

## RECORDS AND DESCRIPTIONS OF NEOTROPICAL CRANE-FLIES (TIPULIDÆ, DIPTERA), XIII

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The preceding part under this general title was published in June, 1941 (JOURNAL OF THE NEW YORK ENTOMOLOGICAL SOCIETY, 49: 139-148). The species considered herewith were taken at and near Potrerillos, "The Valley of the Clouds," in Chiriqui, northern Panama, by Messrs. D. V. Brown and J. W. MacSwain, to whom I am indebted for this rich material. All types are preserved in my personal collection of these flies.

### Genus *Limonia* Meigen

#### *Limonia* (*Limonia*) *vorax* new species.

Belongs to the *apicata* group; antennæ (male) elongate, conspicuously nodulose, the flagellar segments heart-shaped, with long apical necks; wings strongly tinged with brown, the oval stigma darker brown; male hypopygium with the lobes on mesal face of basistyle small; dististyle complex, strongly constricted before the beak which is split into three distinct lobes; apical crest of dististyle with a comb of about fifteen teeth; gonapophysis with mesal-apical lobe stout and broad.

MALE.—Length about 4.8-5 mm.; wing 5-5.5 mm.; antenna about 2.8-3 mm.

FEMALE.—Length about 6.5 mm.; wing 6 mm.

Rostrum and palpi black. Antennæ brownish black, in male elongate and conspicuously nodulose; flagellar segments dilated, cordiform, with long glabrous apical necks; on the outer segments the bases are somewhat narrower but still expanded; terminal segment elongate; flagellar segments provided with a dense white pubescence. In female, antennæ less conspicuously nodulose. Head dark brown.

Mesonotal præscutum brownish yellow laterally, the median area dark brown, expanded behind; scutal lobes dark brown; scutellum pale basally, darkened behind; mediotergite darkened. In some specimens the mesonotum is more uniformly brown throughout. Pleura testaceous yellow, extensively variegated with dark brown, the ventral sclerites paler. Halteres with base of stem yellow, the remainder dark brown. Legs with coxæ and trochanters obscure yellow; remainder of legs brown. Wings strongly tinged with brown, the oval stigma darker brown; veins brown. Venation: *Sc* long, *Sc*<sub>1</sub> ending a short distance before the fork of *Rs*, *Sc*<sub>2</sub> at its tip; *m-cu* close to fork of *M*.

Abdominal tergites dark brown, sternites obscure yellow, the lateral portions darker; hypopygium dark. Male hypopygium with the caudal margin of the ninth tergite broadly emarginate medially, the surface with abundant coarse setæ. Basistyle on mesal face with two relatively small lobes provided with long setæ; near apex of basistyle a further setiferous lobe. Dististyle complex, the main body a globular setiferous lobe, the outer margin with a comb of about 15 teeth; the usual beak portion is set off by a marked constriction, at apex the beak split into three distinct lobes. Gonapophysis with mesal-apical lobe unusually stout and broad, obtuse. *Ædeagus* narrow at apex.

Holotype, ♂, Potrerillos, altitude 3,500 feet, May 2, 1934 (Brown). Allotopotype, ♀. Paratopotypes, 6 ♂ ♀, altitude 3,000 feet, May 14–25, 1935 (MacSwain); 1 ♂, with the type (Brown).

*Limonia (Limonia) vorax* is very distinct from the other described members of the *apicata* group, especially in the elongate nodulose antennæ of the male and in the structure of the male hypopygium. The latter somewhat suggests *L. (L.) rapax* (Alexander) of Peru but the resemblance is not particularly close.

***Limonia (Limonia) sica* new species.**

Belongs to the *apicata* group; general coloration of præscutum obscure yellow with a broad black median stripe; flagellar segments with glabrous apical necks; wings with cell *1st M*<sub>2</sub> short-quadrate; male hypopygium with the dististyle single, extended into a slender dagger-like blackened beak.

MALE.—Length about 5 mm.; wing 6 mm.; antenna about 1.7 mm.

Rostrum and palpi black. Antennæ black throughout, relatively long, as shown by the measurements; flagellar segments oval to subcylindrical, with conspicuous glabrous apical necks; terminal segment about one-half longer than the penultimate. Head blackish, sparsely pruinose.

Pronotum brownish black. Mesonotal præscutum with the ground color obscure yellow; a broad median black stripe, widened behind; scutal lobes infuscated, the median area yellow; scutellum brownish yellow to pale brown; mediotergite testaceous yellow, more darkened behind. Pleura obscure yellow, the mesopleura extensively more darkened but not forming a distinct stripe; pleurotergite pale. Halteres with stem yellow, knob brown. Legs with coxæ pale yellow; remainder of legs medium brown, the femora a trifle darker. Wings with a pale brown tinge; stigma oval, a little darker brown; veins dark brown. Venation: *Sc* long, *Sc*<sub>1</sub> ending about opposite four-fifths the length of *Rs*, *Sc*<sub>2</sub> at its tip; cell *1st M*<sub>2</sub> short-quadrate, shorter than any of the veins beyond it; *m-cu* close to fork of *M*.

Abdominal tergites dark brown; sternites obscure yellow; hypopygium more brownish yellow. Male hypopygium with the tergite relatively extensive, the caudal margin with a conspicuous V-shaped notch; lobes provided

with long coarse setæ. Basistyles slender, the ventro-mesal lobe long and conspicuous, pale, the proximal portion glabrous, the outer end conspicuously hairy; mesal face of style at near midlength further produced into a very low protuberance. A single dististyle, relatively narrow, on outer face of base with a small oval lobe, the outer portion of style extended into a slender dagger-like blackened beak, the tip acute. Gonapophysis with mesal-apical lobe relatively stout, simple, blackened.

Holotype, ♂, Potrerillos, altitude 3,000 feet, May 15, 1935 (MacSwain).

*Limonia (Limonia) sica* is quite distinct from all other members of the *apicata* group, the structure of the male hypopygium being very different from the most nearly allied forms, as *L. (L.) acuminata* (Alexander).

***Limonia (Limonia) trialbocincta* new species.**

Belongs to the *insularis* group; antennæ with scape light yellow, the remaining segments black; front wide, silvery white; mesonotum brownish black, with a conspicuous white median longitudinal stripe; legs black, the femoral and tibial tips, together with a ring on tarsi, snowy white; wings with a strong blackish tinge, restrictedly patterned with darker brown; abdominal tergites and hypopygium black, sternites dark, the caudal borders of the individual segments pale; male hypopygium with the rostral prolongation of the ventral dististyle long and slender; gonapophysis with mesal-apical lobe broad, the tip obtuse.

MALE.—Length about 6.5 mm.; wing 8–8.2 mm.

FEMALE.—Length about 7 mm.; wing 8.5 mm.

Rostrum and palpi black. Antennæ with scape light yellow, remainder of antennæ black; basal flagellar segments subglobular, passing through oval to elongate; flagellar segments with short apical necks; terminal segment about one-third longer than the penultimate. Front and anterior vertex wide, silvery white; posterior portions of head dark brown.

Pronotum dark brown. Mesonotal præscutum light brown in front and sublaterally, the lateral margins and extensive posterior portions brownish black; posterior sclerites of notum brownish black; a narrow but very conspicuous white longitudinal stripe begins near anterior end of præscutum continued caudad onto the mediotergite; pleurotergite brownish black, paler on ventral portion. Pleura obscure yellowish brown to brown, sparsely variegated. Halteres black, the extreme base of stem yellow. Legs with the fore coxæ dark brown, the remaining coxæ a little paler; trochanters brownish yellow; femora black, the tips narrowly but abruptly snowy white, the amount subequal on all legs and involving about the distal tenth to twelfth of the segment; tibiæ black, the extreme bases whitened, the tips broadly white, the amount about twice as extensive as the femoral tips; basitarsi

black, the extreme tips and remainder of tarsi with the exception of the outer segments snowy white. Wings with a strong blackish tinge, the costal border and outer radial field a little darker; narrow but still darker seams at origin of *Rs*, stigma, cord and outer end of cell 1st  $M_2$ ; veins dark brown. Venation:  $Sc_1$  ending about opposite three-fifths to two-thirds *Rs*;  $R_2$  long; *m-cu* close to fork of *M*. In the paratype, an adventitious crossvein in cell  $R_3$  of one wing only.

Abdominal tergites and hypopygium black; sternites dark brown, the caudal borders of the segments pale. Male hypopygium with the caudal margin of tergite gently emarginate. Rostral prolongation of ventral dististyle long and slender, pale, gently arcuated, the oval sensory area close to extreme tip. Spinulæ of outer dististyle small and relatively sparse. Gonapophyses pale, the mesal-apical lobe broad with the tip obtuse.

Holotype, ♂, Potrerillos, altitude 3,000 feet, May 20, 1935 (MacSwain). Allotopotype, ♀, May 25, 1935. Paratopotype, 1 ♂, with the type.

*Limonia (Limonia) trialbocincta* is readily told from *L. (L.) praeclara* Alexander and other generally similar species by the abruptly whitened femoral tips, additional to the white rings on the tibiæ and tarsi.

***Limonia (Dicranomyia) aurantiothorax* new species.**

General coloration of thorax light orange yellow, unmarked; halteres and legs yellow, the terminal tarsal segments infuscated; ovipositor with cerci short.

FEMALE.—Length about 5–5.5 mm.; wing 6–6.2 mm.

Rostrum relatively long, pendant, obscure yellow; palpi pale. Antennæ with scape yellow; pedicel and flagellum pale brown to brownish yellow; flagellar segments subglobular to short-oval, the outer segments smaller. Head yellow.

Thorax uniform light orange yellow. Halteres yellow. Legs yellow, the terminal tarsal segments infuscated. Wings light yellow, without markings; veins yellow. Venation:  $Sc_1$  ending opposite origin of *Rs*; cell 1st  $M_2$  closed; *m-cu* shortly before fork of *M*; cell 2nd *A* narrow.

Abdomen blackened, the color possibly caused by discoloration resulting from included eggs, the caudal borders of the individual segments pale. In a paratype, the caudal borders of the tergites are very extensively pale, restricting the dark color to small basal areas. Ovipositor with the genital segment light yellow; cerci short, subequal in length to the hypovalvæ.

Holotype, ♀, Potrerillos, altitude 3,000 feet, May 5, 1935 (MacSwain). Paratopotypes, 2 ♀♀, May 5–June 2, 1935 (MacSwain).

*Limonia (Dicranomyia) aurantiothorax* is readily told by the

orange yellow coloration of the thorax, in conjunction with the yellow unmarked wings and the short cerci.

***Limonia (Geranomyia) carunculata* new species.**

General coloration greenish testaceous, the præscutum with a broad cinnamon-brown median stripe; femora obscure yellow, the tips broadly clear yellow, preceded by a much narrower brown subterminal ring; wings yellow with a heavy brown pattern, including a darker and more extensive costal series, the area at origin of *Rs* and fork of *Sc* single or only slightly separated; *Sc* relatively short, *Sc*<sub>1</sub> ending about opposite one-third to one-fourth the length of *Rs*; male hypopygium with the caudal margin of tergite convexly rounded; rostral prolongation of ventral dististyle with two long curved spines arising from the outer angle of a raised sclerotized plate; gonapophyses with mesal-apical lobe long and slender, nearly straight or but gently curved.

MALE.—Length, excluding rostrum, about 5.2–5.5 mm.; wing 6.2–6.5 mm.; rostrum about 3–3.2 mm.

FEMALE.—Length, excluding rostrum, about 6.5–7 mm.; wing 7–7.5 mm.; rostrum about 3.2–3.5 mm.

Rostrum black throughout, elongate, as shown by the measurements; palpi black. Antennæ black throughout; flagellar segments passing through subglobular, oval to elongate. Head behind gray, with conspicuous brown setigerous punctures, the narrow anterior vertex more silvery.

Pronotum yellow above, darkened laterally. Mesonotal præscutum with a broad cinnamon-brown median stripe, the lateral portions broadly more greenish testaceous; posterior sclerites of notum greenish testaceous, the scutal lobes chiefly brown. Pleura pale greenish testaceous. Halteres pale, the knobs darkened. Legs with the coxæ and trochanters greenish testaceous; femora obscure yellow, the tips broadly clear yellow, preceded by a much narrower brown subterminal ring; tibiæ and basal segments of tarsi brownish yellow, the terminal tarsal segments darkened. Wings yellow, the prearcular and costal portions more saturated yellow, with a heavy brown pattern, arranged as follows: Five larger costal areas, the third a common one at origin of *Rs* and fork of *Sc*, in cases barely disconnected into separate areas; cord and outer end of cell 1st *M*<sub>2</sub> seamed with brown; a series of marginal dark clouds on veins *M*<sub>3</sub> to 2nd *A* inclusive, the last large and conspicuous; a small marginal darkening at midlength of cell 2nd *A*; veins yellow, darker in the clouded areas. Venation: *Sc* relatively short, *Sc*<sub>1</sub> ending about opposite one-third to one-fourth the length of *Rs*; *m-cu* close to fork of *M*.

Abdominal tergites light brown, the caudal borders of the segments paler; sternites more uniformly yellow; hypopygium yellow; in female, the abdomen more uniformly pale brown. Male hypopygium with the caudal margin of ninth tergite convexly rounded. Dorsal dististyle a gently curved rod. Ventral dististyle large and fleshy, the rostral prolongation slender; rostral

spines two, long and curved, arising close together but separately from the outer angle of an elevated sclerotized plate. Gonapophysis with mesal-apical lobe long and slender, nearly straight to very gently curved, the tip weakly expanded.

Holotype, ♂, Potrerillos, altitude 3,000 feet, May 5, 1935 (MacSwain). Allotopotype, ♀, altitude 3,500 feet, May 12, 1934 (Brown). Paratopotypes, 2 ♂♂, 2 ♀♀, with the allotype, May 12-14, 1934 (Brown).

*Limonia (Geranomyia) carunculata* is closest to *L. (G.) eurygramma* Alexander and *L. (G.) deliciosa* Alexander, differing from all described species in the structure of the male hypopygium. The unusually extensive yellow femoral tips, in conjunction with the pattern of the wings and præscutum, is likewise somewhat distinctive.

***Limonia (Geranomyia) fluxa* new species.**

General coloration grey, the præscutum with three narrow brownish black stripes; halteres with dark brown knobs; femora brown, the tips narrowly yellow; wings with a weak brown tinge, the prearcular and costal portions more whitish; stigma oval, darker brown; outer radial field weakly infumated; *Sc* short, *Sc*<sub>1</sub> ending about opposite origin of *Rs*; male hypopygium with the rostral spines arising from a low common tubercle; gonapophyses with the blackened mesal-apical lobe irregularly bilobed.

MALE.—Length, excluding rostrum, about 5 mm.; wing 5.5 mm.; rostrum about 3 mm.

FEMALE.—Length, excluding rostrum, about 6 mm.; wing 6.5 mm.; rostrum about 3 mm.

Rostrum black, elongate, in male exceeding one-half the length of body; palpi black. Antennæ black throughout; flagellar segments subcylindrical. Head brownish black, the anterior vertex and a median stripe on posterior vertex light gray.

Pronotum brownish black. Mesonotal præscutum with the ground color blackish gray, with three narrow but very clearly defined brownish black stripes, the lateral borders of sclerite behind the pseudosutural foveæ infuscated; posterior interspaces more reddish gray; scutal lobes brown, their mesal portion traversed by a brownish black line, the direct caudal prolongation of the sublateral præscutal stripes; median area of scutum lighter gray; scutellum dark, the posterior border paler; postnotum black, sparsely pruinose. Pleura black, sparsely pruinose, the propleura slightly paler. Halteres with stem pale yellow, knob dark brown. Legs with the fore coxæ blackened, the midcoxæ less evidently darkened; posterior coxæ light yellow; trochanters obscure yellow; femora brown, the tips narrowly and somewhat vaguely paling to yellow; tibiæ and tarsi pale brown, the terminal tarsal

segments darker. Wings with a weak brown tinge, the prearcular and costal portions more whitened; stigma oval, darker brown; wing tip in outer radial field somewhat infumated; veins brownish black. Venation: *Sc* short, *Sc*<sub>1</sub> ending opposite origin of *Rs* or approximately so, *Sc*<sub>2</sub> at its tip; *m-cu* at fork of *M*.

Abdominal tergites brownish black, sternites obscure brownish yellow, the subterminal segments darker. Male hypopygium with the caudal margin of ninth tergite shallowly emarginate medially. Ventral dististyle much more extensive than the basistyle, the rostral prolongation moderately long, its apex obtusely rounded; rostral spines two, of moderate length, gently curved, from a low common tubercle near base of prolongation. Gonapophyses with mesal-apical lobe darkened, short and irregularly bilobed, the outer lobe or point longer and more conspicuous than the more obtuse lateral tooth or flange.

Holotype, ♂, Potrerillos, altitude 3,000 feet, May 14, 1935 (MacSwain). Allotopotype, ♀, May 5, 1935 (MacSwain).

*Limonia (Geranomyia) fluxa* is most similar to *L. (G.) nigripleura* (Alexander) and allies, differing in the coloration of the wings and legs, and especially in the structure of the male hypopygium.

#### Genus *Elephantomyia* Osten Sacken

***Elephantomyia (Elephantomyia) luteiannulata chiriquiensis*** new subspecies.

FEMALE.—Length, excluding rostrum, about 7.5 mm.; wing 7 mm.; rostrum about 6 mm.

As in typical *luteiannulata* Alexander, of southern Mexico, differing in colorational details. Yellow femoral rings much wider, being one-half broader than the black tips; in the typical form, the black tips are equal to or more extensive than the yellow rings. Dark abdominal rings wide and conspicuous, occupying from one-fourth to nearly one-third the length of the segment.

Holotype, ♀, Potrerillos, altitude 3,000 feet, May 25, 1935 (MacSwain).

#### Genus *Teucholabis* Osten Sacken

***Teucholabis (Teucholabis) æquinigra*** new species.

General coloration black and yellow; pronotum uniformly yellow; lateral præscutal stripes reaching the lateral margin of sclerite; scutellum and postnotum black; pleura chiefly black; knob of halteres yellow; legs yellow, the tips of femora conspicuously black, the amount subequal on all legs; wings yellow, with two narrow brown crossbands, the wing tip paler brown; abdominal tergites brownish black, sternites dimidiate, brown, with the poste-

rior borders yellow; male hypopygium with the spine of basistyle long, provided with numerous long silken setæ; outer dististyle long and slender, bearing a small lateral spine at near midlength; ædeagus narrow, directly produced caudad into a black spine.

MALE.—Length about 6.5 mm.; wing 6.5 mm.

FEMALE.—Length about 6 mm.; wing 5.5 mm.

Rostrum black, a little shorter than remainder of head; palpi black. Antennæ black throughout; flagellar segments oval. Head in front polished black, the posterior vertex and occiput paling to obscure yellow.

Pronotum yellow. Mesonotal præscutum with the ground color yellow, with three extensive polished black stripes that are narrowly separated by the interspaces; lateral stripes extensive, including the broad lateral margins of the præscutum and crossing the suture onto the scutal lobes; median region of scutum very narrowly pale; scutellum black, the parascutella paler; postnotum black, the suture between pleurotergite and mediotergite paler. Propleura yellow; mesopleura black, the dorsopleural region surrounding the wing root and the meral region paler. Halteres with stem dusky, knob light yellow. Legs with coxæ and trochanters yellow; femora light yellow, the tips rather narrowly but conspicuously black, the amount subequal on all legs and including the distal sixth to eighth of the segment; tibiæ obscure yellow, the tips more narrowly brownish black; basal tarsal segments obscure yellow, the outer tarsal segments passing into black. Wings yellow, the prearcular and costal regions a little clearer yellow; a somewhat sparse brown pattern, including narrow bands at level of origin of *Rs* and at the cord, the former extended more basad in cell *Cu* and vaguely broken at vein *M*; a narrow cloud at outer end of cell *1st M*<sub>2</sub>; wing tip very weakly darkened, best indicated by a deeper color of the veins. Venation: *Sc* relatively long, *Sc*<sub>1</sub> extending approximately to opposite midlength of *Rs*, *Sc*<sub>2</sub> shortly beyond the origin of the latter; *R*<sub>2</sub> slightly oblique; cell *R*<sub>2</sub> at margin more than one-half more extensive than cell *R*<sub>4</sub>; *m-cu* shortly beyond fork of *M*.

Abdominal tergites brownish black; sternites dimidiate, dark brown, the caudal half of the segments yellow; hypopygium black. Sternal setæ of male greatly reduced. Male hypopygium with spine of basistyle long, strongly curved at base, the apex a long straight spine that is provided with numerous long silken setæ; on outer margin at base of spine with a few microscopic denticles; mesal margin of basistyle blackened and elevated into a weak flange. Outer dististyle a slender pale rod, a little longer than the spine of basistyle; on mesal margin at near midlength with a strong lateral spine; apex of style narrowed into a point. Inner dististyle with outer lobe elongate, the two spinous points thus widely separated by a broad U-shaped incision, the outermost being a curved hooklike blade; a small cylindrical lobe near base of outer lobe. Ædeagus relatively narrow, the apex produced directly caudad into a gently curved black spine.

Holotype, ♂, Potrerillos, altitude 3,000 feet, May 20, 1935 (MacSwain). Allotopotype, ♀, May 7, 1935.



*Teucholabis (Teucholabis) æquinigra* is very distinct from other Neotropical species. It is apparently closest to *T. (T.) sackeni* Alexander, yet very distinct in the coloration of body, legs and wings, and in the structure of the male hypopygium.

***Teucholabis (Teucholabis) seposita* new species.**

General coloration black and yellow; head dull black; knobs of halteres weakly yellow; legs black, the femoral bases narrowly yellow; wings whitish subhyaline, unmarked except for the small brown stigma; cell *1st M*<sub>2</sub> open by atrophy of basal section of *M*<sub>3</sub>; male hypopygium with mesal face of outer dististyle bearing a slender basal spine, with a stronger spinous arm beyond midlength.

MALE.—Length about 9 mm.; wing 7.5 mm.

FEMALE.—Length about 9–10 mm.; wing 7 mm.

Rostrum nearly as long as remainder of head, black; palpi black. Antennæ black throughout; flagellar segments oval to subcylindrical, with long verticils. Head dull black.

Pronotum obscure yellow, darker medially and in front. Mesonotal præscutum obscure yellow, with three confluent polished black stripes that leave broad areas of the ground in the humeral and lateral portions and before the suture; lateral præscutal stripes continued caudad across the suture and including the lateral half of each scutal lobe, the broad median region of the scutum yellow; scutellum dull black, the extreme posterior border more reddish brown, parascutella more reddish brown; mediotergite polished black. Pleura black, the pleurotergite more reddish brown to piceous; a broad, more silvery, longitudinal stripe extending from behind the fore coxæ to the base of abdomen. Halteres black, the apex of knob slightly more yellow. Legs with the fore and middle coxæ black; posterior coxæ more reddish; trochanters brown; femora black, the bases narrowly obscure yellow; remainder of legs black. Wings whitish subhyaline, unmarked except for the small, dark brown stigma; veins brown, *Sc* and the prearcular veins pale yellow. Venation: *Sc* long, *Sc*<sub>1</sub> ending about opposite three-fifths the length of *Rs*, *Sc*<sub>2</sub> some distance from its tip; *R*<sub>2</sub> a little longer than *R*<sub>2+3+4</sub>; veins *R*<sub>4</sub> and *R*<sub>5</sub> extending generally parallel to one another for virtually their entire lengths, cell *R*<sub>2</sub> at margin thus being very wide; cell *1st M*<sub>2</sub> open by atrophy of basal section of *M*<sub>3</sub>; cell *2nd M*<sub>2</sub> about one-half longer than its petiole; *m-cu* a short distance beyond fork of *M*.

Abdomen black, the incisures of the sternites broadly yellow, of the tergites more narrowly so; in the female, the yellow pattern less contrasted; hypopygium black. Male hypopygium with the apex of basistyle obtuse. Outer dististyle complex, consisting of a curved rod provided with long coarse setæ, near base on mesal face with a sharp spine; more distally, also on mesal face, with a stronger chitinized arm that is bifid at apex. Inner dististyle short and compact, the outer lobe with conspicuous setæ, the inner lobe or beak irregularly bilobed at apex. *Æ*deagus near apex produced into a powerful curved spine.

Holotype, ♂, Potrerillos, altitude 3,500 feet, May 12, 1934 (Brown). Allotopotype, ♀, altitude 3,000 feet, May 5, 1935 (MacSwain). Paratopotype, 2 ♀♀, May 5-14, 1935 (MacSwain).

Among the now relatively numerous Neotropical species of *Teucholabis* with cell 1st  $M_2$  of the wings open, the present fly is very distinct in the black legs and unpatterned wings, as well as in the very different structure of the male hypopygium.

### Genus *Gonomyia* Meigen

***Gonomyia (Lipophleps) peracuta conifera*** new subspecies.

MALE.—Length about 3.5-4 mm.; wing 3.6-4 mm.

Differs from the typical form in the details of structure of the male hypopygium. Lateral spines of basistyle shorter, stouter at base and more strongly incurved. Dististyle with conical spine shorter and more slender, only a little longer than the two fasciculate setæ at apex of style.

Holotype, ♂, Potrerillos, altitude 3,000 feet, May 7, 1935 (MacSwain). Paratopotypes, 1 ♂, May 5, 1935; 1 ♂, altitude 1,000 feet, February 8, 1934 (Brown); paratype, 1 ♂, Finca de Parada, altitude 4,450 feet, September 12, 1932 (W. K. A. Lawlor).

### Genus *Erioptera* Meigen

***Erioptera (Empeda) sutrina*** new species.

General coloration dark brown; rostrum yellow; antennæ black; legs brown; wings grayish, the stigma scarcely indicated;  $Sc_1$  ending shortly before midlength of  $R_s$ ;  $R_2$  shorter than  $R_{2+3+4}$ ; male hypopygium with the outer dististyle blackened, bifid, the inner arm irregularly lobed, bidentate at apex; inner dististyle pale and narrow.

MALE.—Length about 3 mm.; wing 3.3 mm.

Rostrum obscure yellow; palpi brownish black. Antennæ of moderate length, black. Head dark brownish gray, the front paling to brown.

Pronotum dark brown. Mesonotum almost uniform dark brown, the caudal border of scutellum very narrowly pale; lateral pretergites and borders of præscutum pale. Pleura brown, the dorsopleural region darker. Halteres dusky, the base of stem yellow. Legs with the coxæ pale brownish yellow; trochanters testaceous; remainder of legs brown; legs with abundant linear scales, in addition to the setæ. Wings grayish, the prearcular and costal portions a little more yellow; stigma scarcely indicated; veins brown. Venation:  $Sc_1$  ending shortly before midlength of the long, nearly straight  $R_s$ , the latter subequal to vein  $R_4$ ;  $R_2$  shorter than  $R_{2+3+4}$ ; veins  $R_3$  and  $R_4$  generally parallel to one another on their basal portion, thence diverging so cell  $R_3$  at margin is wider than cell  $R_2$ ; *m-cu* close to fork of  $M$ .

Abdomen brownish black, the hypopygium slightly paler. Male hypopygium with the outer dististyle blackened, bifid, the outer arm simple, longer, a little expanded on outer third, the tip subacute; inner arm irregular, the apex bidentate, with a low marginal flange back from the outer tooth; inner margin of style at near midlength produced into a flattened, roughly triangular point. Inner dististyle a narrow, parallel-sided blade, the apex obtusely rounded. Gonapophyses with blades very broad and flattened.

Holotype, ♂, Potrerillos, altitude 3,000 feet, June 2, 1935 (MacSwain).

*Erioptera (Empeda) sutrina* is quite distinct from the numerous Neotropical species of the subgenus so far made known. As usual in the genus, the structures of the male hypopygium furnish the chief distinguishing characters.

### Genus *Molophilus* Curtis

#### ***Molophilus (Molophilus) illectus* new species.**

Belongs to the *plagiatus* group; size small (wing 4 mm. or less); general coloration dark gray; antennæ short, the scape black, the flagellum light brown; halteres dusky; wings with a weak brown tinge;  $R_2$  in transverse alignment with *r-m*; male hypopygium with the basal dististyle long and slender, gently curved from the slightly dilated base, the mesal edge with a fringe of long setæ and inconspicuous low spines; phallosomic plate narrow.

MALE.—Length about 3 mm.; wing 3.7 mm.; antenna about 1.2 mm.

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

Rostrum and palpi black. Antennæ (male) with scape black, pedicel and flagellum light brown; in female, antennæ more uniformly darkened; antennæ relatively short, if bent backward about attaining the wing-root; flagellar segments long-oval. Head gray.

Thorax almost uniformly dark gray, variegated by the restricted white anterior lateral pretergites; vestiture of mesonotum long and conspicuous. Halteres dusky, the base of stem restrictedly brightened. Legs dark brown. Wings with a weak brown tinge, the base and costal region a little more yellow; stigmal region more infumated but ill-delimited; veins pale brown. Venation:  $R_2$  in transverse alignment with *r-m*; petiole of cell  $M_3$  about twice the oblique *m-cu*; vein 2nd *A* sinuous.

Abdomen brownish black, the sternites a trifle brighter. Male hypopygium with the apical beak of basistyle slender, decurved. Outer dististyle with the inner arm slender, more dilated on basal half. Basal dististyle a long, slender, gently curved rod, the extreme base more dilated; mesal edge of style with a fringe of long curved setæ, with interspersed very low teeth, the setæ extending from shortly beyond base of style virtually to apex; outer face of style with a few scattered spines and spinous setæ; apex of style terminating in a small spine. Phallosomic plate unusually narrow, the apex

obtusely rounded, subtended on either side by a pale setiferous lobe. *Ædeagus* stout.

Holotype, ♂, Potrerillos, altitude 3,000 feet, June 21, 1935 (MacSwain). Allotopotype, ♀, June 19, 1935 (MacSwain).

*Molophilus (Molophilus) illectus* is closest to *M. (M.) pennatus* Alexander, of Mexico, differing especially in the small size and in the coloration of the body and wings. The hypopygial structure is somewhat similar in the two species but the details are distinct. In *pennatus*, the stouter basal dististyle is enlarged and straight on about the basal fourth, thence gently curved, the mesal face with long black spines additional to the long setæ, these spines very different in appearance from those in the present fly.

