

XX.—*New or little-known Tipulidæ (Diptera).*—LX.
Neotropical Species. By CHARLES P. ALEXANDER,
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At this time I am discussing a series of Tipulidæ from the Department of Junin, Peru, collected by Messrs. Pedro Paprzycki and Felix Woytkowski. Since the localities discussed have yielded an abundance of new and rare insects in many orders, the following general notes supplied by the collectors are provided and will be referred to in subsequent papers based on the same rich materials. All species discussed herewith belong to the single tribe Eriopterini, vastly developed in the Subtropical and Temperate zones of the Andes.

Huacapistana, Province of Tarma. Collected in the valley of the river Tarma, in the vicinity of the locality Huacapistana. The region is of lower hills and the bottom of the valley, some 1100 metres (3600 ft.), and of the higher mountains covered by rain-forest, some 1600 metres (5400 ft.). February to March 1940.—*Felix Woytkowski.*

Huasahuasi, Province of Tarma. Situated in a valley, on the banks of the Andean stream, Huasahuasi; altitude approximately 2800 metres (9100 ft.). The collection was made within a radius of 10 kilometres of the village, most of the specimens having been taken in dwarf-wooded ravines, often rising to the Puna, "grass-land," which begins at about 3400 metres (11,500 ft.). April 1940.—*Felix Woytkowski.*

Carpata, Province of Tarma. Locality in the deep valley of the rivers Huasahuasi and Cailpa, altitude approximately 2600 metres (8450 ft.). The collecting spot was in an extremely deep ravine, covered in part with the highland dwarf-wood and in part with an exuberant spring vegetation of alpine flora; the sides of the ravine form huge masses of steep mountains, rising to some 4500 metres (14,625 ft.). May 1940.

This lot, as well as the Huasahuasi material, was collected in the very centre of the highest Cordilleras, in places where the surroundings favoured the existence of crane-flies, that is, where water-bodies and vegetation were to be found. In all these spots I had to fix my camp.

for some time, hire mules for travelling purposes and live in a tent, far away from the dwelling places of the native Indios. Part of the material was collected in the bush by means of a butterfly net and part at light, during rainy nights, when the Tipulidæ move about.—*Felix Woytkowski*.

Satipo, Province of Jauja. Altitude 800–900 metres (2600–2925 ft.), in the eastern spurs of the Andes on the river Satipo, a tributary of the Ucayali.—*Pedro Paprzycki*.

I express my deep thanks to Messrs. Paprzycki and Woytkowski for their appreciated aid in making known this rich Tipulid fauna.

Sigmatomera (Austrolimnobia) woytkowskiana, sp. n.

Size large (wing, male, over 19 mm.; antenna over 8 mm.); general coloration yellow to fulvous-yellow; præscutum with three blackened areas; legs orange; wings subhyaline, the prearcular and costal fields more yellow; vein R_{2+3+4} nearly straight to gently arcuated; vein 2nd *A* sinuous; abdominal tergites fulvous; male hypopygium with the outer spine of dististyle blackened.

Male.—Length about 25–27 mm.; wing 19·5–22 mm.; antenna about 9–10 mm.

Rostrum yellow; palpi yellow, the outer two segments a little darker. Antennæ with scape yellow; pedicel yellow basally, ringed apically with black; flagellum black; flagellar segments subcylindrical, moderately elongate, a little dilated on basal third but not at all sigmoid; longest verticils a little shorter than the segments; terminal segment small, oval. Head pale yellow; eyes (male) large, reducing the anterior vertex to a linear strip.

Pronotum yellow. Mesonotum yellow, the surface subnitidous; præscutum with three blackened areas, including a median one on cephalic third and transverse lateral areas behind the pseudosutural foveæ; remainder of the usual præscutal stripes and the centres of the scutal lobes slightly more reddish. Pleura yellow, vaguely patterned with more reddish areas. Halteres yellow throughout. Legs orange, the tarsi passing into brown. Wings subhyaline, the prearcular and costal fields more yellow, this colour including the veins; remaining veins brown. Venation: R_{2+3+4} nearly straight to gently arcuated; *m-cu* variable in position, from just before

to just beyond the fork of *M*; vein 2nd *A* much more sinuous than in *plaumanniana*.

Abdomen elongate; tergites fulvous, the sternites clearer yellow. Male hypopygium with the outer spine of the dististyle blackened, the beak long and slender, pale.

Hab. Peru (Junin).

Holotype, ♂, Huacapistana, Tarma, in highest rain-forest, altitude 5400 ft., March 2, 1940 (*Woytkowski*).
Paratopotype, ♂, February 25, 1940.

It is peculiarly fitting that this very striking and distinct crane-fly should be dedicated to Mr. Felix Woytkowski, in recognition of his efforts to make known the vast insect fauna of Peru. The species is closest to *Sigmatomera (Austrolimnobia) plaumanniana* Alexander (south-eastern Brazil), differing conspicuously in the long antennæ and in all details of coloration of the body and legs. The superficial resemblance of the present fly to Ichneumonid Hymenoptera of the genus *Ophion* Fabricius is noteworthy.

Teucholabis (Teucholabis) submunda, sp. n.

General coloration polished black, the mesonotum conspicuously variegated with yellow on the præscutum, scutum and scutellum; posterior femora yellow, with a blackened subbasal ring; posterior tibiæ obscure yellow, the tips narrowly darkened; posterior basitarsi (male) swollen; wings pale yellow, restrictedly patterned with brown, including the wing-tip and conspicuous washes in the basal cells; *Sc* very short, ending about opposite origin of the strongly arcuated *Rs*; abdomen chiefly black, the incisures pale; male hypopygium with the basistyle produced at apex into a short apiculate spine, the inner margin back from this spine fimbriate; outer dististyle a simple flattened blade that terminates in a short point.

Male.—Length about 6.5 mm.; wing 7 mm.

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

Rostrum yellow; palpi black. Antennæ with the scape obscure yellow; pedicel and flagellum black; flagellar segments oval, gradually decreasing in size outwardly. Head polished black; anterior vertex relatively wide.

Pronotum polished yellow. Mesonotum polished black, variegated with yellow, including two major areas, the

first on posterior median portion of præscutum, crossing the suture and including the cephalic half of median area of scutum; second area including most of scutellum. Propleura yellow; mesopleura black, the meron yellow; a yellowish pruinose area on the pteropleurite above the middle coxæ. Halteres black, the knobs conspicuously light yellow. Legs with the coxæ yellow; trochanters yellow, the posterior pair more darkened; femora black, the bases yellow, on the fore legs including the proximal fourth, on the other legs much more extensive with only the tips narrowly infuscated; posterior femora with a narrow blackened subbasal ring; fore tibiæ and tarsi black; middle and posterior tarsi obscure yellow, the tips narrowly darkened; middle and hind tarsi black; posterior tarsi with basitarsus of male dilated, of female normal. Wings (fig. 1) with the ground-colour pale yellow; a restricted pale brown pattern, including the wing-tip as far basad as outer end of cell 1st M_2 ; a narrow band at cord; conspicuous washes in cell M and adjoining basal portions of cells Cu and 1st A , with another darkening in outer ends of these same cells; basal portion of cell Sc darkened; stigma subcircular, darker brown; veins dark brown, Sc and the prearcular veins yellow. In the female, the darkened wing-tip is slightly less extensive and the more basal dark washes less evident; costal fringe short in both sexes. Venation: Sc very short, Sc_1 ending opposite origin of Rs , Sc_2 some distance from its tip; Rs very strongly arcuated; $m-cu$ just beyond fork of M ; vein 2nd A weakly sinuous.

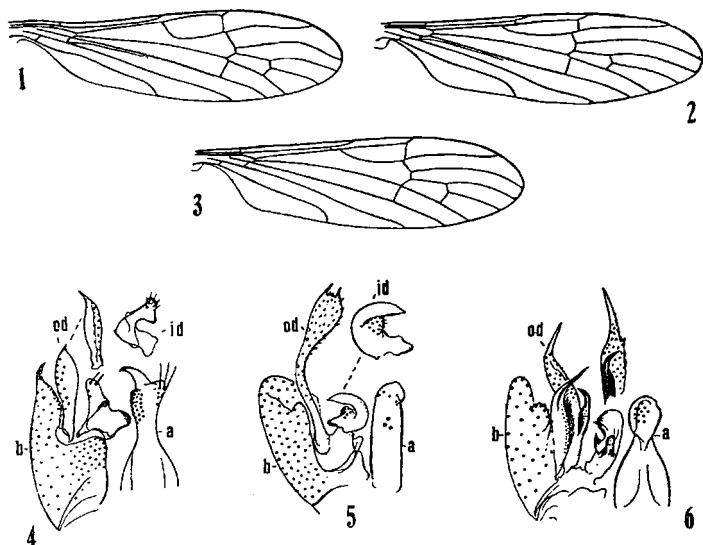
Abdomen black, the caudal borders and incisures of the segments yellow; sternal pocket (male) very conspicuous. In the female, tergites black; posterior borders of sternites inconspicuously brightened. Male hypophygium (fig. 4) with the apex of basistyle, b , produced into a short spine, the mesal margin of the style basad of this point with a fringe of conspicuous yellow setæ. Outer dististyle, od , a flattened blade that bears a short apical point, the margin of style with coarse setæ. Apex of ædeagus, a , produced into a gently-curved black spine.

Hab. Peru (Junin).

Holotype, ♂, Huacapistana, Tarma, altitude 3600–5400 ft., March 4, 1940 (*Woytkowski*). *Allotopotype*, ♀, March 3, 1940.

The most similar described species is *Teucholabis* (*Teucholabis*) *munda* Alexander, likewise from Peru,

Figs. 1-6.



- Fig. 1.—*Teucholabis* (*Teucholabis*) *submunda*, sp. n. ; venation.
 Fig. 2.—*Teucholabis* (*Teucholabis*) *longisetosa*, sp. n. ; venation.
 Fig. 3.—*Teucholabis* (*Teucholabis*) *brevisetosa*, sp. n. ; venation.
 Fig. 4.—*Teucholabis* (*Teucholabis*) *submunda*, sp. n. ; male hypopygium.
 Fig. 5.—*Teucholabis* (*Teucholabis*) *longisetosa*, sp. n. ; male hypopygium.
 Fig. 6.—*Teucholabis* (*Teucholabis*) *brevisetosa*, sp. n. ; male hypopygium.

Symbols : *a*, aedeagus ; *b*, basistyle ; *id*, inner dististyle ;
od, outer dististyle.

which has the thorax uniformly black, and with the pattern of the legs and wings distinct.

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

General coloration polished black, the mesonotum variegated with yellow on the scutellum and median region of scutum ; knobs of halteres light yellow ; legs chiefly black, the middle and hind femora brown, their tips blackened, the bases of the hind femora similarly blackened ; wings with a relatively strong and uniform blackish tinge ; stigma oval, darker brown ; costal fringe (male) long and conspicuous ; Sc_1 ending about opposite

one-third the length of *Rs*; abdomen, including hypopygium, black; male hypopygium with the basistyle unarmed; outer dististyle long and slender, at apex dilated into a spinous head.

Male.—Length about 5.5–6 mm.; wing 5.6–6.3 mm.

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

Rostrum and palpi black, the former short. Antennæ black throughout; flagellar segments oval, decreasing in size outwardly. Head polished black.

Pronotum polished black. Lateral pretergites bright sulphur-yellow. Mesonotum polished black, with conspicuous yellow spots on the cephalic half of the median area of the scutum and the adjoining portion of the præscutum, and on the scutellum. Pleura black, the dorso-pleural membrane feebly brightened; ventral posterior sclerites of pleura with a grey pruinosity. Halteres with stem black, knob bright yellow. Legs with the coxæ and trochanters black; fore femora uniformly black; middle femora pale brown on more than basal half, the tips extensively blackened; posterior femora with extreme bases similarly blackened; tibiæ brown, the tips blackened, the fore tibiæ uniformly black; tarsi black; legs unmodified. Wings (fig. 2) with a relatively strong and uniform brownish tinge, the base and broad costal region pale whitish yellow; stigma oval, darker brown; basal portion of cell *Sc* darkened; veins dark brown, the prearcular veins paler. Costal fringe (male) long and conspicuous. Venation: *Sc* of moderate length, *Sc*₁ ending about opposite or just beyond one-third the length of *Rs*, *Sc*₂ a short distance from its tip; cell 1st *M*₂ narrow; *m-cu* about one-fourth its length beyond the fork of *M*.

Abdomen, including hypopygium, polished black. Male without a developed sternal pocket. Male hypopygium (fig. 5) with the basistyle, *b*, unarmed with a spine, its apex obtuse. Outer dististyle, *od*, a very long, slender rod, gently curved, at apex dilated into a head that terminates in two slender spines, with numerous additional smaller spines and spinulæ on the head and outer portion of stem. Inner dististyle, *id*, of peculiar conformation, as shown, terminating in an acute point. Apex of ædeagus, *a*, simple, obtuse.

Hab. Peru (Junin).

Holotype, ♂, Huacapistana, Tarma, altitude 3600–5400 ft., February 25, 1940 (*Woytkowski*). *Allotopotype*, ♀, March 2, 1940. *Paratopotype*, ♂, February 18, 1940.

Teucholabis (Teucholabis) longisetosa is superficially very like *T. (T.) brevisetosa*, sp. n., but in the structure of the male hypopygium is very different from this and all other species known to me. The apex of the outer dististyle is somewhat as in *T. (T.) nigrocorporis* Alexander, of south-eastern Brazil, but all other structures, as well as the coloration of the wings, are different.

Teucholabis (Teucholabis) brevisetosa, sp. n.

General coloration polished black, sparsely patterned with yellow, including the lateral pretergites, median region of scutum, posterior half of scutellum and the dorsopleural region; antennæ black throughout; knobs of halteres light yellow; femora black, the bases obscure yellow, narrowest on fore pair; wings with a very weak brown tinge; stigma triangular, dark brown; costal fringe of male short; *Sc* relatively short, *Sc*₁ ending about opposite one-fifth the length of *Rs*; *m-cu* close to fork of *M*; abdomen, including hypopygium, black; male hypopygium with the spine of basistyle broad-based, along its margin with a dense fringe of setæ; outer dististyle terminating in a slender glabrous spine, on margin at basal fourth with a conspicuous blackened lobe; inner dististyle complex, its apical portion with a major spinous point surrounded by microscopic spinulæ and roughenings.

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

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

Pronotum polished black, the lateral pretergites light yellow. Mesonotum polished black, variegated with light yellow, including the humeral triangles of the præscutum, the median area of scutum and adjoining portion of præscutum across the suture, and the broad posterior half of scutellum. Pleura polished black, the dorsopleural membrane yellow; a restricted pale area, with grey pruinosity, above the mid-coxæ and on meron. Halteres black, the knobs light yellow. Legs with the coxæ black, the tips obscure yellow; trochanters brownish yellow;

femora black, the bases obscure yellow, narrowest on the fore pair where about the proximal fifth is included, more extensive on the middle and hind femora, on the latter including more than the basal half; tibiæ and tarsi black. Wings (fig. 3) with a very weak brown tinge, the basal portion a little clearer; stigma triangular, relatively small, dark brown; cell *Sc* weakly darkened; veins brownish black, those at base more yellow. Costal fringe (male) short. Venation: *Sc* relatively short, *Sc*₁ ending about opposite one-fifth the length of *Rs*, *Sc*₂ before origin of latter; branches of *Rs* parallel to one another for most of their length; cell 1st *M*₂ only gently widened at distal end; *m-cu* close to fork of *M*.

Abdomen, including hypopygium, polished black. Male hypopygium (fig. 6) with the apex of basistyle narrow, on mesal face with a broad-based spine that bears a dense fringe of setæ along its margin. Outer dististyle, *od*, terminating in a slender, glabrous spine, the surface with numerous setæ; margin of style on basal fourth with a conspicuous blackened lobe that is narrowed to an acute point. Inner dististyle complex, the apical portion with several small serrulations grouped about one stronger black tooth; more basal spine of style strong and broad-based; lobe on face of style unusually stout.

Hab. Peru (Junin).

Holotype, ♂, Carpapata, Tarma, altitude 2600 metres, May 1, 1940 (*Woytkowski*).

The nearest relative of the present fly is *Teucholabis* (*Teucholabis*) *longisetosa*, sp. n., which, while being almost identical in colouring, has the male hypopygium entirely distinct. The nature of the spine of the basistyle of the present insect is somewhat as in *T. (T.) leonora* Alexander, of south-eastern Brazil, but all other details are quite different.

Gonomyia (*Progonomyia*) *acanthias*, sp. n.

Belongs to the *quinqueplagiata* group; basal flagellar segments weakly bicoloured; legs yellowish brown, the femora not darkened apically; wings with a strong yellow tinge, unpatterned; *R*₂ at or just beyond mid-length of petiole of cell *R*₃; abdomen, including male hypopygium, orange, unpatterned; male hypopygium with the basistyle terminating in a long acute spine; apex of aedeagus extended into a delicate spine.

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

Rostrum and palpi black. Antennæ with basal two segments yellow, flagellum black, the proximal ends of the five basal segments pale, the remainder uniformly dark ; outer flagellar segments elongate, the last shorter than the penultimate. Head obscure yellow.

Mesonotum patterned as in the group, the ground-colour obscure yellow, the præscutum with three polished black areas that represent the anterior ends of the usual stripes ; scutal lobes similarly blackened ; median area of scutum broadly yellow ; posterior border of scutellum yellow ;

Figs. 7-11.

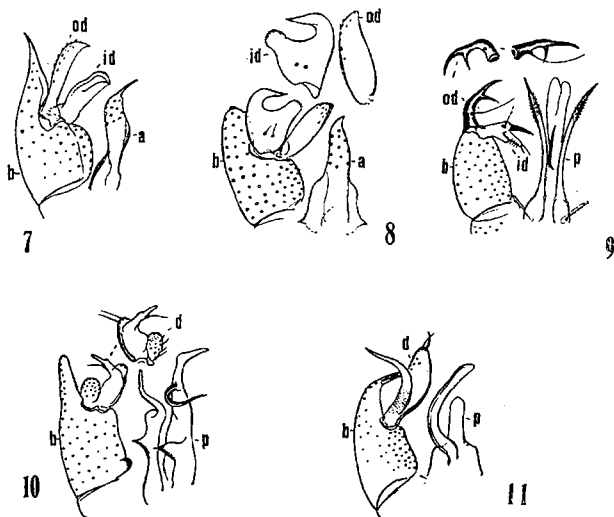


Fig. 7.—*Gonomyia (Progonomyia) acanthias*, sp. n. ; male hypopygium.

Fig. 8.—*Gonomyia (Progonomyia) forceps*, sp. n. ; male hypopygium.

Fig. 9.—*Gonomyia (Gonomyia) birama*, sp. n. ; male hypopygium.

Fig. 10.—*Gonomyia (Gonomyia) queribunda*, sp. n. ; male hypopygium.

Fig. 11.—*Gonomyia (Liphophleps) diacanthophora*, sp. n. ; male hypopygium.

Symbols : *a*, ædeagus ; *b*, basistyle ; *d*, dististyle ; *id*, inner dististyle ; *od*, outer dististyle ; *p*, phallosome.

postnotum with most of mediotergite blackened, the cephalic lateral portions and the pleurotergite yellow. Pleura yellow, variegated with darker. Halteres with

stem yellow, knob dark brown, its apex paling to obscure yellow. Legs with the coxæ yellow, the fore pair darker; trochanters yellow; femora, tibiæ and basitarsi yellowish brown, the tips of the two latter very narrowly darkened; remainder of tarsi black. Wings with a strong yellowish tinge, the prearcular and costal fields clear light yellow; stigma not or scarcely indicated; no darkened pattern on wings; veins obscure yellow, clearer yellow in the brightened portions. Venation: Sc_1 ending a short distance before fork of R_s , Sc_2 at near mid-distance between origin of R_s and tip of Sc_1 ; R_2 at or just beyond mid-length of petiole of cell R_3 ; $m-cu$ at fork of M .

Abdomen, including hypopygium, orange, unpatterned. Male hypopygium (fig. 7) with the basistyle, b , terminating in a long acute spine. Outer dististyle, od , relatively long, appearing as a simple blade, the apex cultrate or nearly so, the outer margin with several appressed spinulæ. Inner dististyle, id , a stout simple blade. Apex of ædeagus, a , produced into a slender spine.

Hab. Peru (Junin).

Holotype, ♂, Satipo, Jauja, altitude 800–900 metres, June 4, 1940 (*Paprzycki*).

The nearest described relative is *Gonomyia (Progonomyia) bifasciolata* Alexander, which is readily separated from the present fly by the characters given in the following key.

Key to the Species of the quinqueplagiata group.

- | | |
|--|---|
| 1. Legs yellow; tips of femora abruptly blackened. (Southern Mexico.) | [Alexander.
<i>G. (P.) atroapicata</i> |
| Legs uniformly yellow or brown, the femora not darkened at tips | 2. |
| 2. Male hypopygium with the apex of basistyle produced into a strong spine (fig. 7). | 3. |
| Male hypopygium with the apex of basistyle obtuse, unarmed (fig. 8) | 4. |
| 3. Wings yellowish, with two pale brown cross-bands; abdominal tergites with conspicuous brown areas. (Greater Antilles; Central America.) | [Alexander.
<i>G. (P.) bifasciolata</i> |
| Wings unpatterned; abdomen uniformly orange. (Peru.) | <i>G. (P.) acanthias</i> , sp. n. |
| 4. Wings without a darkened seam at cord; stigma feebly indicated. (South-eastern Brazil, northern Argentina.) | [Alexander.
<i>G. (P.) quinqueplagiata</i> |
| Wings with a conspicuous darkened seam at cord, the colour involving the veins; stigma distinct. (Peru.) | <i>G. (P.) forceps</i> , sp. n. |

Gonomyia (Progonomyia) forceps, sp. n.

Belongs to the *quinqueplagiata* group; most nearly allied to *quinqueplagiata*; wings brownish yellow, with a distinct brown cross-band along cord, the colour involving the veins; *Sc* long; abdomen orange, without dark markings; male hypopygium with the apex of basistyle unspined; inner dististyle appearing as a broad-based forceps-shaped structure; apex of aedeagus a short acute point.

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

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

Rostrum and palpi black. Antennæ with scape and pedicel yellow, flagellum black, the extreme proximal ends of the more basal segments yellow, to produce a weak bicoloured appearance; flagellar segments oval to elongate oval and fusiform, the longest verticils exceeding the segments; all segments clothed with a long erect pubescence, additional to the verticils. Head yellow.

Pronotum darkened medially in front, the sides and posterior portions yellow. Pretergites yellow. Mesonotal præscutum light yellow with three conspicuous polished black areas that represent the usual præscutal stripes, these areas paling to more reddish brown behind; scutal lobes extensively polished black; median area of scutum and the scutellum yellow; mediotergite darkened in central portion, the cephalic lateral borders and the pleurotergite yellow. Pleura yellow, with a conspicuous, plumbeous black, longitudinal stripe extending from the propleura to the root of halteres, widest on anepisternum; ventral sternopleurite reddish brown. Halteres brownish black, the extreme base of stem obscure yellow, the apex of knob brighter yellow. Legs with the coxæ yellow, the fore coxæ darker; trochanters yellow; remainder of legs brownish yellow to darker brown, the tibiæ and tarsi still darker. Wings with the ground-colour brownish yellow, the prearcular field and costal border clear yellow; a narrow brown band along cord, extending from the stigma across the wing; a weaker wash along basal half of vein *Cu*, occupying both cells *M* and *Cu*; veins obscure yellow, distinctly darkened in the clouded areas along cord; vein *2nd A* dark; *Cu*, the prearcular field and veins in costal area clear yellow. Venation: *Sc* long, *Sc*₁ ending shortly before fork of *Rs*, *Sc*₂ some distance from its tip;

R_2 at one-third the length of petiole of cell R_3 ; $m-cu$ at or before fork of M .

Abdomen, including hypopygium, clear orange, without dark pattern. Male hypopygium (fig. 8) with the apex of basistyle, b , obtuse, not produced into a spine. Outer dististyle, od , a relatively short and wide pale blade, the apex obtuse to subtruncate, the margin microscopically serrulate. Inner dististyle, id , broad, produced into two lobes that form a more or less forceps-like structure, the outer arm a strong curved blade that terminates in an acute point, directed toward the inner arm which is obtuse, its margin microscopically serrulate. Apex of ædeagus, a , terminating in a short acute to subacute point.

Hab. Peru (Junin).

Holotype, ♂, Satipo, Jauja, altitude 800–900 metres, August 30, 1940 (*Paprzycki*). *Allotopotype*, ♀, with the type. *Paratopotype*, 1 ♂, May 22, 1940.

The relations of the present fly to the other members of the group are shown by the key under the account of the preceding species.

Gonomyia (Gonomyia) birama, sp. n.

Allied to *quæsitæ*; general coloration of notum dark greyish brown, the posterior border of scutellum very vaguely paler; legs brownish black; wings with a faint greyish suffusion; R_s relatively short, only about two-thirds R_{2+3+4} ; male hypopygium with the outer dististyle heavily blackened, at apex split into two divergent spines; inner dististyle terminating in a single blackened spine.

Male.—Length about 3 mm.; wing 3.8 mm.

Rostrum brown; palpi black. Antennæ black throughout; flagellar segments elongate, with long conspicuous verticils. Head dark grey.

Pronotum dark above; lateral pretergites light yellow. Mesonotal præscutum greyish brown, the humeral region obscure yellow; pseudosutural foveæ reddish brown, not conspicuous; posterior sclerites of notum dark brown, only the posterior border of scutellum very vaguely paler. Pleura and pleurotergite chiefly testaceous yellow, vaguely patterned with more reddish brown on anepisternum and sternopleurite. Halteres dusky, the base of stem narrowly pale. Legs with the coxæ obscure yellow; trochanters yellow; remainder of legs brownish black.

Wings with a very faint greyish suffusion; stigmal area a very little darker, diffuse; veins dark brown. Costal fringe of male conspicuous. Venation: Sc_1 ending just before origin of Rs , Sc_2 near its tip; Rs relatively short, less than R_4 and about two-thirds R_{2+3+4} , the latter very long, as in the subgroup; R_3 short and erect; $m-cu$ far beyond the fork of M , about opposite mid-length of cell 1st M_2 .

Abdominal tergites dark brown, the sternites somewhat paler; male hypopygium a little brightened. Male hypopygium (fig. 9) with the dististyles apical in position. Outer dististyle, *od*, heavily blackened, split at apex into two unequal spines; stem at near mid-length with a tubercle bearing a very long seta that is subequal in length to the entire style; inner dististyle produced into a slender blackened spine and the usual pale lobe bearing the two fasciculate setæ, this lobe long and narrow. Phallosome, *p*, consisting of two slender rods, gently diverging, their tips narrowed into acute spines.

Hab. Peru (Junin).

Holotype, ♂, Huacapistana, Tarma, altitude 3600–5400 ft., February 11, 1940 (*Woykowski*).

The nearest allies of the present fly are *Gonomyia* (*Gonomyia*) *anduzei* Alexander, of Venezuela, and *G. (G.) quazita* Alexander, of southern Mexico. These three flies are readily distinguished from one another by the structure of the male hypopygium, especially of the dististyles.

Gonomyia (Gonomyia) queribunda, sp. n.

Allied to *chiapasensis*; antennæ black throughout; outer flagellar segments elongate-cylindrical; mesonotum dark brown, the broad scutellum and the median area of scutum yellow; thoracic pleura chiefly yellow, weakly infuscated on the anepisternum and ventral sternopleurite; legs black; wings subhyaline, the diffuse stigmal area a trifle darker; Sc_1 ending opposite origin of Rs ; $m-cu$ more than one-half its length beyond the fork of M ; abdomen dark brown, the hypopygium a little more yellowish; male hypopygium with the outer lobe of basistyle unarmed; apical point of dististyle with two very strong tubercles; elements of phallosome with conspicuous spinous flanges beyond their basal portions.

Male.—Length about 5 mm.; wing 6 mm.

Rostrum obscure brownish yellow, brighter beneath;

palpi black. Antennæ black throughout; flagellar segments oval, beyond the basal two or three passing into elongate-cylindrical, the verticils exceeding the segments. Head dark grey.

Pronotum brown above, variegated with yellow on sides. Mesonotal præscutum dark brown, the pseudosutural foveæ black; lateral pretergites light yellow; posterior sclerites of notum dark brown, the median region of scutum and most of scutellum light yellow; postnotum more pruinose, the cephalic-lateral portion of mediotergite yellow. Pleura yellow, almost unmarked, the anepisternum and ventral sternopleurite a little infuscated; pleurotergite yellow, slightly darkened on dorsal and on ventral margins. Halteres infuscated, the base of stem yellow. Legs with coxæ yellow, the fore and middle pairs a trifle darkened; trochanters obscure yellow; remainder of legs black. Wings sybhyaline, the diffuse stigmal area a trifle darker; veins dark brown, those in prearcular field a little brightened. Venation: Sc_1 ending opposite origin of Rs , Sc_2 close to its tip; cell R_3 large, vein R_4 exceeding R_{2+3+4} ; $m-cu$ more than one-half its length beyond the fork of M .

Abdomen dark brown, the hypopygium a little more yellowish. Male hypopygium (fig. 10) with the outer lobe of basistyle, b , dusky, shorter than the dististyle, unarmed. Dististyle, d , with the blackened apical point bearing two very strong tubercles beyond mid-length. Phallosome, p , with conspicuous spinous flanges beyond their bases, these not quite alike on the two structures.

Hab. Peru (Junin).

Holotype, ♂, Huacapistana, Tarma, altitude 3600–5400 ft., March 24, 1940 (*Woytkowski*).

The nearest ally among the described species is *Gonomyia* (*Gonomyia*) *chiapasensis* Alexander, of southern Mexico, which differs chiefly in the structure of the male hypopygium, notably the longer and more slender outer lobe of basistyle, which bears a small but conspicuous flange or lobe near base, the weakly tuberculate apex of the dististyles, and the much poorer development of spinous points or flanges on the two elements of the phallosome.

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

Belongs to the *manca* group; thoracic pleura heavily striped with pale yellow on a plumbeous ground; legs

black; wings with a strong brownish tinge, the costal and prearcular fields more whitened; *Sc* short; male hypopygium with the basistyle produced beyond the point of insertion of dististyle as a stout lobe that bears two strong spines at apex; dististyle a strong curved spine and a large oval lobe, the latter bearing the fasciculate setæ at tip; phallosome bearing a long flattened sinuous blade.

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

Head broken.

Anterior lateral pretergites light yellow. Mesonotum dark plumbeous to pruinose, the posterior border of scutellum and the extreme posterior border of each scutal lobe yellow. Pleura plumbeous, with a conspicuous, pale yellow, longitudinal stripe extending from behind the fore coxæ to the abdomen, passing beneath the root of the halteres, the pleurotergite similarly pale; dorsopleural membrane yellow. Halteres pale yellow, the knob very weakly darkened. Legs with the fore coxæ greyish plumbeous, the remaining coxæ yellow, only the extreme base of middle pair dark; trochanters yellow; remainder of legs black. Wings with a strong brown tinge, the prearcular and costal fields more whitened; stigma only a little darker than the ground, ill-defined; veins brown, those in the prearcular and costal portions more brightened. Venation: *Sc* short, *Sc*₁ ending a distance before origin of *Rs* that is equal to the entire length of the latter vein, *Sc*₂ near its tip; *m-cu* close to fork of *M*.

Abdominal tergites dark brown; sternites and hypopygium obscure yellow. Male hypopygium (fig. 11) with the apex of basistyle, *b*, produced beyond point of insertion of dististyle as a stout lobe that terminates in two strong spines, their tips acute, the lower spine a little stouter; outer face of basistyle almost without setigerous punctures. Dististyle, *d*, appearing as a strong curved horn-yellow spine, provided with setulæ on basal third, narrowed to an acute tip; on basal portion a second style or lobe, appearing as a large oval lobe with the two usual fasciculate setæ at its apex. Phallosome, *p*, consisting of a quadrate pale basal mass, at apex produced into a stout median lobe; longest arm of phallosome appearing as a long flattened sinuous blade, the apex obtusely cultriform.

Hab. Peru (Junin).

Holotype. ♂, Carpapata, Tarma, altitude 2600 metres, May 13, 1940 (*Woytkowski*).

Gonomyia (Lipophleps) diacanthophora is entirely distinct from the numerous species of the *manca* group in the Neotropical fauna. As usual, the structure of the male hypopygium provides the best characters. The presence of two spines at the apex of the lobe of the basistyle, the nature of the dististyle, and conformation of the phallosome are quite different from other species.

Erioptera (Empeda) percupida, sp. n.

Size large (wing, female, over 5 mm.); general coloration of thorax yellowish brown, conspicuously patterned with polished black; pleura with a black longitudinal stripe; halteres yellow; legs yellow, the tips of femora, tibiæ and basitarsi blackened; wings uniform very pale yellow, unpatterned; veins yellow; Sc_1 ending about opposite mid-length of *Rs*.

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

Rostrum dark brown; palpi black. Antennæ relatively short; basal three or four segments obscure yellow to brownish yellow, the outer segments brownish black; flagellar segments oval, decreasing in size outwardly, the terminal segment about one-half the penultimate; verticils of moderate length. Head light grey.

Pronotum light yellow. Mesonotal præscutum light chestnut brown, conspicuously patterned with black, the surface nitidous; the black areas include nearly the cephalic half of the præscutum, the colour continued caudad as a narrower line to the suture; sublateral portions of præscutum extensively blackened, the colour crossing the suture onto the outer cephalic portions of the scutal lobes, the remainder of the latter less intensely darkened; scutellum brownish testaceous, the parascutella black; postnotum black, sparsely pruinose. Pleura chestnut-brown, conspicuously striped with black on the anepisternum, pteropleurite and pleurotergite; dorsopleural region pale yellow. Halteres uniformly pale yellow. Legs with the coxæ yellow, the fore pair infuscated on outer face; trochanters yellow; femora yellow, the tips abruptly and conspicuously black, most extensive on the fore pair where about the outer third is included, narrowest on the posterior pair where about the distal eighth is involved; tibiæ and basitarsi yellow, the tips narrowly blackened;

outer tarsal segments black. Wings uniformly very pale yellow, unpatterned; veins pale yellow, relatively inconspicuous against the ground. Venation: Sc_1 ending about opposite mid-length of R_s ; R_{2+3+4} about one-fourth longer than R_2 ; R_3 oblique, a little less than one-third R_4 ; $m-cu$ just before fork of M .

Abdomen brown, the central portions of the tergites and the pleural region darker brown; ovipositor with valves darkened basally, paling to horn-yellow outwardly.

Hab. Peru (Junin).

Holotype, ♀, Huacapistana, Tarma, altitude 3600–5400 ft., February 25, 1940 (*Woytkowski*).

Erioptera (Empeda) percupida is so different from all other described American species that comparison is unnecessary. It much more resembles several species of the subgenus in eastern Asia, especially *E. (E.) nigroapicalis* Alexander, of Formosa, and *E. (E.) rata* Alexander, of Mindanao, yet differs in all details of coloration, especially of the body and wings.

Molophilus (Molophilus) gargantua, sp. n.

Size large (wing 8 mm.); general coloration dark brown; mesonotal præscutum with the ground-colour dark brown, with four paler brown to ochreous-brown stripes; knobs of halteres light yellow; legs brownish black, the femoral bases brightened; wings pale cream-yellow, with two brown cross-bands, the first at level of origin of R_s , the second at cord.

Female.—Length about 7.5 mm.; wing 8 mm.

Rostrum dark brown; palpi black. Antennæ pale brown; basal flagellar segments long-oval, the outer segments passing into cylindrical; terminal segment a little longer than the penultimate and slightly bulbous at apex; longest verticils exceeding the segments. Head dark brown, sparsely pruinose.

Pronotum brownish black. Mesonotal præscutum with the ground dark brown, the four usual stripes and the humeral region abruptly light brown to ochreous brown, the intermediate pair of stripes separated by a capillary line of the ground; posterior sclerites of the notum dark brown. Pleura, including dorsopleural membrane, dark brown. Halteres with stem dusky, the base paler, the knob abruptly light yellow. Legs with the coxæ brown;

trochanters brownish yellow; femora brownish yellow at base, passing into dark brown; tibiæ and tarsi brownish black. Wings with the ground-colour pale cream-yellow, brighter yellow in the arcular field; a conspicuous brown pattern, including the extreme base of wing, and two major bands, the first at level of origin of R_s , the second at cord; veins brown, paler in the ground areas; macrotrichia dark brown. Venation: R_2 lying just distad of level of $r-m$; petiole of cell M_3 subequal in length to the sinuous $m-cu$; vein 2nd A sinuous, ending about opposite fork of M_{3+4} .

Abdomen brownish black, sparsely pruinose; ovipositor with valves horn-yellow.

Hab. Peru (Junin).

Holotype, ♀, Huasahuasi, Tarma, altitude 2800 metres, April 9, 1940 (*Woytkowski*).

Molophilus (Molophilus) gargantua is one of the largest species of the genus in the Neotropical fauna. Among these large-sized forms, such as *M. (M.) othello*, sp. n., *M. (M.) luxuriosus* Alexander, *M. (M.) colossus* Alexander and *M. (M.) titan* Alexander, it differs in the combination of coloration of the mesonotal præscutum, yellow knobs of halteres, and the variegated wings.

Molophilus (Molophilus) othello, sp. n.

Belongs to the *plagiatus* group; size large (wing, male, 7.5 mm.); general coloration of body, antennæ, halteres and legs intense black; wings with a strong blackish suffusion; male hypopygium with beak of basistyle very stout and compressed; basal dististyle a nearly straight blackened rod that is unequally bispinous at apex.

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

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

Rostrum and palpi black. Antennæ black throughout; flagellar segments oval, clothed with a coarse erect pubescence, in addition to the verticils which are nearly twice the length of the segments; outer segments with short apical constrictions; terminal segment a trifle exceeding the penultimate. Head black.

Thorax almost uniform deep velvety-black, the præscutum with slightly more shiny stripes. Halteres black throughout. Legs black. Wings strongly suffused with

black, the costal and stigmal portions even darker; veins and trichia black. Venation: R_2 lying a short distance beyond level of $r-m$; petiole of cell M_3 short, only a little exceeding $m-cu$; vein 2nd A long and sinuous, ending about opposite base of cell M_3 .

Abdomen, including hypopygium, black; apices of cerci broadly horn-yellow. Male hypopygium (fig. 12) with

Figs. 12-17.

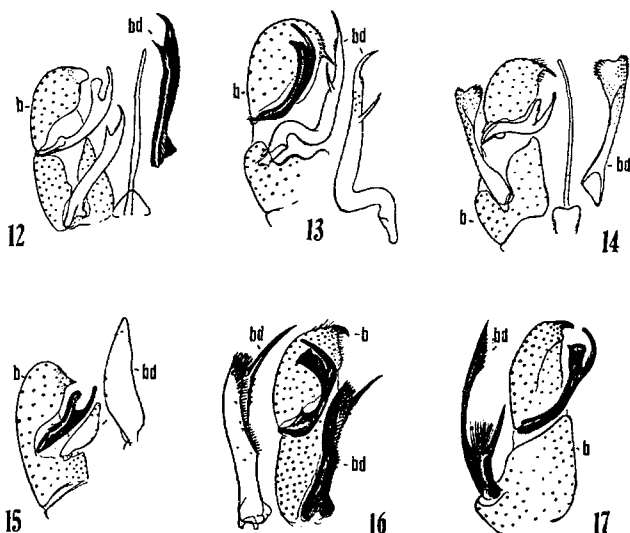


Fig. 12.—*Molophilus (Molophilus) othello*, sp. n.; male hypopygium.

Fig. 13.—*Molophilus (Molophilus) persinuosus*, sp. n.; male hypopygium.

Fig. 14.—*Molophilus (Molophilus) panchrestus*, sp. n.; male hypopygium.

Fig. 15.—*Molophilus (Molophilus) pala*, sp. n.; male hypopygium.

Fig. 16.—*Molophilus (Molophilus) grus*, sp. n.; male hypopygium.

Fig. 17.—*Molophilus (Molophilus) penicillatus*, sp. n.; male hypopygium.

Symbols: *b*, basistyle; *bd*, basal dististyle.

the beak of basistyle very stout and compressed, in lateral outline appearing sub-oval. Outer dististyle, *od*, with the arms unequal, the outer longer and more slender. Basal dististyle, *bd*, a nearly straight blackened rod

that is unequally bispinous at apex, the long terminal spine more than three times the length of the subapical one.

Hab. Peru (Junin).

Holotype, ♂, Carpapata, Tarma, altitude 2600 metres, May 12, 1940 (*Woytkowski*). *Allotopotype*, ♀, May 3, 1940.

The present fly is readily told from other large-sized members of the genus by the intense black colour of the entire body and appendages and by the structure of the male hypopygium. It most resembles *Molophilus* (*Molophilus*) *gargantua*, sp. n., which is readily told by the coloration of the body, legs and wings, and by the yellow knobs of the halteres.

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

Belongs to the *plagiatus* group; size large (wing, male, over 6 mm.); antennæ (male) elongate, flagellar segments spindle-shaped; general coloration of thorax brownish grey, the median area of præscutum broadly darker brown; halteres obscure yellow; legs black, the femoral bases obscure yellow; wings with the ground-colour yellow, the veins narrowly bordered by darker, the macrotrichia very long; male hypopygium with the basal dististyle a long blackened rod that is very strongly sinuous on basal half, at about two-thirds the length bearing a strong lateral spine.

Male.—Length about 5.5 mm.; wing 6.6 mm.

Rostrum and palpi black. Antennæ black throughout, elongate in male, if bent backward extending about to root of halteres; flagellar segments spindle-shaped, with very long, outspreading verticils, most numerous on the central dilated portion of segment. Head dark brownish grey.

Pronotum dark brown. Mesonotal præscutum brownish grey, the median area broadly darker brown, the surface subnitidous; posterior sclerites of notum brownish black. Pleura brownish black, including the dorsopleural membrane. Halteres obscure yellow throughout. Legs with the coxæ obscure yellow, the fore pair a little darker; trochanters obscure yellow; remainder of legs black, the femoral bases obscure yellow. Wings with the ground-

colour yellow, the membrane adjoining the veins more suffused; veins brown, the long macrotrichia dark brown; costal fringe long and dense. Venation; R_2 lying some distance beyond $r-m$; petiole of cell M_3 only a little longer than $m-cu$; vein 2nd A very long and sinuous, ending opposite base of cell M_3 .

Abdomen, including hypopygium, brownish black. Male hypopygium (fig. 13) with the beak of basistyle slender. Outer dististyle with the arms unequal, the inner stout. Basal dististyle, bd , a long blackened rod, stout and very strongly sinuous on basal half, the outer half nearly straight and gradually narrowed, terminating in a slender, gently curved spine; at base of spine on outer margin with a low group of roughened tubercles; at near two-thirds the length of style bearing a conspicuous slender lateral branch.

Hab. Peru (Junin).

Holotype, ♂, Carpapata, Tarma, altitude 2600 metres, May 12, 1940 (*Woytkowski*).

Molophilus (Molophilus) persinuosus is closest to *M. (M.) subfalcatus* Alexander, of Venezuela, *M. (M.) subtenebricosus* Alexander, of Colombia, and *M. (M.) tenebricosus* Alexander, of Colombia, differing in the large size and, especially, in the structure of the male hypopygium, notably the peculiar basal dististyle.

Molophilus (Molophilus) panchrestus, sp. n.

Belongs to the *plagiatus* group; size small (wing, male, 3.5 mm.); general coloration dull brownish black, the præscutum with indications of darker stripes; legs black throughout; wings broad, strongly suffused with black; male hypopygium with the basal dististyle a simple rod, at apex expanded into a triangular head that is strongly emarginate at apex, the lobes set with appressed spinous points and blackened spines.

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

Rostrum and palpi black. Antennæ black throughout, relatively short; flagellar segments long-oval, the outer segments shorter; verticils of unusual length, the longest exceeding three times the segments; besides the verticils, the segments are provided with long erect pale setæ, chiefly at mid-length. Head black.

Thorax dull brownish black, the præscutum with indications of four more brownish stripes that are ill-delimited against the ground. Pleura brownish black. Halteres short, the base of stem obscure yellow, the remainder darker; clothed with yellow setæ. Legs black throughout. Wings broad, with a strong blackish tinge; veins and trichia dark. Venation: R_2 lying just beyond level of $r-m$; petiole of cell M_3 a little less than twice $m-cu$; vein $2nd\ A$ long, sinuous, ending about opposite mid-length of petiole of cell M_3 .

Abdomen, including hypopygium, black. Male hypopygium (fig. 14) with the spine of basistyle, b , long and slender. Outer dististyle with the apical arms unequal in length and thickness, the inner long and slender; outer arm with mesal face microscopically roughened. Basal dististyle, bd , a long simple rod, the base a little dilated, the apical third gradually expanded into a triangular head, the apex of which is strongly emarginate, the stem and outer portion of head with microscopic appressed spinulæ, the produced inner lobe of head with a group of short black spines. Phallosomic plate glabrous, its apex very gently emarginate. Ædeagus very long and slender.

Hab. Peru (Junin).

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

The most similar species are *Molophilus (Molophilus) victor* Alexander, of Colombia, and *M. (M.) subvictor* Alexander, of Costa Rica, both of which have the male hypopygium of the same general type yet differing in the details, especially of the basal dististyle. The small size and strongly blackened wings furnish additional characters for the determination of the present fly.

Molophilus (Molophilus) pala, sp. n.

Belongs to the *plagiatus* group; general coloration dull brownish black, unpatterned; antennæ of male of moderate length, the longest flagellar verticils unilaterally distributed; knobs of halteres light yellow; legs brownish black; wings with a pale yellow tinge, unmarked; male hypopygium with the beak of basistyle small,

triangular; basal dististyle a simple blade, the length only about four times the greatest width.

Male.—Length about 4.5 mm.; wing 5.5 mm.; antennæ about 1 mm.

Rostrum dark brown; palpi black. Antennæ of moderate length, black throughout; flagellar segments oval, the outer ones a little more elongate; longest verticils unilaterally distributed. Head dark brown.

Pronotum and mesonotum almost uniformly dull brownish black, the præscutum without stripes. Pleura brownish black, including the dorsopleural area. Halteres with stem yellow at base, darkened outwardly, knob light yellow. Legs with coxæ dark brown; trochanters a little paler; remainder of legs brownish black. Wings with a pale yellow tinge; veins pale brown, more yellow at base. Venation: R_2 lying about opposite $r-m$; petiole of cell M_3 less than twice $m-cu$; vein 2nd A elongate, extending almost to opposite mid-length of petiole of cell M_3 .

Abdomen, including hypopygium, dark brown. Male hypopygium (fig. 15) with the beak of basistyle, b , small, triangular. Outer dististyle with arms unequal in length and diameter, the inner arm longer and more slender. Basal dististyle, bd , a simple blade, shaped much like the *pala* of the Hemipterous family Corixidæ; length only about four times the greatest width which is at near mid-length, thence narrowed to the subacute tip.

Hab. Peru (Junin).

Holotype, ♂, Huasahuasi, Tarma, altitude 2800 metres, April 20, 1940 (*Woytkowski*).

Molophilus (Molophilus) pala is readily distinguished by the structure of the male hypopygium, notably the basal dististyle, which is unusually small and simple. Among the described species, this organ is most like that of *M. (M.) debilistylus* Alexander, of south-eastern Brazil, but the other structures are quite distinct.

Molophilus (Molophilus) grus, sp. n.

Belongs to the *plagiatus* group; general coloration brownish grey; antennæ (male) of moderate length, black throughout; legs brown, the femoral bases a little brightened; wings subhyaline, with a very faint darkening along cord; male hypopygium with the beak of basistyle blackened, decurved at tip; basal dististyle a very

conspicuous black rod, the apex suddenly narrowed into a strong black spine suggesting the head of a crane; apex and margin of style with conspicuous spinous points.

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

Rostrum and palpi black. Antennæ black throughout, of moderate length; flagellar segments subcylindrical, the longest verticils exceeding the segments; pubescence of segments short and delicate. Head dark grey.

Pronotum brownish grey. Mesonotal præscutum brownish grey, the median region somewhat clearer brown; pretergites very obscure yellow; posterior sclerites of notum brownish grey, the posterior border of scutellum a trifle brightened. Pleura brownish black. Halteres with stem yellow, knob infuscated. Legs with coxæ testaceous, the fore pair more brownish testaceous; trochanters obscure yellow; remainder of legs brown, the femoral bases somewhat brightened, the tarsi dark brown; fore tibiæ (male) with a slightly darkened subbasal ring. Wings subhyaline, with a very faint and ill-defined darkening along cord; veins pale; macrotrichia dark; veins along cord a trifle darker. Costal fringe long and dense. Venation: R_2 lying just beyond level of $r-m$; petiole of cell M_3 about one-fourth to one-half longer than the sinuous $m-cu$; vein 2nd A long and sinuous, ending about opposite one-third the length of petiole of cell M_3 .

Abdomen, including hypopygium, dark brown. Male hypopygium (fig. 16) with the beak of basistyle, b , blackened and strongly decurved at apex. Outer dististyle with stem slender, the arms large and conspicuous, the inner arm very narrow, the short outer arm broad and flattened, its apex truncate. Basal dististyle, bd , a very conspicuous black rod, the stem stout, the apex abruptly narrowed and produced into a long slender spinous point; at base of point with a group of long slender spines or spinous setæ, with a further linear row of the same continued basad for more than one-half the total length of style, the more basal spines stouter and paler; besides these spines, the margin of style basad of apical point with a series of three or four strong tubercles.

Hab. Peru (Junin).

Holotype, ♂, Carpapata, Tarma, altitude 2600 metres, May 1, 1940 (*Woytkowski*). *Paratopotypes*, 2 ♂♂, with type; *paratypes*, 1 ♂, Huasahuasi, Tarma, altitude

2800 metres, April 22, 1940; 2 ♂♂, Huacapistana, altitude 3600-5400 ft., February 10-14, 1940.

In the general structure of the male hypopygium, *Molophilus* (*Molophilus*) *grus* suggests species such as *M. (M.) lictor* Alexander, of Colombia; *M. (M.) luxuriosus* Alexander, Colombia; *M. (M.) miraculus* Alexander, Mexico; and *M. (M.) pennatus* Alexander, Mexico, differing very conspicuously in all details of structure of the male hypopygium.

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

Belongs to the *plagiatus* group; general coloration brownish grey; antennæ black throughout; halteres yellow; legs brownish yellow, the tarsi darker; wings yellowish subhyaline, with a conspicuous, pale brown area along cord; male hypopygium with the basal dististyle a stout rod that forks into two unequal slender spines, between the two with a dense brush of setæ; outer arm before apex with a comb of long spinous points.

Male.—Length about 5.5-5.5 mm.; wing 6-7 mm.

Female.—Length about 6.5-7 mm.; wing 7-8 mm.

Rostrum dark brown; palpi black. Antennæ black throughout; flagellar segments oval to long-oval, the longest verticils unilaterally distributed, a little more than twice the length of the segments; pubescence relatively long but pale. Head brownish grey.

Pronotum brownish grey above, pale yellow on sides; pretergites pale yellow. Mesonotum brownish grey, the humeral region of præscutum restrictedly brightened; pseudosutural foveæ black. Pleura brownish grey. Halteres yellow throughout. Legs with coxæ testaceous yellow; trochanters yellow; femora and tibiæ brownish yellow; tarsi dark brown to brownish black. Wings yellowish subhyaline, with a conspicuous pale brown area extending from the stigma across the cord; veins yellow, a little darker in the clouded area; macrotrichia pale brown. Costal fringe long and dense. Venation: R_2 lying shortly beyond level of $r-m$; $m-cu$ subequal to or about one-fourth longer than the weakly sinuous $m-cu$; vein 2nd A of moderate length, extending about to opposite one-third to one-fourth the length of petiole of cell M_3 .

Abdomen dark brown; hypopygium obscure yellow or brownish yellow. Male hypopygium (fig. 17) with the

beak of basistyle, *b*, relatively stout, very gently curved. Outer dististyle, *od*, with the arms unequal, the inner long and slender. Basal dististyle, *bd*, a stout rod that forks into two unequal slender arms, the outer long and slender, the inner less than one-half as long; between the two arms with a dense brush or pencil of setæ; outer arm before apex with a comb of long spinous points; inner spine simple.

Hab. Peru (Junin).

Holotype, ♂, Huasahuasi, Tarma, altitude 2800 metres, April 21, 1940 (*Woytkowski*). *Alltopotype*, ♀, pinned with type. *Paratopotypes*, 35 ♂♀, April 7-25, 1940.

Molophilus (Molophilus) penicillatus is most similar to species such as *M. (M.) gymnocladus* Alexander, of Chile, differing very conspicuously in the structure of the male hypopygium, especially of the basal dististyle, as the dense axillary brush of setæ.

Molophilus (Molophilus) sicarius partitus, subsp. n.

Close to the typical form, likewise from Huacapistana, Tarma, differing in details of structure of male hypopygium. Basal dististyle with the outer blade very narrow, not or scarcely expanded at mid-length; spine of outer face smooth or with spinulæ at base only. In the typical form the outer blade is expanded at mid-length, being more than twice as wide as at base; lateral spine with numerous microscopic spinulæ virtually to its apex.

Hab. Peru (Junin).

Holotype, ♂, Huacapistana, Tarma, altitude 3600-5400 ft., March 24, 1940 (*Woytkowski*). *Paratopotypes*, 2 ♂♂, March 7-24, 1940. *Paratypes*, 1 ♂, 1 ♀, Carpapata, Tarma, altitude 2600 metres, June 1-3, 1940 (*Woytkowski*).

XXI.—*Notes on a small Collection of Myriapoda (Chilopoda) from Cornwall.* By Corporal H. J. LARWOOD, R.A.M.C.

SCHARFF (1912) drew attention to the presence in Cornwall and Ireland of species occurring in Spain and southern France. It was partly in the hope that further examples would be found of this Lusitanian fauna that the present collection was begun. The scope, however, is small, being restricted to one small region in the neighbourhood of Camborne, and to the summer months. In addition,