomen, including hypopygium, dark brown. Male hypopygium with the apical beak of the ventral lobe of basistyle slender. Outer dististyle with the outer blade expanded, the inner longer and more slender. Basal dististyle an unusually long and slender simple rod, exceeding in length the outer style; numerous appressed spinulae on subbasal half and more scattered setigerous punctures on distal third. Phallosomic plate short-oval, the apex bluntly obtuse to subtruncate.

*Holotype*, ♂, Finca Victoria, Chiapas, altitude 900 meters, June 1, 1935 (A. M. Dampf); M. F. 4391. *Paratopotypes*, ♂ ♀, June 29, 1935, M. F. 4709, 4710, 4710 A; *paratypes*, ♂, ♀, Finca San Cristobal, altitude 1090 meters, June 19, 1935, M. F. 4560; Finca Germania, altitude 1190 meters, June 20, 1935, M. F. 4571.

This small species is readily told from all regional forms by the combination of small size, relatively short antennae, and the structure of the male hypopygium, especially of the basal dististyle.

#### **Molophilus (Molophilus) sagax** sp. n.

Belongs to the *plagiatus* group; antennae (♂) short; general coloration of thorax dark brown, the praescutum a little brighter; male hypopygium with the basal dististyle a long slender rod that terminates in a slender straight spine, at near two-thirds the length on outer margin with a small acute spine.

*Male*. Length about 3 mm.; wing, 3.8 mm.

Rostrum dark brown, palpi black. Antennae short, dark brown throughout. Head dark brown.

Mesonotal praescutum brown, the anterior interspaces a trifle darker; posterior sclerites of notum and the pleura darker brown. Halteres dusky, the large knobs a little paler. Legs with the fore coxae darkened, the remaining coxae and all trochanters obscure yellow; remainder of legs brown, the terminal tarsal segments darker. Wings relatively broad, strongly tinged with brown, the stigmal region extensively but diffusely darker brown; veins and trichia brown. Venation:  $R_2$  lying some distance beyond level of  $r-m$ ; petiole of cell  $M_3$  relatively short, about one-half longer than  $m-cu$ ; vein *2nd A* long, extending to about opposite midlength of petiole of cell  $M_3$ .

Abdomen, including hypopygium, brown. Male hypopygium with the beak of ventral lobe of basistyle slender, gently curved. Outer dististyle slender, the outer arm a broadly dilated, obtuse blade, the inner arm long and slender. Basal dististyle a long slender rod, terminating in a slender straight spine; at near two-thirds the length on outer margin a small acute subappressed spine, the style beyond this point a little dilated.

*Holotype*, ♂, Vergel, Chiapas, altitude 1000 meters, June 3, 1935 (A. M. Dampf); M. F. 4416.

*Molophilus sagax* is readily told from all related species of the genus by the structure of the male hypopygium.

***Molophilus (Molophilus) falx* sp. n.**

Belongs to the *plagiatus* group; antennae (♂) long; general coloration of thorax dark grayish brown; halteres yellow; male hypopygium with the basal dististyle a strongly curved sickle, at near midlength bearing a low obtuse flange, the surface of style with microscopic appressed spinulae and scattered setigerous punctures.

*Male*. Length about 3.8–4 mm.; wing, 4.3–4.5 mm.; antenna about 1.8–2 mm.

Rostrum and palpi black. Antennae brownish black throughout, elongate in male, as shown by the measurements; flagellar segments more or less fusiform or flask-shaped, the expanded basal portion with very long verticils that exceed the segments in length. Head dark grayish brown.

Mesonotum almost uniformly dark grayish brown, the anterior lateral pretergites restrictedly brightened. Pleura dark. Halteres pale yellow. Legs with the coxae darkened; trochanters yellow; remainder of legs dark brown, the femoral bases restrictedly yellow. Wings tinged with brown, the extreme base brighter; veins and macrotrichia dark. Venation:  $R_2$  lying some distance beyond level of  $r-m$  so that  $R_{2+3}$  is approximately three times  $R_{4+5}$ ;  $m-cu$  oblique and sinuous, about two-thirds as long as petiole of cell  $M_3$ ; vein *2nd A* long, ending about opposite one-third the length of the petiole of cell  $M_3$ .

Abdomen, including hypopygium, dark brown. Male hypopygium with the apical beak of basistyle varying from relatively stout to moderately slender. Basal dististyle a strongly curved hook, more or less resembling a sickle, at near midlength bearing a low obtuse flange; beyond this latter point, the style narrows gradually to the acute blackened point; surface with microscopic appressed spinulae and scattered setigerous punctures.

*Holotype*, ♂, Vergel, Chiapas, altitude 800 meters, May 29, 1935 (A. M. Dampf); M. F. 4334. *Paratopotype*, ♂, altitude 1000 meters, May 19, 1935, M. F. 4205.

*Molophilus falx* is quite distinct from all other regional species in the combination of elongate antennae and structure of the male hypopygium, especially the falciform basal dististyle.

***Toxorhina* Loew**

***Toxorhina (Ceratocheilus) chiapasensis* sp. n.**

Size small (wing, ♂, less than 4 mm.); mesonotum almost uniformly brown; pleura obscure yellow, variegated with brown on anepisternum

and ventral sternopleurite; legs brown, the terminal tarsal segment paling to yellow; wings faintly tinged with brown, immaculate; *Sc* ending about opposite four-fifths the length of *Rs*; anterior branch of *Rs* longer than *Rs* itself; cell *1st M*<sub>2</sub> roughly pentagonal, *r-m* opposite midlength, *m-cu* opposite one-third the length; basal section of *M*<sub>1+2</sub> longer than the other elements comprising cell *1st M*<sub>2</sub>; cell *2nd A* narrow.

*Male*. Wing, 3.7 mm.

Rostrum black, shorter than the body.

Mesonotum almost uniformly brown, the scutal lobes a little darker than the praescutum. Pleura obscure yellow, variegated with brown on the anepisternum and ventral sternopleurite. Legs with the coxae and trochanters testaceous yellow; remainder of legs pale brown, the last tarsal segment paling to yellow; claws simple. Wings with a faint brown tinge, immaculate; veins dark brown. Macrotrichia of veins numerous, including extensive series on distal three-fourths of *Rs*, all but base of anterior branch of *Rs*, both sections of vein *R*<sub>5</sub>, and all outer medial veins. Venation: *Sc* relatively long, *Sc*<sub>1</sub> ending about opposite four-fifths the length of *Rs*, *Sc*<sub>2</sub> atrophied; anterior branch of *Rs* long, exceeding *Rs* itself; cell *R*<sub>2</sub> at wing-margin about one-half cell *R*<sub>4</sub>; cell *1st M*<sub>2</sub> roughly pentagonal in outline, the longest element being the oblique basal section of *M*<sub>1+2</sub>; cell *1st M*<sub>2</sub> shorter than any of the veins beyond it; *r-m* opposite midlength of cell *1st M*<sub>2</sub>, *m-cu* at near one-third the length; basal section of *M*<sub>3+4</sub> a little shorter than the distal section of vein *Cu*<sub>1</sub>; cell *2nd A* narrow; vein *1st A* nearly straight, its basal portion not approximated to *Cu* as is common in the genus. Abdomen broken.

*Holotype*, ♂, Finca Belem, Chiapas, altitude 800 meters, June 22, 1935 (A. M. Dampf); M. F. 4596.

*Toxorhina (Ceratocheilus) chiapasensis* is very distinct from the remaining Neotropical species of the subgenus so far made known. In the venational characters of long *Sc*, position of *m-cu* beyond the fork of *M* and slight basal approximation of veins *Cu* and *1st A*, the fly comes closest to the white-footed species, *T. (C.) leucostena* Alexander (Dutch Guiana) and *T. (C.) niveitarsis* Alexander (Panama-Colombia). It differs conspicuously in the small size, darkened legs, and, especially, the details of venation, as in the medial field where the basal section of vein *M*<sub>1+2</sub> exceeds in length the second section.

#### ***Toxorhina (Toxorhina) trilobata* sp. n.**

General coloration gray, the praescutum with three brown stripes, the median one divided behind; halteres yellow; legs yellow, the tips of all tibiae conspicuously blackened; male hypopygium with the apical spine of basistyle slender; outer blackened lobe of dististyle trilobate; arms of aedeagus of moderate length, subtended and slightly exceeded by the blades of the gonapophyses.

*Male*. Length, excluding rostrum, 8–10 mm.; wing, 5.5–6.5 mm.; rostrum, 4.5–5.5 mm.

*Female.* Length, excluding rostrum, 10–11 mm.; wing, 6–7 mm.; rostrum, 5–5.5 mm.

Rostrum pale brown, the base and apex narrowly more blackened. Antennae black throughout. Head gray, the anterior vertex more yellowish gray.

Pronotum and cervical region black. Mesonotum gray, the lateral margins lighter; praescutum with three conspicuous brown stripes, the median one very narrowly divided on posterior portion; scutal lobes darkened. Pleura gray, sparsely variegated with darker on ventral anepisternum and ventral sternopleurite. Halteres light yellow. Legs with coxae gray; trochanters obscure yellow; remainder of legs yellow, the tips of all tibiae conspicuously blackened; outer tarsal segments weakly darkened. Wings subhyaline, the prearcular and costal portions a little more yellowish; veins dark brown, the prearcular ones paler. Venation: *Sc* ending opposite or before origin of *Rs*; *m-cu* before fork of *M*.

Abdomen elongate; basal tergites brown, the caudal margins a little darker; subterminal segments more uniformly darkened; basal sternites more uniformly bicolorous; hypopygium reddish brown. Male hypopygium with the apical spine of basistyle very slender. Dististyle complex in structure, the darkened basal portion trilobed, the more basal lobe obtusely rounded, the outer lobes slender; outer blade of style with a triangular flange on outer margin. Arms of aedeagus of moderate length, slightly exceeded by the subtending blades of the gonapophyses.

*Holotype*, ♂, Vergel, Chiapas, altitude 800 meters, June 3, 1935 (A. M. Dampf); M. F. 4417. *Allotopotype*, ♀, pinned with type. *Paratopotypes*, several of both sexes, May 13—June 12, 1935, M. F. 4151, 4268, 4334, 4385, 4398, 4502, 4503, 4524. *Paratypes*, ♀ ♀, San Cristobal, June 19, 1935, M. F. 4560; Finca Belem, altitude 800 meters, June 23, 1935, M. F. 4602.

The nearest ally of the present fly is *Toxorhina* (*Toxorhina*) *mendosa* Alexander (southern Brazil) which differs chiefly in the details of structure of the male hypopygium, as the stout apical spine of the basistyle and the differently constructed dististyle.