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NEW OR LITTLE-KNOWN TIPULIDÆ.

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

THE novelties discussed in this instalment are all from Peru, where they were collected in the Departments of Ayacucho and Junin by Messrs. Pedro Paprzycki and Felix Woytkowski. I am very indebted to these two efficient collectors for paying so much attention to these fragile and often neglected flies. All types are preserved in my personal collection of Tipulidæ.

Atarba (Ischnothrix) integriloba, sp. n.

General coloration of mesonotum light brown, the posterior sclerites darker; antennæ (male) elongate; legs brown; wings with a strong brownish tinge, the small oval stigma a little darker; *Sc* relatively long, *Sc*₁ ending about opposite three-fourths the length of *Rs* vein *R*₃ oblique; *m-cu* beyond mid-length of cell 1st *M*₂; abdominal tergites brown, sternites paler; a narrow, darker brown, subterminal ring, hypopygium yellow; appendage of ninth sternite narrowly lyriform; appendage of eighth sternite a quadrate entire lobe, its apex covered with microscopic spinulose points to form a cushion; outer dististyle narrow, its outer surface with abundant appressed spines, the outer ones stronger.

Male.—Length about 6.5 mm. wing 7 mm. antenna about 6.7 mm.

Rostrum obscure brownish yellow palpi black. Antennæ (male) relatively long, subequal in length to body; scape and pedicel obscure yellow, flagellum black; flagellar segments elongate-cylindrical, clothed with four types of vestiture, the longest being slender erect setæ that are about one-half as long as the segment; other erect setæ of about one-half the length of the former; still shorter, more spinous setæ on outer face of segments; and a microscopic pubescence. Head brownish grey; anterior vertex about one-half wider than the diameter of scape.

Pronotum small, light brown. Mesonotal præscutum chiefly light brown, more pruinose and slightly darker medially in front; posterior sclerites of notum darker brown, the scutellum and postnotum conspicuously pruinose. Pleura and pleurotergite obscure brownish yellow, the propleura darker; the more ventral pleurites sparsely pruinose. Halteres with stem yellow, knob weakly darkened. Legs with the coxæ testaceous yellow, the fore pair darker trochanters obscure yellow;

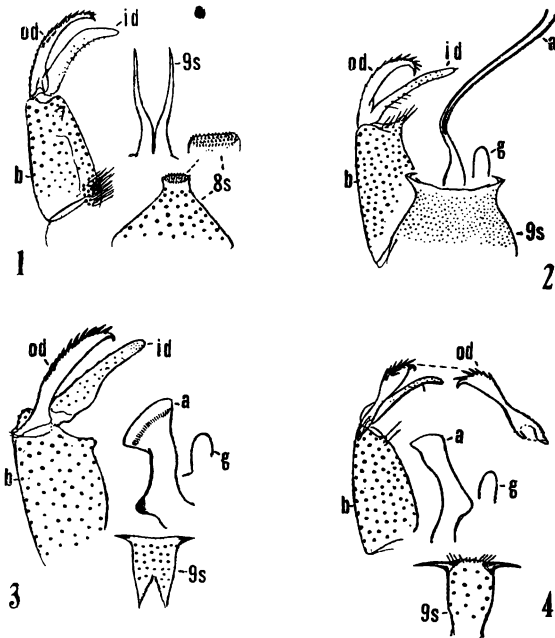


Fig. 1.—*Atarba (Ischnothrix) integriloba*, sp. n.; male hypopygium.

Fig. 2.—*Atarba (Atarba) dinematophora*, sp. n.; male hypopygium.

Fig. 3.—*Atarba (Atarba) tuberculifera*, sp. n.; male hypopygium.

Fig. 4.—*Atarba (Atarba) bulbifera*, sp. n.; male hypopygium.

(Symbols: *a*, ædeagus; *b*, basistyle; *g*, gonapophysis; *id*, inner dististyle; *od*, outer dististyle; *s*, sternite.)

remainder of legs relatively dark brown; tibial spurs distinct. Wings with a strong brownish tinge, the small oval stigma a little darker; prearcular and costal fields slightly more yellow; veins brown, trichia black. Venation. *Sc* relatively long, *Sc*₁ ending about opposite

three-fourths to four-fifths the length of *Rs*, *Sc*₂ some distance from its tip, *Sc*₁ alone about two-fifths the length of *Rs*; *R*₃ oblique; *m-cu* beyond mid-length of the relatively small rectangular cell 1st *M*₂.

Abdominal tergites brown, still darker laterally; basal sternites obscure yellow; subterminal segments darker brown to produce a narrow ring that involves chiefly the eighth segment; hypopygium yellow. Male hypopygium (fig. 1) with the appendage of the ninth sternite, 9*s*, consisting of two long slender spines, their bases closely applied, the arms only slightly divergent, the structure appearing narrowly lyriform. Eighth sternite, 8*s*, narrowed outwardly and produced into a subquadrate lobe, the truncated apex entire and set with abundant microscopic setulæ and spinous points. Basistyle, *b*, with a conspicuous grouping of setæ on mesal face at base; outer lobule on mesal face of basistyle small but present. Outer dististyle, *od*, entirely blackened, narrower than in related species, the outer surface with numerous appressed spines, the outer ones larger and stronger. Inner dististyle, *id*, pale, broader than the outer style and subequal to it in length, shaped more or less like a boomerang.

Hab. Peru (Junin).

Holotype, ♂, Huacapistana, Tarma, altitude 3600–5400 ft., February 23, 1940 (*Woytkowski*).

The present fly is closest to *Atarba* (*Ischnothrix*) *geminata* Alexander, differing especially in the venation and in the structure of the male hypopygium and subterminal segment, such as the entire median lobe of the eighth sternite.

Atarba (*Atarba*) *dinematophora*, sp. n.

General coloration polished yellow antennæ with scape and pedicel yellow, flagellum black; legs yellow, the terminal tarsal segments brownish black; wings clear light yellow *Sc* short; abdomen yellow, the proximal tergites patterned with black; a conspicuous subterminal black ring ædeagus profoundly bifid into two very slender pale arms.

Male.—Length about 5. mm. wing 5.8 mm. antenna about 2.8 mm.

Rostrum light yellow; palpi black. Antennæ about one-half the length of body scape and pedicel light

yellow, flagellum black; flagellar segments with long verticils and shorter erect pale pubescence. Head yellow; anterior vertex broad, exceeding three times the diameter of the scape.

Prothorax and mesothorax polished yellow, the mesonotum somewhat more fulvous yellow. Halteres pale yellow. Legs yellow, the terminal tarsal segments brownish black. Wings clear light yellow, even brighter in the prearcular and costal fields, and along vein *Cu*; veins yellow, trichia dark brown. Venation *Sc* short, *Sc*₁ ending just beyond the origin of *Rs*, *Sc*₂ a corresponding distance before this point; *Rs* relatively short, pale and indistinct, without trichia; cell 1st *M*₂ small, shorter than any of the veins beyond it; *m-cu* close to the fork of *M*.

Abdomen yellow, the more proximal tergites patterned with black, most extensive and intense on tergites one and two, much paler on the next two tergites, lacking on intermediate segments; basal sternites unpatterned; segments seven and eight black, forming a conspicuous subterminal ring; hypopygium yellow. Male hypopygium (fig. 2) with the plate of the ninth sternite, 9s, broad, the outer angles produced laterad into horns, the tips of which are recurved; posterior edge of horns with a small accessory tooth. Outer dististyle, *od*, narrow, the outer margin with about thirteen spines, additional to the apical point, the more proximal spines smallest, the intermediate two or three longest; remainder of surface microscopically scabrous. Inner dististyle, *id*, longer than the outer, unusually slender and pale throughout. Gonapophyses, *g*, with simple obtuse tips. Ædeagus, *a*, profoundly bifid into two very slender pale arms, each about as long as the combined length of basistyle and dististyle.

Hab. Peru (Junin).

Holotype, ♂, Tulumayo Valley, Tarma, altitude 4000–8000 ft., November 10, 1940 (*Woytkowski*).

Atarba (Atarba) dinematophora is very different from the other species of the genus, having the ædeagus bifurcated. It differs conspicuously in body and wing coloration, length and pattern of the antennæ, and, especially, in the structure of the male hypopygium. Such allied species include *A. (A.) bifurcula* Alexander

and *A. (A.) punctiscuta* Alexander, having patterned wings, and with the branches of the ædeagus about two-thirds as long as in the present fly; and *A. (A.) laddeyana* Alexander, an entirely different species, with very long antennæ and entirely distinct hypopygium, the ædeagus having unusually short branches that are only a little more than one-third as long as in the present fly.

Atarba (Atarba) tuberculifera, sp. n.

Size very large (wing, male, over 8 mm.) general coloration of thoracic notum reddish yellow, unpatterned; antennæ about one-third the length of body more basal flagellar segments bicoloured, black, with the narrow bases obscure yellow; knob of halteres infuscated; femora yellow, with a broad and conspicuous dark brown ring that is nearly terminal in position; wings yellowish grey, the stigma and a cloud on anterior cord darker; Sc_1 ending a short distance beyond origin of *Rs*; male hypopygium with the ædeagus unusually short and broad, flaring at apex into a fan-shaped structural lower margin of ædeagus, at near mid-length produced into a large rounded knob.

Male.—Length about 7.8–8 mm. wing 8–8.5 mm.; antenna about 2.3–2.5 mm.

Female.—Length about 8–8.5 mm.; wing 8–9 mm.

Rostrum brownish yellow palpi black. Antennæ (male) of moderate length, about one-third the length of body scape and pedicel yellow; basal five or six flagellar segments weakly bicoloured, black, with the narrow bases obscure yellow, most extensive on the first segment, where about the proximal third is included, much narrower on the succeeding segments; outer segments uniformly black; flagellar segments sub-cylindrical, relatively short, with sparse short verticils that are shorter than the segments, and abundant shorter dense erect white pubescence. Head reddish yellow, sparsely pruinose; eyes large anterior vertex about one-third wider than the diameter of scape.

Pronotum testaceous yellow, weakly infuscated medially. Mesonotum almost uniform reddish yellow, unpatterned, very sparsely yellow pollinose. Pleura yellow. Halteres with stem yellow, knob infuscated. Legs with coxæ and trochanters yellow femora yellow, with a broad and

conspicuous dark brown ring that is nearly terminal in position; tibiæ and proximal tarsal segments yellow, the outer three segments brownish black; tibial spurs distinct. Wings yellowish grey, the prearcular and costal fields clear pale yellow; stigma relatively indistinct, bicoloured, the distal portion yellow, the proximal half pale brown; a narrow, pale brown cloud on anterior cord; veins pale brown, darker in the patterned areas, pale yellow in the brightened portions. Venation: Sc moderately long, Sc_1 ending a short distance beyond the origin of Rs , Sc_2 just before this origin; branches of Rs extending nearly parallel to one another; cell 1st M_2 rectangular, shorter than vein M_4 beyond it; $m-cu$ about one-fifth its length beyond the fork of M .

Abdominal tergites dark brown, the basal sternites yellow; subterminal segments deepening to brownish black to form a ring; hypopygium with the ninth segment dark, the appendage of ninth sternite and the basistyles yellow. Male hypopygium (fig. 3) with the plate of the ninth sternite, $9s$, gently widened outwardly, its caudal margin subtruncate; outer lateral angles directed laterad into relatively long, acute, dusky spines; surface of plate with several long pale setæ and about equally numerous microscopic setulæ. Outer dististyle, od , relatively narrow, entirely blackened, its outer margin with from nine to ten spines arranged over most of the length, the outer spines longer and stronger, in a single row, the reduced basal spines in two or more rows. Inner dististyle, id , tapering to the narrow dusky apex. Gonapophysis, g , with the apex obtuse, margin smooth. Ædeagus, a , unusually short and broad, flaring at apex into a semicircular or fan-shaped portion; lower margin at near mid-length produced into a large rounded knob or tubercle.

Hab. Peru (Junin).

Holotype, ♂, Huasahuasi, Tarma, altitude 2800 metres, April 20, 1940 (*Woytkowski*). *Allotopotype*, ♀, April 21, 1940. *Paratopotypes*, 1 ♂, 1 ♀, April 21, 1940.

Atarba (Atarba) tuberculifera is very distinct from the generally similar species that have the thorax unpatterned and the wings with a weak dark cloud over the anterior cord. It differs from all such species in the very large size, relatively short antennæ, and, especially, the struc-

ture of the male hypopygium, notably the *ædeagus*, as described and figured.

Atarba (Atarba) bulbifera, sp. n.

General coloration yellow; antennæ (male) moderately long, slightly exceeding one-half the length of body; flagellum and pedicel black; flagellar segments each with a single elongate verticil, these unilaterally distributed; knobs of halteres weakly infuscated; legs yellow; wings greyish yellow, the stigma and a restricted cloud on the anterior cord darker; male hypopygium with the outer angles of plate of ninth sternite produced into long straight slender spines; outer dististyle very slender and constricted on basal half, the outer portion elongate-oval, provided with several strong spines; inner dististyle slender; *ædeagus* short, widened and flaring at apex, its lower margin with an obtuse knob or expansion.

Male.—Length about 5.5–6.2 mm. wing 6–7 mm.; antenna about 3–3.3 mm.

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

Rostrum obscure yellow; palpi black. Antennæ with scape yellow, pedicel and flagellum uniformly black antennæ (male) moderately long, a little more than one-half the length of body flagellar segments cylindrical, each with a single elongate bristle, the unilaterally distributed; shorter, inconspicuous verticils near the bases of the more proximal segments segments densely clothed with an erect pale pubescence. Head testaceous yellow, very sparsely pruinose behind anterior vertex (male) relatively narrow, about one-third greater than the diameter of scape, the eyes correspondingly large.

Thorax yellow, the surface subnitidous, without pattern; mesonotal præscutum with sparse elongate pale setæ; in female, the cephalic and lateral portions of præscutum, together with the dorsopleural region, somewhat darker. Halteres with stem pale yellow, knob weakly infuscated. Legs with the coxæ and trochanters pale yellow; femora pale yellow, in cases with a faint darkening at tip; remainder of legs yellow the terminal tarsal segments passing into brown. Wings greyish yellow, the prearcular and costal fields clear light yellow; stigma oval, pale brown a restricted dark cloud over the

anterior cord ; veins pale brown, darker in the patterned areas, yellow in the flavous portions. Venation Sc short, Sc_1 ending opposite or just before the origin of R_s , the latter short and angulated, not much longer than $m-cu$; cell 1st M_2 varying in shape from rectangular to subquadrate, $m-cu$ at from one-third to one-half the length of cell.

Abdominal tergites chiefly brownish black, the central portion somewhat paler ; basal sternites yellow, narrowly darkened laterally subterminal segments black, forming a subterminal ring ; hypopygium pale yellow. Male hypopygium (fig. 4) with the plate of the ninth sternite, $9s$, longer than wide, pale, the outer lateral angles produced directly laterad into unusually long slender spines, the caudal border of plate truncate or even slightly convex, provided with setæ, those near the bases of the horns longer and more conspicuous. Outer dististyle, od , entirely blackened, its stem narrow the outer half dilated into an oval bulbous portion that is provided on outer face with several spinous points, the apical spine curved and relatively short. Inner dististyle unusually long and slender, gently curved. Gonapophyses, g , with margins smooth, apices obtuse. Ædeagus, a , short and stout, its apex slightly expanded or flaring, with pale margins ; lower edge of organ at near mid-length produced into a rounded lobe or tubercle, somewhat as in *tuberculifera*.

Hab. Peru (Junin).

Holotype, ♂, Huacapistana, Tarma, altitude 3600–5400 ft., March 4, 1940 (*Woytkowski*). *Allotopotype*, ♀, March 9, 1940. *Paratopotypes*, 20 ♂♂, February 18–March 24, 1940.

The present fly is closest to *Atarba* (*Atarba*) *diacantha* Alexander, of Ecuador, differing in the coloration of the antennæ, as the uniformly blackened pedicel and flagellum, and in the details of venation and structure of the male hypopygium. The nature of the sternal plate is generally the same in both species.

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

General coloration dark grey or black, pruinose ; head light grey ; antennæ black throughout ; thorax variegated with yellow, most conspicuously so on scutellum, post-

notum and pleura ; legs brownish yellow, the distal ends of femora, tibiæ and basitarsi slightly darkened ; wings weakly tinged with grey, the stigma darker ; abdomen brownish black, hypopygium dark ; male hypopygium with the outer dististyle a slender rod, its dilated apex produced at right-angles into a long straight spine ; middle dististyle a flattened dark-coloured plate that narrows gradually into a long straight apical spine, its lateral margin at near mid-length with a small lateral spinule.

Male.—Length about 5.5 mm. ; wing 6.3 mm.

Rostrum dark brown, sparsely pruinose palpi brownish black. Antennæ brownish black, the scape more pruinose ; flagellar segments¹ elongate-fusiform, shorter than the verticils. Head light grey, the anterior vertex obscure yellow.

Pronotum obscure yellow above, darker on sides. Anterior lateral pretergites light yellow. Mesonotal præscutum brownish grey, with three clearer brown stripes, the humeral region more reddish ; pseudosutural foveæ black ; scutum dark brown, sparsely pruinose, the extreme posterior border of each scutal lobe obscure yellow scutellum at base broadly blackened and sparsely pruinose, broadly obscure yellow behind ; post-notal mediotergite blackish grey behind and as a large central area in front, the two darkenings narrowly interconnected down the mid-line, the cephalic-lateral portions broadly yellow ; pleurotergite blackish grey, extensively variegated with yellow. Pleura black, sparsely pruinose, conspicuously variegated with light yellow, including the propleura and a conspicuous longitudinal ventral stripe, the latter beginning behind the fore coxæ, crossing the dorsal sternopleurite and ventral metapleura, sending a narrow arm up the cephalic border of the pteropleurite to the wing-root. Halteres dusky, the base of stem obscure yellow. Legs with the coxæ testaceous yellow, restrictedly darkened basally trochanters obscure testaceous ; remainder of legs obscure brownish yellow, the outer portions of femora, tibiæ and basitarsi slightly more darkened, the outer tarsal segments still darker brown. Wings with a weak greyish tinge, the prearcular and costal fields more whitened ; stigma oval, medium brown ; a scarcely evident darkening over the anterior cord, best

indicated by a slight deepening of the veins ; veins brown. Venation Sc long, Sc_1 ending about opposite three-fifths the length of Rs , Sc_2 a short distance from its tip ; R_2 very faint, just beyond the fork of R_{2+3+4} and bisecting

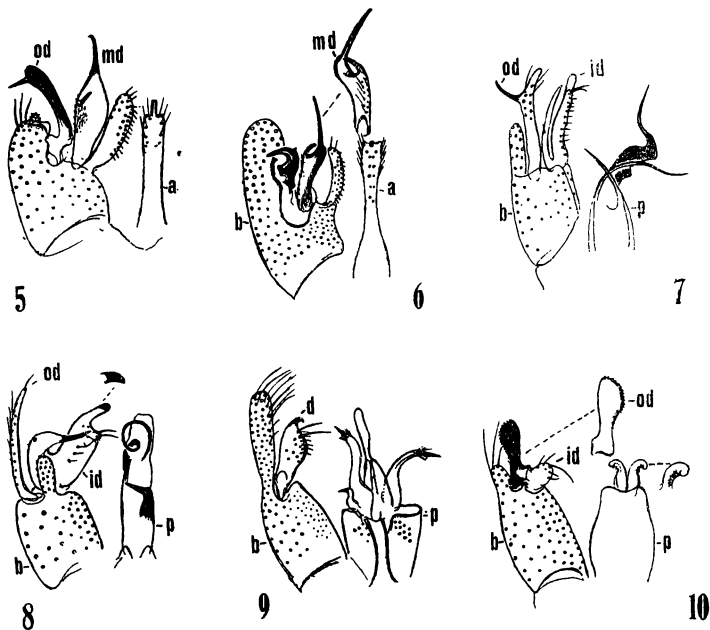


Fig. 5.—*Gonomyia (Progonomyia) platymera*, sp. n. ; male hypopygium.
 Fig. 6.—*Gonomyia (Progonomyia) histrionica*, sp. n. ; male hypopygium.
 Fig. 7.—*Gonomyia (Gonomyia) appendiculata*, sp. n. ; male hypopygium.
 Fig. 8.—*Gonomyia (Gonomyia) anserina*, sp. n. ; male hypopygium.
 Fig. 9.—*Gonomyia (Lipophleps) subtribulator*, sp. n. ; male hypopygium.
 Fig. 10.—*Gonomyia (Lipophleps) clavifera*, sp. n. ; male hypopygium.

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

the stigma ; cell $2nd M_2$ deep, the distal section of vein M_{1+2} about three times the second section ; $m-cu$ close to the fork of M .

Abdomen dark brown to brownish black, the incisures pale ; hypopygium dark. Male hypopygium (fig. 5) with the apex of basistyle b . produced into a small sub-

conical pale lobe that is densely set with small spinous points. Outer dististyle, *od*, long and slender, the outer half blackened; apex a little dilated, before the tip produced at a right-angle into a long straight spine. Middle dististyle, *md*, a flattened, dark-coloured plate that narrows gradually into a long straight apical spine, at near mid-length of lateral margin with a slender spinule, the style near this point with several microscopic setulæ.

Hab. Peru (Ayacucho).

Holotype, ♂, Ayna, La Mar, altitude 2400 metres, May 17, 1941 (*Woytkowski*).

Gonomyia (*Progonomyia*) *platymera* is entirely different from the numerous regional species of the subgenus, especially in the structure of the male hypopygium, as the outer and middle dististyles. The fly is most similar to *G. (P.) peruviana* Alexander than to others, but the relationship is not particularly close.

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

General coloration black, the thoracic pleura conspicuously variegated with china-white; antennæ, halteres and legs black; wings whitish subhyaline, with an elongate brown stigma; *Sc* long, *Sc*₁ ending about opposite three-fifths the length of *Rs* cell 2nd *M*₂ deep; male hypopygium, including the appendages, black; middle dististyle terminating in a long straight slender spine; outer dististyle a simple curved black hook.

Male.—Length about 5.5 mm. wing 5.8 mm.; antenna about 1.3 mm.

Female.—Length about 6 mm. wing 6 mm.

Rostrum and palpi black. Antennæ black throughout; basal flagellar segments long-oval, the outer ones even more elongate. Head light grey, the front light yellow.

Pronotum black above, narrowly bordered laterally by whitish; pretergites obscure yellow, brighter posteriorly. Mesonotum chiefly black, the surface opaque by a sparse grey bloom, heavier on the posterior segments, on the præscutum. leaving three more evident blackish stripes; pseudosutural foveæ black; humeral border of præscutum restrictedly brightened. Pleura conspicuously variegated with black and china-white, the latter including extensive areas on dorsal sternopleurite, pteropleurite and meron;

pleurotergite dark, grey pruinose, enclosing a long-oval yellow marking; ventral sternopleurite more or less pruinose; dorsopleural membrane white. Halteres blackened. Legs with coxæ black; trochanters brownish black; remainder of legs black. Wings whitish subhyaline, variegated only by the elongate brown stigmal area; veins brownish black. Venation Sc long, Sc_1 ending about opposite three-fifths the length of the long Rs , Sc_2 a short distance removed from the tip of Sc_1 , cell $2nd\ M_2$ relatively deep, more than twice its petiole; $m-cu$ close to the fork of M .

Abdomen, including hypopygium, black. Male hypopygium (fig. 6) with the apex of the basistyle obtuse. Outer dististyle, od , a simple curved black hook. Middle dististyle, md , longest, its basal half stout, suddenly narrowed at apex into a long slender, nearly straight spine; on outer edge of style before the origin of the spine with a short powerful point, the entire face of style at and near this point provided with numerous setæ. Inner dististyle, id , elongate, the mesal face provided with abundant retrorse spinous setæ, and tipped with a much longer bristle.

Hab. Peru (Ayacucho).

Holotype, ♂, Ayna, La Mar, altitude 2400 metres, May 18, 1941 (*Woytkowski*). *Allotopotype*, ♀, May 14, 1941. *Paratopotype*, ♂, May 31, 1941.

Gonomyia (Progonomyia) histrionica is quite distinct from all other described regional species of the subgenus, especially in the strongly contrasting black and white body-pattern, the uniformly blackened antennæ, halteres and legs, and in the structure of the male hypopygium. The most similar species is *G. (P.) tessellata*, sp. n.

Gonomyia (Progonomyia) tessellata, sp. n.

Allied to *histrionica*; thorax conspicuously patterned with black and china-white or yellowish white; mesonotal præscutum with the posterior interspaces light grey, the disk with three conspicuous black stripes; antennæ and legs black; halteres with stem yellow, knob weakly infuscated; wings greyish subhyaline, the stigma and an infuscation across the cord darkened; abdomen black, the extreme lateral borders obscure yellow.

Female.—Length about 5.8–6 mm. ; wing 5.8–6.2 mm.

Rostrum, palpi and antennæ black. Head light grey, with a conspicuous brownish-black central stripe.

Pronotum black above, china-white on sides ; lateral pretergites white. Mesonotal præscutum with posterior interspaces light grey, the disk with three conspicuous black stripes ; humeral region and a lateral area before the suture white ; scutal lobes black, the central area grey pruinose ; scutellum more testaceous medially, the lateral portions black ; mediotergite black, the lateral margin of cephalic half yellowish white ; pleurotergite black ventrally, yellowish white above. Pleura conspicuously patterned with polished black and pale yellowish white, the ground-colour being black with a yellow line beginning behind the fore coxæ, crossing the dorsal sternopleurite, dividing at this point and sending one arm ventrad across the meral region, the other dorsad across the ventral pteropleurite onto the pleurotergite, as above described ; more yellowish areas surround the wing-root ; dorsopleural region more buffy. Halteres with stem yellow, knob weakly infuscated. Legs with the coxæ black, their tips pale, the posterior pair more extensively so ; trochanters obscure yellow ; remainder of legs black, the femoral bases restrictedly paler. Wings greyish subhyaline, variegated by a brown stigmal area and a less evident infuscation across the cord ; veins dark brown, more blackened in the infuscated areas. Venation Sc_1 ending about opposite mid-length of R_s , Sc_2 about opposite one-fourth to one-fifth the length of R_s ; cell 2nd M_2 deep, from one and one-half to twice the length of its petiole ; $m-cu$ shortly before fork of M .

Abdomen black, the extreme lateral borders obscure yellow ; valves of ovipositor yellowish horn-coloured to dark brown.

Hab. Peru (Ayacucho, Junin).

Holotype, ♀, Ayna, La Mar, Ayacucho, altitude 2400 metres, May 31, 1941 (*Woytkowski*). *Paratopotypes*, 2 ♀♀, May 18–31, 1941. *Paratype*, ♀, Tulumayo Valley, Tarma, Junin, altitude 6000 ft., December 20, 1940 (*Woytkowski*).

Gonomyia (*Progonomyia*) *tesselata* is most like *G. (P.) histrionica*, sp. n., differing especially in the even more variegated thoracic pleura. and in details of wing-pattern

and venation, including a conspicuous darkened cloud along the cord.

Gonomyia (Gonomyia) appendiculata, sp. n.

Allied to *subremota*; thoracic pleura conspicuously striped yellow and black; antennal scape and pedicel pale, flagellum black halteres infuscated; legs brownish black; wings greyish subhyaline, the stigma pale brown; *Sc* short, *Sc*₁ ending some distance before the origin of *Rs*; outer abdominal tergites black, with conspicuous yellow areas; male hypopygium with the phallosome terminating in a large blackened structure that is extended into a powerful spine.

Male.—Length about 4.3–4.8 mm. wing 5–5.5 mm.

Female.—Length about 4.8–5 mm.; wing 5–5.5 mm.

Rostrum and palpi black. Antennæ with scape obscure orange-brown, pedicel obscure yellow; flagellum black; flagellar segments elongate, with conspicuous verticils. Head obscure yellow, darker medially.

Pronotum and pretergites pale yellow. Mesonotal præscutum almost uniformly brownish grey, the humeral and lateral portions very slightly more reddened; pseudo-sutural foveæ black; scutal lobes brownish grey, the median region and the scutellum obscure orange-yellow to orange; postnotum pale yellow on cephalic portion, the posterior half blackened, the latter being a continuation of a dorsal black pleural stripe. Remainder of pleura yellow, patterned on ventral sclerites with greyish black. Halteres infuscated. Legs with coxæ yellow, trochanters more obscure; remainder of legs brownish black. Wings greyish subhyaline, the prearcular and basal costal fields pale yellow; stigma oval, pale brown; veins brown, yellow in the brightened basal portions. Venation: *Sc* short, *Sc*₁ ending far before the origin of *Rs*, the distance from about one-fifth to one-half the length of *Rs* alone, *Sc*₂ near tip of *Sc*₁; cell 1st *M*₂ closed; *m-cu* at fork of *M*.

Abdominal tergites brownish black, the posterior lateral portions of the third and succeeding segments obscure yellow; sternites and hypopygium more uniformly yellow. Male hypopygium (fig. 7) with the lobe of

basistyle, *b*, about one-half the length of the outer dististyle, pale, provided with several long setæ. Outer dististyle, *od*, bearing an unusually powerful black spine on its outer margin at near two-thirds the length, the distal half of style with strong setæ. Inner dististyle, *id*, with its posterior lobe a slender pale rod, before mid-length with a strong spinous seta; main body of style terminating in a flattened, dark-coloured paddle, before apex with a lateral flange that bears a series of strong setæ over the whole length of style, the two outermost stronger and fasciculate. Phallosome, *p*, with the two subbasal spines unequal in length and size, one strong and heavily blackened; apex of phallosome produced into a long blackened appendage that is extended into a powerful black spine having the approximate diameter of the larger basal spine.

Hab. Peru (Junin).

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

Among the rather numerous allied species occurring in Tropical America, the present fly is closest to *Gonomyia* (*Gonomyia*) *subremota* Alexander. Other species having cell 1st M_2 closed, as in this case, include *G. (G.) remota* Alexander and *G. (G.) salmani* Alexander. Although they have cell M_2 open by the atrophy of the basal section of M_3 , there are several other species that are evidently not distantly allied to the present fly, these including, among others, *G. (G.) debilis* Alexander, *G. (G.) illicis* Alexander, *G. (G.) jejuna* Alexander, and *G. (G.) tuberculata* Alexander. From *subremota*, the present species differs conspicuously in the details of structure of the male hypopygium, including both dististyles and the phallosome.

Gonomyia (Gonomyia) anserina, sp. n.

Allied to *jejuna*; antennæ black throughout, relatively long; mesonotal præscutum rich castaneous, without markings; thoracic pleura and postnotum conspicuously patterned with yellow, the former with a narrow brown longitudinal stripe; knobs of halteres infuscated; legs black; wings greyish subhyaline. the stigma pale brown

Sc short, *Sc*₁ ending before the origin of *Rs*; cell *M*₂ open by the atrophy of the basal section of *M*₃; *m-cu* at fork of *M*; male hypopygium with the outer dististyle a long slender simple rod; inner dististyle complex, its posterior lobe a flattened blade, the apex of which is produced into a long spinous beak.

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

Rostrum dark, palpi black. Antennæ relatively long, black throughout; flagellar segments elongate-oval to elongate; verticils of moderate length only, as compared with males of allied species. Head chiefly dark; eyes large.

Pronotum and anterior pretergites yellow. Mesonotal præscutum rich castaneous, without markings; scutum and scutellum darker brown; pleurotergite chiefly obscure yellow, this area further involving the lateral portion of mediotergite. Pleura chiefly yellow, including the dorsal pleura and a broad ventral stripe, the intermediate portion forming a narrow brown longitudinal stripe extending from the propleura across the anepisternum, central pteropleurite and ventral pleurotergite to the posterior border of mediotergite. Halteres pale, knobs infuscated. Legs with the coxæ yellowish testaceous; trochanters obscure yellow; remainder of legs black. Wings greyish subhyaline, the prearcular and costal portions more whitened; stigma pale brown, large but ill-delimited; veins brown, paler in the more basal portions. Venation: *Sc* relatively short, *Sc*₁ ending before origin of *Rs*, *Sc*₂ near its tip; *R*₂₊₃₊₄ about four-fifths as long as *Rs*; basal section of *R*₅ reduced; cell *M*₂ open by the atrophy of basal section of *M*₃; *m-cu* at fork of *M*.

Abdomen, including hypopygium, dark brown; sternites somewhat paler. Male hypopygium (fig. 8) with the basistyle, *b*, produced into a cylindrical fleshy lobe, its tip obtuse. Outer dististyle, *od*, a long very slender simple pale rod, the outer surface and apex with scattered setæ. Inner dististyle, *id*, complex, the posterior lobe a conspicuous flattened blade, its apex produced into a long black spine; anterior lobe or beak a flattened yellow blade that terminates in a blackened flattened lobe or cultriform blade, before this with a lobe that bears the usual two fasciculate bristles, in addition to fewer normal

setæ. Phallosome, *p*, blackened basally, bearing two black spines, the more basal one short and stout, the subapical spine strongly coiled.

Hab. Peru (Ayacucho).

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

Gonomyia (*Gonomyia*) *anserina* is allied to species such as *G. (G.) debilis* Alexander, *G. (G.) illicis* Alexander, *G. (G.) jejuna* Alexander, and *G. (G.) tuberculata* Alexander, differing conspicuously in the structure of the male hypopygium, especially of the inner dististyle. The posterior lobe of the latter somewhat resembles in outline the head of certain ducks, as for example, the North American canvasback.

Gonomyia (Lipophleps) subtribulator, sp. n.

Belongs to the *manca* group, allied to *tribulator*—general coloration of mesonotum dark grey, the median region of the scutum and the scutellum variegated with yellow; thoracic pleura dark brown, with a longitudinal yellow stripe; legs brownish black; wings with a weak brown tinge, stigma scarcely differentiated; male hypopygium with the basistyle produced into a fleshy lobe beyond the dististyle, dististyle single, flattened, terminating in a curved black spine; phallosome with three blackened spinous points, additional to the ædeagus, the two longest rods with groups of setæ at the bases of the blackened apical spine.

Male.—Length about 3.5 mm. wing 4.2 mm.

Rostrum testaceous yellow; palpi black. Antennæ black. Head dark grey, the occiput restrictedly variegated with obscure orange.

Pronotum pale yellow, darker laterally, pretergites pale yellow. Mesonotal præscutum dark grey, pseudo-sutural foveæ black; scutal lobes dark grey; median region of scutum and the scutellum obscure yellow, the base of the latter darkened; mediotergite brown, paler laterally; pleurotergite chiefly yellow. Pleura chiefly dark brown or plumbeous, with a longitudinal yellow stripe extending from behind the fore coxæ across the dorsal sternopleurite and lower pteropleurite to the abdomen, passing beneath the halteres. Halteres with stem dusky, knob darkened. Legs with the coxæ and tro-

chanters brownish testaceous; remainder of legs dark brown or brownish black. Wings with a weak brown tinge, the prearcular and costal fields more whitened; stigma very pale brown, scarcely differentiated; veins very pale brown. Venation Sc_1 ending about opposite or immediately beyond origin of Rs , Sc_2 a short distance from its tip; $m-cu$ close to fork of M .

Abdominal tergites dark brown, the incisures paler sternites slightly more brightened; abdomen pale brown or yellowish brown. Male hypopygium (fig. 9) with the basistyle, b , produced into a fleshy lobe that projects some distance beyond the outer end of the dististyle, obtuse at tip, provided with long setæ. Dististyle, d , single, yellow, terminating in a curved black apical spine; mesal margin more dilated, provided with several setæ, including two stronger fasciculate bristles near the terminal spine. Phallosome, p , conspicuous, bearing three appendages that terminate in powerful black spines, in addition to the ædeagus, the latter constricted beyond mid-length, its apex a narrow spatulate blade; the two major rods of the phallosome elongate, with hair-points and brushes surrounding the base of the apical spine; third spinous point a much reduced blackened hook.

Hab. Peru (Junin).

Holotype, ♂, Tulumayo Valley, Tarma, altitude 4000–8000 ft., November 7, 1940 (*Woytkowski*).

Gonomyia (Lipophleps) subtribulator is most similar to *G. (L.) tribulator* Alexander, likewise from Peru, and *G. (L.) projecta* Alexander, of Ecuador and Peru. It differs in the structure of the male hypopygium, especially of the dististyle and very different phallosome.

Gonomyia (Lipophleps) clavifera, sp. n.

Belongs to the *manca* group; antennal scape and pedicel yellow, flagellum black; thoracic pleura brown, conspicuously striped with yellowish white; halteres dusky, the knob paling to obscure yellow; legs brownish black; wings brownish grey, the costal border conspicuously pale yellow; Sc_1 ending immediately before origin of Rs ; male hypopygium with the outer lobe of basistyle and the inner dististyle unusually short and stout; outer dististyle a short compact blackened club,

its apex and outer face densely set with spines; phallosome terminating in a pair of rods that are microscopically denticulate near their tips.

Male.—Length about 3 mm.; wing 3.2 mm.

Rostrum dark brown; palpi black. Antennæ with scape and pedicel obscure yellow, flagellum black; flagellar segments (male) with unusually long verticils. Head yellow, the centre of vertex patterned with dark brown.

Pronotum yellow, darkened laterally. Mesonotal præscutum, scutal lobes and scutellum dark greyish brown, the median region of scutum broadly yellow; postnotum conspicuously light yellow, the posterior portion more reddish brown. Pleura brown, with a very conspicuous, yellowish white, longitudinal stripe extending across the ventral sclerites to base of abdomen; sternopleurite pale, slightly more darkened adjoining the white stripe; dorsopleural region dark. Halteres dusky, the knob paling to obscure yellow. Legs with the fore coxæ yellow; middle coxæ testaceous yellow, the extreme base darkened; posterior coxæ uniform testaceous yellow; trochanters pale brown; legs brownish black, the femora restrictedly paler basally. Wings brownish grey, the costal border conspicuously pale yellow; stigma lacking; veins pale brown. Venation: *Sc* moderately long, *Sc*₁ ending just before origin of *Rs*, *Sc*₂ a short distance from its tip; anterior branch of *Rs* strongly upcurved at margin, cell *R*₃ wide along outer border; cell 1st *M*₂ relatively long, nearly equal to vein *M*₃ beyond it; *m-cu* close to fork of *M*.

Abdominal tergites dark brown medially; sternites and outer segments more variegated with yellow; hypopygium yellow. Male hypopygium (fig. 10) with both the outer lobe of basistyle, *b*, and the inner dististyle, *id*, unusually short, the former about one-half the length of the outer dististyle, the latter even shorter, being essentially semi-oval in outline. Outer dististyle, *od*, appearing as a heavily blackened compact club, its distal half a little enlarged, the apex and outer face densely set with suberect black spines to produce a mace-like appearance. Inner dististyle, *id*, apparently with a single fasciculate seta instead of the usual two, this subequal in length to the style itself. Phallosome, *p*, appearing as a

depressed plate, with two additional paired rods that project beyond it, these terminating in obtuse curved points, the inner margin near apex with a few microscopic denticles.

Hab. Peru (Junin).

Holotype, ♂, Satipo, Jauja, altitude 800–900 metres, March 1, 1941 (*Paprzycki*).

Although superficially resembling various other regional species of the subgenus, the present fly is entirely distinct from all such forms in the structure of the male hypopygium, especially of the outer dististyle.

Gnophomyia (Gnophomyia) lata, sp. n.

General coloration black, sparsely pruinose; antennæ black throughout; halteres very short, stem brownish black, knob brownish yellow; legs brownish black to black; wings relatively broad; abdomen, including genitalia, black; male hypopygium with the distal portion of outer style narrowed into an acute spinous point; inner style with the bulbous apical portion separated from the small base by a very narrow and acute notch.

Male.—Length about 5.5–6 mm.; wing 6–6.7 mm.

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

Rostrum, palpi and antennæ black; flagellar segments oval, the outer ones more elongate-oval; verticils considerably longer than the segments. Head black, sparsely pruinose; eyes relatively large, restricting the width of the vertex.

Pronotum black, the pretergites yellow. Mesonotum black, the surface very sparsely pruinose, somewhat more heavily so on the scutellum. Pleura black, sparsely pruinose; meral region restrictedly obscure yellow. Halteres very short, with large heads; stem brownish black, knob obscure brownish yellow. Legs with the coxæ black, sparsely pruinose; trochanters brownish black; femora brownish black, somewhat paler basally; tibiæ and tarsi passing into black. Wings relatively broad but narrower than in *perlata* membrane with a weak blackish tinge, the extreme wing-base paler; stigma long and narrow, infuscated; veins brown. Venation: *Rs* oblique, in direct alignment with *R*₅, the basal section

of the latter lacking or virtually so ; R_2 usually close to fork of R_{2+3+4} , in cases slightly beyond.

Abdomen, including genitalia, black. Male hypopygium with the outer dististyle moderately long, the distal fourth narrowed into an acute spinous point. Inner dististyle with the apical portion moderately long, bulbous, its apex obtuse, separated from the small base by a very narrow notch or angle.

Hab. Peru (Ayacucho, Junin).

Holotype. ♂, Ayna, La Mar, Ayacucho. altitude 2400 metres, May 27, 1941 (*Woytkowski*). *Allotopotype*, ♀, May 15, 1941. *Paratypes*, 2 ♂♂, Tulumayo Valley, Tarma. Junin, altitude 4000–8000 ft., November 10–December 20, 1940 (*Woytkowski*).

Although closely allied to *Gnophomyia* (*Gnophomyia*) *perlata* Alexander, I consider the present fly to be distinct, differing especially in details of coloration and venation, the slightly narrower wings, and in slight details of structure of the male hypopygium.

Gnophomyia (*Gnophomyia*) *spinibasis*. sp. n.

Allied to *mæstitia* ; general coloration black, including antennæ, halteres and legs ; wings with a weak blackish suffusion, patterned with darker on anterior cord and along vein *Cu* male hypopygium with the ninth tergite relatively long, the caudal border emarginate, with an unbroken row of unusually long and dense black spinous setæ ; outer dististyle a flattened blade. at and near apex with a few denticles ; inner dististyle short, its swollen base provided with numerous strong setæ, its apex unequally bispinous, one spine being long and slender phallosomic plate at apex with a small median notch.

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

Rostrum, palpi and antennæ black ; flagellar segments elongate, fusiform, with truncated ends longest verticils subequal in length to the segments. Head dull black, sparsely pruinose.

Pronotum and mesonotum black, sparsely pruinose, variegated only by a small yellow spot on the anterior pretergal region. Pleura black, sparsely pruinose. Halteres black. Legs with the coxæ black, sparsely pruinose ; trochanters black ; remainder of legs black, the femoral bases very narrowly obscure yellow. Wings with a weak

blackish suffusion, patterned with darker, including a broad band extending from the costal border over the anterior cord and a broad seam in cell *M* adjoining vein *Cu*; stigma long and narrow, still darker brown; veins brownish black. Venation *R*_s relatively short and oblique, in alignment with *R*₅, the basal section of the latter obliterated; *R*₂₊₃₊₄ nearly straight, about one-half

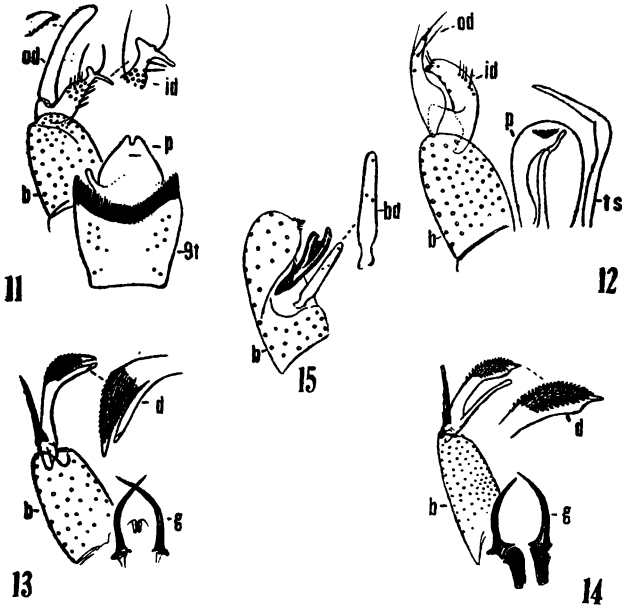


Fig. 11.—*Gnophomyia (Gnophomyia) spinibasis*, sp. n.; male hypopygium.

Fig. 12.—*Neognophomyia hostica*, sp. n.; male hypopygium.

Fig. 13.—*Erioptera (Mesocyphona) factiosa*, sp. n.; male hypopygium.

Fig. 14.—*Erioptera (Mesocyphona) gulosa*, sp. n.; male hypopygium.

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

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

longer than *R*₂₊₃, the latter a little longer than *R*₁₊₂; veins *R*₃ and *R*₄ long, extending generally parallel to one another for most of their lengths, gently deflected outwardly cell 1st *M*₂ long and narrow, subequal to vein

M_4 beyond it; $m-cu$ at from one-third to two-fifths the length of cell 1st M_2 .

Abdomen, including hypopygium, black. Male hypopygium (fig. 11) with the tergite, 9t, relatively long slightly wider on posterior half; caudal margin broadly and rather deeply emarginate, provided with an unbroken row of dense, unusually long, black, spinous setæ, these totalling approximately 100 in number. Basistyle, b , without spinous setæ on mesal face, there being a single slender seta near the cephalic end. Outer dististyle, od , a narrow flattened blade, its tip obtuse, the apex and outer margin before tip with a few denticles, the more basal ones obtuse and slightly retrorse. Inner dististyle, id , short, the base swollen and provided with numerous strong setæ; distal third narrowed into a neck, the apex unequally bispinous, one of the points long and slender. Phallosomic plate, p , darkened, strongly narrowed outwardly, the apex with a narrow median notch delimiting two slender black lobes.

Hab. Peru (Junin).

Holotype, ♂, Tulumayo Valley, Tarma, altitude 4000–8000 ft., November 10, 1940 (*Woytkowski*).

Gnophomyia (*Gnophomyia*) *spinibasis* is most similar to *G. (G.) distifurcula* Alexander, differing in all details of structure of the male hypopygium, especially the tergite, outer dististyle, inner dististyle and the phallosome.

Neognophomyia hostica, sp. n.

General coloration of mesonotum reddish yellow; scutal lobes and posterior portion of mediotergite darkened; katapleurotergite with a conspicuous oval black area; legs yellow, the outer tarsal segments darkened; wings with a yellow tinge; a narrow brown cloud across the cord; male hypopygium with the outer dististyle very slender; inner dististyle and phallosome terminating in restricted blackened points; tergal spines pale, weakly angulated at near two-thirds their length.

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

Rostrum yellow palpi yellow, the outer segments pale brown. Antennæ with the scape obscure brownish yellow; pedicel and flagellum brown; flagellar segments oval, with abundant and conspicuous verticils. Head

pale brown, the front and narrow anterior vertex pale yellow.

Pronotum reddish yellow pretergites pale yellow. Mesonotum reddish yellow, the lateral portions of præscutum paler; scutal lobes more infuscated; post-notal mediotergite infuscated on posterior lateral portions; katapleurotergite chiefly occupied by an oval blackened area. Pleura reddish yellow, vaguely patterned on anepisternum and ventral sternopleurite with more reddish areas. Halteres with stem yellow, knob weakly infuscated. Legs with coxæ and trochanters yellow; remainder of legs yellow, the outer tarsal segments infuscated. Wings with a yellow tinge; a narrow brown cloud extends partly across the wing from stigma along cord through *m-cu*; veins brown, darker in the clouded area. Venation Sc_1 ending about opposite R_2 , Sc_2 far from its tip, about opposite two-fifths the length of R_s ; R_2 before mid-length of petiole of cell R_3 ; *m-cu* about opposite two-fifths the length of cell 1st M_2 .

Basal abdominal tergites pale yellow medially, dark brown laterally; outer segments more uniformly darkened; hypopygium, especially the basistyles, brownish black; basal sternites yellow, pale brown on sides. Male hypopygium (fig. 12) with the outer dististyle, *od*, very slender, only gently curved to the apex, provided with about four setæ on distal half. Inner dististyle, *id*, stouter, with a strong basal lobe or flange, terminating in a short, blunt, blackened beak. Phallosome, *p*, bearing a very low triangular blackened point near apex. The so-called "tergal spines" appear as pale slender rods, arcuated or weakly bent at near two-thirds the length, the apical portion a flattened swordlike blade.

Hab. Peru (Junin).

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

Neognophomyia hostica is closest to *N. trinitatis* Alexander, of Trinidad. It differs in the venation, as the even more decurved vein R_4 , which here passes the wing-tip, and in the longer cell 1st M_2 . It also differs in all details of structure of the male hypopygium, especially of both dististyles, the phallosome and the tergal spines. The actual homologies of these latter structures still remain much in question.

Erioptera (Mesocyphona) factiosa, sp. n.

General coloration of mesonotum dark brown, the præscutum without pattern; antennal flagellum pale, scape and pedicel black; thoracic pleura black, striped with obscure yellow; knobs of halteres weakly darkened; legs yellow, the fore and middle femora with a brown subterminal ring, the posterior femora with two such annuli; wings with a weak brown tinge, unpatterned; cell M_2 open by atrophy of basal section of M_3 ; abdomen, including hypopygium, black; male hypopygium with the dististyle bearing a pale ventral branch at near mid-length, the axial portion shingled with appressed black spines; near base on outer face of style with a conspicuous black spine.

Male.—Length about 2.5 mm. wing 2.9 mm.

Rostrum and palpi black. Antennæ with scape, pedicel and first flagellar segment blackened, the remainder of flagellum pale brown; pedicel large. Head brownish grey, the front and narrow orbits pale.

Pronotum dark brown medially, yellow on sides. Mésonotal præscutum and scutum dark brown, without distinct pattern; scutellum testaceous yellow; postnotum brownish black. Pleura black, variegated by obscure yellow, including the dorsopleural membrane and a ventral longitudinal stripe extending from behind the fore coxæ, crossing the dorsal sternopleurite, pteropleurite and ventral pleurotergite to the base of abdomen, wider posteriorly. Halteres yellow, knobs weakly darkened. Legs with coxæ testaceous yellow, the fore pair darker; trochanters obscure yellow; femora obscure yellow, with a conspicuous subterminal brown ring, on the posterior femora with two such rings, these slightly more extensive than the interspace and pale apex; tibiæ and tarsi yellow, the outer tarsal segments slightly darker. Wings with a weak brown tinge, the prearcular and costal borders slightly darker; veins pale brown. Venation Cell M_2 open by atrophy of basal section of M_3 ; cell 2nd M_2 deep, approximately five times its petiole; *m-cu* about one-third its length before fork of *M* vein 2nd *A* gently sinuous.

Abdomen, including hypopygium, black. Male hypopygium (fig. 13) with the dististyle, *d*, bearing a conspicuous

slender black spine on outer face at base, this spine about two-thirds as long as body of style; the latter is stout-stemmed, dilated on distal half, thence narrowed to an acute point; on ventral edge at near mid-length the body of style bears a slender flattened lateral branch, its tip constricted or twisted; distal half of style, excepting the apex, densely shingled with appressed blackened spines. Gonapophyses, *g*, appearing as long, gently curved black rods, their decussate tips acute.

Hab. Peru (Junin).

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

Erioptera (*Mesocyphona*) *factiosa* is closest to species such as *E. (M.) invariegata* Alexander, differing in the pattern of the legs and in the structure of the male hypopygium.

Erioptera (*Mesocyphona*) *gulosa*, sp. n.

Allied to *invariegata*; mesonotum dark brown, very sparsely pruinose, without stripes; thoracic pleura dark brown, vaguely striped longitudinally with brownish grey knobs of halteres weakly darkened; femora obscure yellow, with a weak and poorly defined subterminal ring; wings tinged with light brown, unpatterned; male hypopygium with the outer and inner branches of the dististyle arising at base of the axial portion, the latter on distal half provided with appressed spines and erect bulbous protuberances.

Male.—Length about 2.8 mm.; wing 3 mm.

Rostrum and palpi black. Antennæ black, the outer flagellar segments much paler basal flagellar segments subcylindrical, the outer segments more attenuated, with conspicuous verticils. Head dark brown.

Thoracic dorsum dark brown, very sparsely pruinose, the præscutum without stripes; pretergites very restrictedly paler; scutellum testaceous posteriorly. Pleura chiefly dark brown, vaguely striped longitudinally with more brownish grey, including the dorsopleural region and a stripe across the ventral pleurites from behind the fore coxæ to the base of abdomen, passing beneath the root of halteres. Halteres with base of stem yellow, knob weakly darkened. Legs with the coxæ brownish testaceous, the fore pair much darker trochanters

obscure yellow; femora obscure yellow, with a weak and poorly-defined brown subterminal ring, on the posterior femora with vague indications of second ring just beyond mid-length of the segment; tibiae and basitarsi obscure yellow, the outer tarsal segments passing into dark brown. Wings with a light brown tinge, the prearcular and costal fields more yellow; veins very pale brown, trichia darker; veins in the flavous portions more brightened. Venation: Sc_1 ending about opposite the fork of R_s , Sc_2 not clearly present; petiole of cell 2nd M_2 about one-third the length of cell; vein 2nd A very gently sinuous.

Abdomen, including hypopygium, dark brown, still darker laterally. Male hypopygium (fig. 14) with the basistyle, b , elongate. Dististyle, d , bearing a long outer blackened branch or style, this with about three denticles on outer half of basal third; main body of style elongate, on upper surface of distal half provided with a covering of erect bulbous projections, on the sides these more appressed and spinous, the lateral series consisting of a row of about a dozen strong spines; inner branch or style arising far basad, about on a level with the outer arm and subequal in length and thickness to this latter. Gonapophyses, g , smooth, blackened, tapering to long acute spinous tips.

Hab. Peru (Junin).

Holotype, ♂, Tulumayo Valley, Tarma, altitude 4000–8000 ft., November 8, 1940 (*Woytkowski*).

Erioptera (*Mesocyphona*) *gulosa* is quite different from other regional allies having unpatterned wings and inconspicuously banded femora. It is readily distinguished by the structure of the male hypopygium, especially the basal position of the inner branch of the dististyle.

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

Belongs to the *plagiatus* group mesonotal præscutum obscure yellow on sides, darkened medially; posterior sclerites of notum dark brown; wings whitish subhyaline, veins and macrotrichia brown; male hypopygium with the beak of basistyle slender; outer dististyle with the arms relatively short and inconspicuous, separated by a circular notch; basal dististyle a weak pale rod, flattened, the tip obtuse.

Male.—Length about 2.5 mm. ; wing 3.2 mm. antenna about 0.9 mm.

Rostrum and palpi black. Antennæ black throughout, of moderate length; flagellar segments oval, with truncated ends, the more basal segments with unusually long verticils, these exceeding three times the length of the segment; all segments with shorter, more delicate, erect pubescence. Head brown.

Pronotum light brown; pretergites whitish. Mesonotal præscutum obscure yellow on sides, broadly infuscated medially, the latter area delimited by rows of black setæ; scutal lobes obscure yellow, the median region and posterior sclerites of mesonotum dark brown. Pleura with the broad central portion infuscated, the dorsopleural region and ventral sclerites obscure yellow, the latter involving the ventral sternopleurite and meron. Halteres infuscated, the base of stem yellow. Legs with the coxæ and trochanters obscure yellow, the fore coxæ darker; remainder of legs black, the femoral bases restrictedly obscure yellow. Wings relatively narrow, whitish subhyaline, the prearcular field more yellowish; veins and the long macrotrichia dark brown. Venation: R_2 lying a trifle proximad of level of $r-m$; petiole of cell M_3 exceeding three times the length of $m-cu$; vein 2nd A gently sinuous, ending about opposite $m-cu$.

Abdomen brownish black, the hypopygium a little brightened. Male hypopygium (fig. 15) with the beak of basistyle, b , slender. Outer dististyle compact, the arms relatively short and inconspicuous, separated from one another by a circular notch. Basal dististyle, bd , a weak pale rod, flattened, the apex obtuse; surface of style with about three setigerous punctures, placed on distal half. Ædeagus long and slender, pale.

Hab. Peru (Junin).

Holotype, ♂, Satipo, Jauja, altitude 800–900 metres, March 6, 1941 (*Paprzycki*).

Molophilus (Molophilus) perdebilis is most similar to *M. (M.) debilior* Alexander, of Ecuador, which differs in the coloration, the broader wings, and, especially, in the structure of the male hypopygium, notably the very slender beak of basistyle and the quite different construction of the outer and basal dististyles.