

# Records and descriptions of Tipulidae from tropical America (Diptera). Part II

by

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(With 16 figures)

The species discussed in this report were all taken in southern Costa Rica by my former student, Mr. Dean Leonard Rounds. This interesting collection was made in the Valley of the General, Talamanca, at altitudes between 2000 and 3000 feet, in January 1939. A few species were taken at a slightly higher altitude at San Juan Miramar, in cloud forest on the Pacific coastal range. I am greatly indebted to Mr. Rounds, and to the ornithologist and botanist, Dr. Alexander Skutch, for the opportunity of studying this collection, which has added greatly to our knowledge of distribution of these flies in southern Costa Rica. All species mentioned in this paper are new to the Tipulid fauna of the republic. Of special interest is the discovery of a species of *Dicranoptycha*, not before known from the Neotropical region. All material is preserved in my collection of these flies.

*Dicranoptycha costaricensis*, sp. n.

General coloration dull brownish black, the thoracic pleura variegated with paler; antennae, halteres and legs black; wings

narrow, very strongly blackened; cell *1st M*<sub>2</sub> open by atrophy of basal section of *M*<sub>3</sub>; *m-cu* more than its own length beyond the fork of *M*; male hypopygium with outer dististyle narrow, gradually attenuated to a slender apical point; outer surface of style roughened by setiferous tubercles but not spinous.

Male. — Length, about 8.5 mm.; wing, 8.6 mm.

Rostrum and palpi black. Antennae black; flagellar segments oval, with truncated ends, the outer segments more elongate; verticils long. Head brownish black; anterior vertex wide.

Pronotum yellowish brown, darker on sides. Mesonotum uniformly dull brownish black. Pleura paler brown, the ventral anepisternum with a narrow, velvety black, longitudinal line that barely involves the anterior end of the pteropleurite; posterior sternopleurite, meral region and pteropleurite paler, more brownish yellow. Halteres elongate, black, the base of stem restrictedly pale. Legs with the coxae obscure yellow; trochanters black; remainder of legs black, elongated. Wings (Fig. 1) narrow, very strongly blackened, the veins and trichia still darker. Venation: *Rs* in longitudinal alignment with basal section of *R*<sub>4+5</sub> and only a little longer than this element; *R*<sub>2+3</sub> running close to *R*<sub>1</sub>, especially before vein *Sc*<sub>2</sub>, thence gradually diverging; *R*<sub>2</sub> faint, without trichia; cell *1st M*<sub>2</sub> open by atrophy of basal section of *M*<sub>3</sub>, cell *2nd M*<sub>2</sub> deep; basal section of *M*<sub>1+2</sub> angulated and weak-spurred at near midlength; *m-cu* more than its own length beyond the fork of *M*; cell *2nd A* narrow. The usual pale fold in outer half of cell *Cu* is indicated in figure by stippling.

Abdominal tergites black, sternites brownish yellow. Male hypopygium (Fig. 9) with the outer dististyle, *od*, narrow, gradually attenuated to a slender apical point, the extreme tip decurved; outer surface of style feebly roughened by setiferous tubercles and setae but without spines. Inner dististyle, *id*, relatively broad, the apex obtuse, the surface with abundant coarse setae. Apices of lobes of gonapophyses broadly expanded, the margins smooth. Aedeagus, *a*, narrow, the apex obtuse.

Holotype, ♂, San Juan Miramar, in cloud forest on Pacific coastal range, altitude 3,500 feet, January 1939 (Rounds).

*Dicranoptycha costaricensis* is entirely different from all known species of the genus. It is well-distinguished by the black coloration and by the narrow wings, with cell *1st M*<sub>2</sub> open by the atrophy of the basal section of *M*<sub>3</sub>. As indicated in the introductory paragraph, the genus had not hitherto been discovered in Tropical America.

*Teucholabis (Teucholabis) talamancana*, sp. n.

General coloration black, including the praescutum and postnotum; scutellum yellow; knobs of halteres yellow; femora yellow, the tips conspicuously blackened, on fore legs involving about the distal two-fifths, on posterior legs much narrower, including about the outer fifth; tarsi black; wings yellow, sparsely variegated with darker, including a narrow seam at cord and an interrupted band at level of origin of *Rs*; wing-tip paler brown; *m-cu* beyond fork of *M*; abdominal tergites black, the sternites dimidiate, black, the outer half of individual segments yellow.

Female. — Length, about 6 mm.; wing, 5.4 mm.

Rostrum brown; palpi black. Antennae brownish black; flagellar segments subglobular, passing through short-oval to oval. Head brownish black, sparsely pruinose.

Pronotum polished yellow. Mesonotal praescutum uniformly polished black, very restrictedly variegated medially with yellow at suture; scutellum and parascutella yellow; postnotum polished black. Pleura chiefly polished black, including the entire mesepisternum and dorsal pteropleurite; dorso-pleural membrane, ventral pteropleurite and meral region yellow. Halteres brownish black, knob light yellow. Legs with coxae and trochanters yellow; femora yellow, the tips conspicuously blackened, on the slightly dilated tips of fore femora including about the distal two-fifths of segment, on posterior legs narrower, involving about the outer fifth or sixth; tibiae yellow, the extreme bases and slightly wider tips black; tarsi black. Wings yellow, sparsely patterned with darker; wing-tip paler brown, including about the outer sixth, the inner margin of area not reaching the outer end of cell *1st M*<sub>2</sub>; darker brown seams at stigma, confluent with a narrow band at cord, and at outer end of cell *1st M*<sub>2</sub>; a very narrow broken band at level of origin of *Rs*, including small clouds at origin of *Rs*, tip of *2nd A*, and a linear wash in cell *Cu*; veins brownish black, more yellowish in the prearcular field. Venation: *Sc* relatively short, *Sc*<sub>1</sub> ending about opposite two-fifths the length of *Rs*; *R*<sub>2</sub> oblique; *R*<sub>2+3+4</sub> short; branches

of *Rs* parallel to one another for more than their proximal half; *m-cu* more than one-third its length beyond fork of *M*.

Abdominal tergites black, the lateral posterior angles slightly paler; sternites bicolored, the bases black, the outer half of individual segments yellow; subterminal sternites more

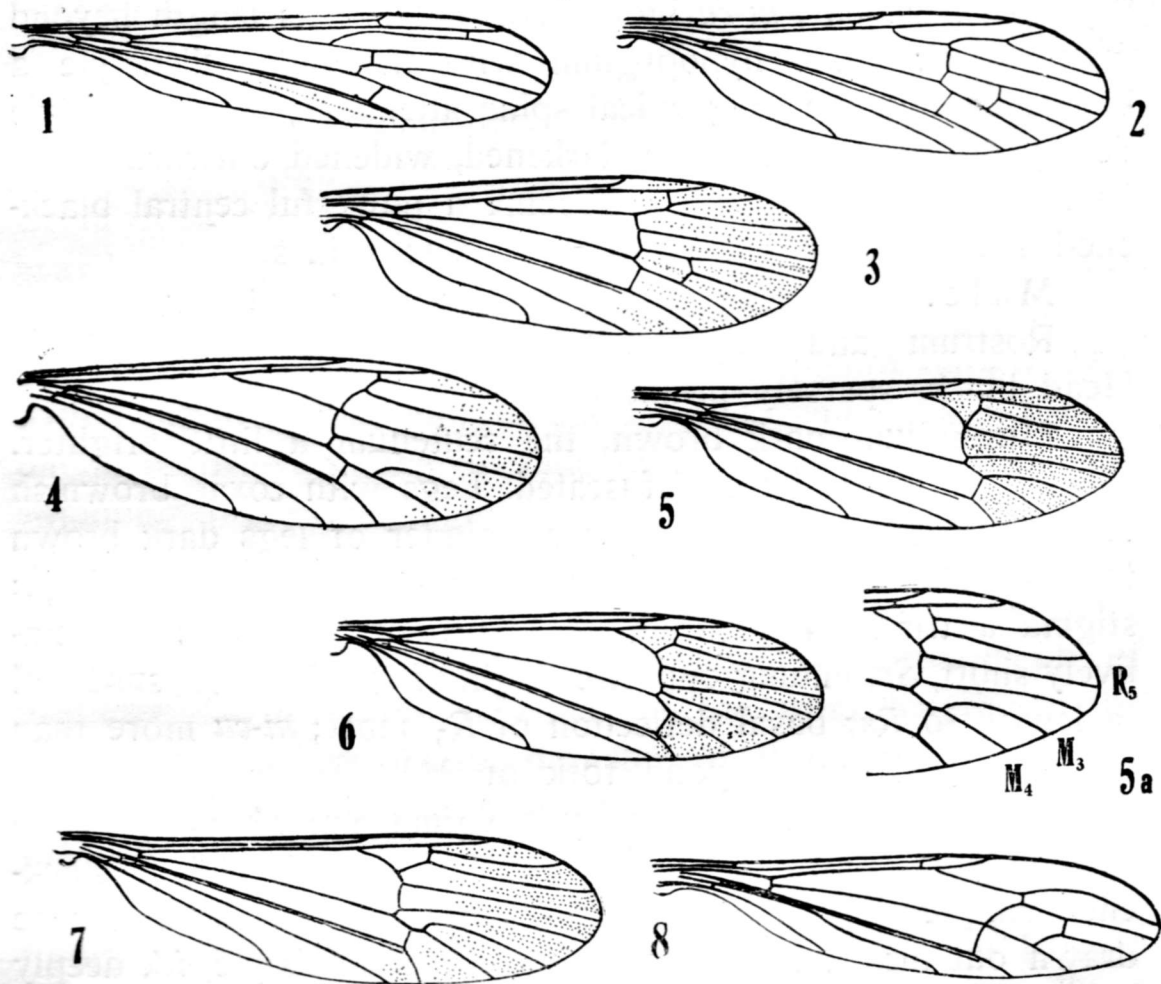


Fig. 1. *Dicranoptycha costaricensis*, sp. n.; venation. — Fig. 2. *Gonomyia* (*Gonomyia*) *bifurcifer*, sp. n. — Fig. 3. *Gnophomyia* (*Gnophomyia*) *posticata*, sp. n., venation. — Fig. 4. *Cryptolabis* (*Cryptolabis*) *roundsi*, sp. n. venation. — Fig. 5. *Cryptolabis* (*Cryptolabis*) *diversipes*, sp. n.; venation. Fig. 5-a. The same, showing variation in venation. — Fig. 6. *Cryptolabis* (*Cryptolabis*) *varipes*, sp. n.; venation. — Fig. 7. *Cryptolabis* (*Cryptolabis*) *invaripes*, venation. — Fig. 8. *Toxorhina* (*Toxorhina*) *nigrivena*, sp. n.; venation.

extensively pale; genital shield black; cerci strongly upcurved, horn-yellow.

Holotype, ♀, San Juan Miramar, in cloud forest on Pacific coastal range, altitude 3,500 feet, January 1939 (Rounds).

*Teucholabis* (*Teucholabis*) *talamancana* is most generally similar to species such as *T. (T.) equinigra* Alexander, of northern Panama, the latter differing especially in the coloration, as the narrow, subequal, blackened tips of all femora, the pale basitarsi, scarcely evident

dark wing-tip, more nearly entire dark basal band of wing, and the blackened scutellum.

*Gonomyia (Gonomyia) bifurcifer*, sp. n.

General coloration dark brown; antennae, halteres and legs darkened; wings with a weak dusky tinge, the stigma a trifle darker;  $Sc_1$  ending opposite origin of  $R_s$ ;  $R_s$  and  $R_{2+3+4}$  subequal;  $m-cu$  more than one-half its length beyond fork of  $M$ ; male hypopygium with the outer dististyle a blackened rod, the long apical spine attenuate; inner dististyle deeply bifid, the outer arm darkened, widened outwardly, the truncated margin erose; phallosome a powerful central blackened rod, at apex split into two acute spines.

Male. — Length, about 4 mm.; wing, 4.2 mm.

Rostrum and palpi black. Antennae black throughout. Head black, sparsely pruinose.

Mesonotum dark brown, the scutellum a little brighter. Pleura yellow. Halteres infuscated. Legs with coxae brownish testaceous; trochanters brown; remainder of legs dark brown to brownish black. Wings (Fig. 2) with a weak dusky tinge; stigma a trifle darker; veins dark brown. Venation:  $Sc$  relatively short,  $Sc_1$  ending opposite origin of  $R_s$ ;  $R_{2+3+4}$  subequal in length to  $R_s$ ; basal deflection of  $R_5$  short;  $m-cu$  more than one-half its length beyond fork of  $M$ .

Abdomen dark brown; hypopygium paler brown. Male hypopygium (Fig. 10) with the outer dististyle,  $od$ , a blackened simple rod, a little expanded at near midlength, thence drawn out into a long acute point. Inner dististyle,  $id$ , deeply bifid, the outer arm a darkened lobe that is widened outwardly, the apex truncate; surface with microscopic roughenings, the apex erose; before apex with a single long seta; inner arm a little longer but narrower, pale, with numerous setae, including two very long fasciculate apical bristles. Phallosome,  $p$ , a powerful central blackened rod, or two very closely applied rods, at apex split into two slightly unequal spines.

Holotype, ♂, Pedregoso, altitude 2,075 feet, January 1939 (Rounds).

*Gonomyia (Gonomyia) bifurcifer* is entirely distinct from other regional species, differing especially in the structure of the male hypopygium.

*Gonomyia (Lipophleps) aequidens* Alexander

San Ramon, altitude 2,900 feet, January 1939 (Rounds).

*Gonomyia (Lipophleps) peracuta conijera* Alexander  
Rivas, altitude 2,875 feet, January 1939 (Rounds).

*Gonomyia (Lipophleps) macswaini* Alexander  
Pedregoso, altitude 2,075 feet, January 1939 (Rounds).

*Gonomyia (Lipophleps) calverti pleurostriata*,  
subsp. n.

Male. — Length, about 3 mm.; wing, 3.5 mm.

Differs from typical *calverti* Alexander, likewise from Costa Rica (Journ. N. Y. Ent. Soc., 22: 122; 1914) in the heavily striped thoracic pleura and in the details of structure of the male hypopygium.

Antennae black throughout. Thoracic pleura dark brown, with a broad whitish longitudinal stripe extending from behind the fore coxae to base of abdomen; dorsopleural region and adjoining pretergites light sulphur yellow. Legs medium to relatively dark brown. Wings with a weak brown tinge, the stigma a trifle darker; prearcular and costal fields more yellowish. Venation: *Sc* short, the distance between tip of *Sc*<sub>1</sub> and origin of *Rs* subequal to the total length of the latter, *Sc*<sub>2</sub> near tip of *Sc*<sub>1</sub>; branches of *Rs* strongly divergent at outer ends; *m-cu* at fork of *M*. Male hypopygium (Fig. 11) with the dististyle, *d*, fleshy, not different in texture from the basistyle, *b*, the latter slender. Phallosome, *p*, as figured, the upper plate consisting of two terminal blades, one long and slender, pale, nearly straight, the other a flattened swordlike blade; below this plate, on either side with a scooplike structure margined with about nine powerful black spines, the two more basal ones weaker and more slender.

I regard this as being a subspecies of *calverti* Alexander, which differs especially in the scarcely striped thoracic pleura and in the abruptly narrowed, more sclerotized dististyle. The remarkable phallosome of the present fly seems to be entirely homologizable with that of *calverti*, the most peculiar single feature lying in the series of strong blackened spines on either side of the lobes of the ventral plate. In order to avoid confusion, I have figured this plate as separate from the remainder of phallosome and have shown the spines of one side only.

Holotype, ♂, Pedregoso, altitude 2,200 feet, January 1939 (Rounds).

*Gonomyia (Lipophleps) haploides* Alexander

Pedregoso, altitude 2,075-2,500 feet; Rivas, altitude 2,875 feet, January 1939 (Rounds).

*Gnophomyia (Gnophomyia) posticata*, sp. n.

Belongs to the *luctuosa* group; size small (wing, male, under 5 mm.); general coloration black, the posterior tibiae paler brown on central half, posterior basitarsi obscure yellow; wings blackish, with pale longitudinal streaks in cells *R* and *Cu*; numerous macrotrichia in outer cells of wing;  $R_2$  at or close to fork of  $R_{2+3+4}$ . male hypopygium with the phallosome a widely expanded plate, its basal portion with abundant setulae; gonapophyses appearing as slender pale rods.

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

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

Rostrum black, sparsely pruinose; palpi black. Antennae black; flagellar segments oval, with verticils of moderate length. Head black, sparsely pruinose, more heavily so on front.

Thorax black, the notum sparsely pruinose, the pleura more heavily so. Halteres black throughout. Legs black; posterior tibiae paler brown for about one-half the total length before the blackened tips; posterior basitarsi chiefly obscure yellow, the tips darkened. Wings (Fig. 3) with a strong blackish tinge, with pale streaks in cell *R* adjoining vein *M*, crossing cell 1st  $M_2$  into cell  $M_3$ ; a second such pale streak in outer half of cell *Cu*; cell *C* before arculus similarly pale; veins black. Macrotrichia in centers of cells beyond cord (indicated in figure by stippling). Venation:  $Sc_1$  ending nearly opposite or shortly before fork of *Rs*,  $Sc_2$  not far from its tip; *Rs* long, exceeding  $R_3$ ;  $R_2$  at or close to fork of  $R_{2+3+4}$ ; cell 1st  $M_2$  relatively short, not exceeding one-third the length of vein  $M_{1+2}$  beyond it; *m-cu* about one-third its length beyond fork of *M*.

Abdomen, including genitalia of both sexes, black. Male hypopygium (Fig. 12) with the basistyle, *b*, near apex produced into a long fingerlike lobe directed caudad and mesad. Two dististyles, *id*, *od*, slightly unequal in length and width, both a little expanded at outer ends. Phallosome, *p*, with lateral flanges that are widely expanded into a depressed plate, this densely setuliferous (punctures indicated on figure by stippling); apex of aedeagus a slender recurved hook. Gonapophyses, *g*, appearing as long slender pale rods.



Holotype, ♂, Pedregoso, altitude 2,300 feet, January 1939 (Rounds).

Allotopotype, ♀, altitude 2,075 feet, January 1939 (Rounds).

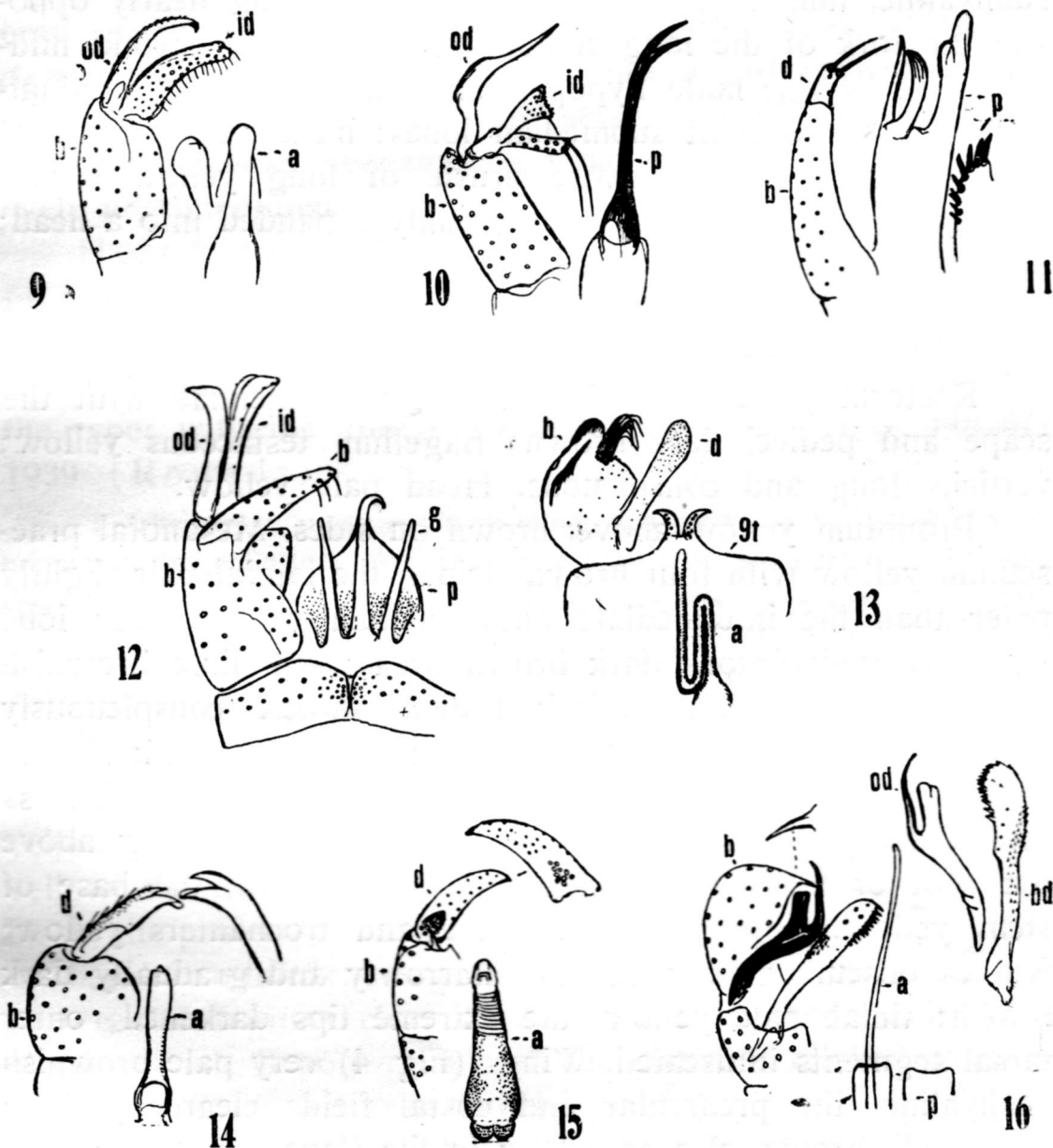


Fig. 9. *Dieranoptycha costaricensis*, sp. n.; male hypopygium. — Fig. 10. *Gonomyia* (*Gonomyia*) *bifurcifer*, sp. n.; male hypopygium. — Fig. 11. *Gonomyia* (*Lipophleps*) *calverti pleurostriata*, subsp. n.; male hypopygium. — Fig. 12. *Gnophomyia* (*Gnophomyia*) *posticata*, sp. n.; male hypopygium. — Fig. 13. *Cryptolabis* (*Cryptolabis*) *roundsi*, male hypopygium. — Fig. 14. *Cryptolabis* (*Cryptolabis*) *diversipes*, sp. n.; male hypopygium. — Fig. 15. *Cryptolabis* (*Cryptolabis*) *varipes*, sp. n.; male hypopygium. — Fig. 16. *Molophilus* (*Molophilus*) *subliator*, sp. n.; male hypopygium. — (Explanation of symbols: a, aedeagus; b, basistyle; bd, basal dististyle; d, dististyle; g, gonapophysis; id, inner dististyle; od, outer dististyle; p, phallosome; t, tergite.)

*Gnophomyia* (*Gnophomyia*) *posticata* is quite different from other described members of the *luctuosa* group, especially in the small size, coloration of the legs, and in the details of structure of the male hypopygium.

*Cryptolabis (Cryptolabis) roundsi*, sp. n.

Size large (wing, male, 5 mm.); general coloration yellow, the praescutum with four dark stripes; pleura yellow with a conspicuous dark brown longitudinal stripe; femora and tibiae obscure yellow, the tips darkened; wings pale brown, subhyaline, unmarked; *Sc* very long, *Sc*<sub>1</sub> ending nearly opposite the fork of the long sinuous *Rs*; *m-cu* just beyond midlength of *M*<sub>3+4</sub>; male hypopygium with the tergite terminating in two divergent submedian lobes; basistyle complex, at outer end bearing a dense brush of long yellow setae; dististyle entirely pale, the apex weakly expanded into a head; aedeagus strongly convoluted.

Male. — Length, about 4 mm.; wing, 5 mm.

Female. — Length, about 4 mm.; wing, 4.7-4.8 mm.

Rostrum yellow; palpi dark brown. Antennae with the scape and pedicel dark brown; flagellum testaceous yellow; verticils long and conspicuous. Head pale yellow.

Pronotum yellow above, brown on sides. Mesonotal praescutum yellow with four brown stripes, the lateral pair slightly paler than the intermediate ones; scutum yellow, each lobe with two conspicuous dark brown areas; scutellum brownish testaceous; mediotergite dark brown; thorax conspicuously hairy. Pleura yellow, with a broad, conspicuous, dark brown, longitudinal stripe extending from the cervical region across the dorsal pleurites to the base of abdomen, passing above the root of the halteres. Halteres dark brown, the base of stem yellow. Legs with the coxae and trochanters yellow; femora obscure yellow, the tips narrowly and gradually dark brown; tibiae pale yellow, the extreme tips darkened; outer tarsal segments infuscated. Wings (Fig. 4) very pale brownish subhyaline, the prearcular and costal fields clearer yellow; veins pale brown, clearer yellow in the flavous portions. Macrotrichia in outer cells of wing, more extensive in female than in the male (as shown, the punctures represented by stippling); in female, the trichia occur in all cells beyond cord as well as in most of cell *R*<sub>1</sub> and outer ends of Cubital and Anal cells. Venation: *Sc* unusually long, *Sc*<sub>1</sub> ending just before outer end of the long sinuous *Rs*, the latter in longitudinal alignment with *R*<sub>5</sub>; *Sc*<sub>2</sub> about opposite or before midlength of *Rs*; *r-m* at or just before the fork of *Rs*; *m-cu* just beyond midlength of *M*<sub>3+4</sub>

Abdominal tergites brown, the caudal borders narrowly

blackened; sternites and hypopygium pale yellow. Male hypopygium (Fig. 13) complex. Ninth tergite, *9t*, with two submedian curved lobes, directed caudad, the tips slightly laterad, the surface with abundant setae. Basistyle, *b*, terminating in a flattened black lobe, its apex obtuse, at base on inner side with a dense group of long yellow setae; face of style laterad of the hair-tuft with a strong straight spine. Dististyle, *d*, subterminal, entirely pale, the apex a little expanded, the surface with abundant delicate setae and setulae, those on the head retrorse. Aedeagus, *a*, long, blackened, strongly bent itself or convoluted.

Holotype, ♂, Rivas, altitude 2,925 feet, January 1939 (Rounds).

Allotype, ♀, Pedregoso, altitude 2,075 feet, January 1939. Paratopotypes, numerous males and females, with the type; with the allotype, altitude 2,075-2,300 feet, January 1939 (Rounds).

I take great pleasure in naming this very distinct crane-fly in honor of the collector, Mr. Dean Leonard Rounds. The species is entirely different from the other described regional forms having *Rs* long and sinuous, especially in the body-coloration and in the structure of the male hypopygium.

*Cryptolabis (Cryptolabis) diversipes*, sp. n.

General coloration grayish black, the dorsopleural region yellow; femora black, the bases narrowly paler; tibiae obscure yellow, the extreme base and much wider tip blackened; tarsi black, the posterior basitarsi obscure yellow to brownish yellow on basal two-thirds; wings tinged with brown, the prearcular and costal regions clear light yellow; *Rs* moderately long, sinuous; male hypopygium with the dististyle bilobed at apex; aedeagus stout, not convoluted.

Male. — Length, about 3.5-3.8 mm.; wing, 4.3-4.5 mm.

Female. — Length, about 4 mm.; wing, 5 mm.

Rostrum and palpi black. Antennae with scape black, pedicel and flagellum dark brown; flagellar segments oval, the outer segments progressively smaller. Head dark brown.

Pronotum whitened above, grayish black on sides. Mesonotal praescutum grayish black, with a narrow paired darker median stripe, the lateral borders and dorsopleural region restrictedly yellow; scutal lobes blackish gray, the median area brownish yellow; posterior sclerites of notum blackish gray. Pleura blackish gray. Halteres pale yellow. Legs with the

coxae black; trochanters obscure yellow; femora black, very narrowly paler at base; tibiae obscure yellow, the extreme base and much wider apex blackened; tarsi black, the posterior basitarsi obscure yellow to brownish yellow on basal two-thirds. Wings (Fig. 5) with a slight brown tinge, the prearcular and costal regions clear light yellow; axillary region narrowly darkened; veins pale brown, *Cu* and those at cord darker, insensibly seamed with fuscous. Abundant macrotrichia in cells beyond cord (their position indicated in figure by stippling); in female, the trichia equally abundant but lacking in the bases of the cells beyond cord. Venation:  $Sc_1$  ending a short distance before fork of the moderately long, sinuous *Rs*; *r-m* variable in length and position, as is also the position of *m-cu* in relation to the fork of  $M_{3+4}$ ; in cases, *r-m* is at fork of *Rs*, in others on  $R_5$ , some distance beyond origin; *m-cu* at fork of  $M_{3+4}$  or some distance before this fork (the extremes of this condition are shown in figures 5 and 5 a).

Abdomen, including the hypopygium, black. Male hypopygium (Fig. 14) with the dististyle, *d*, terminal in position, conspicuously bilobed at apex, one lobe pointed at tip, the other obtuse; surface of style hairy. Aedeagus, *a*, stout, not convoluted.

Holotype, ♂, Rivas, altitude 2,875 feet, January 1939 (Rounds).

Allotype, ♀, Pedregoso, altitude 2,100 feet, January 1939 (Rounds).

Paratopotypes, of both sexes, with the type; paratypes, both sexes, altitude 2,075-2,875 feet, January 1939 (Rounds).

*Cryptolabis (Cryptolabis) diversipes* is well distinguished by the coloration of the body, legs and wings, and, especially, by the structure of the male hypopygium.

*Cryptolabis (Cryptolabis) varipes*, sp. n.

General coloration of mesonotum reddish brown, variegated with white; antennal flagellum pale yellow; thoracic pleura with a conspicuous brownish black, dorso-longitudinal stripe; halteres yellow; fore femora blackened, remaining femora yellow with the tips narrowly blackened; tibiae and basitarsi yellow, the tips narrowly darkened; wings yellowish subhyaline, cells *C* and *Sc* clearer yellow; narrow dark seams along cord and vein *Cu* and in the axilla; *Rs* relatively short; veins

$M_{1+2}$ ,  $M_3$  and  $M_4$  all close together at fork of  $M$ ; male hypopygium with dististyle a simple, subcultrate blade.

Male. — Length, about 3.5-3.8 mm.; wing, 4-4.2 mm.

Female. — Length, about 4 mm.; wing, 4.5 mm.

Rostrum brown; palpi darker brown. Antennae with scape and pedicel brownish black, flagellum pale yellow, the outer segments a trifle more obscured. Head china-white.

Pronotum white, narrowly darkened medially. Mesonotal praescutum with virtually confluent reddish brown stripes, the humeral region and broad lateral borders white; scutal lobes similarly reddish brown; scutellum pale medially, darkened on sides, parascutella brown; mediotergite dark brown, the cephalic lateral angles and adjoining portions of pleurotergite whitened. Pleura yellow, with a broad, brownish black, dorso-longitudinal stripe. Halteres yellow. Legs with the coxae and trochanters testaceous yellow; fore femora blackened, the bases paler, in cases with a vaguely brightened subterminal ring; tibiae yellow, the tips narrowly blackened, in cases with a more or less distinct darkening before midlength of segment; tarsi yellow, the terminal segments darker; middle and hind femora light yellow, with the tips very narrowly blackened; tibiae and basitarsi yellow, the tips narrowly darkened; outer tarsal segments weakly infuscated. Wings (Fig. 6) yellowish subhyaline, the costal and prearcular regions clear light yellow; narrow brown clouds at cord; cell  $Cu_1$  narrowly darkened; axilla clouded; veins light yellow, darker in the infuscated portions. Macrotrichia pale, including the punctures, well-distributed in cells beyond cord. Venation:  $Sc$  long,  $Sc_1$  ending nearly opposite the outer end of  $R_{2+3+4}$ ;  $Rs$  relatively short, weakly convex; basal section of  $R_5$  distinct; arrangement of veins at fork of media peculiar, with  $M_{1+2}$ ,  $M_3$  and  $M_4$  all arising close together at the cord,  $m-cu$  thus connecting with  $M_4$  more than one-half its length beyond fork of  $M$ ; in rarer cases,  $m-cu$  is at or closer to fork of  $M_{3+4}$ . In the allotype, the basal section of  $R_5$  is lacking.

Abdomen obscure yellow, with a conspicuous black sublateral stripe; genitalia of both sexes yellow. Male hypopygium (Fig. 15) with the dististyle,  $d$ , a simple subcultrate blade, the tip acute; surface of style only moderately hairy. Aedeagus,  $a$ , stout, not convoluted.

Holotype, ♂, Rivas, altitude 2,875 feet, January, 1939 (Rounds).

Allotype, ♀, Pedregoso, altitude 2,100 feet, January 1939 (Rounds).

Paratopotypes, males; paratypes, both sexes, with the allotype, altitude 2,075-2,300 feet, January 1939.

*Cryptolabis (Cryptolabis) varipes* is well-distinguished from all other described regional species by the coloration of the body and legs, the venation, and by the structure of the male hypopygium.

*Cryptolabis (Cryptolabis) invaripes*, sp. n.

General coloration black, the posterior sclerites of mesonotum more gray pruinose; halteres black; legs brownish black, the femoral bases paler; wings strongly tinged with dusky, the outer veins broadly seamed with still darker; macrotrichia of cells restricted to distal third of wing; *Rs* short, convex; cell *M*<sub>3</sub> deep; abdomen dark gray; genital region brownish black.

Female. — Length, about 4 mm.; wing, 4.5 mm.

Rostrum and palpi black. Antennae with scape and flagellum black, pedicel a little paler; flagellar segments oval, with conspicuous verticils. Head dark gray.

Mesonotum opaque black, the pretergites obscure yellow; scutellum and postnotum darker gray pruinose. Pleura black, pruinose; dorsopleural membrane restrictedly pale. Halteres black, the extreme base of stem pale. Legs with fore coxae black, middle and hind coxae, with all trochanters, yellowish testaceous; femora obscure yellow basally, passing into dark brown; tibiae and tarsi brownish black. Wings (Fig. 7) with a very strong dusky tinge, especially adjoining the veins where it appears as conspicuous seams, the centers of the cells remaining paler but still darkened; prearcular field and cell *C* more subhyaline; wing-apex narrowly bordered by whitish subhyaline; axilla restrictedly infuscated; veins dark brown; whitish streaks along vein *M* in cell *R*, crossing the cephalic portion of cell *M*<sub>2</sub> to vein *M*<sub>3</sub>; vein *1st A* similarly bordered by pale. Macrotrichia of cells restricted to distal third of wing, beyond the cord, with the exception of outer end of cell *Cu*. Venation: *Rs* relatively short, convex; cell *M*<sub>3</sub> deep; *m-cu* beyond two-thirds the length of *M*<sub>3+4</sub>; vein *M*<sub>3</sub> angulated at base.

Abdomen dark brown; genital region brownish black. Ovipositor with the major valves fleshy, each provided with about five large spinous setae. Abdomen filled with large black eggs of unusual size.

**Holotype**, ♀, Pedregoso, altitude 2,100 feet, January 1939 (Rounds).

*Cryptolabis (Cryptolabis) invaripes* is readily distinguished by the coloration of the body and wings, especially the broad dark seams of the outer wing veins.

*Molophilus (Molophilus) subliCTOR*, sp. n.

Belongs to the *plagiatus* group; size small (wing, male, 3.5 mm.); mesonotal praescutum dark reddish brown, the posterior sclerites of notum and the pleura dark brown; legs dark brown; wings with a brown tinge, the stigmal region more suffused; vein *2nd A* long; male hypopygium with the basal dististyle a flattened rod with a little less than the apical half slightly more expanded, the inner face near apex with dense erect spines; a few smaller appressed spinulae on outer margin near base of expanded portion; apex of phallosomic plate very gently concave.

**Male**. — Length, about 2.8 mm.; wing, 3.5 mm.; antenna, about 1.3 mm.

Rostrum and palpi black. Antennae of moderate length, about one-half the length of body, black throughout; longest verticils of more basal flagellar segments very long, fully three times the segments themselves. Head brownish black.

Mesonotal praescutum and scutum dark reddish brown, the former more blackened laterally behind the pseudosutural foveae; posterior sclerites of notum a little darker. Pleura dark brown. Halteres with stem obscure yellow, a little darker outwardly. Legs with coxae testaceous brown; trochanters obscure yellow; remainder of legs dark brown. Wings with a brown tinge, the stigmal region more suffused; veins and trichia darker brown. Venation:  $R_2$  in approximate transverse alignment with *r-m*; petiole of cell  $M_3$  about one-third to one-half longer than *m-cu*; vein *2nd A* relatively long, ending about opposite one-third the length of the petiole of cell  $M_3$ .

Abdomen, including hypopygium, brownish black. Male hypopygium (Fig. 16) with the apical beak of basistyle, *b*, slender, acute at tip. Outer dististyle, *od*, with the outer arm long and slender, narrowed to a slender attenuate apex; inner arm shorter, flattened. Basal dististyle, *bd*, a flattened rod, with a little less than the apical half slightly more expanded than the base; inner face near apex set with dense erect spines; outer face at base of expanded portion with much smaller

appressed spinulae; a few scattered setigerous punctures on outer half. Phallosomic structure, *p*, a depressed glabrous plate, the apex very gently concave.

Holotype, ♂, Pedregoso, altitude 2,100 feet, January 1939 (Rounds).

Most similar to *Molophilus (Molophilus) lictor* Alexander, of Colombia, which differs in the larger size and in the details of structure of the male hypopygium, especially of the basal dististyle and the phallosomic plate.

*Styringomyia americana* Alexander

Rivas, altitude 2,875 feet, January 1939 (Rounds).

*Toxorhina (Ceratocheilus) americana* (Alexander)

Pedregoso, altitude 2,500 feet, January 1939 (Rounds).

*Toxorhina (Toxorhina) nigrivena*, sp. n.

General coloration of thorax dark plumbeous; rostrum about one-half the length of body, black throughout; mesonotal praescutum with narrow darker lines on interspaces; pleura dark, the meron and posterior coxae abruptly whitish; legs black; wings whitish subhyaline, the cells beyond cord somewhat darker; veins black; *Sc* short, *Sc*<sub>1</sub> ending just beyond origin of *Rs*; *R*<sub>1</sub> ending opposite midlength of *Rs*; *m-cu* at fork of *M*; cell *2nd A* relatively narrow.

Female. — Length, excluding rostrum, about 6 mm.; wing, 4.5 mm.; rostrum, about 3 mm.

Rostrum about one-half the length of body, black throughout. Antennae brownish black. Head gray.

Mesonotum dark plumbeous gray, the praescutal interspaces narrowly lined with more blackish. Pleura dark gray, the meron and posterior coxae more whitened. Halteres black. Legs with the coxae darkened basally, the apices pale, the posterior pair entirely pale, as above described; all trochanters abruptly black; remainder of legs black. Wings (Fig. 8) whitish subhyaline, a trifle more darkened beyond cord; veins black, those at wing-base a little paler. Venation: *Sc* very short, *Sc*<sub>1</sub> ending immediately beyond origin of *Rs*, *Sc*<sub>2</sub> about twice this distance before origin; *R*<sub>1</sub> ending opposite midlength of *Rs*; cell *R*<sub>5</sub> narrowed at wing margin, widest at near one-third the length; cell *1st M*<sub>2</sub> relatively large, *m-cu* at fork of *M*; cell *2nd A* relatively narrow.



Abdomen brownish black, the more basal sternites paler; valves of ovipositor very long, especially the cerci.

Holotype, ♀, San Juan Miramar, in cloud forest on Pacific coastal range, altitude 3,500 feet, January 1939 (Rounds).

*Toxorhina (Toxorhina) nigrivena* is allied to *T. (T.) atripes* Alexander, of Colombia, differing in the coloration of the body, especially the thorax, and in the venation, especially the very short *Sc* and *R*<sub>1</sub>.

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