

*New or little-known Tipulidæ (Diptera). — LXVI.
Neotropical Species.* By CHARLES P. ALEXANDER,
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THE crane-flies discussed at this time are all from Peru, where they were taken in the Departments of Junin and Ayacucho by Messrs. Pedro Paprzycki and Felix Woytkowski, to whom I am very deeply indebted for great series of these flies. The types of the novelties are preserved in my personal collection of World Tipulidæ.

Atarba (Atarba) macracantha, sp. n.

General coloration yellow, the mesonotum unpatterned; antennæ (male) elongate, the basal flagellar segments bicolored, their proximal ends yellow, the more extensive apices black; segments provided with a dense whitish pubescence that is shorter than the verticils; femora uniformly yellow; wings with a strong brownish yellow tinge, the stigma pale brown, inconspicuous; *Sc* short; male hypopygium with the outer dististyle slender, with sparse spines on outer margin before apex, together with other more erect spines on the lateral and ventral faces; ninth sternite at apex produced caudad, the lateral angles extended into long, slender, strongly divergent spines.

Male.—Length about 5.5–5.2 mm. ; wing 5.8–6.2 mm. ; antenna about 4 mm.

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

Rostrum obscure yellow ; palpi black. Antennæ (male) elongate, approximately two-thirds the length of the wing ; scape and pedicel yellow, basal flagellar segments bicolored, the proximal ends yellow, the much more extensive apices black ; on the basal two or three segments the yellow includes the proximal third or fourth of the segment, on the outer segments the amount of yellow greatly reduced, becoming obsolete on about the ninth and succeeding segments ; flagellar segments elongate-cylindrical, becoming progressively shorter to the end of organ ; segments with a dense white pubescence that is much shorter than the long, unilaterally distributed, black verticils. Antennæ (female) shorter, the segments more conspicuously bicolored, on the basal segments the amount of yellow exceeding the black ; the bicolorous nature persists to the antepenultimate segment though with the yellow becoming greatly reduced. Head obscure testaceous yellow ; anterior vertex slightly wider than the diameter of scape.

Thorax yellow, the notum unpatterned, the dorsal pleurites slightly darker. Halteres with stem yellow, knob weakly darkened. Legs yellow, the outer tarsal segments infuscated ; legs relatively long and slender for members of the genus. Wings with a strong brownish yellow tinge, the prearcular and costal fields clearer yellow ; stigma oval, pale brown, inconspicuous ; veins yellow. Venation : *Sc* short, *Sc*₁ ending about opposite the origin of *Rs*, *Sc*₂ a short distance from its tip ; *Rs* slightly longer and more arcuated than the basal section of *R*₅ ; cell 1st *M*₂ short-rectangular to rectangular, with *m-cu* beyond the fork of *M*, in cases up to one-third its length.

Abdominal tergites obscure brownish yellow, the sternites clearer yellow, a conspicuous, brownish black, subterminal ring involving segments seven and eight, together with the distal half of six ; hypopygium yellow. In female, abdominal tergites weakly bicolored, their bases yellow, the broader apical borders brown ; sternites yellow. Male hypopygium with the outer dististyle black throughout, relatively slender, the outer margin before

apex with two or three teeth, the lateral and ventral portions with additional scattered spines lying more basad. Inner dististyle long and slender, gently curved. Gonapophyses appearing as pale simple blades. Ædeagus short and stout, straight. Ninth sternite with the entire caudal border produced, the lateral angles extended into long slender spines that diverge strongly, at their bases on mesal face with a more or less developed spinous point or spur.

Hab. Peru (Junin).

Holotype, ♂, Tulumayo Valley, Tarma, altitude 4000–8000 feet, November 6, 1940 (*Woytkowski*). *Allotopotype*, ♀, pinned with type. *Paratopotypes*, 1 ♂, November 4, 1940; 1 ♂, November 10, 1940.

Atarba (Atarba) macracantha is readily told from all other species of the genus hitherto made known by the unusual development of the spines of the ninth sternite of the male sex. Among such species it is most nearly approached by *A. (A.) diacantha* Alexander, of Ecuador, which has the structure of the hypopygium, including the ninth sternite, entirely different.

Atarba (Atarba) heteracantha, sp. n.

General coloration yellow; antennæ (male) about one-half the length of wing; flagellar segments bicolored, the narrow bases yellow, the apices black, beyond the fifth flagellar segment the organ uniformly blackened; legs yellow; wings yellow, unpatterned except for the pale brown stigma; male hypopygium with the outer dististyle blackened, slender, with relatively few spines on outer margin and face before apex, as well as two or three erect black spines on ventral aspect at near mid-length of style; ædeagus relatively short and stout, the apex a trifle expanded; appendage of ninth sternite with the lateral horns relatively short and stout.

Male.—Length about 5 mm.; wing 5 mm.; antenna about 2.5 mm.

Rostrum obscure yellow; palpi dark brown. Antennæ (male) approximately one-half the length of wing; scape and pedicel yellow; flagellar segments bicolored, the bases yellow, the much wider tips black; on the first and second segments the yellow occupies approximately the basal third, on the third to fifth segments progressively less; succeeding segments uniformly blackened; flagellar seg-

ments long-cylindrical, each with a single very long bristle, these unilaterally distributed; all segments with a shorter, very abundant, erect pale pubescence, each of the latter setæ subtended by a short blackened point to give a scabrous appearance to the organ. Head yellow; anterior vertex relatively wide, about twice the diameter of the scape.

Pronotum and mesonotum yellow, unpatterned, the pleura more testaceous yellow to pale brownish yellow. Halteres with stem yellow, knob weakly darkened. Legs yellow, the outer tarsal segments dark brown. Wings with a yellow tinge, the prearcular and costal fields lighter yellow; stigma oval, pale brown; veins yellow, clearer yellow in the brightened costal portions. Venation: Sc_1 ending just beyond the origin of R_s , Sc_2 a short distance from its tip; R_s and basal section of R_5 subequal in length or the former slightly longer, in cases up to one-half the length; cell 1st M_2 rectangular; $m-cu$ about one-third its length beyond the fork of M .

Abdominal tergites pale brown, the sternites slightly brightened; segments seven and eight slightly darker brown to form a poorly defined subterminal ring; hypopygium with the outer dististyle blackened, relatively slender throughout, the outer margin on distal fifth or less with three or four weak, appressed spines, in addition to the short curved apical point; just back of tip on face with a few additional points; besides this armature of the apex, the ventral and lateral aspects at near mid-length of style with two or three erect black spines. Inner dististyle elongate, gently curved. Gonapophyses appearing as simple pale blades, narrowed outwardly. \mathcal{A} edeagus relatively short but stout, straight, the apex a trifle expanded, subtruncate and very pale. Appendage of ninth sternite with the lateral horns relatively short and stout.

Hab. Peru (Junin).

Holotype, ♂, Satipo, Jauja, altitude 800–900 metres, January 14, 1940 (*Paprzycki*). *Paratopotype*, ♂, December 10, 1939.

Atarba (Atarba) heteracantha is readily told from other generally similar species by the structure of the male hypopygium, especially the outer dististyle, which has spines on the ventral face, as well as along the outer margin.

Atarba (Atarba) hirticornis, sp. n.

General coloration obscure yellow, the thorax unpatterned ; antennæ (male) long, subequal in length to the wing ; basal flagellar segments almost uniformly obscure yellow, intermediate segments bicolored, yellow basally, their tips black, outer five segments uniformly brownish black ; basal flagellar segments provided with unusually long outspreading setæ, additional to the sparse shorter verticils ; femora uniform yellow ; wings brownish yellow, stigma pale brown ; *Sc* short ; male hypopygium with the outer dististyle unusually slender, its outer margin with a series of about twelve or thirteen spines that are unusually evenly spaced ; appendage of ninth sternite with the lateral horns small and weak.

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

Rostrum testaceous yellow ; palpi dark brown. Antennæ (male) elongate, subequal in length to the wing ; basal three or four segments obscure yellow, the succeeding segments bicolored with apices brown to black, their bases yellow ; on the more proximal of these segments the dark colour is poorly indicated, becoming more intense and extensive on the outer segments, on the seventh segment with the yellow involving about the proximal one-third ; outer five segments uniform brownish black ; basal flagellar segments long-cylindrical, the outer ones gradually decreasing in length to the end ; flagellar segments with abundant, long, outspreading setæ of unusual length, on about the eighth antennal segment becoming about equal in length to the segments ; outer six or seven segments without these abundant, very long setæ, the chief verticil of each segment persisting, the remaining vestiture short but dense ; verticils of the segments unilaterally distributed. Head brownish yellow ; anterior vertex (male) slightly narrower than the diameter of scape.

Pronotum and mesonotum chiefly obscure yellow, unpatterned, the posterior sclerites a trifle more darkened. Pleura light brown or brownish yellow, the more ventral pleurites clearer yellow. Halteres with stem dirty white, the knob weakly darkened. Legs with the coxæ and trochanters yellow ; remainder of legs obscure yellow, the outer tarsal segments darkened. Wings brownish yellow, the prearcular and costal fields clearer yellow ; stigma

long-oval, pale brown; veins brown, more yellowish in the brightened portions. Venation: Sc_1 ending about opposite one-third the length of Rs , Sc_2 exactly opposite this origin; cell 1st M_2 rectangular; $m-cu$ shortly before mid-length of cell.

Abdominal tergites brownish black, the incisures and bases of the individual segments somewhat paler; basal sternites clearer yellow; subterminal segments deepening to a brownish black ring involving segments seven to nine, together with most of six; styli of hypopygium yellow. Male hypopygium with outer dististyle unusually slender, gradually narrowed to the acute apex, the outer margin for virtually the entire length with an unusually evenly spaced series of spines totalling twelve or thirteen, excluding the apex. Inner dististyle subequal in length to the outer, gently curved. Gonapophyses appearing as small darkened curved lobes, the tips acute. \mathcal{A} edeagus of moderate length and stoutness, straight. Appendage of ninth sternite with the lateral horns small and weak.

Hab. Peru (Junin).

Holotype, ♂, Satipo, Jauja, altitude 800–900 metres, December 9, 1939 (*Paprzycki*).

There is no very close relative of the present fly. The unusually long antennæ, with exceedingly long and erect setæ, together with the structure of the male hypopygium, readily separate the fly from all of the now numerous regional species of the genus.

Atarba (Atarba) pallidapex, sp. n.

Allied to *cincticornis*; general coloration of mesonotum brownish yellow, unpatterned; antennæ (male) elongate, flagellar segments bicolored, the apices of the individual segments yellow, the bases black; femora uniform yellow; wings brownish yellow, the stigma very slightly darker; cell 1st M_2 irregularly rectangular, longer than wide; male hypopygium with the \mathcal{a} edeagus elongate, about one-half longer than the total length of the basistyle.

Male.—Length about 5 mm.; wing 5 mm.; antenna probably about 3.5 mm. (terminal segments broken).

Rostrum obscure yellow above, darker beneath; palpi brownish black. Antennæ (male) relatively long, approximately two-thirds the length of body; scape and pedicel yellow, flagellar segments blackened, the apices yellow,

the amount of the latter about the same on all segments (antenna broken beyond the ninth flagellar segment); flagellar segments long-cylindrical, with very long coarse erect pale setæ, additional to the scattered verticils. Head pale brownish yellow; anterior vertex relatively narrow, subequal in width to the diameter of scape.

Pronotum and mesonotum almost uniformly brownish yellow, unpatterned. Pleura uniformly yellow, the dorso-pleural region a trifle darker. Halteres with stem pale, knob weakly darkened. Legs with the coxæ and trochanters yellow; remainder of legs yellow, the joint between femur and tibia very insensibly darkened; outer tarsal segments passing into brown. Wings brownish yellow, the prearcular and costal fields clearer yellow; stigma small, very slightly darker than the ground; veins brownish yellow. Venation: Sc_1 ending opposite or just beyond the origin of R_s , Sc_2 a short distance from its tip; R_s very short, only a trifle longer than the basal section of R_5 ; cell 1st M_2 irregularly rectangular, longer than wide; $m-cu$ about one-third its length beyond the fork of M .

Abdomen with basal tergites yellowish brown, sternites slightly paler; segments seven and eight, with the posterior border of six, forming a broad black subterminal ring; hypopygium yellow. Male hypopygium of the same general structure as in *cincticornis*; outer dististyle short and compact; inner style more or less boomerang-shaped; ædeagus elongate. It differs especially in the conspicuously shorter and stouter ædeagus, which is only about one-half longer than the basistyle; in *cincticornis* exceeding twice the total length of the style. Gonapophyses of the present fly very small, appearing as simple flattened blades, narrowed to their obtuse tips.

Hab. Peru (Junin).

Holotype, ♂, Satipo, Jauja, altitude 800–900 metres, December 19, 1939 (*Paprzycki*).

Atarba (Atarba) pallidapex belongs to the group of relatively few species that have bicolored antennæ in which the tips of the flagellar segments are yellow, the bases blackened. Among such species, including in the Neotropical fauna *A. (A.) cincticornis* Alexander, *A. (A.) nodulosa* Alexander, and *A. (A.) unilateralis* Alexander, the present fly is closest to *cincticornis*, differing chiefly

in the venation and in the details of the male hypopygium, as discussed above.

Atarba (Atarba) multiarmata, sp. n.

Allied to *tatei*; antennal flagellum of male black throughout, of female with the incisures slightly brightened; knobs of halteres infuscated; femora with tips narrowly but conspicuously blackened; wings with a strong brown tinge, costal and prearcular fields more yellow; stigma brown; *Sc* and *Rs* relatively short, cell 1st M_2 short-subquadrate; abdomen chiefly dark brown, the bases of the individual tergites of female paler; male hypopygium with the outer dististyle uniformly blackened, thickened at near mid-length; ædeagus expanded at apex into a compressed blade; gonapophyses armed with abundant spines of very different sizes, some of unusual length.

Male.—Length about 5 mm.; wing 5.2 mm.; antenna about 3 mm.

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

Rostrum obscure yellow, with long coarse black setæ; palpi black. Antennæ with scape obscure yellow; pedicel brown; flagellum in male uniformly black; in female, antenna exceeding one-half the length of wing; flagellar segments long-cylindrical, with abundant but relatively short erect pubescence and longer verticils, the principal ones of the latter unilaterally distributed; in female, antennæ shorter, the flagellar segments vaguely brightened at the incisures. Head obscure testaceous yellow, the posterior vertex variegated with darker; eyes (male) relatively large; anterior vertex a little wider than the diameter of scape.

Pronotum and mesonotum almost uniformly brownish yellow, without pattern. Pleura testaceous yellow, the posterior and dorsal pleurites slightly more darkened. Halteres with stem dirty white, knob darkened. Legs with coxæ and trochanters yellow; femora yellow, the tips narrowly but conspicuously black, the amount subequal on all legs; remainder of legs yellow, the terminal tarsal segments darkened. Wings with a strong brown tinge, the prearcular and costal fields light yellow; stigma oval, brown, relatively indistinct; veins brown, yellow in the brightened costal areas. Venation: *Sc* short, Sc_1 ending about opposite origin of *Rs*, Sc_2 a short distance

from its tip, *Rs* short, slightly exceeding the basal section of *R*₅; cell 1st *M*₂ short-subquadrate; *m-cu* a short distance beyond the fork of *M*.

Abdomen chiefly dark brown, the membrane and extreme bases of the segments restrictedly brightened; hypopygium yellow. In female, the tergites more evidently bicolored, the bases of the segments obscure yellow, the broader apical rings dark brown. Male hypopygium of the general type of *tatei*, as shown especially by the structure of the ædeagus and gonapophyses. Outer dististyle uniformly blackened, at near mid-length much thicker than in *tatei*, the outer margin with about seven denticles, those in the centre of the series largest. Inner dististyle shorter and stouter than in *tatei*. Apex of ædeagus slightly less expanded, the margins just before apex gently sinuous. Gonapophyses with apex abundantly armed with spines of very diverse lengths and shapes, those in the centre of group unusually long and slender, forming a more or less distinct crest. Horns of appendage of ninth sternite about as in *tatei*.

Hab. Paru (Ayacucho).

Holotype, ♂, Ayna, La Mar, altitude 2400 metres, April 23, 1941 (*Woytokwski*). *Allotopotype*, ♀, with the type.

The nearest described relative is *Atarba (Atarba) tatei* Alexander, of Ecuador, which has the same general type of hypopygium, including the compressed, expanded apex of the ædeagus, and the abundantly spined gonapophyses. The chief differences lie in the coloration of the wings, details of venation, and the structure of the male hypopygium, as discussed above.

A slightly larger form of the same fly differs in certain hypopygial characters and is defined herewith as a distinct subspecies.

Atarba (Atarba) multiarmata tarmæ, subsp. n.

Male hypopygium with the outer dististyle of distinct conformation, not conspicuously dilated at near mid-length, the outer margin with only about four major spines, the outermost of which extends to about opposite two-thirds the length of the terminal point itself; beyond the last marginal spine, on the outer margin of terminal point, with two tiny appressed denticles. Gonapophyses with abun-

dant spinous points, but none of these attains the length of the longest found in the typical form.

Holotype, ♂, Tulumayo Valley, Tarma, Junin, altitude 4000–8000 feet, November 1, 1940 (*Woytkowski*).

Elephantomyia chionopoda, sp. n.

Size relatively large (wing, female, 5.8 mm.); general coloration dark brown to black, the præscutum slightly more chestnut-brown; head dark grey; legs black, the tarsi extensively snowy-white; wings with a strong blackish tinge, the long-oval stigma darker brown.

Female.—Length, excluding rostrum, about 5.5 mm.; wing 5.8 mm.; rostrum about 4.2 mm.

Rostrum brownish black throughout, approximately four-fifths the length of the remainder of body. Antennæ black throughout; basal flagellar segments short-cylindrical, the outer segments more elongate, with very long, conspicuous verticils. Head dark grey; anterior vertex reduced to a narrow strip that is a little more than one-half the diameter of the scape.

Pronotum dark brown. Mesonotal præscutum dark chestnut-brown, with vague indications of even darker markings; posterior sclerites of notum almost uniformly brownish black. Pleura black, the pleurotergite and dorsopleural membrane a little paler. Halteres with stem dusky, knob dark brown. Legs with the coxæ and trochanters dark brown; femora and tibiæ black; basitarsi black basally, with about the distal third and all remaining tarsi snowy-white; no tibial spurs. Wings with a strong blackish tinge, the long-oval stigma darker brown; cells *C* and *Sc* slightly darker than the ground; veins dark brown. Veins beyond the origin of *Rs* with conspicuous macrotrichia, on *M* including the distal half of vein. Venation: *Sc* relatively long, *Sc*₁ ending just before the fork of *Rs*, *Sc*₂ at its tip; *Rs* strongly arcuated, its branches gently diverging; *m-cu* nearly its own length beyond the fork of *M*; cell 1st *M*₂ large, nearly equal in length to vein *M*₁₊₂ beyond it.

Abdomen, including genital shield, black; cerci long and slender, gently upcurved on distal third, yellowish horn-colour.

Hab. Peru (Junin).

Holotype, ♀, Tulumayo Valley, Tarma, altitude 4000–8000 feet, October 10, 1940 (*Woytkowski*).

Elephantomyia chionopoda is closest to *E. tarsalba* Alexander, of Dutch Guiana, which is the only other American species of the genus having white tarsi. The present fly has the wings much longer, whereas the body and rostrum are not correspondingly lengthened. There are other distinctions in the coloration of the head and thorax, and slight differences in the venation. In both of these white-footed *Elephantomyias* I can find no tibial spurs and must consider the subgeneric position as being doubtful.

Teucholabis (Paratropesa) heteropoda, sp. n.

General coloration polished black, the head and pronotum orange-yellow, restrictedly patterned with darker; thoracic pleura with a transverse silvery stripe on pteropleurite; knobs of halteres yellow; fore and middle coxæ yellow, posterior coxæ and trochanters black; all femora differing in colour, the fore pair black except for the basal fifth, middle femora uniformly yellow, hind femora yellow with two conspicuous black rings; wings whitish subhyaline, with three conspicuous brownish-black areas, one basal, the second at cord, the third involving the broad wing-tip; cell 1st M_2 long and narrow; abdomen black with an orange ring on segments two and three; male hypopygium with the basistyle unarmed except for setæ.

Male.—Length about 7 mm.; wing 6.7 mm.

Rostrum orange; palpi brown. Antennæ with the scape and pedicel obscure yellow; basal two or three flagellar segments more brownish yellow, the succeeding segments passing into brown; flagellar segments oval, the outer ones somewhat longer; verticils subequal in length to the segments. Head polished yellow, the central portion of vertex dark brown; anterior vertex relatively wide, a little less than three times the diameter of the scape.

Pronotum orange-yellow, the posterior portions narrowly blackened. Mesonotum uniformly polished black. Propleura uniform orange-yellow; remainder of pleura black, with a narrow transverse band of silvery grey pruinosity extending down the pteropleurite between the wing-root and the mid-coxæ; pteropleurite behind this stripe with a few scattered setæ; dorsopleural membrane

and suture between the propleura and mesopleura obscure yellow. Halteres with stem black, knob light yellow. Legs with the fore and middle coxæ and trochanters light yellow; posterior coxæ and trochanters abruptly black; all three pairs of legs differing in colour from one another; fore femora black with only the basal fifth abruptly yellow; tibiæ obscure yellowish brown, the proximal third blackened; basitarsi yellowish brown, the tip and remaining tarsal segments black; middle legs uniformly yellow excepting the blackened terminal segment; posterior femora yellow with two black rings, the first subbasal, at the proximal third of segment, the last subequal in extent, nearly apical in position; tibiæ yellow; tarsi light brown, the last segment black; fore leg longest, mid-leg shortest; fore and posterior femora more evidently clavate. Wings whitish subhyaline, the cells before cord a little more tinted with yellow; cells *C* and *Sc* yellow; a very heavy and conspicuous brownish-black pattern, as follows:—a major quadrate mark at and beyond *h* and arculus, involving the bases of cells *C* to *Cu*, inclusive; a second much narrower band extends from R_{1+2} to vein *Cu* along the cord, the band a little narrowed behind, the cubital and anal cells behind very pale brown; wing-tip extensively brownish black, the colour becoming paler in the more posterior cells, the inner edge of the band about at fork of R_{3+4} and distal end of cell 1st M_2 ; besides these three major areas, a very narrow seam at origin of *Rs*; veins brownish yellow, dark brown in the patterned portions. Venation: *Sc* short, ending about opposite origin of *Rs*, the latter nearly perpendicular at origin; R_{3+4} shorter than vein R_4 but nearly twice as long as the suberect R_3 ; cell 1st M_2 unusually long and narrow, subequal to vein M_{1+2} beyond it; *m-cu* at fork of *M*.

Abdomen with first segment and base of second black; a conspicuous orange-yellow band involving the distal third of segment two and all of segment three with the exception of the posterior border of the tergite and a small, more basal spot which are blackened; fourth and succeeding segments, including hypopygium, uniformly black. Sternal pockets of male involving segments five to seven, inclusive, the last only slightly modified; vague indications of median setal groups also on sternites eight and nine. Male hypopygium with the basistyle unarmed

except for abundant setæ. Outer dististyle a sinuous blackened rod terminating in an acute spine. Inner dististyle conspicuously bilobed, the inner arm glabrous, the outer terminating in numerous long yellow setæ. *Ædeagus* widened outwardly, the ventral apical angle produced into a blackened curved spine, the surface immediately below this with numerous very long coarse setæ.

Hab. Peru (Ayacucho).

Holotype, ♂, Ayna, La Mar, altitude 2400 metres, May 16, 1941 (*Woytkowski*).

The most similar species is *Teucholabis (Paratropesa) amæna* (Alexander) of Venezuela, which differs conspicuously in the coloration of the body and wings. This latter fly has a conspicuous yellow crossband on the thoracic pleura and all of the coxæ are yellow. Unfortunately, the legs of the unique type of *amæna* were broken beyond the trochanter.

Teucholabis (Teucholabis) neosalva, sp. n.

Allied to *melanocephala*; size large (wing, male, 9 mm.); general coloration reddish yellow, patterned with brown; antennæ black throughout; legs with posterior femora darkened, with a narrow subterminal yellow ring; wings broad, yellowish subhyaline, with three broad, ill-defined brown crossbands, the second and third not interconnected along the costal border; abdominal tergites obscure brownish yellow, the sternites yellow, conspicuously ringed with black; male hypopygium with spine of apical lobe of basistyle relatively short.

Male.—Length about 12 mm.; wing 9 mm.

Rostrum dark brown; palpi black. Antennæ brownish black throughout; flagellar segments oval, the outer segments more elongate; verticils long and conspicuous. Front and extreme anterior vertex yellow; posterior portions of head black; anterior vertex relatively narrow, about as wide as the diameter of scape.

Pronotum and cervical sclerites reddish brown. Mesonotum badly crushed in the unique type, the ground-colour reddish yellow, restrictedly variegated with brown, the latter including the cephalic portions of præscutum, lateral portions of præscutum behind the pseudosutural foveæ and the cephalo-lateral portions of the scutal lobes.

Pleura reddish brown, more or less variegated with darker. Halteres dark brown, the base of stem narrowly paler. Legs with the coxæ and trochanters reddish brown, the outer faces restrictedly darkened; remainder of legs mostly detached, variously patterned; what seem to represent the fore legs have the ground-colour yellow with two brown rings, the apical one broader, the medial one narrow and subevanescent; middle and hind femora with basal half more extensively dark brown, the tips blackened, preceded by a narrow yellow ring; tibiæ obscure brownish yellow to yellow, the tips scarcely darkened; basal segments of tarsi yellow, the outer three blackened; posterior basitarsi (male) at proximal end slightly dilated and blackened, provided with a linear setiferous pocket. Wings with the ground-colour yellowish subhyaline, with three broad but irregular and ill-defined brown crossbands, the first at origin of *Rs* and thence across the wing to the posterior border at vein *2nd A*; second band at cord, darker coloured at stigma, much paler to subevanescent behind, again becoming more distinct in outer ends of cells *Cu* and *1st A*; wing-tip rather narrowly darkened, the inner edge of the band not clearly defined; the second and third bands are not interconnected along the costal border, as is the case in *salva*; veins yellow to brownish yellow, darker in the patterned areas. Venation: *Sc* relatively long, *Sc*₁ ending just beyond mid-length of *Rs*, *Sc*₂ darkened, placed at near one-fifth the length of *Rs*; cell *1st M*₂ relatively long, the second section of *M*₁₊₂ being fully two-thirds the distal section.

Abdominal tergites obscure brownish yellow, the more basal ones blackened; sternites conspicuously bicolored, yellow, with broad black central rings, leaving the incisures narrowly pale. Sternal pockets (male) as in the group, on the sixth sternite forming a dense U-shaped group; on seventh sternite arranged in two generally parallel rows of unusually powerful setæ, there being from ten to twelve bristles on either side, in stoutness and proportions differing from those of *salva*. Male hypopygium with the apical lobe of basistyle relatively broad and stout, at apex suddenly narrowed into a straight black spine that is conspicuously shorter than in *salva*; flange of basistyle blackened, with evident teeth or crenulations. Outer dististyle a relatively slender blade, the apex blackened

and irregularly bidentate, the more basal tooth small and broad-based. Inner dististyle with the outer lobe terminating in a small spinous point and provided with several conspicuous setæ; inner lobe or blade broader and more cultriform than in *salva*.

Hab. Peru (Junin).

Holotype, ♂, Satipo, Jauja, altitude 800–900 metres, October 25, 1940 (*Paprzycki*).

The nearest relative of the present fly is *Teucholabis* (*Teucholabis*) *salva* Alexander, which differs conspicuously in the wing-pattern, as the unbroken dark costal border, in the venation and in the details of structure of the male hypopygium.

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

General coloration of mesonotum relatively dark brown, without distinct pattern; scutellum obscure yellow, postnotum chiefly brownish yellow; rostrum obscure yellow; antennæ black throughout; halteres and legs blackened; wings with a weak brownish tinge, stigma faintly darker; male hypopygium with the outer dististyle a small blackened blade, the tip acute; inner dististyle bilobed, the outer lobe a longer blackened blade, its surface conspicuously roughened, including a series of spines along the mesal margin; inner lobe terminating in two long fasciculate setæ.

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

Rostrum obscure yellow; palpi black. Antennæ black throughout; flagellar segments oval, with long conspicuous verticils. Head dark brown.

Pronotum brown; anterior lateral pretergites pale yellow. Mesonotal præscutum and scutum relatively dark brown, without distinct pattern; scutellum obscure yellow, darkened medially at base; postnotum chiefly brownish yellow. Pleura obscure brownish yellow, without distinct pattern, the central pleurites darker. Halteres brownish black, the extreme base of stem brighter. Legs with the coxæ weakly infuscated; trochanters obscure brownish yellow; femora black; the bases restrictedly brightened; remainder of legs black. Wings with a weak brown tinge, the stigmal region faintly darker, ill-delimited; veins brown. Costal fringe relatively long and dense. Venation: Sc_1 ending just beyond the origin

of *Rs*, *Sc*₂ a short distance before the origin of *Rs*; *r-m* on *R*₅ shortly beyond the fork of *Rs*; cell 1st *M*₂ rectangular, shorter than any of the veins beyond it, *m-cu* at near mid-length of the cell.

Abdomen brownish black, the sternites and hypopygium a little paler. Male hypopygium (fig. 1) with the outer dististyle, *od*, a small blackened blade, its tip acutely pointed. Inner dististyle, *id*, consisting of a longer blackened blade, the surface very roughened by points and spines, including a series of spinous points along the inner margin; outer margin at near mid-length with a very strong seta; apex of style produced into a long straight spine; closely attached to this blade and apparently part of it is an inner lobe, terminating in two very long, powerful, fasciculate setæ, with other scattered setæ of more normal appearance. Phallosome, *p*, on slide-mount appearing as two flattened sheath-like blades rolled into a cylinder, their surface microscopically setulose and roughened.

Hab. Peru (Junin).

Holotype, ♂, Tulumayo Valley, Tarma, altitude 4000–8000 feet, November 6, 1940 (*Woytkowski*).

In the structure of the male hypopygium, *Gonomyia* (*Gonomyia*) *aspera* is entirely different from the other regional members of the subgenus. The exact nature of the phallosome cannot be made out in the unique specimen available.

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

General coloration of mesonotum dark brown, the scutellum brightened; antennæ, legs and halteres blackened; thoracic pleura with the mesepisternum much darker than the mesepimeron and metapleura; wings with a brownish tinge, stigma ill-defined; *R*₂₊₃₊₄ elongate, exceeding *Rs*; *m-cu* approximately two-thirds its length beyond the fork of *M*; male hypopygium with the outer dististyle a long slender black spine; phallosome consisting of two pairs of appendages, the central pair appearing as powerful black hooks.

Male.—Length about 5–5.2 mm.; wing 5.2–5.5 mm.

Rostrum and palpi black. Antennæ black throughout; flagellar segments long-oval, with conspicuous verticils. Head dark brown, sparsely pruinose.

Pronotum dark brown, the pretergites obscure yellow. Mesonotum chiefly dark brown, sparsely pruinose; scutellum obscure yellow to orange, the central portion at base darkened; pleurotergite, pteropleurite and meron paler than the anterior pleurites, the mesepisternum being almost uniformly plumbeous. Halteres uniformly dark brown. Legs with the coxæ and trochanters dark brown;

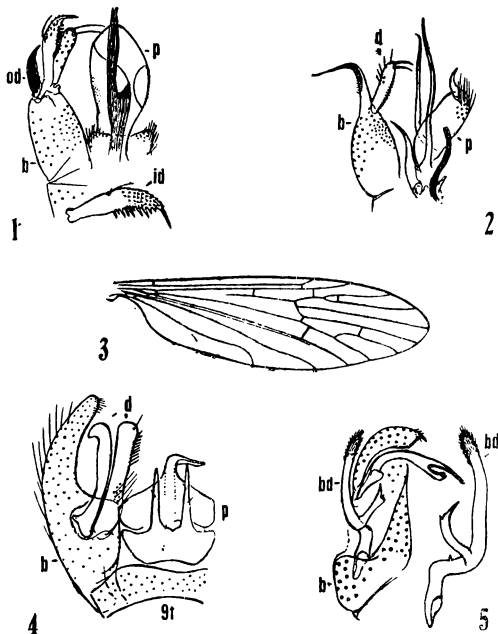


Fig. 1.—*Gonomyia (Gonomyia) aspera*, sp. n.; male hypopygium.
 Fig. 2.—*Gonomyia (Lipophleps) senaria*, sp. n.; male hypopygium.
 Fig. 3.—*Aymaramyia dubia*, gen. et sp. n.; venation.
 Fig. 4.—*Aymaramyia dubia*, gen. et sp. n.; male hypopygium.
 Fig. 5.—*Molophilus (Molophilus) dirus*, sp. n.; male hypopygium.

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

remainder of legs black; posterior femora with a single row of powerful setæ extending over virtually the whole length of the segment, much more erect and conspicuous than the other vestiture of the segment. Wings with a brownish tinge, the prearcular and costal fields paler

yellow; stigmal region slightly darker than the ground, extensive but with the margins ill-delimited; veins dark brown. Costal fringe long and conspicuous. Venation: *Sc* variable in length, *Sc* ending opposite or only a short distance beyond the origin of *Rs*, *Sc*₂ a short distance from its tip; *R*₂₊₃₊₄ long, exceeding *Rs* in length; basal section of *R*₅ distinct; *m-cu* approximately two-thirds its length beyond the fork of *M*.

Abdomen, including hypopygium, dark brown. Male hypopygium with the outer dististyle a long slender black spine, beyond the basal fourth straight, terminating in an acute point. Inner dististyle with the basal portion a shorter blackened rod terminating in a small blackened spinous point and bearing a single strong seta; main setiferous lobe of the style longer, provided with two fasciculate setæ additional to the shorter, more normal ones. Phallosome consisting of two pairs of blackened appendages, the central pair appearing as powerful black hooks, the lateral lobes short, broad at base, the apical portions narrowed, slightly expanded at tips, provided with abundant short setæ.

Hab. Peru (Ayacucho).

Holotype, ♂, Ayna, La Mar, altitude 2400 metres, April 22, 1941 (*Woytkowski*).

Gonomyia (Gonomyia) efficiens is very different from all other described members of the subgenus. As is usual in most genera of Tipulidæ, the structure of the male hypopygium furnishes the chief specific characters. The long slender outer dististyle is somewhat as in *G. (G.) serpentina* Alexander, of south-eastern Brazil; the powerful recurved hooks of the phallosome slightly suggest the condition found in *G. (G.) bifurcifer* Alexander, of Costa Rica.

Gonomyia (Lipophleps) senaria, sp. n.

Belongs to the *manca* group; size relatively large (wing, male, over 5 mm.); mesonotum chiefly brownish grey, the posterior border of the scutellum broadly pale yellow; stripes of the thoracic pleura distinct; halteres relatively long, obscure yellow; legs black; wings with a faint brownish-grey suffusion; *Sc* short, ending some distance before the origin of *Rs*; male hypopygium with the basistyle at apex produced into a powerful curved spine;

dististyle a simple, relatively narrow rod; phallosome complex, consisting of four acute points, additional to the ædeagus.

Male.—Length about 5 mm.; wing 5.3 mm.

Rostrum orange-yellow; palpi black. Antennæ black throughout; setæ of flagellar segments unusually short but dense, the verticils of the more basal segments unusually long and strong, the longest (about flagellar segment four) approximately two-fifths the length of the entire flagellum. Head grey, the centre of the vertex darker; eyes relatively large.

Pronotum above, together with the pretergites, whitened. Mesonotal præscutum, scutum and base of scutellum darker brownish grey to plumbeous, the posterior border of scutellum broadly pale yellow; postnotal mediotergite heavily pruinose; pleurotergite chiefly pale yellow, the ventral portion narrowly darkened. Pleura dark plumbeous grey, with a conspicuous longitudinal whitened stripe, confluent behind with the pale pleurotergite; dorsopleural region chiefly pale. Halteres relatively long, obscure yellow. Legs with the fore coxæ dark brown, the remaining coxæ chiefly pale; trochanters brown, relatively long, especially the middle pair; remainder of legs black. Wings with a faint brownish-grey suffusion, the oval stigma a trifle darker than the ground; prearcular and costal fields pale yellow; veins very pale brown. Venation: *Sc* short, *Sc*₁ ending some distance before the origin of the short *Rs*, the distance on costa between these points exceeding one-half the length of *Rs*; *m-cu* close to fork of *M*.

Abdominal tergites brown, the sternites and hypopygium more yellowish. Male hypopygium (fig. 2) with the basistyle, *b*, at apex produced into a powerful spine that is curved at a right-angle at about the middle of its length; on face near the bend of the spine with a row of fine setæ. Dististyle, *d*, a simple, relatively narrow, yellow blade, shorter than the spine of the basistyle; near apex with the usual two fasciculate setæ, with additional normal bristles along outer margin. Phallosome, *p*, complex, consisting of four acute points additional to the ædeagus, two of these spines terminating in blackened points, the others paler.

Hab. Peru (Ayacucho).

Holotype, ♂, Yanamonte, La Mar, in fog forests, altitude 3000–4100 metres, August, 31, 1941 (*Woytkowski*).

Gonomyia (*Lipophleps*) *senaria* is most nearly related to *G. (L.) diacanthophora* Alexander and *G. (L.) macintyreii* Alexander, differing conspicuously in the structure of the male hypopygium.

AYMARAMYIA, gen. n.

Rostrum and palpi short. Antennæ 16-segmented in both sexes, with no indication of a fusion-segment; flagellar segments (male) passing through long-oval to elongate, the outer segments again more oval; in female, segments more oval, the outer ones decreasing in size; segments with long conspicuous verticils. Meral region moderately large, the middle and posterior coxæ slightly separated. Legs with vestiture appressed, inconspicuous; no tibial spurs; claws simple; empodia conspicuous; fore legs a little longer than the middle pair; hind legs longest. Wings (fig. 3) with a supernumerary cross-vein in cell R_3 and more or less distinct adventitious cross-veins and spurs in other cells of the outer radial and medial fields; Sc_2 close to tip of Sc_1 ; R_2 present, R_{3+4} preserved as a very short to slightly longer element; R_s elongate, angulated and very long-spurred at origin; cell M_1 lacking; prearcular field of wing very short. Macrotrichia of veins long but pale and inconspicuous. Male hypopygium (fig. 4) with the tergite, $9t$, narrow, transverse, the caudal margin nearly truncate to very feebly emarginate at centre. Basistyle, b , produced into a strong lobe that extends beyond the ends of either dististyle, the latter, d , subequal in length. Phallosome, p , a broad compact mass, the short ædeagus strongly curved; basal portions of phallosome appearing as a transverse sclerotized plate, the surface microscopically setulose, the caudal border of the plate on either side of the median line produced caudad into long slender spines that taper gradually to nearly acute points, the surface with a few scattered setæ.

Genotype: *Aymaramyia dubia*, sp. n. (Neotropical: Peruvian Andes.)

This new group is unquestionably most nearly allied to *Gnophomyia* Osten Sacken, differing especially in the venation, as the presence of a supernumerary cross-vein in

cell R_3 and the very long and constant spur at origin of R_s , together with the fundamental plan of structure of the male hypopygium. This latter is much like that of the so-called *luctuosa* group of *Gnophomyia* Osten Sacken, but quite distinct from that of the typical subgenus (type, *tristissima* Osten Sacken). The resemblance of the present fly to *Helobia* St. Fargeau is superficial only. The subgenus *Furina* Jaenicke is now transferred from *Gnophomyia* to *Sigmatomera* Osten Sacken.

Aymaramyia dubia, sp. n.

General coloration buffy grey, the præscutum with four brownish-black stripes, the intermediate pair narrower, the lateral pair usually more reddish brown on the cephalic portions; halteres brownish black; femora yellow, passing into black; tibiae obscure whitish, narrowly darkened at base and tip; wings brownish yellow, patterned with small black spots and more extensive brown washes; wing-base extensively whitened; stigma buffy, freckled with brown dots; wing-venation very complicated by adventitious cross-veins and spurs, especially in the outer radial and medial fields; R_s square and long-spurred at origin; male hypopygium with the dististyles simple, subequal in size.

Male.—Length about 10–11 mm.; wing 11–12 mm.; antenna about 2 mm.

Female.—Length about 8–9 mm.; wing 9–10 mm.

Rostrum short, black; palpi black. Antennæ black throughout. Head dark brown, with long coarse setæ; anterior vertex relatively wide, in male about three times the diameter of scape; ommatidia of eyes small and delicate.

Pronotal scutum dark brown, the scutellum abruptly more chestnut-brown. Mesonotum buffy grey, the præscutum with two narrow but very conspicuous intermediate brownish-black stripes that are narrowly bordered by more velvety black; lateral stripes usually more reddish brown, in cases darker coloured, especially where crossing the suture; scutum buffy, each lobe with two very conspicuous black areas, the outer posterior portions more chestnut-brown; scutellum reddish brown, patterned with blackish, the parascutella likewise extensively black; postnotum black, sparsely pruinose, the suture between medio-

tergite narrowly reddish brown. Pleura chiefly obscure buffy yellow, conspicuously patterned with blackish grey on anepisternum, ventral sternopleurite and meral region; dorsopleural membrane buffy. Halteres short, brownish black, the stem a trifle paler. Legs with the coxæ small, brownish grey; trochanters dark brown; femora yellow basally, passing into black; tibiæ obscure whitish, narrowly darkened at base and more extensively so at tip; basitarsi brown, the tip and remainder of tarsi black. Wings (fig. 3) with a brownish-yellow tinge, restrictedly patterned with small black spots, as follows:—origin of *Rs* and spur of same; cord and outer end of cell 1st *M*₂; small marginal spots at ends of all veins; dark seams on supernumerary cross-veins and spurs; a continuous dark seam along vein *Cu* to the level of *m-cu*; wing-base broadly whitened, extending some distance beyond arculus and including the extensive bases of cells *C*, *R*, *M* and the anal cells; a less evident whitening in the radial field before cord, extending from vein *C* to *M*; just beyond the basal whitening, faint brown washes in cells *C*, *R* and anal cells, most extensive in *C* and 2nd *A*; stigma buffy, conspicuously dotted with brown; veins pale yellow, blackened in the patterned areas. Venation: as described under the genus; the adventitious cross-veins and spurs are so varied and irregular that no two wings are alike; most of these veins and spurs group in the outer radial field, especially cell *R*₄, and in the outer medial cells; in about one-half the specimens there is such a vein connecting the spur of *Rs* with *R*, in all cases lying basad of the actual origin of *Rs*.

Abdomen, including hypopygium, dark brown, with relatively sparse and inconspicuous yellow setæ; abdominal tergites with conspicuous transverse black impressions at near mid-length, as in *Epiphragma* and other genera; genital shield of female blackened; ovipositor with cerci long and conspicuous, strongly upcurved to the subacute tips. Male hypopygium (fig. 4) as described under the genus; apex of lobe of basistyle, *b*, flattened, provided with a group of delicate setæ. Outer dististyle a little more slender than the inner, curved on basal portion, the head a little expanded, subcultrate. Inner dististyle, *id*, nearly straight, parallel-sided, the inner

margin of distal half with a row of spinous setæ, the basal portion of style with numerous longer, more delicate setæ.

Hab. Peru (Ayacucho).

Holotype, ♂, Yanamonte, La Mar, in fog forests, altitude 3000–4100 metres, October 1, 1941 (*Woytkowski*). *Allotopotype*, ♀, October 5, 1941. *Paratopotypes*, 5 ♂♀, September 26–October 7, 1941.

The present insect requires no further comparison with any known crane-fly.

Gnophomyia (Gnophomyia) tempestiva, sp. n.

Belongs to the *luctuosa* group; mesonotum uniformly bright orange; head and abdomen black; thoracic pleura chiefly black, the ventral sternopleurite orange; antennæ legs and halteres black throughout; wings with a brownish tinge, the prearcular and costal fields slightly darker; abundant macrotrichia in cells beyond cord; R_2 before the fork of anterior branch of *Rs*.

Female.—Length about 7 mm.; wing 7.5 mm.

Rostrum and palpi black. Antennæ black throughout; flagellar segments oval, the outer ones more elongate. Head black.

Pronotum black. Mesonotum uniformly bright orange, only the ventral margin of the pleurotergite restrictedly darkened. Pleura chiefly black, only the ventral sternopleurite and posterior border of pteropleurite orange. Halteres short, blackened. Legs with coxæ black, sparsely pruinose; remainder of legs black throughout. Wings with a brownish tinge, the prearcular and costal fields even darker; a brown seam along vein *Cu*; stigma relatively small, still darker; veins brownish black. Abundant macrotrichia present in all cells beyond cord, especially all the central portions; basad of cord trichia present in outer ends of cells *Cu* and 1st *A*. Venation: Sc long, Sc_1 ending shortly before fork of *Rs*, Sc_2 at its tip; *Rs* long, arcuated at origin; R_2 shortly before fork of anterior branch of *Rs*; *m-cu* just beyond fork of *M*.

Abdomen, including genital shield and bases of valves of ovipositor, black, the outer ends of the latter horn-yellow. Ovipositor with cerci relatively long, strongly upcurved.

Hab. Peru (Junin).

Holotype, ♀, Tulumayo Valley, Tarma, altitude 4000–6000 feet, September 1, 1940 (*Woytkowski*).

Gnophomyia (*Gnophomyia*) *tempestiva* is most similar to the larger *G.* (*G.*) *flagrans* Alexander, of Central America, differing especially in the coloration, as the blackened thoracic pleura.

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

Allied to *arcuata*; general coloration dark grey, the præscutum with a broad median black stripe that is more or less divided on posterior half; antennæ and legs black; halteres with stem black, the knobs conspicuously light yellow; wings with a weak brown tinge, the oval stigma a very little darker brown; *r-m* before the fork of *Rs*; cell 1st *M*₂ relatively long and narrow; ovipositor with the cerci forming a single very long and straight, nearly tubular structure.

Female.—Length about 6 mm.; wing 6 mm.; ovipositor alone about 1 mm.

Rostrum and palpi black. Antennæ black throughout; flagellar segments roughly subcylindrical; longest verticils subequal in length to the segments. Head light grey.

Pronotum darker grey; pretergites restrictedly orange. Mesonotum chiefly plumbeous grey, the præscutum with a broad black median stripe that is more or less divided on posterior half by a grey central vitta; lateral stripes narrow and much less distinct; lateral margin behind the grey humeral triangles heavily blackened. Pleura grey, the ventral sternopleurite and meron more blackened. Halteres with stem black, the knob conspicuously light yellow. Legs with coxæ grey; trochanters brownish black; remainder of legs brownish black to black. Wings with a weak brown tinge, the oval stigma a very little darker brown, inconspicuous; prearcular field milky white; veins delicate, brown. Venation: *Sc* relatively long, *Sc*₁ ending about opposite the fork of *Rs*, *Sc*₂ some distance from its tip; *R*₂ before the fork of the anterior branch of *Rs*; *r-m* before the fork of *Rs*; cell 1st *M*₂ relatively long and narrow, nearly equal in length to the distal section of *M*₃, the inner end of cell narrowed; *m-cu* some distance beyond the fork of *M*.

Abdomen black, including the ovipositor. Ovipositor with the cerci appearing as a single, very long and straight tubular structure, the hypovalvæ greatly reduced; cerci with scattered erect setæ, as in *arcuata*. Compared with *arcuata*, the cerci are much longer and more slender while the hypovalvæ and genital shield are much shorter.

Hab. Peru (Ayacucho).

Holotype, ♀, Ayna, La Mar, altitude 2400 metres, May, 1941 (*Woytkowski*).

The nearest relative of the present fly is *Gnophomyia* (*Gnophomyia*) *arcuata* Alexander, of northern South America, which has the halteres uniformly blackened, the cerci much shorter and stouter, and the venation quite distinct. The peculiar tubular structure of the ovipositor apparently is produced by a very close approximation or partial fusion of the cerci rather than by a complete union of the valves.

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

Allied to *nymphica*; general coloration of head and thorax blue-grey, the latter patterned with blackish areas; halteres pale yellow throughout; legs black, tibiæ and basitarsi conspicuously ringed with snowy white; wings tinted with grey, the stigma only faintly indicated; male hypopygium with the outer dististyle blackened, bispinous, the outer blade shorter but broader basally than the inner one.

Male.—Length about 4 mm.; wing 4.5 mm.

Rostrum and palpi black. Antennæ relatively short, black throughout; flagellar segments oval, the verticils exceeding the segments. Head light blue-grey, very weakly patterned with dusky on the anterior vertex, the latter moderately wide.

Pronotum light blue-grey, the pretergites restrictedly more yellow. Mesonotum light blue-grey, the præscutum with four very feebly indicated darker stripes; mediotergite with more than the posterior half distinctly blackened. Pleura chiefly light blue-grey, the ventral sternopleurite and meron, with the pleurotergite, blackened. Halteres pale yellow. Legs with the coxæ black, the posterior pair more pruinose; trochanters black; femora uniformly black; tibiæ black, with a relatively narrow

snowy white ring beginning at near mid-length of segment; basitarsi similarly snowy white for more than three-fourths the length; remainder of tarsi black. Wings with a weak greyish tinge, the narrowly oval stigma faintly darker; prearcular field and costal region more whitened; veins brown, brighter in the whitened basal portions. Venation: Sc_1 ending about opposite one-third the length of R_s ; R_2 oblique, longer than R_{2+3+4} ; cell R_3 relatively deep, vein R_3 subequal to vein R_{3+4} ; $m-cu$ close to fork of M .

Abdominal tergites black, the sternites more brightened; hypopygium castaneous, the outer dististyle blackened. Male hypopygium with the outer dististyle bispinous, the outer arm shorter but broader across its basal portion than the inner spine; apparently there is no third intermediate spinous point, as in *mayanymphica* but the slide mount of the present unique specimen is such that the notch between the two arms described is not clearly visible. Inner dististyle a long, parallel-sided yellow blade, its apex obtusely rounded.

Hab. Peru (Ayacucho).

Holotype, ♂, Ayna, La Mar, altitude 2400 metres, April 26, 1941 (*Woytokowski*).

The Jamaican *Erioptera* (*Empeda*) *nymphica* (Alexander) typifies a group of the subgenus having the leg-pattern entirely different from all other known members of *Empeda*. It is evident that there are several species in this group, on the American mainland ranging from southern Mexico to Peru. The present fly is closest to the Mexican *E. (E.) mayanymphica* Alexander, being readily distinguished by the structure of the male hypopygium.

Molophilus (Molophilus) dirus, sp. n.

Belongs to the *plagiatus* group; size large (wing, male, 5 mm. or more); general coloration black; antennæ (male) relatively long, flagellar segments fusiform, at near mid-length with groups of elongate outspreading setæ; wings with a strong blackish tinge; male hypopygium with the basal dististyle a powerful chitinized rod, at near one-fourth the length bent at a right-angle, thence gently sinuous to the apex which bears numerous setæ; at near

one-fourth the length the style bears a conspicuous lateral branch.

Male.—Length about 5–5.5 mm.; wing 6–6.5 mm.; antenna about 2 mm.

Rostrum and palpi black. Antennæ (male) relatively long, exceeding one-third the length of body, black throughout; flagellar segments elongate-oval to fusiform, with whorls of very long outspreading setæ at near mid-length of the segments, in addition to a single very strong black verticil on each segment, the latter unilaterally distributed and exceeding the longest of the normal setæ. Head dark grey, with a blackish cast.

Pronotum brownish black, the anterior pretergites obscure yellow. Mesonotum chiefly black, the surface restrictedly nitidous; humeral region of præscutum restrictedly obscure yellow. Pleura black. Halteres pale yellowish brown, with yellow setæ, the knobs somewhat brighter. Legs with the coxæ, trochanters and narrow bases of femora brown, the remainder of legs black. Wings with a strong blackish tinge, the veins and macrotrichia darker. Venation: R_2 lying distad or $r-m$; petiole of cell M_3 slightly longer than $m-cu$; vein 2nd A long, ending about opposite the base of cell M_3 .

Abdomen, including hypopygium, black. Male hypopygium (fig. 5) with the beak of ventral lobe of basistyle, b , relatively small and slender. Outer dististyle with the two arms very unequal, the outer longer and more slender, the lower arm flattened with the margins more or less revolute. Basal dististyle, bd , a powerful chitinized rod, bent at about a right-angle at near one-fourth the length, thence gently sinuous to the apex; just beyond the bend, at near one-third the length, bearing a very conspicuous branch that is acute at apex, with two or three small sub-terminal denticles; main axis of style at tip with numerous setæ. Phallosomic plate narrow, glabrous, the apex obtuse.

Hab. Peru (Ayacucho).

Holotype, ♂, Yanamonte, La Mar, in fog forests, altitude 3000–4100 metres, September 14, 1941 (*Woytkowski*).
Paratopotype, ♂, September 16, 1941.

The nature of the antennæ suggests species such as *Molophilus* (*Molophilus*) *persinuosus* Alexander, *M.* (*M.*)

subtenebricosus Alexander, and *M. (M.) tenebricosus* Alexander. The structure of the male hypopygium, especially of the basal dististyle, readily separates the present fly from all known relatives.

Molophilus (Molophilus) pulvinus, sp. n.

Belongs to the *plagiatus* group; general coloration dark brown, the præscutal stripes more reddish brown, separated by conspicuous dark brown lines; antennæ of moderate length, the verticils of the more basal flagellar segments very long; halteres yellow; wings brownish yellow, with a more or less distinct darker seam along cord; male hypopygium with the beak of ventral lobe of basistyle long and slender, nearly straight; margin of outer arm of outer dististyle smooth; basal dististyle a stout darkened rod that terminates in a strong powerful spine, the outer margin before spine with a dense row of about fifteen appressed spines; on face of style at near mid-length a large oval area that is densely set with blackened spinous setæ.

Male.—Length about 3·5–4 mm.; wing 4–4·3 mm.; antenna about 1·4–1·5 mm.

Rostrum dark brown; palpi brownish black. Antennæ of moderate length, if bent backward ending shortly before the wing-root, brownish black, the scape a little brighter; flagellar segments with a dense pale pubescence and conspicuous verticils, the latter on the more proximal segments unilaterally distributed and of unusual length, some being approximately two-and-one-half times the length of the segment. Head dark brown.

Mesonotal præscutum with the usual stripes reddish brown, the interspaces conspicuously darker brown, becoming more or less obscure behind; humeral triangles somewhat brightened; setæ of præscutal interspaces and scutum long and conspicuous; median region of scutum and the base of scutellum more yellowish; posterior sclerites of notum blackened, sparsely pruinose. Pleura brownish black, sparsely pruinose. Halteres yellow. Legs with the coxæ and trochanters brownish testaceous; remainder of legs dark brown to brownish black, the femoral bases restrictedly brightened. Wings brownish yellow, with a more or less distinct darker seam along

cord, evidenced by narrow darker clouds and distinctly darker groups of trichia; veins and trichia pale brown, the latter long and conspicuous. Venation: R_2 in approximate alignment with $r-m$; petiole of cell M_3 about one-half longer than $m-cu$; vein 2nd A long, sinuous, ending about opposite the level of cephalic end of $m-cu$.

Abdomen brownish black. Male hypopygium with the beak of ventral lobe of basistyle long and slender, nearly straight. Outer dististyle with its inner arm longer and much more slender than the outer, the margin of the latter not serrulate. Basal dististyle a stout incurved darkened rod that terminates in a strong powerful spine; outer margin of style before the terminal point with a dense row of about fifteen elongate spines that become more appressed before the apex, the outermost lying flat against the surface; the entire face of style at near mid-length occupied by an oval area set with abundant blackened spinous setæ that form a dense cushion. Phallosomic plate relatively narrow, the apex obtusely rounded.

Hab. Peru (Junin).

Holotype, ♂, Tulumayo Valley, Tarma, altitude 4000–8000 feet, October 10, 1940 (*Woytkowski*). *Paratopotype*, 1 ♂, altitude 6000 feet, December 3, 1940.

Molophilus (Molophilus) pulvinus is closest to *M. (M.) chiriquiensis* Alexander and *M. (M.) piger* Alexander, differing conspicuously in the structure of the male hypopygium, especially by the rather unusual armature of the basal dististyle.