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NEW OR LITTLE-KNOWN TIPULIDÆ.

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

THE species discussed herewith are all from Peru, where they were collected by my friends, Mr. Pedro Paprzycki and Mr. Felix Woytkowski, who have added most materially to our knowledge of the crane-fly fauna of the country. I am indebted to the collectors for the privilege of retaining all types in my private collection of World Tipulidæ.

Limonia (Limonia) horrenda, sp. n.

Size large (wing, male, over 13 mm.) ; general coloration of mesonotum brown, the thoracic pleura stripes with dark brown and pale yellow halteres brownish black ;

legs black, the extreme tips of femora whitened; wings brownish yellow, conspicuously patterned with dark brown; *Rs* square and long-spurred at origin; male hypopygium with the rostral spines of the ventral dististyle broadly flattened, at their tips produced into hair-like points.

Male.—Length about 11 mm.; wing 13.5 mm.

Rostrum and palpi black. Antennæ black throughout; flagellar segments oval, passing through long-oval to subcylindrical, with very short, glabrous, apical pedicels, the first flagellar segment with a slender glabrous base; terminal segment elongate, more than one-half longer than the penultimate, strongly constricted beyond mid-length; flagellar segments with one outstanding verticil on each segment, these unilaterally distributed. Head brownish black, the anterior vertex silvery grey; anterior vertex very narrow, only about one-fourth the diameter of scape, the eyes correspondingly large.

Pronotum dark brown. Mesonotum chiefly dark brown, the humeral and lateral portions of præscutum broadly obscure yellow; mediotergite obscure brownish yellow behind, the cephalic portion sparsely pruinose. Pleura pale yellow, striped longitudinally with brownish black, including a complete dorsal stripe extending from the propleura and ventral pronotum, across the dorsal mesopleura, through the pleurotergite to the postnotum; ventral sternopleurite less distinctly infuscated; dorso-pleural region narrowly yellow. Halteres brownish black, the base of stem narrowly yellow. Legs with coxæ yellow, the extreme bases of the fore and middle pairs a little darker; trochanters yellow; remainder of legs black, the fore femora a little paler basally; extreme tips of all femora very narrowly whitened; claws conspicuously toothed. Wings brownish yellow, conspicuously patterned with dark brown, including the oval stigma and clouds at origin of *Rs*, fork of *Sc*, and as broad seams along cord and outer end of cell 1st M_2 ; wing-tip and cells *R* and *M* much less clearly darkened; veins light brown, darker in the patterned areas. Venation: *Ss* long, Sc_1 ending about opposite three-fourths *Rs*, Sc_2 near its tip; *Rs* square and long-spurred at origin; free tip of Sc_2 in approximate transverse alignment with R_2 ; basal section of R_3 strongly arcuated, the inner ends

of cells R_3 and 1st M_2 lying proximad of cell R_3 ; cell 1st M_2 elongate, exceeding in length any of the veins beyond it; *m-cu* close to the fork of M .

Abdominal tergites brownish black; segments one and base of two obscure yellow; sternites more evidently brightened, black, the caudal borders of the proximal three or four segments yellow; hypopygium chiefly blackened, the ventral dististyle paler. Male hypopygium (fig. 1) with the tergite, *9t*, transverse, the caudal margin with two broadly rounded lobes that are provided with several unusually long strong setæ. Basistyle, *b*, with the ventromesal lobe very broad and obtuse. Dorsal dististyle, *dd*, a strong rod, its decurved head terminating in an acute spine, the surface glabrous except near base. Ventral dististyle, *vd*, with the main body a relatively small fleshy lobe, its outer portion provided with abundant strong setæ, including one or two of unusual length on a small tubercle near base of rostrum; rostral prolongation of style at base with numerous silken setulæ, the two usual spines widely separated, each broadly flattened and produced into a hairlike point; rostral prolongation relatively narrow, obtuse at apex. Gonapophyses, *g*, with the mesal-apical lobe a nearly straight blackened rod.

Hab. Peru (Ayacucho).

Holotype, ♂, Tambo, La Mar, altitude 3700 metres, July 26, 1941 (*Woytkowski*).

In its general appearance, the present fly resembles species such as *Limonia* (*Limonia*) *grossa* Alexander, *L.* (*L.*) *pernobilis* Alexander, and others, but from the structure of the male hypopygium it evidently is more allied to the various species that centre around *L.* (*L.*) *lawlori* Alexander, including *L.* (*L.*) *immodica* Alexander, *L.* (*L.*) *toraimæ* Alexander, and others, from all of which it differs conspicuously in the coloration of the body, legs and wings, and in the structure of the male hypopygium.

Limonia (*Dicranomyia*) *præcellens*, sp. n.

Size large (wing, male, over 8 mm.); antennæ with scape and pedicel yellow, flagellum black; general coloration grey, the præscutum with four poorly differentiated darker stripes; halteres long and slender; legs yellowish brown to brown, outer tarsal segments black; wings brownish yellow, restrictedly patterned with darker,

including a conspicuous brown stigma ; Sc_1 long, one-half or more as long as R_s ; $m-cu$ before fork of M ; abdomen bicoloured, the segments dark brown, with yellow borders,

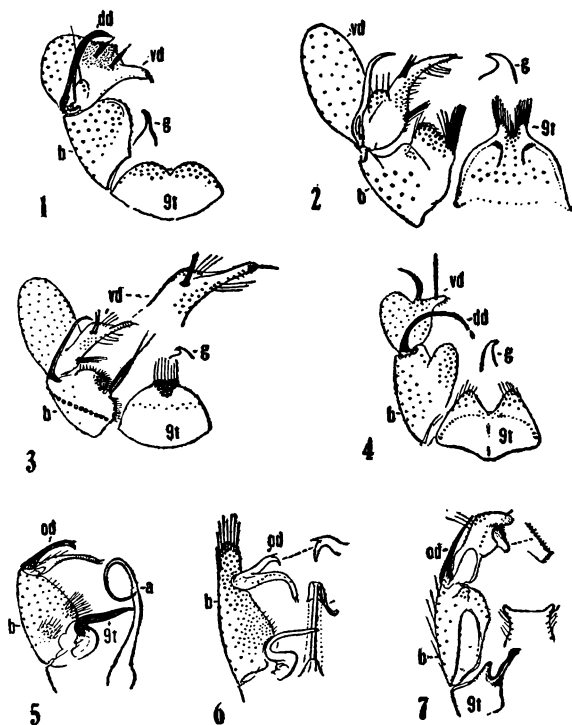


Fig. 1.—*Limonia (Limonia) horrenda*, sp. n. ; male hypopygium.
 Fig. 2.—*Limonia (Dicranomyia) præcellens*, sp. n. ; male hypopygium.
 Fig. 3.—*Limonia (Dicranomyia) quadrigladiæ*, sp. n. ; male hypopygium.
 Fig. 4.—*Limonia (Dicranomyia) nefasta*, sp. n. ; male hypopygium.
 Fig. 5.—*Helius (Helius) regius*, sp. n. ; male hypopygium.
 Fig. 6.—*Helius (Helius) productellus*, sp. n. ; male hypopygium.
 Fig. 7.—*Helius (Helius) acanthostyla*, sp. n. ; male hypopygium.

(Symbols ; *a*, aedeagus ; *b*, basistyle ; *dd*, dorsal dististyle ; *g*, gonapophysis ; *id*, inner dististyle ; *od*, outer dististyle ; *t*, tergite ; *vd*, ventral dististyle.)

those of the sternites broader ; male hypopygium complex ; ninth tergite conspicuously notched medially, produced into two submedian lobes that are conspicuously fringed with pale spinous setæ ; ventral dististyle and basistyle with groups of modified setæ.

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

Rostrum and palpi black. Antennæ with scape and pedicel yellow, the former a trifle pruinose ; flagellum black ; basal flagellar segments short-oval, the outer segments much more elongated, the terminal segment about one-third longer than the penultimate ; verticils of the more proximal segments slightly conspicuous, on the outer segments much smaller. Head clear light grey, slightly more infuscated on either side of posterior vertex ; anterior vertex moderately wide, about two and one-half times the diameter of scape.

Pronotum light brown, somewhat darker and more pruinose behind. Mesonotum almost uniform dark grey, the præscutum with four scarcely to feebly differentiated darker brownish grey stripes ; central portion of scutum, the scutellum and postnotum lighter grey. Pleura brownish grey, sparsely pruinose, with indications of a paler area on the sternopleurite and meral region ; a conspicuous dark brown spot on ventral anepisternum, extending forward on to the anterior coxa ; ventral sternopleurite a little darkened. Halteres long and slender, blackened, the base of stem restrictedly yellow. Legs with the fore coxæ darkened, as described, the other pairs yellowish brown ; trochanters obscure yellow ; remainder of legs long and slender, yellowish brown to brown, the outer tarsal segments passing into black. Wings with a strong brownish-yellow ground, the costal and outer radial fields even more saturated ; a relatively small but conspicuous dark brown stigma ; a restricted brown cloud at origin of *Rs* and along cord and outer end of cell 1st M_2 ; veins yellow, darker in the patterned areas. Venation : *Sc* short, Sc_1 ending opposite origin of *Rs*, Sc_2 some distance from its tip, Sc_1 alone being from more than one-half to two-thirds the length of *Rs* ; cell 1st M_2 relatively small, rectangular ; M_{3+4} subequal to M_4 ; *m-cu* shortly before fork of *M*.

Abdominal tergites dark brown, the caudal borders of the segments narrowly yellow ; ninth tergite more uniformly pale ; sternites broadly yellow at apices, their bases narrowly darkened. Male hypopygium (fig. 2) with the ninth tergite, 9*t*, narrowly outwardly, terminating in two conspicuous submedian lobes that are separated

by a V-shaped notch, the lobes and margin fringed with strong spinous yellow setæ. Basistyle, *b*, with the ventromesal lobe broad at apex, its cephalic portion with a strong brush or pencil of flattened yellow setæ; the more caudal portions of the lobe with shorter, more normal setæ and an apical row of short curved flattened spinous setæ. Dorsal dististyle a gently curved rod, constricted on proximal third, narrowed to the long-spined tip. Main body of ventral dististyle, *vd*, a large fleshy lobe that is loosely joined to the rostral portion, the latter with the two spines nearly appressed, placed before mid-length of the prolongation; ventral portion of prolongation with several spines, including a more basal tuft or pencil. Gonapophyses, *g*, with mesal-apical lobe relatively short and simple.

Hab. Peru (Ayacucho).

Holotype, ♂, Yanamonte, La Mar, altitude 3000–4100 metres, in fog forests, September 9, 1941 (*Woytkowski*).
Paratopotype, ♂, September 10, 1941 (*Woytkowski*).

Despite its very different general appearance, the present fly seems to be most nearly related to *Limonia* (*Dicranomyia*) *bigladiæ* Alexander. It differs in its large size, patterned wings, and, especially, in the structure of the male hypopygium, as the tergite, basistyle and ventral dististyle.

Limonia (*Dicranomyia*) *quadrigladiæ*, sp. n.

Allied to *bigladiæ*; general coloration of mesonotum brownish grey, the præscutum with a broad, dark brown, median stripe; rostrum and antennal scape yellow; anterior vertex relatively wide, silvery white; halteres very long, subequal in length to the thorax; wings buffy, unpatterned; *Sc*₁ about equal in length to *Rs*; male hypopygium with the tergite terminating in two closely applied submedian groups of setæ; each basistyle, in addition to other armature, provided with two powerful flattened setæ of unusual length.

Male.—Length about 7 mm.; wing 8 mm.

Rostrum yellow; palpi black. Antennæ with scape light yellow; pedicel light brown; flagellum black; flagellar segments long-oval to subcylindrical; verticils shorter than the segments. Head grey, the broad front

more silvery white; anterior vertex about twice the diameter of scape.

Pronotum dark brown, paling to buffy on sides. Mesonotum generally brownish grey; præscutum with a broad conspicuous, dark brown, median stripe and very restricted and ill-defined lateral stripes, the humeral region more buffy; scutal lobes brownish grey; central region of scutum and scutellum more whitened; postnotum light grey pruinose. Pleura buffy grey; a small darkened spot on border between anepisternum and sternopleurite. Halteres very long and slender, about equal in length to the entire thorax; black, the extreme base of stem paler. Legs with the coxæ pale, sparsely pruinose, fore and posterior pairs a trifle darker; trochanters obscure yellow; remainder of legs brownish yellow, the outer segments passing into black. Wings buffy, the stigma not differentiated; prearcular and costal fields a little more yellow, best evidenced by the more yellowish veins. Venation: *Sc* short, *Sc*₁ ending shortly before origin of *Rs*, *Sc*₂ far from its tip, *Sc*₁ alone subequal to or a little longer than *Rs*; cell 1st *M*₂ about as long as vein *M*₄; *m-cu* a short distance before fork of *M*.

Abdominal tergites dark brown, the outer tergites a little paler; sternites yellow, with more darkened basal rings; hypopygium somewhat paler. Male hypopygium (fig. 3) with the tergite, *9t*, large, suboval in outline, the convex caudal portion with two closely appressed submedian lobes that are densely set with long setæ, there being a total of about forty of these; major setæ of surface of tergite more or less restricted to a transverse row at near mid-length. Basistyle, *b*, with the ventromesal region complex, with a broad low lobe that is densely set with short spinous setæ and two closely approximated elongate flattened spinous setæ; cephalad of these latter with a low cushion fringed with long pale setæ; across face of body of style with an oblique row of about ten to twelve powerful setæ. Dorsal dististyle a slender delicate pale rod that terminates in an acute tip. Ventral dististyle, *vd*, relatively large, the main lobe loosely connected with the rostral portion, the latter broad, at near two-thirds its length suddenly narrowed to a cylindrical point; rostral spines two, of moderate length, directed outward; near base of rostral prolongation on margin with a small brush

or tuft of setæ. Gonapophyses, *g*, with the mesal-apical lobe unusually short and inconspicuous.

Hab. Peru (Junin).

Holotype, ♂, Huasahuasi, Tarma, altitude 2800 metres, April 15, 1940 (*Woytkowski*).

The nearest ally is *Limonia* (*Dicranomyia*) *bigladiæ* Alexander, likewise from high altitudes in the Peruvian Andes. This latter differs in all details of structure of the male hypopygium, especially the lobes of the tergite, the single modified seta of each basistyle, and the details of the ventral dististyle.

Limonia (*Dicranomyia*) *nefasta*, sp. n.

General coloration brownish grey antennæ black throughout; halteres blackened, base of stem pale; legs obscure yellow, the outer tarsal segments brownish black; wings brownish yellow, the oval stigma pale brown; male hypopygium with tergite conspicuously notched medially; ventral dististyle small, the rostral prolongation with two spines, the outermost slender, straight; inner spine appearing as a flattened curved blade arising from a small basal tubercle.

Male.—Length about 6.5–7 mm.; wing 8 mm.

Female.—Length about 7–7.5 mm.; wing 8–8.5 mm.

Rostrum obscure testaceous yellow, moderately long and without a well-defined notch between it and the front; palpi black. Antennæ black; flagellar segments oval, the outer ones more elongate. Head brownish grey anterior vertex a little wider than the diameter of scape.

Pronotum brown. Mesonotal præscutum brownish grey medially, forming a more or less distinct central stripe, the humeral and lateral portions paler; posterior sclerites of notum distinctly pruinose; mesonotum relatively high and gibbous. Pleura pale, sparsely pruinose, the dorsal sclerites darker. Halteres relatively long, blackened, the base of stem pale. Legs with the coxæ and trochanters pale yellow femora brownish yellow, brighter basally; tibiæ and basitarsi pale brownish yellow, the outer segments passing into brownish black. Wings with a brownish yellow tinge, the oval stigma pale brown; veins brown. Venation: *Sc*₁ ending opposite origin of *Rs*, *Sc*₂ a short distance from its tip, *Sc*₁ alone about equal in length to *R*₂; cell 1st *M*₂ relatively

large, nearly as long as vein M_{1+2} beyond it; *m-cu* close to fork of *M*.

Abdominal tergites dark brown, paler laterally; basal sternites pale, the outer segments darker; ovipositor with the cerci long and slender, the acute tips gently upcurved. Male hypopygium (fig. 4) with the tergite, 9t, conspicuously notched medially, each lobe subequal in outline to the notch itself. Basistyle, *b*, with the ventromesal lobe large, simple. Dorsal dististyle, *dd*, a long, slender, strongly curved rod. Ventral dististyle, *vd*, small, its total area from one-half to two-thirds that of the basistyle; rostral prolongation slender, with two widely separated spines, the outer one close to the tip of the prolongation, appearing as a long straight slender spine that exceeds the prolongation in length; inner spine at base of prolongation, appearing as a flattened curved blade arising from a small basal tubercle. Gonapophyses, *g*, with mesal-apical lobe relatively slender.

Hab. Peru (Ayacucho).

Holotype, ♂, Yanamonte, La Mar, altitude 3000–4100 metres, in fog forests, October 11, 1941 (*Woytkowski*).

Allotopotype, ♀, pinned with type. *Paratopotype*, ♀

The nearest relative of the present fly is *Limonia* (*Dicranomyia*) *latispina* Alexander, which has the structure of the male hypopygium, including the tergite, generally similar but differs conspicuously in the nature of the rostral spines, both of which appear as flattened blades. In the present fly, the slender, straight, outer spine is distinctive of the species.

Helius (*Helius*) *regius*, sp. n.

Allied to *albitarsis*; size very large (wing, 11 mm. or more); mesonotal præscutum reddish brown, the posterior sclerites and pleura variegated with darker; tarsi with tips narrowly whitened, involving about the distal seventh of the basitarsus, as well as the succeeding segments; wings strongly tinged with brown, the stigma darker; male hypopygium with the tergal arms narrowed on outer portion.

Male.—Length about 8.5–9 mm.; wing 11–12 mm.

Female.—Length about 9.5 mm.; wing 11 mm.

Rostrum black, relatively long, about one-half longer than the remainder of head; palpi black. Antennæ

black; flagellar segments long-oval to subcylindrical, especially the outer ones; verticils conspicuous, nearly twice the length of segments. Head brownish black, more yellow pollinose in front; anterior vertex (male) narrow, about equal in diameter to scape.

Thoracic dorsum reddish brown in front, the præscutum weakly infuscated medially behind; scutal lobes with their centres conspicuously dark brown; scutellum with disk dark brown, the lateral and posterior borders narrowly pale; mediotergite dark brown on cephalic half, the posterior portion more reddish brown; pleurotergite dark brown. Pleura chiefly darker brown than the dorsum, including the dorsopleural membrane; ventral sternopleurite more brightened. Halteres brownish black, relatively long. Legs with coxæ relatively dark brown, the tips paler, especially of the fore pair; trochanters testaceous yellow; femora and tibiae dark brown; basitarsi dark brown to brownish black, the tips rather narrowly whitened, including about the outer seventh or eighth; remainder of tarsi white; claws simple. Wings with a strong brownish tinge, the elongate stigma still darker brown; costal region and a seam along basal half of vein *Cu* slightly darkened; veins dark brown. Venation: *Sc*₂ ending about opposite *r-m*, faint to sub-atrophied; *r-m* distinct but sometimes very shortened; cell 1st *M*₂ large, approximately as long as vein *M*₄ beyond it; *m-cu* at near mid-length of cell and about opposite *r-m*.

Abdomen black; hypopygium brownish yellow. Ovipositor with valves long and very slender, especially the cerci. Male hypopygium (fig. 5) with the basistyle, *b*, relatively stout, with numerous setæ, including a group of longer, more delicate bristles on cephalic portion of mesal face and a more lateral aggregation of shorter and stouter bristles. Outer dististyle, *od*, small and slender, curved at apex into a strong point, with a smaller, more slender spine on outer face before apex. Inner dististyle longer and more slender, particularly the distal half. Lateral tergal rods, with basal half stout, thence strongly narrowed to the subacute tip, the outer portion apparently subcylindrical rather than strongly flattened, as in various allied species.

Hab. Peru (Ayacucho).

Holotype, ♂, Yanamonte, La Mar, altitude 3000–4,100 metres, September 10, 1941 (*Woytkowski*). *Allotopotype*, ♀, September 19, 1941. *Paratopotypes*, 3 ♂♂, September 10–October 1, 1941 (*Woytkowski*).

Helius (Helius) regius is the largest and most conspicuous member of the *albitarsis* group so far discovered. It is best distinguished by this feature and by the details of structure of the hypopygium, especially the tergal arms, and the distribution of setæ on the basistyle.

Helius (Helius) parvidens, sp. n.

Belongs to the *albitarsis* group; general coloration of mesothorax reddish brown; head black; halteres brownish black; legs brownish black, the tarsi extensively white; wings with a brownish tinge, the oval stigma still darker; male hypopygium with the lateral tergal blades strongly bent before mid-length, thence extended into long flattened points, their tips acute; basistyle with a concentration of unusually long setæ on mesal face near proximal end; outer dististyle shorter than the inner, the apical teeth relatively small; ædeagus elongate.

Male.—Length about 6.5 mm.; wing 7 mm.; antenna about 0.9 mm.

Rostrum black, about equal in length to the remainder of head palpi black. Antennæ unusually short, black throughout; flagellar segments long-oval, with long conspicuous verticils; remaining vestitute unusually short and inconspicuous. Head black; anterior vertex narrow, less than one-half the diameter of scape.

Pronotum infuscated medially, paler on sides. Mesonotum rich reddish brown, the humeral region of præscutum and median region of scutum obscure yellow; scutellum infuscated medially, yellow on sides. Pleura uniform reddish. Halteres brownish black, the base of stem restrictedly yellow. Legs with the coxæ and trochanters yellow; remainder of legs brownish black, the distal third of basitarsi and all succeeding segments white. Wings with a brownish tinge, the oval stigma darker brown; a more or less distinct brown wash across proximal ends of anal and cubital cells, continued along vein *Cu* to near mid-length; veins brown. Venation: *Sc*₂ ending just before fork of *Rs*, *Sc*₁ atrophied; anterior

branch of *Rs* strongly sinuous beneath the stigma; *r-m* obliterated by a short fusion of R_{4+5} and M_{1+2} ; cell 1st M_2 relatively large, irregularly hexagonal; *m-cu* more than its own length beyond fork of M cell 2nd A relatively narrow.

Abdominal tergites dark brown; sternites obscure yellow. Male hypopygium with the lateral tergal rods strongly bent before mid-length, thence extended into long flattened blades, their tips acute. No lobule on mesal face of basistyle but with a concentration of unusually long setæ near base. Outer dististyle shorter than the inner, the apical teeth relatively small, especially the subterminal one. *Ædeagus* elongate, not blackened, subtended by pale membrane.

Hab. Peru (Junin).

Holotype, ♂, Satipo, Jauja, altitude 800–900 metres, July 23, 1940 (*Paprzycki*).

Helius (Helius) parvidens is closest to species such as *H. (H.) ineptus* Alexander and *H. (H.) lobuliferus* Alexander, differing from both especially in the details of structure of the male hypopygium. For a description of the type region, see *Paprzycki*, 'Revista Chilena Historia Natural,' xlv. pp. 390–392, 3 figs.; 1940.

Helius (Helius) productellus, sp. n.

Belongs to the *albitarsis* group; general coloration of mesonotal præscutum reddish brown, the posterior sclerites of notum and the pleura darker; posterior portion of mediotergite with paired obscure yellow areas; legs black, the outer end of basitarsus and remaining tarsal segments snowy white; wings with a strong brownish tinge, the stigma darker *r-m* distinct, *m-cu* lying far distad, male hypopygium with the basistyle produced beyond the origin of dististyles as a stout lobe that is nearly as long as the total length of the outer style.

Male.—Length about 7.5 mm.; wing 8.5 mm.

Rostrum and palpi black, the former about as long as remainder of head. Antennæ broken. Head black.

Pronotum brownish black. Mesonotal præscutum reddish brown, without pattern; posterior sclerites of notum darker brown, the median area of scutum and posterior median border of præscutum paler; posterior border of

mediotergite with paired obscure yellow areas. Pleura brown, the dorsal portions, including the dorsopleural membrane, brownish black. Halteres brownish black, the base of stem a trifle paler. Legs with the coxæ dark brown; trochanters a little paler; remainder of legs black, the distal fifth or sixth of basitarsus, together with the remainder of tarsi, white. Wings with a strong brownish tinge, the elongate stigma darker brown; costal border, seams along veins *M* and *Cu*, and the bases of the anal cells less evidently darker; veins dark brown. Venation: *Sc*₂ ending shortly beyond level of *r-m*, *Sc*₁ near its tip, short and subatrophied; *r-m* distinct; *m-cu* far distad, the distal section of *M*₃₊₄ about two-thirds its length; cell 2nd *A* relatively narrow.

Abdominal tergites dark brown; basal sternites faintly brightened. Male hypopygium (fig. 6) with the basistyle, *b*, produced beyond origin of dististyle as a stout lobe that is almost as long as the total length of the outer dististyle; no other modified lobes on basistyle. Outer dististyle, *od*, at apex strongly curved to an acute point, with a much smaller, slender, subapical spine on outer margin. Inner dististyle longer, darkened throughout its length. Ædeagus, *a*, straight, the recurved tip relatively short; the actual ædeagus slender, subtended by nearly hyaline membrane that becomes more coloured before the recurved portion. Lateral tergal arms appearing as slender, strongly sinuous rods.

Hab. Peru (Ayacucho).

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

Helius (Helius) productellus is well-distinguished from other generally similar members of the *albitarsis* group by the structure of the male hypopygium, especially the subterminal insertion of the dististyles. All other described species, with the exception of *H. (H.) quadrifidus* Alexander, have the dististyles terminal in position; this latter fly differs conspicuously in the venation and in the details of structure of the male hypopygium. The structure here described as representing a lateral arm or rod of the tergite appears to be this, as it is in the cases of various Pediciine genera, the *Dolichopezaria*, *Dicranopycha*, and certain other groups. The only other homology possible would seem to be that it represents an interbase.

Helius (Helius) acanthostyla, sp. n.

Allied to *albogeniculata*; general coloration of entire body black, only the mesonotal præscutum slightly brightened; antennal scape and pedicel black, flagellum abruptly light yellow femora yellow, with a broad black subterminal ring, the extreme tips abruptly snow-white; tips of tibiæ and the tarsi white; wings brown, more conspicuously so at base and apex; stigma large, darker brown, preceded and followed by more yellowish areas; macrotrichia of veins reduced in number; male hypopygium with the inner dististyle bilobed, one lobe with abundant acute spinulæ.

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

Rostrum a little shorter than remainder of head, polished black; palpi black. Antennæ with scape and pedicel black, flagellum abruptly light yellow, broken at near mid-length; flagellar segments subcylindrical, with elongate verticils that are unilaterally distributed. Head brownish black.

Pronotum black. Mesonotal præscutum dark reddish brown, the remainder of notum and the pleura black. Halteres black throughout. Legs with the coxæ and trochanters black; femora yellow on about the proximal two-thirds to three-fourths, thence deepening to black, the extreme tips abruptly snow-white; tibiæ yellow, a little more obscure on proximal portion, the base narrowly whitened, the tip more broadly so; tarsi similar whitened. Wings conspicuously suffused with brown, especially at the apex and in the prearcular field; costal field more yellowish, expanded and conspicuous immediately before and beyond the large, oval, darker brown stigma; veins brown, more yellow in the brightened fields. Macrotrichia of veins reduced in number, lacking basad of origin of *Rs* except on *C*; beyond the cord with scattered series of trichia on veins R_3 , R_{4+5} , and the distal sections of M_{1+2} and M_3 . Venation *Sc* relatively short, Sc_1 ending shortly beyond mid-length of *Rs*, Sc_2 close to its tip; branches of *Rs* diverging near outer ends, so cell R_3 at margin is more extensive than cell R_2 , both wide; *r-m* distinct; cell 1st M_2 narrowed outwardly, subequal in length to vein M_4 beyond it; *m-cu* about two-thirds its length beyond the fork of *M* cell 2nd *A* of moderate width.

Abdomen, including hypopygium, black. Male hypopygium (fig. 7) with the tergal lobes, *9t*, bifid, including a shorter, more conical lateral lobe or arm and a more slender blackened rod. Basistyle, *b*, with the mesal-apical lobe relatively short and stout. Outer dististyle, *od*, a simple slender elongate rod, narrowed to the acute tip. Inner dististyle, *id*, longer and much larger than the outer, widely expanded at apex and here more or less bilobed, one of the lobes covered with numerous acute spinulæ.

Hab. Peru (Junin).

Holotype, ♂, Satipo, Jauja, altitude 800–900 metres, December 20, 1940 (*Paprzycki*).

The closest allies among the described species are *Helius* (*Helius*) *albogeniculatus* Alexander, *H.* (*H.*) *invariegatus* Alexander, and *H.* (*H.*) *myersiellus* Alexander. These are entirely different from the present fly in the structure of the male hypopygium.

Limnophila rubecula, sp. n.

Belongs to the *undulata* group; size large (wing, male, 10 mm. or more); head light brown, the central portion of vertex grey; mesonotal præscutum with three reddish-brown stripes; scutal lobes and the scutellum patterned with dark brown; legs yellow or brownish yellow; wings with a deep yellow ground, abundantly patterned with pale brown; *Rs* long; *m-cu* at near mid-length of lower face of cell 1st M_2 ; abdomen reddish brown, with a blackened median tergal stripe.

Male.—Length about 9 mm.; wing 10–10.8 mm.

Rostrum short, brown, sparsely pruinose; palpi black. Antennæ short; basal segments light brown, the outer flagellar segments passing into dark brown; basal flagellar segments short and crowded, the outer ones longer, with conspicuous erect setæ. Head light brown, the broad central portion of vertex light grey anterior vertex broad; eyes relatively small.

Pronotum buffy, sparsely pruinose. Mesonotal præscutum with the restricted-ground-colour grey, with three more reddish-brown stripes, the median one entire; scutum reddish brown, each lobe with two dark brown areas, the more posterior one larger; scutellum similarly reddish brown with a somewhat darker spot on either

side at mid-length; postnotal mediotergite clear light grey; pleurotergite reddish brown. Pleura reddish brown, the dorsal and ventral mesepisternum and the metapleura darker. Halteres obscure yellow, the knobs weakly darkened. Legs with the coxæ slightly infuscated; trochanters obscure yellow; remainder of legs yellow or brownish yellow, the outer tarsal segments passing into dark brown. Wings with the ground-colour deep yellow, with an abundant reticulated pattern of pale brown, the major area at stigma and over the anterior cord slightly darker; transverse streaks and dashes in the cells relatively abundant but ill-delimited, there being about eight in cell 2nd *A*, six or seven marginal lines in cell 1st *A*, and in similar proportions over the wing; outer radial field with the areas fewer and more widely separated except for a grouping in outer end of cell *R*₃; veins yellow, darker in the patterned areas. Venation *Rs* relatively long, approximately equal to the entire upper branch of *Rs* (combined *R*₂₊₃ and *R*₃); *R*₂₊₃ longer than *R*₁₊₂; cell *M*₁ shorter than its petiole; *m-cu* at near mid-length of lower face of cell 1st *M*₂.

Abdomen reddish brown; basal tergite darkened, the remainder with a more or less distinct median blackened stripe that is scarcely interrupted at the posterior border of the segments; hypopygium obscure yellow.

Hab. Peru (Ayacucho).

Holotype, ♂, Yanamonte, La Mar, altitude 3000–4100 metres, in fog forests, September 25, 1941 (*Woytkowski*).
Paratopotypes, 3♂♂, October 2–7, 1941 (*Woytkowski*).

The *undulata* group includes *Limnophila dictyoptera* Alexander, *L. guttulatissima* Alexander, *L. leucostigma* Alexander, *L. lloydi* Alexander, *L. madida* Alexander, *L. pullipes* Alexander, *L. shadei* Alexander, *L. subfuscata* Alexander, *L. undulata* (Bellardi), and others. The species that most resembles the present fly is the Mexican *madida*, which is distinguished by the coloration of the body, legs and wings, and by slight differences in venation.

Limnophila procella, sp. n.

Belongs to the *undulata* group; general coloration of mesonotum grey, the præscutum with four slightly differentiated brownish-grey stripes; basal flagellar segments produced on ventral face and without verticils at this

point; halteres pale yellow; fore coxæ darkened, their distal halves whitened; femora yellow, the tips blackened; wings pale yellow, reticulated with brown; *Rs* long, cell 1st *M*₂ long; male hypopygium with the teeth of the outer dististyle relatively small and inconspicuous.

Male.—Length about 8–8.5 mm.; wing 8–9 mm.; antennæ about 1.3–1.5 mm.

Female.—Length about 9.5 mm.; wing 9.5–10 mm.

Rostrum grey; palpi black. Antennæ with scape dark brown, pruinose; pedicel light yellowish brown; first flagellar segment dark brown, pale basally; remaining segments uniformly blackened; proximal flagellar segments beyond the first enlarged and with the lower face produced, provided with a dense white pubescence but without verticils on this aspect; on about the sixth and succeeding segments with conspicuous verticils on both faces of segments. Head grey; posterior vertex on either side with conspicuous yellow setæ; anterior vertex wide, about five times the diameter of scape.

Pronotum grey, with a delicate median brown vitta. Mesonotum grey; præscutum with four slightly differentiated brownish-grey stripes, the lateral pair partially indistinct; scutal lobes each with two brown areas; scutellum darkened on either side; mediotergite grey in centre, darkened on sides and behind; pleurotergite uniformly grey. Pleura uniform grey, dorsopleural membrane chiefly darkened. Halteres uniformly pale yellow. Legs with the coxæ brownish black, grey pruinose, the fore pair with about the distal half abruptly whitened; fore trochanters yellow, darker on their posterior surface, other trochanters pale brown; femora yellow, the tips blackened, the amount subequal on all legs; tibiæ brownish yellow with blackened tips; tarsi passing into black. Wings with the ground-colour pale yellow, reticulated with brown, including larger areas at stigma and along the anterior cord, and again as a concentration in outer radial field; remaining cells of wing with a moderately heavy pattern that appears chiefly as transverse brown dashes, smaller and more punctiform in the more basal cells, the dark pattern including the wing tip; veins yellow, darker in the patterned areas. Venation: *Rs* long, weakly angulated at origin; *R*₂₊₃₊₄ a little longer than the basal section of *R*₅; cell 1st *M*₂ long, with

m-cu more than one-half its length beyond the fork of *M*; cell *M*₁ shorter than its petiole.

Abdominal tergites dark brown, sparsely pruinose; basal sternites more reddish brown, especially on central portion; hypopygium dark brown. Male hypopygium with the apical teeth of outer dististyle relatively small and inconspicuous.

Hab. Peru (Ayacucho).

Holotype, ♂, Yanamonte, La Mar, altitude 3000–4100 metres, in fog forests, August 7, 1941 (*Woytkowski*). *Allotopotype*, ♀ August 3, 1941, pinned with two paratype ♂♂. *Paratopotypes*, 20 ♂♂, July 29–August 29, 1941 (*Woytkowski*).

The various species of the *undulata* group in Tropical America have been listed under the preceding species. The form most similar to the present fly is *Limnophila undulata* (Bellardi), which differs especially in the coloration of the body and wings.

Shannonomyia sopora, sp. n.

General coloration of thorax brownish yellow to obscure yellow, unpatterned; antennæ short, scape and pedicel brownish black, flagellum pale; head grey; halteres pale yellow; legs yellow, the outer tarsal segments brownish black; wings yellow, variegated only by the small, conspicuous, dark brown stigma; *R*₂₊₃₊₄ approximately twice the basal section of *R*₅; *m-cu* at or beyond mid-length of cell 1st *M*₂; abdomen, excepting the basal sternite, black; male hypopygium with the outer dististyle unequally bidentate at apex; gonopophysis a long, slender, gently curved spine with a microscopic tooth at near mid-length of the concave lower face.

Male.—Length about 5.2–5.5 mm.; wing 6–6.5 mm.; antenna about 0.7–0.8 mm.

Female.—Length about 6–7 mm.; wing 6.5–7.5 mm.

Rostrum dark brown, sparsely pruinose; palpi black. Antennæ short; scape and pedicel brownish black, flagellum obscure yellow to light brown, the outer segments more infuscated; flagellar segments long-oval, the verticils much exceeding the segments in length. Head grey, darker behind; a short dark line on the anterior vertex, the latter about twice the diameter of scape.

Pronotum brownish yellow, sparsely pruinose. Mesonotum uniformly brownish yellow to obscure yellow, unpatterned, not pruinose. Pleura yellow. Halteres uniform pale yellow. Legs yellow, the outer tarsal segments brownish black. Wings yellow, variegated only by the relatively small but very conspicuous dark brown stigma; veins yellow. Venation R_s relatively long, subequal to or a little longer than cell 1st M_2 ; R_{2+3+4} approximately twice the basal section of R_5 ; $m-cu$ at or beyond mid-length of cell 1st M_2 .

Abdomen, including styli of hypopygium, black, the basal sternite usually obscure yellow; ninth segment, excluding the hypopygium, restrictedly obscure brownish yellow. Male hypopygium with the outer dististyle unequally bidentate at apex, the outer spine about twice as long as the triangular lower one; surface of style back from the blackened tip with abundant long coarse setæ. Inner dististyle with the setæ of basal two-thirds long and coarse, erect, becoming smaller outwardly; vestiture toward apex of style microscopic; apex of style terminating in two or three more conspicuous setæ. Gonapophyses appearing as slender, gently curved spines, bearing a tiny denticle at near mid-length of the lower or concave surface. \mathcal{A} edeagus elongate, strongly convoluted on basal portion.

Hab. Peru (Junin).

Holotype, ♂, Huacapistana, Tarma, altitude 3600–5400 feet, February 4, 1940 (*Woytkowski*). *Allotopotype*, ♂, pinned with type. *Paratopotypes*, several ♂ ♀, February 4–March 24, 1940. *Paratypes*, ♂ ♀, Tulumayo Valley, Tarma, altitude 4000–8000 feet, October 1, 1940 (*Woytkowski*).

Shannonomyia sopora is most similar to *S. phæostigma* Alexander, which is readily distinguished by the uniformly grey coloration of the thorax and by details of structure of the male hypopygium.

Atarba (Ischnothrix) obtusiloba, sp. n.

General coloration of mesonotum dark brown, sparsely pruinose; antennæ (male) relatively short; flagellar segments cylindrical, with unusually short and inconspicuous vestiture knobs of halteres infuscated; legs dark brown, tibial spurs lacking wings with a strong

brownish tinge; Sc_1 ending about opposite one-fourth the length of Rs ; abdominal tergites brownish black, basal sternites more testaceous; basistyles bicoloured, pale, the apical third dark brown; ninth sternite produced into two powerful divergent spines; eighth sternite with a median obtuse lobe that is provided with a few strong setæ; outer dististyle with relatively few strong spines; dististyle broadly flattened.

Male.—Length about 5.5 mm.; wing 6 mm. antennæ about 3.6 mm.

Rostrum obscure yellow; palpi black. Antennæ (male) relatively short, less than two-thirds the length of body; scape and pedicel brown, flagellum black; flagellar segments cylindrical, the more proximal ones long, the outer segments gradually decreasing in length to the end; verticils and pubescence unusually short and inconspicuous, subequal in length and either only a small fraction of the length of the segment. Head dark grey, more or less infuscated medially; anterior vertex broad, about three times the diameter of scape.

Pronotum and mesonotum chiefly dark brown, sparsely pruinose; humeral region of præscutum very restrictedly brightened; scutellum brownish testaceous. Pleura and pleurotergite obscure yellow. Halteres with stem yellow; knob infuscated. Legs with coxæ and trochanters obscure yellow; remainder of legs dark brown, the femoral bases restrictedly brightened; tibial spurs apparently lacking. Wings with a strong brownish tinge, the prearcular field a trifle brightened; stigma oval, slightly darker than the ground; veins brown, more brightened in the prearcular field. Macrotrichia of wing veins long and abundant. Venation: Sc_1 ending about opposite one-fourth the length of Rs , Sc_2 almost opposite this origin; Rs angulated at near one-third the length; vein R_3 oblique; cell 1st M_2 rectangular, subequal in length to vein M_3 , $m-cu$ at near the middle of its length.

Abdominal tergites brownish black, the basal sternites more testaceous; subterminal segments slightly deeper in colour; basistyles bicoloured, the proximal two-thirds pale, the apex conspicuously dark brown. Male hypopygium (fig. 8) with the ninth sternite, 9s, produced into two powerful divergent spines that are slightly separated

at base. Eighth sterite, *8s*, produced medially into an obtuse dusky lobe that is provided with a few normal setæ, not modified at apex as in *integriloba*. Basistyle, *b*, without a modified lobule on mesal face, as is common

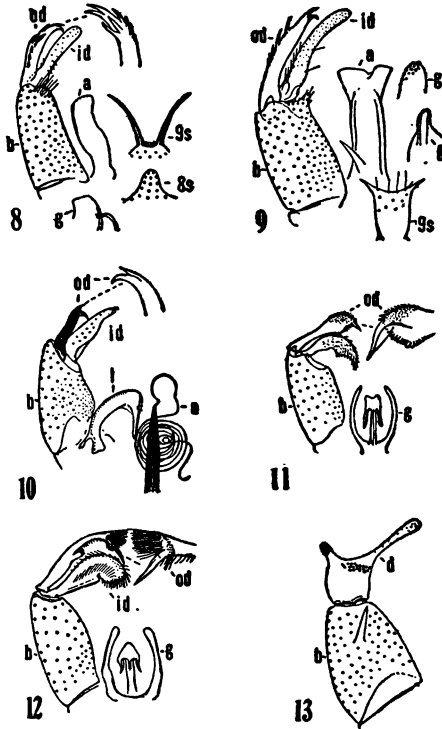


Fig. 8.—*Atarba (Ischnothrix) obtusiloba*, sp. n.; male hypopygium.

Fig. 9.—*Atarba (Atarba) scabrosa*, sp. n.; male hypopygium.

Fig. 10.—*Elephantomyia (Elephantomyia) tenuissima*, sp. n.; male hypopygium.

Fig. 11.—*Erioptera (Erioptera) polydonta*, sp. n.; male hypopygium.

Fig. 12.—*Erioptera (Erioptera) polytricha* Alexander; male hypopygium.

Fig. 13.—*Toxorhina (Toxorhina) pergracilis*, sp. n.; male hypopygium.

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

in the genus. Outer dististyle, *od*, relatively slender, provided with only a few spines but these unusually strong. Inner dististyle, *id*, broadly flattened, a little longer than the outer style. Gonapophyses, *g*, appearing

as flattened plates, their tips narrowly truncate. *Ædeagus* sinuous, strongly flattened, the apex a little expanded.

Hab. Peru (Junin).

Holotype, ♂, Huacapistana, Tarma, altitude 3600–5400 feet, March 5, 1940 (*Woytkowski*).

Atarba (Ischnothrix) obtusiloba resembles species such as *A. (I.) geminata* Alexander and *A. (I.) integriloba* Alexander, differing from all in the greatly reduced vesture of the antennæ and in the structure of the male hypopygium, notably the outer dististyle and the lobe of the eighth sternite.

Atarba (Atarba) scabrosa, sp. n.

General coloration of thorax reddish brown, unmarked, the pleura more brownish yellow; antennæ (male) about one-half the length of body; basal flagellar segments weakly bicoloured; legs yellow; wings greyish yellow, stigma very small, pale brown; *Rs* short; male hypopygium with the caudal margin of sternal plate produced laterad and slightly caudad into acute horns, the caudal margin very shallowly emarginate; outer dististyle with only a few strong teeth on outer margin; gonapophyses appearing as flattened blades, the margins of the obtuse tips roughened by microscopic papillæ or blunt denticles.

Male.—Length about 6.3–6.5 mm.; wing 7–7.3 mm.; antennæ about 3.1–3.3 mm.

Rostrum obscure yellow; palpi black. Antennæ (male) moderately long, approximately one-half the length of body; scape and pedicel yellow, basal flagellar segments weakly bicoloured, including narrow pale bases and even narrower tips to the segments, becoming obsolete on about the fifth; flagellar segments subcylindrical, each with an unusually long vertical, these unilaterally distributed, those on outer segments shorter; in addition to the verticils, segments provided with a dense pale pubescence. Head light brown, sparsely pruinose, especially behind; anterior vertex of moderate width, about one-half wider than the diameter of scape.

Pronotum light brown. Mesonotum reddish brown, unmarked; surface subnitidous, the postnotum sparsely pruinose. Pleura brownish yellow, sparsely pruinose. Halteres with stem yellow, knob weakly darkened.

Legs with coxæ and trochanters yellow; remainder of legs yellow, the terminal tarsal segments blackened. Wings greyish yellow, the prearcular and costal regions pale yellow; stigma very small, pale brown, only a trifle darker than the ground; veins yellow. Venation *Sc* short, *Sc*₁ ending some distance before the origin of the unusually short *Rs*, *Sc*₂ some distance from its tip, *Sc*₁ alone subequal to *Rs*; *Rs* from one-third to one-half longer than basal section of *R*₅; cell 1st *M*₂ short-rectangular, *m-cu* at near one-third its length.

Abdominal tergites obscure brownish yellow medially, darker brown on sides and less distinctly so on caudal margins; sternites obscure yellow; subterminal three segments more uniform dark brown or brownish black to form a broad ring; hypopygium light yellow. Male hypopygium (fig. 9) with the outer angles of sternal plate, 9s, produced laterad and slightly caudad into acute horns, the caudal margin between the horns very shallowly emarginate. Basistyle, *b*, with lobe of mesal face unusually large and conspicuous. Outer dististyle, *od*, slender, the outer margin with three strong teeth, in addition to the short curved apical spine; proximad of the basal spine with two or three additional smaller spinules or points. Inner dististyle, *id*, relatively slender, darkened. *Æ*deagus, *a*, relatively short, stout, at apex flaring and expanded. Gonapophyses, *g*, appearing as flattened blades, their tips obtuse, the apical margin roughened by microscopic papillæ or blunt denticles.

Hab. Peru (Junin).

Holotype, ♂, Huacapistana, Tarma, altitude 3600–5400 feet, March 10, 1940 (*Woytkowski*). *Paratopotype*, 1 ♂, February 15, 1940.

Atarba (Atarba) scabrosa is best distinguished from all other similar species by the structure of the male hypopygium, especially of the gonapophyses. These latter organs show a considerable range of structure among the various species of the subgenus. Several have the margins of these organs toothed or spined in various ways, these including *A. (A.) boliviana* Alexander, *A. (A.) idonea* Alexander, *A. (A.) multiarmata* Alexander, *A. (A.) nodulosa* Alexander, *A. (A.) punctiscuta* Alexander, *(A.) A. scutata* Alexander, and *A. (A.) tatei* Alexander. Others have the margins of the gonapophyses entirely

smooth. The present fly differs from all of the numerous members of the genus by the papillose nature of this armature. The species most similar in this latter regard is *A. (A.) brevicornis* Alexander, but in all other respects the two flies are entirely distinct.

Elephantomyia (Elephantomyia) tenuissima, sp. n.

General coloration of thorax pale yellow, unmarked; legs obscure yellow to brownish yellow; no tibial spurs; wings yellowish subhyaline, the small stigma pale brown; *Rs* arcuated to weakly angulated near origin; male hypopygium with the outer dististyle unequally bidentate at apex; interbasal rods appearing as large, flattened blades, their tips bent at a right angle, the apical margin at the bend with a curved row of microscopic spines; penefilum very long and delicate, appearing as a coil more or less suggesting a watch-spring.

Male.—Length, excluding rostrum, 6–7 mm.; wing 6–7 mm.; rostrum alone 4–5 mm.

Female.—Length, excluding rostrum, 6.5–9 mm.; wing 6–7 mm.; rostrum alone 4.2–5.2 mm.

Rostrum and palpi black. Antennæ with scape yellow to pale brown; pedicel light brown; flagellum black; flagellar segments cylindrical, the outer segments more elongate, with unusually long verticils, especially on the intermediate segments. Head yellow, the front and orbits more whitened; eyes large, reducing the anterior vertex to about two-thirds the diameter of scape, subequal or even narrower in the female.

Thorax uniform light yellow. Halteres with stem pale, knob weakly infuscated. Legs with coxæ and trochanters yellow; remainder of legs more obscure yellow to brownish yellow, the terminal tarsal segments scarcely darker; tibial spurs lacking; claws (male) simple. Wings yellowish subhyaline, even clearer yellow in the prearcular and costal fields; stigma relatively small, oval, pale brown; veins brownish yellow, clearer yellow in the brightened portions. Venation: *Rs* moderately long, arcuated to weakly angulated near origin; cell 1st M_2 rectangular, subequal to or a trifle longer than vein M_3 ; *m-cu* from one-third to fully its own length beyond the fork of *M*.

Abdomen obscure brownish yellow, the sternites clearer yellow; in male, subterminal two segments weakly darkened to produce an inconspicuous subterminal ring; hypopygium yellow. Male hypopygium (fig. 10) with the outer dististyle, *od*, relatively stout, unequally bidentate at tip, the axial spine longer. Inner dististyle, *id*, longer than the outer style. Interbasal rods, *i*, strong, appearing as large flattened blades, at apex dilated and bent at a right angle into a long pale point, the apex of the deflected portion with several small marginal denticles; lower margin of rod, near the deflected portion, paling into transparent membrane, its limits difficult to decipher. *Ædeagus*, *a*, produced into an extremely long coiled penefilum, this appearing as a very delicate hair-like structure, its total length probably fully equal to or longer than the length of the abdomen.

Hab. Peru (Junin, Ayacucho).

Holotype, ♂, Satipo, Jauja, Junin, altitude 800–900 metres, August 19, 1939 (*Paprzycki*). *Allotype*, ♀, Tulumayo Valley, Tarma, Junin, altitude 4000–8000 feet, November 1, 1940 (*Woytkowski*). *Paratypes*, 3 ♂♀, with the allotype, November 6–10, 1940; 2 ♂♀, Ayna, La Mar, Ayacucho, altitude 2400 metres, May 18–31, 1941 (*Woytkowski*).

Elephantomyia (*Elephantomyia*) *tenuissima* is readily told from the related regional species by the structure of the male hypopygium, especially the interbase and penefilum. This latter is more elongate and coiled than in any other American species known to me.

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

Belongs to the *bromeliadicola* group; size large (wing, male, over 9 mm.); general coloration of mesonotum dark brown, the posterior sclerites more pruinose; femora obscure yellow, with a broad black subterminal ring, the tips abruptly white; tibiæ and tarsi snowy white; wings brownish yellow, unpatterned except for a small pale brown stigma; cell 1st M_2 long, subequal in length to vein M_3 beyond it; basal abdominal tergites light brown, the sternites yellow; outer segments blackened.

Male.—Length about 11 mm.; wing 9.2 mm.

Rostrum yellow; palpi pale basally, the terminal segment brownish black. Antennæ with scape yellow at base, the apex infuscated; pedicel pale brown, flagellum

black; flagellar segments becoming more elongate and slender outwardly. Head above buffy; anterior vertex reduced to a narrow greyish strip, at its narrowest point only about as wide as a single ommatidium.

Pronotum pale brown; pretergites more whitened. Mesonotum almost uniformly dark brown, the lateral and humeral portions somewhat paler; scutellum and postnotum more pruinose. Pleura obscure yellow, the dorso-pleural region a trifle more infuscated. Halteres dusky. Legs with coxæ yellow, the fore pair a trifle darker; trochanters obscure yellow; femora obscure yellow, becoming darker outwardly, forming a broad black subterminal ring, the tip abruptly white; pattern approximately alike on all legs; black ring more than three times the extent of the white tip; tibiæ and tarsi snowy white, the outer tarsal segments a trifle infuscated. Wings brownish yellow, unpatterned except for a small oval pale brown stigma; prearcular and costal fields a little clearer yellow veins brown. Venation R_2 about one-third longer than R_{3+4} ; R_{2+3+4} not sinuous; cell 1st M_2 long, subequal in length to vein M_3 beyond it, M_{3+4} about one-half longer than M_4 ; $m-cu$ from one-third to two-fifths its length before the fork of M ; cell Cu widely open at margin, the distance only a little less than $m-cu$.

Basal abdominal tergites light brown, the caudal borders of the segments very narrowly pale; outer segments more uniformly blackened; basal sternites light yellow, the outer segments, including hypopygium, blackened.

Hab. Peru (Junin).

Holotype, ♂, Satipo, Jauja, altitude 800–900 metres, July 16, 1940 (*Paprzycki*).

Trentepohlia (*Paramongoma*) *disparilis* is entirely different from the numerous other species of the subgenus now known from Tropical America. By my latest key to the members of the *bromeliadicola* group (*Journ. N.Y. Ent. Soc.* xxvii. p. 142; 1919), the fly runs with difficulty to *T. (P.) leucoxena* (Alexander), of Mexico, which is entirely different in the coloration of the body, legs and wings.

Erioptera (*Erioptera*) *polydonta*, sp. n.

Allied to *multiannulata*; head white; thoracic pleura conspicuously striped with brownish black and white; halteres white throughout; legs banded with black and

white; wings unpatterned; cell M_2 open by atrophy of m ; male hypopygium with the outer dististyle terminating in an acute spine, the apex with a comb of microscopic teeth.

Male.—Length about 2.3 mm.; wing 2.5 mm.

Rostrum and palpi black. Antennæ dark brown, the flagellum somewhat paler; outer flagellar segments becoming elongate-cylindrical, with long conspicuous verticils. Head white; vertex broad.

Pronotum white, restrictedly infuscated behind, provided with a few conspicuous setæ; pretergites restrictedly whitened. Mesonotum medium brown, the præscutum without clearly defined stripes. Pleura conspicuously striped longitudinally with brownish black and white, the latter colour including the dorsopleural region and a ventral stripe extending from behind the fore coxæ, passing beneath the root of the halteres to the abdomen. Halteres white throughout. Legs with coxæ and trochanters infuscated; femora white, ringed with black, the most distinct dark bands being two on distal half of segment, separated by narrow white rings, the actual femoral tip white; tibiæ brown to brownish black, the base and tip abruptly snowy white; where the central portion of tibia is brown, this colour deepens to black where it adjoins the white apices; basitarsus with a blackened ring at base and beyond mid-length, the intermediate portion brownish yellow, the apex white; second tarsal segment darkened at base, dull white at apex; remaining tarsal segments pale brown; legs densely clothed with elongate flattened scales. Wings with a strong brownish tinge, the prearcular and costal fields more yellowish brown; veins and trichia slightly darker brown. Venation: Sc_1 ending about opposite fork of R_{2+3+4} , the latter about one-third longer than the basal section of R_3 ; cell M_2 open by atrophy of m ; $m-cu$ erect, at the fork of M ; vein 2nd A only gently sinuous.

Abdominal tergites brownish black, the basal sternites a little paler; hypopygium dark. Male hypopygium (fig. 11) with the outer dististyle, *od*, terminating in an acute spine, the apex before this point with numerous microscopic teeth forming an irregular comb. Inner dististyle only moderately expanded. Gonapophyses, *g*, appearing as slender pale blades, the tips subacute.

Hab. Peru (Jurin).

Holotype, ♂, Satio, Jauja, altitude 800–900 metres, February 15, 1941 (*Paprzycki*).

Erioptera (*Erioptera*) *polydonta* is quite distinct from the other species of the *multiannulata* group; differing especially in the structure of the male hypopygium, particularly the outer dististyle. The most similar species is *E. (E.) polytricha* Alexander, whose hypopygium is shown for comparison (fig. 12).

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

General coloration of mesonotum reddish brown, paling to greyish white on sides; femora and tibiæ obscure yellow, their tips undarkened; wings with a strong brownish yellow tinge, the veins deeper yellow, not contrasting conspicuously with the ground; abdomen with basal and intermediate segments bicoloured, obscure yellow, the incisures dark brown; a uniformly dark subterminal ring; male hypopygium with the basistyle armed with a straight, acutely pointed spine; blade of dististyle unusually long and slender, the margins smooth.

Male.—Length, excluding rostrum, about 6–6.5 mm.; wing 5.5–6 mm.; rostrum 5.5–5.6 mm.

Female.—Length, excluding rostrum, about 8 mm.; wing 7 mm.; rostrum 6–6.2 mm.

Rostrum dark brown, nearly as long as wing. Antennæ brownish black throughout. Head light yellowish grey; anterior vertex parallel-sided, relatively wide, approximately twice the diameter of scape.

Pronotum brownish black. Mesonotal præscutum chiefly covered by three light brown to reddish-brown stripes, the interspaces feebly differentiated, the humeral and very wide lateral borders paling to greyish white; scutal lobes darkened; scutellum dark, sparsely pruinose, with an obscure yellow border; postnotum grey pruinose. Pleura obscure yellow, with a conspicuous dark brown dorsal stripe extending from the pronotum to the pleurotergite. Halteres relatively short, dirty white. Legs with the coxæ and trochanters yellow; femora and tibiæ obscure yellow, the colour more or less obscured by dark setæ; tips of tibiæ not darkened; tarsi passing into dark brown. Wings with a strong brownish-yellow tinge, the prearcular and costal fields clearer yellow; veins deeper yellow, not contrasting conspicuously with the ground. Venation *r-m* before mid-length of cell 1st *M*₂; *m-cu* at

fork of M ; cell 1st M_2 longer than any of the veins issuing from it ; vein R_5 unusually deflexed, terminating at or just beyond the wing-apex.

Abdomen conspicuously bicoloured, obscure yellow, the incisures dark brown, including the narrow bases and broader tips of the individual segments ; subterminal segments uniformly darkened to form a ring ; hypopygium and preceding segment yellow. Male hypopygium (fig. 13) with the basistyle, b , armed with a spine on distal half, this smooth and nearly straight, narrowed to an acute point. Dististyle, d , with the outer darkened tubercle slender ; rostral blade unusually long and slender, its margins smooth ; distal blade about twice as wide as the narrowest part of stem ; at base of rostrum with a group of about twenty strong setæ ; spatula with other setæ of various lengths, including two longer ones. Apices of the paired lobes of the ædeagus of moderate length.

Hab. Peru (Ayacucho).

Holotype, ♂, Ayna, La Mar, altitude 2400 metres, April 27, 1941 (*Woytkowski*). *Allotopotype*, ♀, pinned with type.

In its general appearance, *Toxorhina* (*Toxorhina*) *pergracilis* is most similar to species such as *T. (T.) centralis* Alexander and *T. (T.) meridionalis* Alexander, differing most evidently in the structure of the male hypopygium, as the presence of a spine on the basistyle, and the structure of the dististyle. The present fly has vein R_5 unusually decurved and the blade of the dististyle very long and slender, whence the specific name.