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NEW OR LITTLE-KNOWN TIPULIDÆ (DIP-  
TERA).—LXIV. NEOTROPICAL SPECIES.

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*New or little-known Tipulidæ (Diptera).—LXIV. Neotropical Species.* By CHARLES P. ALEXANDER, Ph.D., F.R.E.S., Massachusetts State College, Amherst, Massachusetts, U.S.A.

THE species described herewith are all from Peru, where they were taken in the Departments of Ayacucho, Huanuco and Junin by Mr. Felix Woytkowski, and in Junin by Mr. Pedro Paprzycki. A discussion of the Junin stations has been given in earlier part under this title (*Ann. & Mag. Nat. Hist.* (8), xi. pp. 240–241, 1941). The crane-flies here considered all belong to the great tribe Eriopterini, unusually well represented in the Peruvian Andes. All types of new species are preserved in my collection of these flies.

*Neolimnophila andicola*, sp. n.

General coloration grey, the præscutum with four clearly delimited brown stripes; wings with a weak brown tinge, stigma oval, pale brown; vein  $R_2$  beyond form of  $R_{2+3+4}$ , a short element  $R_{2+3}$  being present;  $R_{2+3+4}$  rather strongly arcuated, exceeding  $R_3$ ; cell 1st  $M_2$  of moderate length; male hypopygium with the inner dististyle provided with conspicuous erect strong setæ; basistyle with the two spines strongly developed, not greatly dissimilar in shape or size.

*Male.*—Length about 6.5 mm.; wing 7.5 mm.

Rostrum grey; palpi black. Antennæ black throughout; fusion-segment long-conical, the last segment of the fusion indicated by a suture, the total fusion involving five segments with nine free segments beyond the fusion; verticils shorter than the segments. Head brownish grey.

Pronotum brownish grey. Mesonotum grey, the præscutum with four clearly delimited brown stripes

much as in *ultima*; posterior sclerites of notum dark grey. Pleura uniformly grey. Halteres with stem dirty white, knob weakly infuscated. Legs with the coxæ grey pruinose; trochanters brownish yellow; femora black, their bases obscure yellow, narrowest on fore legs, very extensive on posterior pair where only the distal sixth is blackened; remainder of legs black; tibial spurs present. Wings with a weak brown tinge, the prearcular and costal fields slightly more yellow; stigma oval, pale brown; veins brown, yellow in the brightened portions. Venation:  $R_2$  shortly beyond fork of  $R_{2+3+4}$ , so a short element  $R_{2+3}$  is present;  $R_{2+3+4}$  rather strongly arcuated, about three-fourths the length of  $R_s$ ; cell  $M_1$  subequal to its petiole;  $m-cu$  beyond one-third the length of cell 1st  $M_2$ . The distal position of  $R_2$  is more as in *appalachicola* than in *ultima*.

Abdomen, including hypopygium, black. Male hypopygium with the outer face of inner dististyle provided with long, coarse, erect setæ. Basistyle with both spines strong and conspicuous, the outer one fully four-fifths the length of inner and nearly as stout. In *ultima*, the setæ of the inner dististyle while being elongate are much more slender than in the present fly, while the spines of the basistyle are very unequal in size, the outer one being much reduced.

*Hab.* Peru (Ayacucho).

*Holotype*, ♂, Yanamonte, La Mar, in fog forests, altitude 3000–4100 metres, September 30, 1941 (*Woytkowski*).

*Neolimnophila andicola* is quite distinct from the two Nearctic species of the genus so far described, *N. appalachicola* Alexander, of the south-eastern United States, and *N. ultima* (Osten Sacken), widespread over northern North America. The venation and structure of the male hypopygium readily separate the present fly from these allies. The discovery of a true *Neolimnophila* in South America is of considerable interest, since it constitutes the first record of the genus from south of the equator.

*Teucholabis (Paratropesa) fumidapicalis*, sp. n.

Allied to *fasciolaris*; head reddish; pronotum and pleura uniformly yellow; mesonotum black, the præscutum with two transverse yellow bands, the second at the suture; knobs of halteres yellow; fore femora black,

the basal fourth yellow ; middle and posterior femora yellow with narrow black tips ; fore tibiæ black ; wings cream-yellow, heavily patterned with dark brown, the broad wing apex paler brown ; abdominal tergites black ; sternites black with the posterior halves obscure yellow.

*Female*.—Length about 5.5 mm. ; wing 5.3 mm.

Rostrum reddish yellow ; palpi black. Antennæ with scape yellow ; pedicel and flagellum black ; flagellar segments oval, the verticils longer than the segments. Head reddish.

Pronotum uniformly yellow. Mesonotal præscutum with the ground-colour obscure yellow, conspicuously patterned with polished black, including a transverse girdle before suture and a disconnected median black area occupying the anterior third of sclerite ; the yellow ground thus appears as two narrow transverse areas, the more anterior angulated, the posterior band at the suture more nearly straight ; scutum yellow, each lobe with an extensive quadrate black area ; scutellum and postnotum, involving both the mediotergite and pleurotergite, polished black. Pleura uniform orange-yellow, including the dorso-pleural membrane, the ventral sternopleurite a little more reddish. Halteres with stem blackened, knob yellow. Legs with all coxæ and trochanters yellow ; fore femora black, with a little more than the basal fourth yellow ; fore tibiæ brownish black, the tips, together with the tarsi, black ; middle and posterior femora yellow with the tips narrowly but conspicuously blackened ; tibiæ obscure yellow, the extreme bases and the wider tips blackened ; tarsi black. Wings (fig. 7) with the ground-colour cream-yellow, heavily patterned with dark brown, including all of cells *C* and *Sc*, with posterior extensions therefrom over the arculus and as a complete band across wing between origin of *Rs* and tip of vein *2nd A*, widened in cells *M* and *Cu* ; a second narrow but complete brown band extends from and includes the darker stigma, nearly parallel-sided, becoming paler and more diffuse in the cubital and anal cells ; wing-tip distinctly infuscated but paler in colour than the remaining bands, its inner end lying at the forks of  $R_{3+4}$  and  $M_{1+}$  ; veins yellow, conspicuously dark brown in the heavily patterned areas, more brownish yellow in the apical band. Venation : *Sc*<sub>1</sub> ending before mid-length of *Rs*, *Sc*<sub>2</sub> shortly beyond

origin of  $R_s$ ; vein  $R_3$  oblique, a little longer than  $R_2$ ; cell 1st  $M_2$  open by atrophy of basal section of  $M_3$ ;  $m-cu$  close to the fork of  $M$ .

Abdominal tergites black; sternites black with the posterior halves of the segments obscure yellow; genital segment yellow, blackened apically; cerci light yellow.

*Hab.* Peru (Junin).

*Holotype*, ♀, Satipo, Jauja, altitude 800–900 metres, June 29, 1940 (*Paprzycki*).

By my latest key to the Neotropical species of *Paratropesa* (Konowia, 12: 44–45; 1933), the present fly runs to *Teucholabis* (*Paratropesa*) *fasciolaris* (Wiedemann) and *T. (P.) lindneri* Alexander. In the darkened wing-tip it is closest to *fasciolaris*, differing especially in the coloration of the body and legs.

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

Allied to *melanocephala*; general coloration obscure yellow, the præscutum with three chestnut-brown stripes; cervical region very long and slender; legs black, the femora with a yellow ring at near three-fourths the length; wings brownish yellow with a conspicuous but diffuse brown pattern; costal border darkened; cell 1st  $M_2$  closed; male hypopygium with the outer dististyle terminating in two approximated blackened points.

*Male*.—Length about 11.5 mm.; wing 8.5 mm.

*Female*.—Length about 11.5 mm.; wing 8 mm.

Rostrum brown; palpi black. Antennæ with scape brown, pedicel and flagellum black; basal flagellar segments oval, the succeeding ones passing through long-oval to elongate-cylindrical, the verticils conspicuous, exceeding the segments in length. Head polished black; anterior vertex about one-half wider than the diameter of scape.

Cervical region very long and slender, black. Pronotum brown above, paling to brownish yellow on sides. Mesonotum obscure yellow, polished, the præscutum with three more chestnut stripes, the median one darker in front; centres of scutal lobes similarly chestnut-brown. Pleura with propleura and mesepisternum brownish, the posterior sclerites and the pleurotergite obscure brownish yellow. Halteres dark brown, the knobs large. Legs

with the coxæ and trochanters obscure yellow; femora black, obscure yellow on basal portions; all femora with a yellow ring at about three-fourths the length, wide and diffuse on fore legs, narrow but distinct on the middle and hind legs; tibiæ and tarsi brownish black, the outer tarsal segments black; posterior basitarsi swollen at posterior end and provided with a longitudinal glandular area; claws simple. Wings with the ground-colour brownish yellow, conspicuously but diffusely patterned with brown, including the costal border and broader apex; additional washes at origin of *Rs*, along cord and outer end of cell 1st *M*<sub>2</sub>, and in the subbasal portions of cells *Cu*, 1st *A* and 2nd *A*; stigmal area darker brown; veins yellow, darker in the patterned areas. Posterior border of wing of male more or less in-shirred opposite termination of vein 2nd *A*; costal fringe very short and sparse. Venation: *Sc* long, *Sc*<sub>1</sub> ending beyond mid-length of *Rs*, *Sc*<sub>2</sub> far from its tip, closer to origin of *Rs* than to tip of *Sc*<sub>1</sub>; *Sc*<sub>2</sub> *R*<sub>1</sub> before stigma unusually arcuated toward costa, widening cell *R*<sub>1</sub> at this point; *R*<sub>2</sub> more than one-half its length beyond fork of *M*; cell 1st *M*<sub>2</sub> shorter than any of the veins beyond it.

Abdomen, including hypopygium, brownish yellow; sternites somewhat clearer yellow; sternal pocket and armature of seventh sternite conspicuous. Male hypopygium (fig. 1) with apex of basistyle, *b*, obtusely rounded; spine on mesal face broadly dilated on basal half, thence rapidly narrowed into a straight black spine; surface of spine with microscopic appressed spinulæ; blackened flange at mesal edge of basistyle conspicuous, the margin irregularly serrate. Outer dististyle, *od*, a simple rod, at and before outer end with two spinous points; surface of style with abundant, unusually coarse setæ, the outer surface with microscopic appressed spinulæ. Inner dististyle, *id*, with the beak blackened, the outer lobe dark coloured, conically produced, provided with about six spinous setæ. Ædeagus with apex bilobed, each lobe microscopically serrulate at apex.

*Hab.* Peru (Huanuco, Junin).

*Holotype*, ♂, Pumahuasi, Huanuco, altitude 980 metres, July 23, 1939 (*Woytkowski*). *Allotype*, ♀, Satipo, Juaja, Junin, altitude 800–900 metres. October 25, 1940 (*Paprzycki*).

*Teucholabis* (*Teucholabis*) *salva* is most nearly allied to the species that centre around *melanocephala* (Fabricius), differing conspicuously in the very diffuse wing-pattern, the coloration of the legs, and in the structure of the male hypopygium. The members of the group that have cell 1st  $M_2$  closed, as in the present fly, include: *T. (T.) angustapicalis* Alexander, *T. (T.) catharinensis* Alexander, *T. (T.) inulta* Alexander, *T. (T.) melanocephala* (Fabricius), *T. (T.) oteroi* Alexander, and *T. (T.) perangusta* Alexander.

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

General coloration polished black, including the entire mesothorax; halteres black; legs black, the fore femora yellow on basal third; fore and middle basitarsi obscure yellow, except at tips; wings whitish subhyaline with four dark brown cross-bands, all complete except the basal one at arculus which extends caudad to vein 1st *A*;  $Sc_1$  ending just beyond mid-length of *Rs*; male hypopygium with the basistyle produced at apex into two slender spines, the outermost from an elongate base; outer dististyle a weak simple rod with a series of microscopic serrations along outer margin.

*Male*.—Length about 6 mm.; wing 6.6 mm.

Rostrum and palpi black. Antennæ with basal segments black; flagellum broken. Head brownish black, polished.

Pronotum brownish black. Mesonotum polished black throughout. Pleura black, including the dorsopleural membrane. Halteres black. Legs with the coxæ black; trochanters brownish yellow; fore femora black with about the basal third yellow; remaining femora uniformly black; all tibiæ black; fore and middle basitarsi obscure yellow, the tips blackened; posterior basitarsi more infuscated; outer tarsal segments black; posterior basitarsi weakly dilated on basal third. Wings whitish subhyaline, with four dark brown cross-bands, the first at arculus, extending only to vein 1st *A*; other dark bands completely traversing the wing, the second at and beyond origin of *Rs* nearly parallel-sided; third band a little narrower, strongly constricted opposite fork of *M*; fourth band including the broad apex, its inner margin nearly straight and embracing the outer end of cell 1st  $M_2$ ; cell *Sc* uniformly darkened; veins pale brown,

a little darker in the clouded areas. Venation :  $Sc_1$  ending just beyond mid-length of  $R_s$ ,  $Sc_2$  a short distance from its tip ;  $R_2$  just beyond fork of  $R_s$  ; branches of  $R_s$  long and approximately parallel to one another for their entire length ; cell 1st  $M_2$  long, gently widened outwardly, a little longer than vein  $M_3$  beyond it ;  $m-cu$  more than one-half its length beyond the fork of  $M$ .

Abdomen, including hypopygium, polished black. Male hypopygium (fig. 2) with the basistyle,  $b$ , produced at apex into two slender spines, the outermost from a long strong basal enlargement that is provided with microscopic

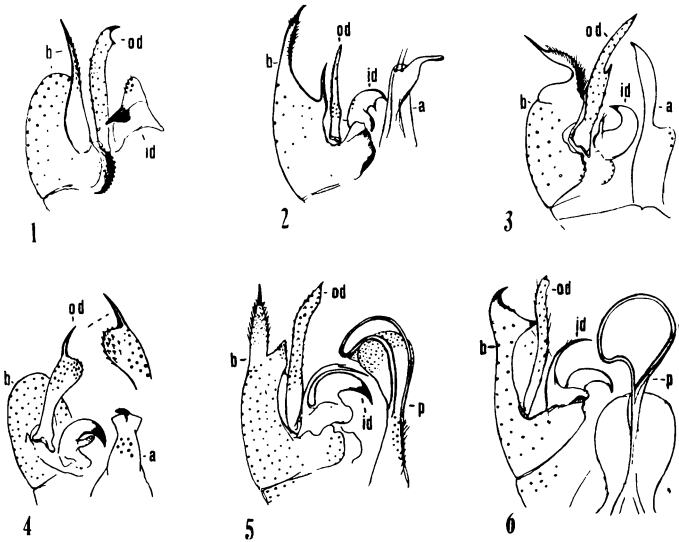


Fig. 1.—*Teucholabis (Teucholabis) salva*, sp. n. ; male hypopygium.  
 Fig. 2.—*Teucholabis (Teucholabis) bigladius*, sp. n. ; male hypopygium.  
 Fig. 3.—*Teucholabis (Teucholabis) luteicolor*, sp. n. ; male hypopygium.  
 Fig. 4.—*Teucholabis (Teucholabis) subiocosa*, sp. n. ; male hypopygium.  
 Fig. 5.—*Teucholabis (Teucholabis) inepta*, sp. n. ; male hypopygium.  
 Fig. 6.—*Teucholabis (Teucholabis) idiophallus*, sp. n. ; male hypopygium.

(Symbols :  $a$ , aedeagus ;  $b$ , basistyle ;  $id$ , inner dististyle ;  $od$ , outer dististyle ;  $p$ , phallosome.)

setulæ ; mesal face of style produced into a blackened lobe ; setæ of unusual length and strength, mostly on basal half ; in addition to the setæ, the surface with dense erect setulæ. Outer dististyle,  $od$ , an unusually slender rod, the surface with a few very long scattered setæ, the outer margin with a series of microscopic serrations over



the distal half of the length ; basal third of style more dilated. Inner dististyle, *id.*, with two acute teeth ; outer margin of style with about six long strong setæ. Ædeagus, *a*, as figured, the apex slender, deflected strongly laterad.

*Hab.* Peru (Huanuco).

*Holotype*, ♂, Afilador, altitude 670 metres, May 21, 1937 (*Woytkowski*).

*Teucholabis (Teucholabis) bigladius* is readily told from the rather numerous polished black species in the Neotropical fauna that have heavily patterned wings by the presence of a fourth incomplete dark band near the wing-base, and, especially, by the structure of the male hypopygium. The only other species known to me with the basistyle bispinous is the otherwise entirely distinct *T. (T.) biramosa* Alexander, of Ecuador.

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

General coloration reddish yellow, the thorax unmarked except for a single blackened median area on cephalic fourth of præscutum ; head dark brownish grey ; knobs of halteres darkened ; legs yellow, the tips of femora conspicuously blackened, the amount subequal on all legs ; wings pale yellow, variegated only by the unusually small, pale brown stigma ; *Sc*<sub>1</sub> ending about opposite two-thirds the length of *Rs* ; abdomen reddish yellow, unpatterned ; male hypopygium with the apex of basistyle a flattened glabrous plate that is further produced into a strong curved arm that terminates in a slender blackened spine, the mesal edge of the arm with a fringe of long delicate setæ ; outer dististyle bearing a lateral spine or tooth at near mid-length ; inner dististyle with a single spinous point ; ædeagus with the narrowed apical half in longitudinal alignment with the base.

*Male*.—Length about 6–6.5 mm. ; wing 5.5–6 mm.

Rostrum yellow ; palpi black. Antennæ black throughout ; flagellar segments oval. Head dark brownish grey.

Thoracic notum reddish yellow, the præscutum with a single black median area on the cephalic fourth, representing the anterior end of the normal median præscutal stripe ; median area of scutum a little clearer yellow. Pleura uniform reddish yellow, unmarked. Halteres with stem yellow, knob darkened. Legs with the coxæ and trochanters yellow ; femora yellow, the tips rather narrowly but conspicuously blackened, including about

the distal sixth or seventh, the amount subequal on all legs; tibiæ obscure yellow, the tips narrowly darkened; tarsi black. Wings relatively broad, pale yellow, variegated only by the unusually small, oval, pale brown stigma; veins pale brown, those of the prearcular and costal fields yellow. Venation:  $Sc_1$  ending about opposite two-thirds the length of  $Rs$ ,  $Sc_2$  a short distance from its tip;  $m-cu$  shortly beyond fork of  $M$ .

Abdomen reddish yellow, the sternal pockets of male darkened. Male hypopygium (fig. 3) with the apex of basistyle,  $b$ , a flattened glabrous plate that is further produced into a strong curved arm that terminates in a slender blackened spine, the whole structure somewhat resembling the head of a heron-like bird; mesal edge of plate and arm with a row of long conspicuous setæ. Outer dististyle,  $od$ , a long straight rod, at near mid-length bearing a small blackened spine or tooth, the apex of style terminating in a small acute point; setæ of style extending to extreme apex; outer surface with numerous appressed spinulæ. Inner dististyle,  $id$ , with a single acute blackened point, the lower point being obtuse. Ædeagus,  $a$ , with the narrowed apical half in direct longitudinal alignment with the dilated base, terminating in a small darkened point; setæ of ædeagus pale and very few in number.

*Hab.* Peru (Huanoco); Ecuador (Oriente).

*Holotype*, ♂, Afilador, Peru, altitude 670 metres, June 15, 1937 (*Woytkowski*). *Paratopotype*, ♂, June 16, 1937; *paratype*, ♂, Rio Huagra Yacu, Ecuador, altitude 900 metres, March 31, 1941 (*Macintyre*).

*Teucholabis (Teucholabis) luteicolor* is very distinct from all known species. In its general appearance it is most like *T. (T.) jocosa* Alexander, wide-spread in Tropical America, but the structure of the male hypopygium is entirely different in the two species.

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

Allied to *jocosa*; thoracic pleura very heavily striped longitudinally with black; abdominal segments dimidiate, dark brown basally, the apices broadly yellow; male hypopygium with the outer dististyle a strong club, the outer angle abruptly narrowed into a strong black spine, the bulge of the club with numerous appressed spinulæ.

*Male*.—Length about 5.5 mm.; wing 5.5 mm.

Rostrum and palpi black. Antennæ black throughout; flagellar segments oval, the verticils exceeding the segments. Head dark grey.

Pronotum reddish yellow above, darkened laterally. Pretergites pale yellow. Mesonotum reddish, the median cephalic portion of præscutum and circular sublateral spots before the suture intense black; a similar black spot on lateral portion of each scutal lobe; scutellum clear light yellow, the parascutella slightly darker; mediotergite reddish yellow, its posterior third blackened. Pleura yellow, with a broad, conspicuous, dorsal black stripe extending from the propleura to the pleurotergite; ventral sternopleurite less intensely darkened. Halteres with stem yellow, the knob very weakly darkened. Legs with the coxæ and trochanters yellow, the fore coxæ slightly darkened; femora light yellow, the tips conspicuously darkened, the amount subequal on all legs.; tibiæ obscure yellow, the tips blackened; basitarsi obscure yellow, the tips and remainder of tarsi black. Wings whitish subhyaline, the small circular stigma brown; veins brown, those in the prearcular and costal fields yellow. Venation:  $Sc_1$  ending about opposite mid-length of  $R_s$ ; cell 1st  $M_2$  long, subequal to vein  $M_{1+2}$  beyond it;  $m-cu$  more than one-half its length beyond the fork of  $M$ .

Abdominal tergites banded dark brown and yellow, the bases brown, the broad apical margins yellow; sternites and hypopygium obscure yellow. Male hypopygium (fig. 4) with the apex of basistyle, *b*, obtusely rounded, the spine very reduced, as in *jocosa*, placed on the side of style near the point of insertion of the dististyles. Outer dististyle, *od*, a strong club, the outer angle of which is abruptly narrowed into a strong black spine, the dilated portion at base of club with appressed spinulæ. Inner dististyle as figured. Ædeagus, *a*, with the blackened apical point small.

*Hab.* Peru (Junin).

*Holotype*, ♂, Satipo, Jauja, altitude 800–900 metres, January 1, 1940 (*Paprzycki*).

*Teucholabis (Teucholabis) subjocosa* is most nearly allied to *T. (T.) jocosa* Alexander, widespread in South America, differing in the very heavily patterned thoracic pleura and in the structure of the male hypopygium, especially the clavate outer dististyle.

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

General coloration ferruginous, the mesonotum with a blackened spot on sides behind the suture; pleura with a broad diffuse brown dorsal stripe; femora yellow, the extreme tips weakly darkened; wings with a yellowish tinge, the oval stigma dark brown; abdominal segments ringed brown and yellow, their bases brown, the apices yellow; male hypopygium of peculiar structure, especially the ædeagus which is dilated into a setiferous blade bearing a long looped accessory rod.

*Male*.—Length about 5.5 mm.; wing 5.8 mm.

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

Rostrum and palpi black. Antennæ black throughout; flagellar segments oval with long verticils. Head grey.

Pronotum yellowish ferruginous. Mesonotal ferruginous, the præscutum with vague indications of a blackened spot on the extreme cephalic median portion; a small blackened spot on sides of scutal lobes behind the suture; posterior central portion of præscutum, median area of scutum and the scutellum yellow. Pleura obscure ferruginous, with a broad but diffuse brown longitudinal stripe extending from the propleura across the dorsal pleurites and ventral pleurotergite to the posterior portion of the mediotergite. Halteres obscure yellow. Legs with the coxæ and trochanters yellow; femora yellow, the extreme tips of the fore and middle pair pale brown, of the hind pair less evidently darkened; tibiæ and tarsi yellow, the outer tarsal segments dark brown. Wings with a yellowish tinge, the oval stigma dark brown; veins obscure yellow to brownish yellow, those along cord dark brown. Costal fringe (male) moderately long. Venation: *Sc* long, *Sc*<sub>1</sub> ending beyond mid-length of *Rs*, *Sc*<sub>2</sub> some distance from its tip; cell 1st *M*<sub>2</sub> relatively long, its inner end pointed; *m-cu* varying from about one-third to one-half times its length beyond fork of *M*.

Abdominal segments ringed with brown and yellow, the bases of the segments brown, the broader apices yellow; hypopygium yellow. In the female the apical margins of the segments are more narrowly yellow. Male hypopygium (fig. 5) with the apex of basistyle, *b*, prolonged into a straight blade that narrows into a slender black spine, the surface of the blade, except at base, with abundant long erect setæ; a further small spinuliferous

point at extreme apex of basistyle. Outer dististyle, *od*, a simple, gently sinuous rod that terminates in a short black point, the surface of style with unusually long coarse setæ, the subbasal portion gently dilated. Inner dististyle, *id*, a single curved blackened blade, at base with a long tail-like extension that parallels the outer margin of blade, at apex narrowed into a long black spine bearing a single strong seta at the point of narrowing. Phallosome, *p*, of very peculiar structure, somewhat as in *idiophallus*, sp. n., consisting of a compressed pale blade that is densely provided with abundant coarse and delicate setæ, with a further elongate looped sclerotized rod.

*Hab.* Peru (Huanuco).

*Holotype*, ♂, Pumahuasi, altitude 980 metres, August 12, 1939 (*Woytkowski*). *Allotopotype*, ♀, pinned with type.

The peculiar structure of the male hypopygium readily separates the present fly from all similar species with the exception of *Teucholabis* (*Teucholabis*) *idiophallus*, sp. n., which has the general structure of the ædeagus similar, yet differing in the details. Superficially both of these flies suggest species such as *T. (T.) jocosa* Alexander, *T. (T.) subjocosa*, sp. n., or *T. (T.) pleuralis* Alexander, but are vastly different in the structure of the male hypopygium.

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

Mesonotum yellow, patterned with brown; lateral portions of scutal lobes with conspicuous blackened areas; pleura yellow with a broad black dorsal stripe; wings subhyaline, stigma small, subcircular, dark brown; male hypopygium with basistyle produced apically into a blackened flange; phallosome appearing as a broadly flattened yellow membrane with a long, more sclerotized loop.

*Male*.—Length about 5.5 mm.; wing 5.8–6 mm.

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

Rostrum and palpi black. Antennæ black; flagellar segments oval, with long verticils. Head dark grey.

Pronotum and pretergites yellow. Mesonotal præscutum patterned with dark chestnut-brown, the lateral and humeral portions broadly yellow; central portion of præscutum slightly paler, with a weak capillary darkened vitta that is more expanded at cephalic margin of sclerite; scutal lobes chestnut-brown, with a large blackened

lateral spot above wing root ; central portion of scutum obscure yellow, at the suture with a conspicuous darkened triangular area ; scutellum yellow. parascutella darker ; mediotergite yellow, the posterior half brownish black. Pleura yellow with a broad black dorsal stripe extending from the cervical region to the posterior portion of mediotergite, relatively narrow on the pleurotergite ; ventral sternopleurite and meron more reddened, dorsal sternopleurite more silvery pruinose. Halteres pale yellow. Legs with the coxæ and trochanters yellow ; femora yellow, the tips narrowly and weakly darkened, in cases with the darkening scarcely evident ; tibiæ yellow ; tarsi passing into brownish black ; posterior basitarsi of male weakly expanded on proximal portions. Wings broad, subhyaline ; stigma small, subcircular, dark brown ; veins yellow, somewhat darker along cord. Costal fringe of male relatively long and dense. Venation : *Sc* moderately long, *Sc*<sub>1</sub> ending about opposite mid-length of the long *Rs* ; *R*<sub>1+2</sub> a little longer than *R*<sub>2+3+4</sub> ; cell 1st *M*<sub>2</sub> long ; *m-cu* nearly one-half times its own length beyond fork of *M*.

Abdomen conspicuously banded, the basal half of the segments brownish black, the broad posterior borders obscure yellow ; outer segments and hypopygium yellow. Male hypopygium (fig. 6) with the apical lobe of basistyle, *b*, produced into a broad flange, the oblique apex blackened and microscopically toothed, the outer angle produced into a curved black spine ; surface of blade with abundant microscopic setulæ ; basistyle with no well-developed mesal flange. Outer dististyle, *od*, a simple darkened cylindrical rod, gently sinuous, the tip narrowly apiculate, the surface with conspicuous setæ. Inner dististyle, *id*, with the outer lobe produced into a long slender black spine, the tip acute, beyond mid-length with two small setæ ; inner lobe shorter and broader, narrowed to an acute point. Phallosome, *p*, of very unusual shape for a member of the genus, approached only by *inepta*, appearing as a broadly flattened yellow membrane with a long, more sclerotized band or loop. Sternal pockets (male) weakly developed.

*Hab.* Peru (Junin).

*Holotype*, ♂, Satipo, Jauja, altitude 800–900 metres, July 29, 1940 (*Paprzycki*). *Allotopotype*, ♀, with the type. *Paratopotypes*, 1 ♂, with type ; 1 ♂, December 12, 1940.

*Teucholabis* (*Teucholabis*) *idiophallus* is related to *T. (T.) inepta*, sp. n., likewise from Peru, both species having the same general type of phallosome, which is quite unique in the genus. The present fly is readily told from *inepta* by the quite different apical lobe of the basistyle.

*Gonomyia* (*Progomyia*) *altivolans*, sp. n.

Belongs to the *quinqueplagiata* group; size large (wing, male, over 5.5 mm.); legs yellow, the tips of tibiæ narrowly but conspicuously dark brown; outer tarsal segments darkened; wings obscure yellow, the prearcular and costal portions light yellow; a single darkened band crosses the wing at the cord, including the stigma and involving the veins; male hypopygium with the basistyle terminating in a long curved spine, with a smaller triangular tooth at base of the plate.

*Male*.—Length about 5 mm.; wing 5.6 mm.

*Female*.—Length about 7 mm.; wing 7.2 mm.

Rostrum and palpi brownish black. Antennæ with scape and pedicel light yellow; basal flagellar segments bicolored, black, the bases narrowly yellow; outer segments uniformly darkened; flagellar segments oval, the outer segments more elongate. Head fulvous, more yellow in front.

Pronotum brownish grey; pretergites light yellow. Mesonotum brownish yellow, the surface more or less pruinose, with the usual polished black pattern of the group, including three areas on the præscutum and one on each scutal lobe; scutellum black, pruinose, its posterior border obscure yellow; mediotergite grey, the cephalic lateral portion light yellow; pleurotergite light yellow, the ventral margin darkened. Pleura yellow, heavily patterned with black on the anepisternum and ventral sternopleurite, the surface pruinose. Halteres with stem yellow, knob darkened, its apex light sulphur yellow. Legs with coxæ obscure yellow, the fore pair darkened basally; trochanters yellow; femora yellow; tibiæ yellow, the tips narrowly but conspicuously dark brown; tarsi yellow, the outer segments darkened. Wings with the ground-colour obscure yellow, the prearcular and costal areas light yellow; stigma and a band across the cord pale brown, involving the veins and the adjacent membrane, the stigma a little darker; remaining

veins yellow. Venation :  $R_2$  before mid-length of petiole of cell  $R_3$ ;  $m-cu$  before fork of  $M$ .

Abdomen with tergites darkened, especially the outer segments, the markings not forming dark triangles but involving the whole segment; sternites and hypopygium yellow. Male hypopygium (fig. 9) with the basistyle,  $b$ , terminating in a long curved spine, with a smaller triangular tooth at base of plate. Dististyles,  $id$ ,  $od$ , as shown.

*Hab.* Peru (Huanuco).

*Holotype*, ♂, Piedras Grandes, altitude 3000 metres, November 30, 1937 (*Woytkowski*). *Allotopotype*, ♂, November 17, 1937.

*Gonomyia (Progonomyia) altivolans* is closest to *G. (P.) acanthias* Alexander, differing in the single darkened band across wing, the uniformly darkened abdominal tergites, and in the details of structure of the male hypopygium, as the small lateral tooth at base of spine of the basistyle.

*Gonomyia (Lipophleps) heteromera*, sp. n.

Belongs to the *pleuralis* group; wings with a weak dusky tinge, the costal and outer radial fields yellow; cord and outer end of cell 1st  $M_2$  narrowly seamed with brown; male hypopygium with apical spine of basistyle about equal in length to the pale outer lobe, broad-based, gradually narrowed to an acute point, the mesal face with microscopic setulæ; longest spine of phallosome approximately twice the length of the shorter, delicately fringed with setulæ for virtually the entire length.

*Male*.—Length about 4 mm.; wing 4 mm.

Rostrum and palpi black. Antennæ with scape, pedicel, and first segment of flagellum yellow; remainder of flagellum black with the usual very long verticils. Head obscure yellow, the central portion weakly darkened.

Pronotum, lateral pretergites and lateral border of præscutum light yellow, the last narrowly bordered internally by a blackened line. Mesonotal præscutum light chestnut-brown; scutal lobes similar, the median area broadly obscure yellow with a further narrow black median vitta; mesal edges of scutal lobes slightly darkened; scutellum obscure yellow, the posterior border and a median dash dark brown; mediotergite yellow, variegated with brown on cephalic half and again on



posterior border. Pleura pale yellow with very conspicuous but narrow black stripes that enclose a wider line of the ground-colour; dorsal pleurites pale brown. Halteres with stem obscure yellow, knob weakly darkened. Legs with coxæ yellow, the tips of the fore pair weakly darkened; trochanters yellow; femora brownish yellow darkening to brown just before the narrowly whitened tips; tibiæ and tarsi pale brown. Wings with a weak dusky tinge, the cells beyond cord more yellow, especially in the radial field; stigma dark brown, very conspicuous; cord and outer end of cell 1st  $M_2$  very narrowly seamed with brown, the colour involving the veins; costal border narrowly yellow; veins yellow, except as above described. Venation:  $Sc_1$  ending a short distance before origin of *Rs*.

Abdominal tergites obscure yellow, the caudal borders narrowly blackened, with paler linear markings on disk; sternites yellow, the borders blackened; hypopygium infuscated. Male hypopygium (fig. 10) with the apical lobe of basistyle, *b*, about equal in length to the pale outer lobe, broad-based, narrowed gradually to an acute black spine; width of spine across base about two-fifths the total length; mesal face of lobe with microscopic setulæ. Dististyle, *d*, bearing a strong curved black spine just before the outer end. Phallosome, *p*, a long-oval sclerotized plate bearing two spines that are very unequal in length, one being only about one-half the length of the other, both blackened and acutely pointed at apices; longest rod with a linear row of microscopic setulæ distributed over most of the length.

*Hab.* Peru (Junin).

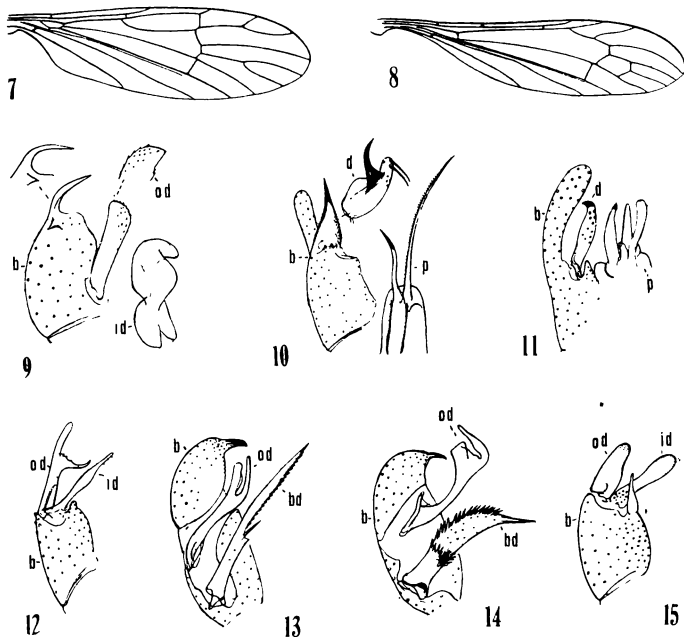
*Holotype*, ♂, Huacapistana, Tarma, altitude 3600–5400 feet, February 10, 1940 (*Woytkowski*).

The nearest allied species is *Gonomyia (Lipophleps) peracuta* Alexander, of Mexico and Central America, which differs especially in the structure of the male hypopygium. The unusual length and great discrepancy in relative proportions between the two spinous elements of the phallosome furnish strong specific characters in the present fly.

*Gonomyia (Lipophleps) tribulator*, sp. n.

Belongs to the *manca* group; thoracic pleura rather heavily striped; legs brownish black to black; wings

with a weak brown tinge, the stigma very pale brown, scarcely differentiated from the ground;  $Sc_1$  ending a short distance beyond origin of  $Rs$ ; abdominal tergites uniform dark brown; male hypopygium with the basistyle produced beyond the dististyle as a conspicuous fleshy



- Fig. 7.—*Teucholabis (Paratropesa) fumidapicalis*, sp. n.; venation.  
 Fig. 8.—*Toxorhina (Ceratocheilus) superstes*, sp. n.; venation.  
 Fig. 9.—*Gonomyia (Progonomyia) altivolans*, sp. n.; male hypopygium.  
 Fig. 10.—*Gonomyia (Lipophleps) heteromera*, sp. n.; male hypopygium.  
 Fig. 11.—*Gonomyia (Lipophleps) tribulator*, sp. n.; male hypopygium.  
 Fig. 12.—*Erioptera (Empeda) instrenua*, sp. n.; male hypopygium.  
 Fig. 13.—*Molophilus (Molophilus) paganus*, sp. n.; male hypopygium.  
 Fig. 14.—*Molophilus (Molophilus) piger*, sp. n.; male hypopygium.  
 Fig. 15.—*Toxorhina (Ceratocheilus) superstes*, sp. n.; male hypopygium.

(Symbols: *b*, basistyle; *bd*, basal dististyle; *d*, dististyle; *id*, inner dististyle; *od*, outer dististyle; *p*, phallosome.)

lobe; dististyle single, elongate, the length fully five times the greatest diameter, the tip narrowly blackened and curved; phallosome with about four points, one of which is narrowly blackened at apex and here provided with a few microscopic setulae.

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

Rostrum and palpi black. Antennæ black throughout ; flagellar segments long-cylindrical, with abundant long pale setæ. Head chiefly dark.

Pronotum infuscated ; pretergites yellow. Mesonotal præscutum grey pruinose, without distinct pattern, the humeral region more brightened ; scutum with median region yellow, the lobes extensively darkened ; scutellum yellow, the base infuscated ; mediotergite yellow, the central portion weakly darkened ; pleurotergite yellow. Pleura rather heavily striped, the dorsal portion dark brown, the ventral sclerites paler, obscure yellow, the two areas separated by a broad whitish longitudinal stripe ; dorsopleural membrane obscure yellow. Halteres weakly infuscated. Legs with coxæ weakly darkened ; trochanters obscure yellow ; remainder of legs brownish black to black, the femoral bases restrictedly brightened. Wings with a weak brown tinge, the prearcular and costal fields more yellow ; stigma very pale brown, scarcely differentiated from the ground ; veins brown, a little more brightened in the yellowish fields. Venation :  $Sc_1$  ending a short distance beyond origin of  $Rs$ ,  $Sc_2$  just before this origin branches of ;  $Rs$  relatively long ;  $m-cu$  just beyond fork of  $M$ .

Abdominal tergites dark brown, the sternites and hypopygium light yellow. Male hypopygium (fig. 11) with the basistyle,  $b$ , produced beyond the dististyle as a conspicuous fleshy lobe provided with long coarse setæ. Dististyle,  $d$ , single, subterminal, elongate, the length fully five times the greatest diameter, the tip blackened and slightly curved ; surface with about a dozen strong setæ, the outermost one stronger and fasciculate. Phallosome,  $p$ , with about four blades, one of which is narrowly blackened at tip and here provided with a few microscopic setulæ ; of the longer pale blades, one is subacute at tip, the other obtusely rounded ; a fourth obtuse point is much shorter.

*Hab.* Peru (Junin).

*Holotype*, ♂, Tulumayo Valley, Tarma, altitude 6000 feet, December 21, 1940 (*Woytkowski*).

*Gonomyia (Lipophleps) tribulator* is entirely different from all other described species, differing especially in the structure of the male hypopygium. It is perhaps as close

to *G. (L.) projecta* Alexander and *G. (L.) subterminalis* Alexander as to any other previously described forms but quite distinct.

*Trentepohlia (Paramongoma) laudabilis*, sp. n.

Mesonotal præscutum ferruginous with a posterior median darkening that extends backward across the suture on to the posterior sclerites, leaving the central area of scutum and scutellum pale; pleura and pleurotergite uniformly yellow; femora obscure yellow, the tips abruptly brownish black; tibiæ obscure brownish yellow, the tips blackened; all tarsi black; wings yellow, patterned with brown, including the wing-tip and seams on *Rs*, cord, *R*<sub>5</sub> and in the basal cells; abdominal tergites brown, the lateral borders yellow; sternites yellow.

*Female*.—Length about 10 mm.; wing 9 mm.

Rostrum obscure yellow; palpi black. Antennæ with scape black; pedicel dark brown; flagellum broken. Head dark brownish grey, the occiput paling to obscure buffy yellow; anterior vertex reduced to a narrow line that is less than one-half the diameter of scape.

Pronotum obscure brownish yellow. Mesonotal præscutum ferruginous, the posterior median portion with a broad black triangle, the point directed forward, each posterior-lateral angle produced backward over the scutal lobes and sides of the scutellum, leaving an obscure yellow median area on the scutum, scutellum, and extreme posterior portion of præscutum; mediotergite brownish black, the lateral borders paling to obscure yellow. Pleura and pleurotergite yellow. Halteres with stem obscure yellow, knob broken. Legs with the coxæ and trochanters yellow; femora obscure yellow, the tips abruptly brownish black, the amount subequal on all legs; tibiæ obscure brownish yellow, the tips more extensively blackened; tarsi black. Wings yellow, patterned with brown; stigma subcircular, dark brown; wing-tip narrowly darkened; restricted brown washes along *Rs*, cord, vein *R*<sub>5</sub>, central portion of cell *M*, and along margin of cell 2nd *A*; costal border clearer yellow; veins brown, *C* and *Sc* light yellow. Venation: *Sc*<sub>1</sub> ending about opposite two-thirds the length of *R*<sub>2+3+4</sub>; vein *R*<sub>3</sub> suberect; cell 1st *M*<sub>2</sub> subequal in length to vein *R*<sub>5</sub> beyond it; *m-cu* before fork of *M*; distance on

posterior wing border between tips of veins  $Cu_1$  and 1st  $A$  about equal to one-half the length of  $m-cu_4$ .

Abdominal tergites brown, the first segment and lateral borders of succeeding segments yellow, more obscure on posterior segments; sternites yellow; genital shield darkened; cerci long and slender.

*Hab.* Peru (Huanuco).

*Holotype*, ♀, Piedras Grandes, altitude 3000 metres, September 14, 1937 (*Woytkowski*).

The most similar described species is *Trentepohlia* (*Paramongoma*) *fuscipes* Alexander, of Amazonian Brazil, which differs in all details of body, leg and wing-pattern, and in the venation, as the more oblique vein  $R_3$  and short cell 1st  $M_2$ .

*Erioptera* (*Empeda*) *destituta*, sp. n.

General coloration dark brown, the humeral region of præscutum and the scutellum obscure yellow; antennæ black throughout; halteres and legs dark; wings with a strong dusky tinge, the stigma a little darker; cell  $R_3$  very deep; abdomen brownish black; hypopygium obscure yellow; male hypopygium with the branch of the outer dististyle flattened, its apex obliquely truncated.

*Male*.—Length about 3.5 mm.; wing 4.5 mm.

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

Rostrum and palpi black. Antennæ black throughout, moderately elongate; flagellar segments oval to long-oval. Head grey.

Pronotum dark brown; anterior lateral pretergites obscure yellow. Mesonotum dark brown, the humeral region of præscutum obscure yellow; scutellum obscure yellow. Pleura with propleura and mesepisternum darker brown than the brownish yellow posterior pleurites and pleurotergite. Halteres dark brown, the base of stem pale. Legs with coxæ yellow, the fore pair darker; trochanters obscure yellow; remainder of legs black, the femoral bases restrictedly obscure yellow; legs provided with flattened scales. Wings with a strong dusky tinge, the stigma a little darker, its limits ill-defined; veins brown, those in the prearcular field paler. Venation:  $Sc_1$  ending about opposite one-third the length of  $Rs$ ,  $Sc_2$  some distance from its tip, the degree somewhat variable; cell  $R_3$  very deep, as in *longifurcata*.

Abdomen brownish black ; hypopygium obscure yellow. Male hypopygium much as in *longifurcata*, differing as follows: Branch of the outer dististyle flattened, the apex obliquely truncated. In *longifurcata* the branch is a slender pale spine, the tip acute.

*Hab.* Peru (Junin).

*Holotype*, ♂, Carpapata, Tarma, altitude 2600 metres, May 3, 1940 (*Woytkowski*). *Allotype*, ♀, Huacapistana, Tarma, altitude 1110–1660 metres, March 3, 1940.

The present fly is closely allied to *Erioptera* (*Empeda*) *longifurcata* Alexander, of Ecuador, differing in slight details of coloration and in the structure of the male hypopygium, notably of the outer dististyle.

*Erioptera* (*Empeda*) *instrenua*, sp. n.

Size very small (wing, male, 3 mm.) ; general coloration dark brown, sparsely pruinose ; halteres infuscated ; legs dark brown ; wings with a greyish tinge, the prearcular and costal fields clear yellow ; stigma scarcely darker ;  $Sc_1$  ending about opposite mid-length of  $R_s$ ,  $Sc_2$  far from its tip ; cell  $R_3$  relatively shallow ; male hypopygium with the outer dististyle profoundly bifid, the inner arm arising at a right angle, with coarse teeth at its base.

*Male*.—Length about 2.5 mm. ; wing 3 mm.

Rostrum and palpi black. Antennæ black ; flagellar segments oval with very long verticils. Head grey.

Pronotum dark brown ; pretergites obscure yellow. Mesonotum dark brown, the surface very vaguely pruinose. Pleura reddish, heavily pruinose so as to virtually obscure the ground-colour. Halteres infuscated, the base of stem yellow. Legs with coxæ and trochanters brownish testaceous ; remainder of legs dark brown ; legs provided with linear scales in addition to the setæ. Wings with a greyish tinge, the prearcular and costal fields clear yellow ; stigma scarcely darker ; veins pale brown, trichia darker. Venation :  $Sc_1$  ending about opposite mid-length of  $R_s$ ,  $Sc_2$  far from its tip, closer to origin of  $R_s$  than to tip of  $Sc_1$  ; vein  $R_2$  faint, placed at near two-fifths the length of petiole of cell  $R_3$ , the latter relatively short ; *m-cu* at fork of *M*.

Abdomen brown, sternites a little brighter ; hypopygium brownish yellow. Male hypopygium (fig. 12) with the outer dististyle, *od*, profoundly bifid at near mid-length,

either arm subequal in length to the stem; inner arm arising at a right angle to the main axis, its outer or axillary margin with two or three coarse denticles. Inner dististyle, *id.*, slender, beyond mid-length a little dilated, thence narrowed to the apex.

*Hab.* Peru (Junin).

*Holotype*, ♂, Satipo, Jauja, altitude 800–900 metres, January 18, 1940 (*Paprzycki*).

The species having a hypopygium most similar to the present fly is *Erioptera (Empeda) divaricata* Alexander, of southern Mexico, which differs in the shorter *Sc* and in the details of structure of the male hypopygium, especially of the lateral arm of the outer dististyle and the conformation of the inner dististyle.

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

Belongs to the *plagiatus* group; general coloration dark brown, including the entire thorax; antennæ moderately long, black throughout; halteres with light yellow knobs; legs dark brown; wings brownish yellow, with two slightly darker cross-bands, the second one at cord; abdomen, including hypopygium, black; male hypopygium with the basal dististyle a slender, gently curved rod, the mesal edge with a series of from 16 to 18 strong appressed spines; at near one-third the length the style bears a strong lateral tooth on margin and a slender black spine on face.

*Male*.—Length about 6 mm.; wing 6.5 mm.; antenna about 2 mm.

Rostrum and palpi dark brown. Antennæ black throughout, relatively elongate; flagellar segments sub-cylindrical to cylindrical; longest verticils exceeding the segments. Head dark brownish grey.

Pronotum brownish black; pretergites black. Mesonotum dark brown, the central area of præscutum still darker, brownish black; posterior sclerites of notum, especially the scutellum, slightly pruinose. Pleura, including dorsopleural membrane, brownish black, very sparsely pruinose. Halteres yellow, the apex of knob clear light yellow. Legs with the coxæ brownish black; trochanters brownish testaceous; remainder of legs uniformly dark brown. Wings with the ground-colour brownish yellow, with two slightly darker, light brown cross-bands, the outer one at cord, the inner at near

one-fifth the length of wing; veins yellow, darker in the patterned areas; macrotrichia light brown, those along cord darker. Venation:  $R_2$  lying shortly distad of level of  $r-m$ ; petiole of cell  $M_3$  a little more than twice the length of  $m-cu$ ; vein 2nd  $A$  long, ending about opposite one-third the length of petiole of cell  $M_3$ .

Abdomen, including hypopygium, black. Male hypopygium (fig. 13) with the beak of basistyle,  $b$ , stout, cultriform. Basal dististyle,  $bd$ , a slender, gently curved rod, with a strong tooth or triangular lobe on mesal edge at near one-third the length; on face of style nearly opposite this tooth with a slender black spine; lower or mesal edge of style on distal two-thirds with about 16 to 18 strong appressed spines, the more basal ones shorter and stouter; apex of style an acute spine.

*Hab.* Peru (Huanuco).

*Holotype*, ♂, Piedras Grandes, altitude 3000 metres, November 17, 1937 (*Woytkowski*).

*Molophilus (Molophilus) paganus* is quite distinct from all other related species in the details of structure of the male hypopygium. This agrees most closely with *M. (M.) capricornis* Alexander, of Colombia, but the details are quite different.

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

Belongs to the *plagiatus* group; allied to *perseus*; general coloration dark brownish grey; antennæ short in both sexes; halteres pale yellow; legs brownish black, the femoral bases obscure yellow; wings greyish subhyaline, with two slightly darker, pale brown cross-bands, the second at the cord; abdomen brownish black, the hypopygium a little brightened; male hypopygium with the basistyle a strong rod terminating in a long straight spine, the outer margin of style with a linear series of from 10–16 suberect spines, the side of style at basal third with a further group of strong spines and setæ.

*Male*.—Length about 4–4.5 mm.; wing 5–5.5 mm.

*Female*.—Length about 5.5 mm.; wing 5.5 mm.

Rostrum and palpi black. Antennæ black throughout; flagellar segments oval, gradually decreasing in length outwardly, the terminal segment smallest. Head dark grey.

Thorax almost uniform dark brownish grey, the præscutum with the humeral region a little reddened;



pretergites light yellow, pleura darker. Halteres uniform pale yellow. Legs with the coxæ dark brown; trochanters yellow; remainder of legs brownish black, the femoral bases obscure yellow. Wings greyish subhyaline, slightly more yellowed at base; two pale brown cross-bands, one at the basal fourth of wing, the second at cord; veins pale brown, trichia long, dark brown. Venation:  $R_2$  varying from about opposite to only a little beyond level of  $r-m$ ; petiole of cell  $M_3$  about twice the length of  $m-cu$ ; vein *2nd A* long and sinuous, terminating about opposite the cephalic end of  $m-cu$  or slightly beyond.

Abdomen brownish black; hypopygium a little brightened. Male hypopygium (fig. 14) with the beak of basistyle, *b*, slender, around its base with numerous small setæ. Outer dististyle, *od*, with the two arms very unequal in size and shape. Basal dististyle, *bd*, a strong rod, terminating in a long straight spine; outer margin back from spine for more than one-half the remaining length of style with a single linear unbroken series of from 10 to 16 strong suberect spines; side of style at basal third with a further group of strong spines and setæ. Phallosomic plate narrow, obtusely rounded at apex.

*Hab.* Peru (Junin).

*Holotype*, ♂, Carpapata, Tarma, altitude 2600 metres, May 3, 1940 (*Woytkowski*). *Allotopotype*, ♀, May 1, 1940. *Paratopotypes*, 4 ♂ ♀, May 3-4, 1940.

*Molophilus (Molophilus) piger* is closest to *M. (M.) chiriquiensis* Alexander, of northern Panama, which differs in the smaller size, slightly different coloration, and the details of structure of the male hypopygium, especially the basal dististyle, which is long and narrow, with only seven or eight strong spines on outer margin. *M. (M.) perseus* Alexander, of Colombia, is also allied, differing very evidently in the unpatterned wings. The original description of *perseus* describes the thorax as being light yellowish brown, but the notum is more correctly described as being dark brownish grey.

*Toxorhina (Ceratocheilus) superstes*, sp. n.

Allied to *americana*; general coloration grey, the præscutum with three conspicuous black stripes, the scutal lobes similarly darkened; halteres pale yellow; legs black; wings subhyaline, the prearcular field yellow; veins delicate; anterior branch of *Rs* longitudinal in

position; cell 2nd *A* long; male hypopygium with the outer branch of style a simple unnotched structure, the inner branch a pale spatulate blade.

*Male*.—Length, excluding rostrum, about 6 mm.; wing 6.5 mm.; rostrum about 5 mm.

Rostrum nearly as long as body, black. Antennæ short, black throughout; flagellar segments short and crowded. Head grey, the centre of vertex infuscated.

Cervical region black. Pronotum grey. Mesonotum light grey, the præscutum with three conspicuous black stripes, the scutal lobes similarly darkened. Pleura grey, variegated with darker, especially on the dorsopleural region and ventral sternopleurite. Halteres uniformly pale yellow. Legs with the coxæ brownish testaceous, grey pruinose; trochanters brownish yellow; remainder of legs brownish black, the femoral bases restrictedly brightened. Wings (fig. 8) subhyaline, the prearcular field yellow; veins brown, those in the prearcular field yellow. Veins much more delicate than in *americana*. Venation: Compared with *americana*, anterior branch of *Rs* more longitudinal in position so that cell  $R_2$  at margin is more extensive, approximately one-third as wide as cell  $R_4$ ; cell 1st  $M_2$  small, shorter than the veins beyond it; cell  $M_4$  correspondingly deep; cell 2nd *A* longer.

Abdominal tergites dark brown, pruinose; basal sternites brightened; hypopygium obscure yellow. Male hypopygium (fig. 15) with the apical spine of basistyle, *b*, broad on basal half, thence narrowed to the subacute tip. Outer dististyle, *od*, a simple, unnotched structure that gradually narrows outwardly, the darkened tip obtuse; surface of basal two-thirds with abundant microscopic setulæ; apex microscopically roughened. Inner dististyle or branch, *id*, a long pale spatula, its base with numerous strong setæ, the distal half a flattened oval blade.

*Hab.* Peru (Junin).

*Holotype*, ♂, Huacapistana, Tarma, altitude 3600–5400 feet, February 6, 1940 (*Woytkowski*).

*Toxorhina* (*Ceratocheilus*) *superstes* is quite distinct from *T. (C.) americana* (Alexander), which is its nearest ally. It is readily told by the venation and especially by the structure of the male hypopygium, notably of the dististyles.