

**Records and Descriptions of Tipulidae from Tropical America
(Diptera). Part VII.**

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(With 40 figures)

The preceding part under this title was published in the *Revista de Entomologia*, vol. 16, fasc. 3, pp. 373-393; December 1945. At this time I am taking the opportunity to figure the male hypopygium of a number of Eriopterine crane-flies that I have recently described, belonging chiefly to the genera *Teucholabis*, *Gnophomyia* and *Neognophomyia*. The various descriptions are included in two reports that will presumably be published in 1949, in the *Annals of the Entomological Society of America*, vol. 42, and the *Journal of the New York Entomological Society*, vol. 57, respectively. All such species are additional to those previously listed in the series of "Notes on the Tropical American species of Tipulidae (Diptera)" Parts 1 and 2 (*Rev. de Ent.*, 17, pp. 375-400; 1946, and 18, pp. 65-100; 1947).

Polymera (Polymera) stenoptera, sp. n.

Allied to *nimbipennis*; thoracic dorsum and dorsal half of pleura blackened, the ventral pleura abruptly light yellow; antennae (male) subequal in length to the wing, the flagellum black with narrow yellow incisures; femora yellow basally, darker beyond, the tips narrowly blackened; tarsi extensively whitened, including all of the posterior basitarsi; wings narrow, with a very strong blackish tinge; Sc relatively short, Sc_1 ending nearly opposite midlength of R_{2-3-4} , the latter subequal to Rs .

Male: Length about 5 mm.; wing 6 mm.; antenna about 6.2 mm. Female: Length about 6 mm.; wing 6.2 mm. Rostrum yellow; palpi a little darker. Antennae (male) elongate, subequal to the wing; scape infuscated, pedicel brownish yellow; basal segment of flagellum with proximal end obscure yellow, passing into brown; remainder of organ brownish black, the incisures of the more proximal segments narrowly yellow, before midlength of antenna passing into uniform brownish black; flagellar segments strongly binodose, the nodes with very long outspreading verticils, the longest fully one-half longer than the segments. Head black.

Thoracic dorsum brownish black, the surface sparsely pruinose, the dorsal half of pleura similarly blackened to produce

a broad stripe, the ventral pleurites abruptly light yellow; pleurotergite a trifle more brightened than the remainder of notum. Halteres with stem yellow, knob infuscated. Legs with all coxae and trochanters yellow; femora yellow basally, somewhat darker outwardly, the tips rather narrowly but conspicuously blackened; tibiae brown, the tips narrowly blackened; fore and middle basitarsi black, the tips narrowly white; posterior basitarsi uniformly white; remainder of tarsi snowy white, only the small terminal segment darkened. Wings narrow, with a very strong blackish tinge, the prearcular and costal fields paler; veins and macrotrichia dark brown. Venation: Sc relatively short, Sc_1 ending nearly opposite midlength of R_{2-3-4} ; Rs and R_{2-3-4} subequal; R_{1-2} relatively short, approximately one-half R_{2-3-4} or one-third R_{2-3} , a little longer in the allotype; cell M_1 relatively deep, exceeding three-fourths R_{2-3-4} .

Abdomen black, the hypopygium a trifle more brightened.

Habitat: Peru. Holotype, ♂, Pucallpa, Loreto, altitude 180 meters, June 28, 1947 (Schunke). Allotopotype, ♀, pinned with type.

While generally similar to *Polymera (Polymera) nimbipennis* Alexander, in the strongly darkened wings, the present fly is distinguished by the narrow wings, the differently colored antennae and thoracic notum, and in the venation.

Shannonomyia abra, sp. n.

Thoracic dorsum almost uniformly light gray, with a weak darker central stripe that is best indicated behind; antennae with scape white, flagellum dark brown; legs with the femora obscure yellow; wings yellow, conspicuously patterned with brown spots over various veins; Rs long, exceeding cell $1st M_2$, angulated at origin; inner end of cell R_5 strongly arcuated; veins R_3 and R_4 bent strongly cephalad at tips.

Female. — Length about 7 mm.; wing 6.8 mm. Rostrum and palpi black. Antennae with scape white, pedicel yellow, flagellum dark brown; flagellar segments (female) oval to cylindrical, the verticils much exceeding the segments in length; terminal segment about one-third longer than the penultimate. Head light gray; anterior vertex broad.

Thoracic dorsum almost uniformly light gray, the praescutum with a weak darker central stripe that is best indicated behind; each scutal lobe with a semicircular pale brown area. Pleura gray, weakly more darkened on the ventral anepisternum and ventral sternopleurite. Halteres uniformly pale yellow. Legs with

the coxae pale, sparsely gray pruinose; trochanters obscure yellow; femora obscure yellow; tibiae pale brown; tarsi dark brown. Wings with the ground yellowish, conspicuously patterned with brown, the areas appearing as spots over various veins, as follows: Arculus; origin of *Rs*; fork of *Sc*; stigma; cord and outer end of cell *1st M*₂; marginal spots at ends of all longitudinal veins excepting *R*₅; veins yellow, darker in the patterned areas. Venation: *Sc* relatively long, *Sc*₁ ending nearly opposite the fork of *M*; *Rs* long, exceeding the long cell *1st M*₂, angulated or short-spurred at origin; *R*₁₋₂ and *R*₂ subequal, the latter just before the fork; *r-m* strongly arcuated, lying proximad of the other elements of cord; veins *R*₃ and *R*₄ bent strongly cephalad at tips, especially the latter; cell *1st M*₂ long and narrow, widened outwardly, longer than the distal section of vein *M*₁₋₂; tips of outer medial veins gently decurved; *m-cu* at near one-fourth the length of cell *1st M*₂ or from four-fifths to virtually its own length beyond the fork of *M*.

Abdominal tergites dark brown, the lateral borders paler brown; sternites dark brown, the caudal margins of the segments very narrowly pale.

Habitat: Peru.

Holotype, ♀, Chanchamayo, Junin, altitude 1200 meters, April 28, 1948 (Schunke).

Most similar to *Shannonomyia ignava* Alexander, differing in the coloration and venation.

Hexatoma (Eriocera) chalybeiventris, sp. n.

General coloration black, including the palpi, antennae, halteres and legs; head opaque black; mesonotal praescutum and scutum with violaceous reflexions; wings broad, blackened, with three conspicuous white areas, in cells *R*₁, *R* and *M*, respectively; abdominal tergites black basally, the broad margins shiny metallic blue, more extensive on the outer segments.

Male. — Length about 11 mm.; wing 10.5 mm.; antenna about 2 mm. Rostrum and palpi black. Antennae (male) 7-segmented, black throughout; flagellar segments one to three progressively shortened, the fourth slightly longer than the third; terminal segment approximately one-third the penultimate. Head uniformly opaque black; vertical tubercle conspicuous, entire.

Pronotum dull black. Mesonotal praescutum and scutum black, with violaceous reflexions, the surface sparsely pruinose; posterior sclerites of notum and the pleura uniformly blackened, the surface

subnitidous. Halteres and legs uniformly black. Wings broad, blackened, the basal third and costal portion more intensely so; three conspicuous white longitudinal areas in cells R_1 , R and M , respectively, lying before the cord; veins brownish black. Sparse macrotrichia on outer radial veins, the most nearly complete series on veins R_4 and R_5 . Venation: R_{1-2} and R_2 subequal; R_{2-3-4} about three times the basal section of R_5 ; second section of vein M_{3-4} subequal to vein M_4 ; $m-cu$ more than one-half its length beyond the fork of M .

Proximal abdominal tergites with the basal rings broadly black, the margins somewhat more narrowly shiny metallic blue; on the fourth and succeeding segments this latter color becomes even more extensive; sternites, hypopygium and subterminal segments uniformly black.

Habitat: Peru. Holotype, ♂, Chanchamayo, Junin, altitude 1200 meters, May 4, 1948 (Schunke).

Although very similar in wing pattern and venation to *Hexatoma (Eriocera) trialbosignata* Alexander, the present fly is evidently distinct in the pattern of the head and abdomen.

Elephantomyia (Elephantomyia) serrulifera, sp. n.

General coloration of thorax almost uniformly yellow; rostrum long, only a little shorter than the remainder of body; legs brown, the tarsi a trifle paler; wings grayish subhyaline, the long-oval stigma pale brown; male hypopygium with the outer dististyle unusually small, as compared with the length of the basistyle; gonapophysis appearing as a long flattened blade from a prominent basal plate, the lower margin of plate on apical half microscopically serrulate; penefilum long and coiled.

Male. — Length (excluding rostrum) about 6 mm.; wing 6.3 mm.; rostrum about 5 mm. Rostrum long, only a little shorter than the remainder of body, dark brown; palpi brown. Antennae brown, the pedicel more reddened; flagellar verticils very long. Head light gray; anterior vertex narrow, a little more than one-half the diameter of the scape.

Thorax almost uniformly yellow, the scutellum and mediotergite a trifle darker. Halteres infuscated, the base of stem narrowly pale. Legs with the coxae and trochanters yellow; remainder of legs brown, the tarsi a trifle paler; tibial spurs, at least of the fore legs, lacking. Wings grayish subhyaline, the prearcular and costal regions more brownish yellow; stigma long-oval, pale brown; veins brown. Venation: Sc_2 ending about

opposite two-thirds R_s , Sc_1 atrophied or vestigial; branches of R_s extending virtually parallel to one another until their outer ends; $m-cu$ longer than the distal section of Cu_1 , at near two-thirds the length of cell $1st M_2$.

Abdomen brown, the subterminal segments a little paler. Male hypopygium with the outer dististyle unusually small, as compared with the length of the basistyle, slender, glabrous, the outer end gently curved, with two divergent points. Inner dististyle about one-half longer than the outer style. Outer setae of the basistyle long and conspicuous. Gonapophysis appearing as a long flattened blade from a prominent basal plate, the tip narrowed and decurved; lower margin of plate on apical half microscopically serrulate. Penefilum long and coiled but not to the degree found in *tenuissima*.

Habitat: Peru. Holotype, ♂, Utcuyacu, Junin, March 5, 1948 (Woytkowski).

The most similar species is *Elephantomyia (Elephantomyia) tenuissima* Alexander, which differs especially in hypopygial characters, including the smooth plates of the gonapophyses and the even longer coiled penefilum.

Teucholabis (Paratropesa) nodulifera Alexander

Type from Fundo Sinchono, Huanuco, Peru, August 4, 1947 (Schunke). Male hypopygium (Fig. 1).

Teucholabis (Teucholabis) anthracina Alexander

Type from the Napo River, Amazonian Peru, June 14, 1920 (Parish). Male hypopygium (Fig. 2).

Teucholabis (Teucholabis) desdemona Alexander

Type from Pucallpa, Loreto, Peru, March 19-22, 1947 (Schunke). Male hypopygium (Fig. 4).

Teucholabis (Teucholabis) ducalis Alexander

Type from Fundo Sinchono, Huanuco, Peru, August 6-28, 1947. (Schunke). Male hypopygium (Fig. 3).

Teucholabis (Teucholabis) hera Alexander

Type from Utcuyacu, Junin, Peru, February 10, 1948 (Woytkowski). Male hypopygium (Fig. 5).

Teucholabis (Teucholabis) lauta Alexander

Type from Fundo Sinchono, Huanuco, Peru, August 8, 1947 (Schunke). Male hypopygium (Fig. 6).

Teucholabis (Teucholabis) lineipleura Alexander

Type from Fundo Sinchono, Huanuco, Peru, August 12, 1947 (Schunke). Male hypopygium (Fig. 7).

Teucholabis (Teucholabis) ludicra Alexander

Type from Cerro Azul, Loreto, Peru, April 20, 1947 (Schunke). Male hypopygium (Fig. 8).

Teucholabis (Teucholabis) perbasalis Alexander

Type from Pucallpa, Loreto, Peru, March 22, 1947 (Schunke). Male hypopygium (Fig. 9).

Teucholabis (Teucholabis) subanthracina Alexander

Type from Zumbi, Rio Zamora, Ecuador, October 28-31, 1941 (Laddey). Male hypopygium (Fig. 10).

Gnophomyia (Gnophomyia) ajusta Alexander

Type from Sariapampa, Huanuco, Peru, May 8, 1946 (Woytkowski). Male hypopygium (Fig. 11).

Gnophomyia (Gnophomyia) bulbibasis Alexander

Type from Zumbi, Rio Zamora, Ecuador, October 31-November 4, 1941 (Laddey). Male hypopygium (Fig. 12).

Gnophomyia (Gnophomyia) latilobata, sp. n.

Thorax almost uniformly blackened, the surface opaque; anterior lateral pretergites light yellow; antennae black throughout; legs black; wings with a weak brownish tinge; Sc_1 long, approximately twice R_{2-3-4} ; male hypopygium with the outer dististyle broad, especially just beyond midlength, thence narrowed to the acute point; phallosome broad, narrowed outwardly, its tip obtuse; aedeagus jutting slightly beyond the apex of remainder of phallosome.

Male. — Length about 6 mm.; wing 5.8 mm. Rostrum and palpi black. Antennae black throughout, relatively long; flagellar segments long-cylindrical, verticils of moderate length. Head dark gray.

Thorax almost uniformly blackened, the surface opaque; anterior lateral pretergites light yellow, conspicuous; dorsopleural membrane dusky. Halteres brownish black, the base of stem restrictedly pale. Legs with the fore and middle coxae and

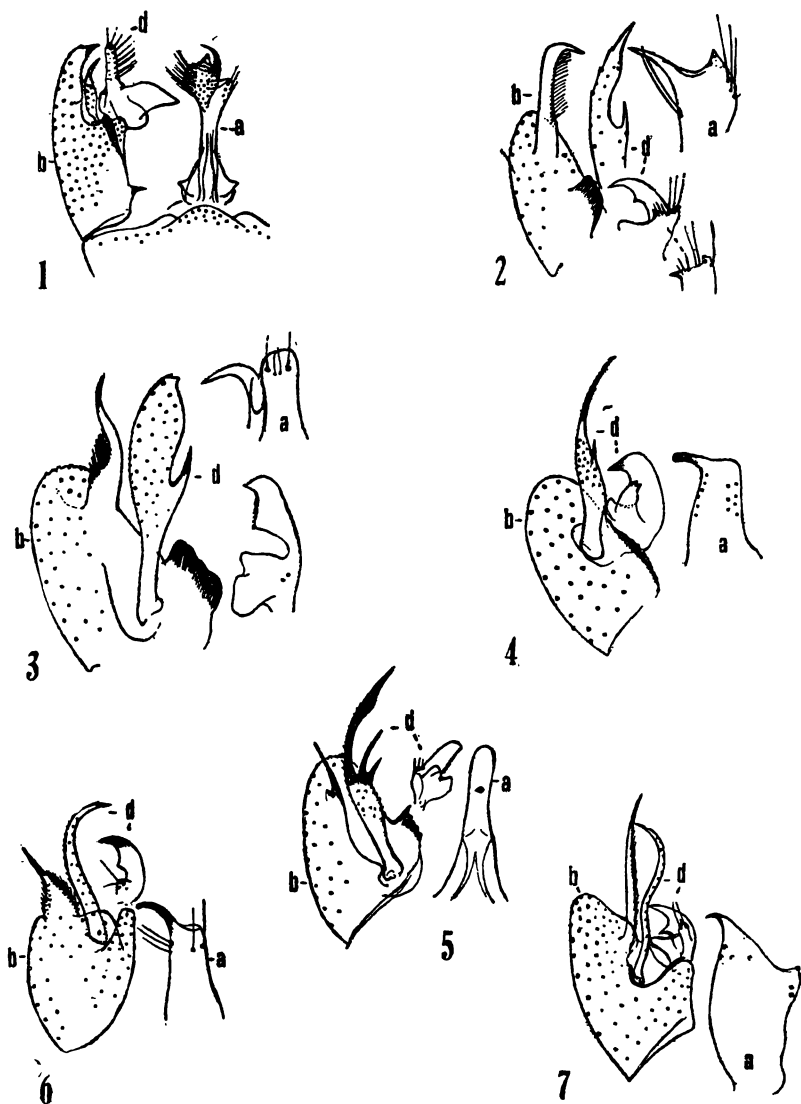


Fig. 1. *Teucholabis (Paratropesa) nodulifera* Alexander; male hypopygium. — Fig. 2. *Teucholabis (Teucholabis) anthracina* Alexander; male hypopygium. — Fig. 3. *Teucholabis (Teucholabis) ducalis* Alexander; male hypopygium. — Fig. 4. *Teucholabis (Teucholabis) desdemona* Alexander; male hypopygium. — Fig. 5. *Teucholabis (Teucholabis) hera* Alexander; male hypopygium. — Fig. 6. *Teucholabis (Teucholabis) lauta* Alexander; male hypopygium. — Fig. 7. *Teucholabis (Teucholabis) lineipleura* Alexander; male hypopygium. — (Explanation of symbols: a, aedeagus; b, basistyle; d, dististyles).

trochanters blackened, the posterior ones brown; remainder of legs black. Wings with a weak brownish tinge, the very narrow and inconspicuous stigma a little darker; veins brown. Veins delicate, macrotrichia relatively short. Venation: Sc_1 ending

shortly before the level of R_2 , Sc_2 far from its tip, Sc_1 alone nearly twice R_{2-3-4} , placed before the level of $r-m$, the latter shortly before fork of Rs ; R_{2-3-4} and R_{2-3} in alignment; veins R_3 and R_4 extending generally parallel to one another throughout their lengths, cell R_3 a trifle widened before midlength; cell $1st M_2$ longer than vein M_4 , widened outwardly; $m-cu$ about three-fifths its length beyond the fork of M .

Abdomen, including hypopygium, brownish black. Male hypopygium (Fig. 13) with the median lobe of tergite, $9t$, broad, its caudal border weakly convex, the central portion paler than the slightly darkened sides. Basistyle, b , short and stout, the entire mesal face somewhat produced but not forming a lobe or tubercle, bearing about six setae. Outer dististyle, d , broad, especially just beyond midlength, thence narrowed to the acute point. Inner dististyle with about four strong bristles on the expanded base, the apical setae more numerous but short; apex of style broadly rounded. Phallosome, p , broad, narrowed outwardly, the tip obtuse; aedeagus jutting slightly beyond the apex of the phallosomic mass.

Habitat: Peru. Holotype, ♂, Cerro Azul, Loreto, April 28, 1947 (Schunke).

Although it is allied to species such as *Gnophomyia* (*Gnophomyia*) *pauciseta* Alexander, *G. (G.) transversa*, sp. n., and others, the present fly seems sufficiently distinct in the structure of the male hypopygium, especially the outline of the outer dististyle. It falls in the group of forms that have the unproduced inner dististyle and with the tergal extension short and broad.

Gnophomyia (*Gnophomyia*) *mediotuberculata*
Alexander

Type from Contamana, Upper Ucayali River, Loreto, Peru, May 22, 1947 (Schunke). Male hypopygium (Fig. 14).

Gnophomyia (*Gnophomyia*) *pauciseta* Alexander

Type from Fundo Sinchono, Huanuco, Peru, August 5, 1947 (Schunke). Male hypopygium (Fig. 15).

Gnophomyia (*Gnophomyia*) *peracutior* Alexander

Type from Fundo Sinchono, Huanuco, Peru, August 5, 1947 (Schunke). Male hypopygium (Fig. 16).

Gnophomyia (*Gnophomyia*) *perdebilis* Alexander

Type from Fundo Sinchono, Huanuco, Peru, January, August 1, 1947 (Schunke). Male hypopygium (Fig. 17).

Gnophomyia (Gnophomyia) persevera Alexander

Type from Cerro Azul, Loreto, Peru, April 30, 1947 (Schunke).
Male hypopygium (Fig. 18).

Gnophomyia (Gnophomyia) petentis Alexander

Type from Fundo Sinchono, Huanuco, Peru, August 2-25, 1947 (Schunke). Male hypopygium (Fig. 19).

Gnophomyia (Gnophomyia) sagitta, sp. n.

Mesonotum almost uniformly brownish black, the surface sparsely pruinose; pleura brownish black above, abruptly yellow below; femora and tibiae obscure brownish yellow; wings with a weak brownish tinge; cell 1st M_2 small, not exceeding two-thirds the length of vein M_4 ; male hypopygium with the caudal margin of tergite produced into a median lobe or blade, its apex more or less spear-shaped.

Male: Length about 6.5-7 mm.; wing 6.8-7 mm. Female: Length about 6 mm.; wing 6.4 mm. Rostrum and palpi brownish black. Antennae black; flagellar segments cylindrical to long-cylindrical, shorter than the verticils. Head dark gray.

Pronotum dark brown, the lateral ends of the scutellum conspicuously light yellow, the pretergites more obscure yellow, still darker behind. Mesonotum almost uniformly brownish black, the surface sparsely pruinose, humeral region restrictedly more reddened. Pleura chiefly occupied by a broad brownish black stripe, the ventral pleurites and all coxae abruptly yellow, the metapleura even paler yellow; ventral sternopleurite weakly more darkened. Halteres with stem dark brown, its base restrictedly yellow. Legs with the coxae yellow, as described; trochanters yellow; femora and tibiae obscure brownish yellow, tarsi passing into black. Wings with a weak brownish tinge, the stigma not or scarcely evident; prearcular field restrictedly yellow; veins brown, paler at wing base. Venation: R_s short, straight and oblique, with $r-m$ at its fork, in direct alignment with R_5 , the basal deflection of the latter therefore lacking; R_2 at or just beyond the fork of R_{2-3-4} ; veins R_3 and R_4 unusually long, extending parallel to one another for their entire length, cell R_3 at margin thus very narrow as compared to cell R_2 ; cell 1st M_2 small, from slightly more than one-half to about two-thirds vein M_4 ; $m-cu$ about one-half its length beyond the fork of M .

Abdomen, including hypopygium, brownish black. Male

hypopygium (Fig. 20) with the tergite, *9t*, distinctive; transverse, the caudal margin produced into a median lobe or blade that is a little longer than the distance across the tergite, the lobe more or less spear-shaped, narrowed basally, broadest beyond mid-length, thence narrowed to the obtuse apical point. Outer dististyle, *d*, with more than the proximal half enlarged, the apex narrowed into a long straight or slightly upcurved spine; outer surface of style vaguely transversely striate or corrugated. Inner dististyle with its outer portion an elongate darkened lobe, with numerous erect setae; enlarged base with a row of five larger setae. Phallosome, *p*, difficult to describe from the available materials but evidently terminating in various short blades or lobes.

Habitat: Peru.

Holotype, ♂, Chanchamayo, Junin, altitude 1200 meters, May 4, 1948 (Schunke). Allotype, ♀, Cachiyacu, Loreto, April 27, 1947 (Schunke). Paratype, ♂, pinned with the allotype.

The only other species known to me having such an elongate ninth tergite is *Gnophomyia* (*Gnophomyia*) *longitergata* Alexander, where the lobe is of quite different shape, and all other details of the male hypopygium are distinct.

Gnophomyia (*Gnophomyia*) *socialis* Alexander

Type from Chinchao, Huanuco, Peru, September 20, 1947 (Woytkowski). Male hypopygium (Fig. 21).

Gnophomyia (*Gnophomyia*) *subflebilis* Alexander

Type from Zumbi, Rio Zamora, Ecuador, November 1, 1941 (Laddey). Male hypopygium (Fig. 22).

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

Belongs to the *tristissima* group, allied to *dictena*; general coloration black, including the palpi, antennae and legs; ventral thoracic pleura gray pruinose; wings with cells before cord faintly darkened, beyond the cord more evidently so; a broad still darker crossband at cord; male hypopygium with the tergite transverse, the caudal border broadly emarginate, each half with a double row of approximately 50 strong spinous setae, the row being narrowly broken at the midline; basistyle with mesal face unarmed; outer dististyle long and slender, simple, gently curved to the subacute tip; inner style approximately one-half as long, narrowed to an acute apical point.

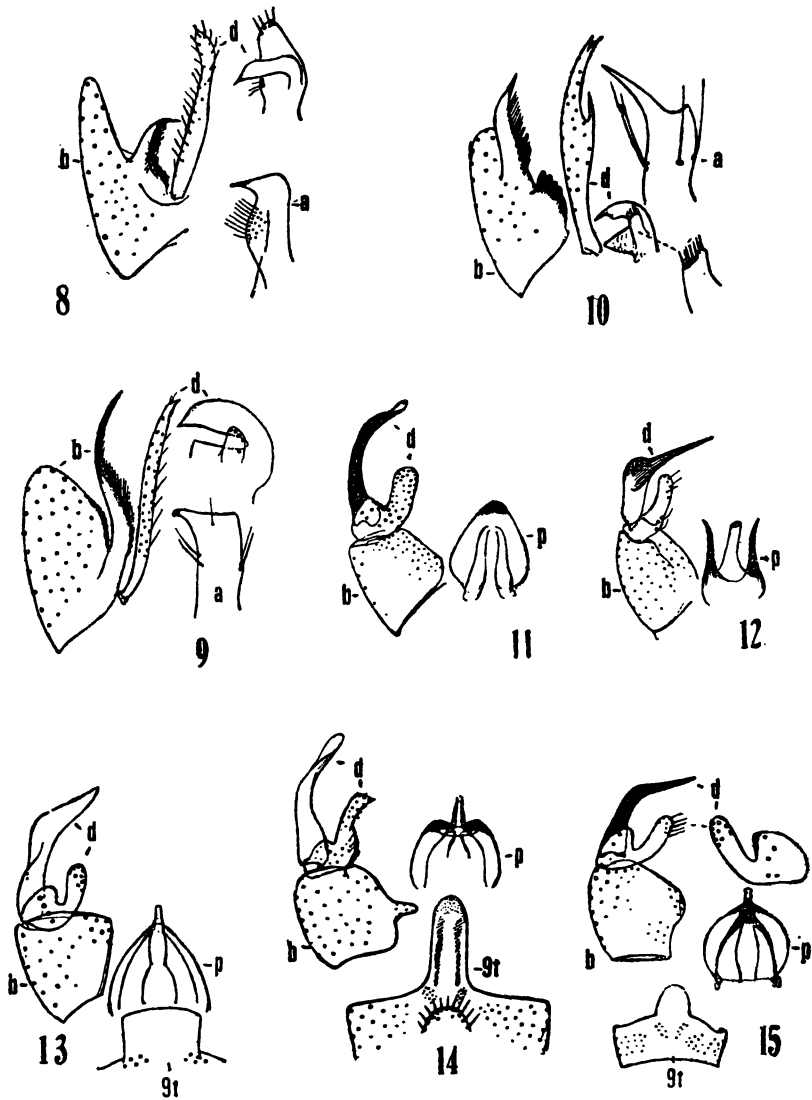


Fig. 8. *Teucholabis (Teucholabis) ludicra* Alexander; male hypopygium. — Fig. 9. *Teucholabis (Teucholabis) perbasalis* Alexander; male hypopygium. — Fig. 10. *Teucholabis (Teucholabis) subanitracina* Alexander; male hypopygium. — Fig. 11. *Gnophomyia (Gnophomyia) ajusta* Alexander; male hypopygium. — Fig. 12. *Gnophomyia (Gnophomyia) bulbibasis* Alexander; male hypopygium. — Fig. 13. *Gnophomyia (Gnophomyia) latilobata*, sp. n.; male hypopygium. — Fig. 14. *Gnophomyia (Gnophomyia) mediotuberculata* Alexander; male hypopygium. — Fig. 15. *Gnophomyia (Gnophomyia) paucisetata* Alexander; male hypopygium. — (Explanation of symbols: a, aedeagus; b, basistyle; d, dististyles; p, phallosome; t, 9th tergite).

Male. — Length about 6 mm.; wing 5 mm.; antenna about 2.4 mm. Rostrum, palpi and antennae black, the last relatively long; flagellar segments long-subcylindrical, subequal to their longest verticils. Head dull black.

Thorax black, the ventral pleurites conspicuously gray pruinose; anterior lateral pretergites very restrictedly obscure yellow; dorsopleural membrane brown. Halteres brownish black, the base of stem restrictedly brightened. Legs uniformly black. Wings with the cells before cord faintly darkened, beyond the cord more evidently so; a broad still darker crossband at cord; stigma elongate, dark brown; veins black. Venation: Sc_1 ending about opposite midlength of R_{2-3-4} ; $r-m$ connecting with Rs shortly before its fork; veins R_3 and R_4 parallel to one another for virtually their whole lengths; $m-cu$ just beyond one-third the length of cell $1st M_2$.

Abdomen, including hypopygium, black. Male hypopygium (Fig. 23) with the tergite, $9t$, transverse, the caudal border broadly emarginate, each half with a double row of approximately 50 long black spinous setae; the rows narrowly interrupted at the midline. Basistyle, b , relatively small, the mesal face with long setae but without other armature. Outer dististyle, d , a long slender gently curved rod that narrows to the subacute tip, the outer margin smooth, the inner edge narrowly blackened and vaguely roughened. Inner dististyle approximately one-half as long, black, narrowed to the acute apical point. Phallosome, p , consisting of two oval blackened plates that are separated by a narrow median notch.

Habitat: Peru. Holotype, ♂, Chanchamayo, Junin, altitude 1200 meters, August 11, 1948 (Schunke).

The most similar species is *Gnophomyia (Gnophomyia) dictena* Alexander, which differs conspicuously in all details of structure of the male hypopygium.

Gnophomyia (Gnophomyia) transversa, sp. n.

Thoracic dorsum almost uniformly brownish black, sparsely pruinose; pleura almost uniformly blackened, the sternopleurite more reddened; legs brown; wings moderately suffused with brown, the prearcular field more yellowed; male hypopygium with the tergite transverse; basistyle without a modified tubercle on mesal face; outer dististyle relatively long and narrow, the apex obtusely rounded; phallosome transverse, the apex very broadly obtuse and blackened.

Male: Length about 7.5 mm.; wing 7 mm. Female: Length about 6 mm.; wing about 6.2 mm. Rostrum and palpi black. Antennae black throughout; flagellar segments elongate-

subcylindrical; verticils relatively short, subequal to or a trifle longer than the segments. Head gray.

Thoracic dorsum almost uniformly brownish black, sparsely pruinose, the lateral portions of the pronotum and the pretergites yellow, the latter interrupted at near midlength by a darkened spot; posterior callosities of the scutal lobes orange-yellow; region of the suture between the mediotergite and pleurotergite more reddened. Pleura blackened, sparsely pruinose, the sternopleurite slightly more reddened; meral region in male light yellow, darker in female. Halteres with stem infuscated, knob obscure brownish yellow. Legs with the fore and middle coxae infuscated, posterior pair and the trochanters testaceous yellow; remainder of legs brown, the tarsi passing into brownish black. Wings moderately suffused with brown, the prearcular field more yellowed; stigma very narrow, darker brown; veins brown, yellow at the wing base. Venation: R_{2-3-4} relatively arcuated; R_2 slightly oblique, a trifle shorter than R_{2-3} ; veins R_3 and R_4 not quite parallel, the former slightly arched before midlength so the cell is broader here than before the apex; basal deflection of R_5 lacking; $m-cu$ more than one-half its length beyond the fork of M .

Abdomen, including the genitalia of both sexes, dark brown or brownish black. Male hypopygium (Fig. 24) with the tergite, $9t$, transverse, the median region produced into a subquadrate glabrous lobe, the apex and median region of which is pale membranous; setae of tergite sparse and weak. Mesal face of basistyle, b , produced into a broad lobe but without a modified tubercle as in various similar forms. Outer dististyle, d , relatively long and narrow, appearing as a flattened blade of nearly equal width throughout, its apex obtusely rounded. Inner dististyle with five strong basal setae and a grouping of more numerous smaller ones at apex of lobe, the basal two-thirds of the latter glabrous. Phallosome, p , transverse, the apex very broadly obtuse and blackened, the margin microscopically ridged or roughened.

Habitat: Peru. Holotype, ♂, Chanchamayo, Junin, altitude 1200 meters, May 4, 1948 (Schunke). Allotopotype, ♀, pinned with type.

The present fly is most similar to species such as *Gnophomyia* (*Gnophomyia*) *lata* Alexander, *G. (G.) pauciseta* Alexander, and *G. (G.) latilobata*, sp. n., differing from all primarily in the details of structure of the male hypopygium.

Gnophomyia (Gnophomyia) tricornis Alexander

Type from Sariapampa, Huanuco, Peru, May 4-11, 1946 (Woytkowski). Male hypopygium (Fig. 25).

Gnophomyia (Gnophomyia) trisetigera Alexander

Type from Fundo Sinchono, Huanuco, Peru, August 2, 1947 (Schunke). Male hypopygium (Fig. 26).

Neognophomyia adara, sp. n.

Thorax reddish yellow, the praescutum with three brown stripes; pleura brownish yellow ventrally, the dorsum with a broken brownish black stripe; femora yellow, the tips weakly and gradually darkened; wings subhyaline, very restrictedly patterned with darker; abdomen, including hypopygium, chiefly dark brown; male hypopygium with the tergal spines long and strong, heavily blackened; both dististyles dark colored, the outer strongly bent before midlength, with five strong yellow setae, two of which are apical; inner dististyle a broader scooplike structure; phallosome with the apex deeply notched, either half appearing as a strongly rolled blade, the oblique apex narrowly blackened.

Male. — Length about 5.5-5.6 mm.; wing 5.6-5.8 mm. Rostrum yellow; palpi brown. Antennae brownish black, the proximal end of scape yellowed; basal flagellar segments subcylindrical, the outer ones more elongate oval; verticils elongate. Head yellow; anterior vertex relatively narrow, subequal in diameter to the scape.

Pronotum chiefly pale yellow. Mesonotal praescutum reddish yellow, with three brown stripes, the lateral pair darker, crossing the suture onto the scutal lobes; posterior angles of scutal lobes, parascutella and outer cephalic portion of mediotergite yellow, the remainder of mesonotum, including the pleurotergite, chiefly brownish black. Pleura brownish yellow ventrally, sparsely pruinose, the dorsum with a broken brownish black stripe that is best-indicated on the anepisternum and pleurotergite; dorso-pleural membrane pale. Halteres with stem pale, knob weakly infuscated. Legs with the coxae and trochanters yellow; femora yellow, the tips weakly and gradually darkened; remainder of legs yellow, the outer three or four tarsal segments dark brown. Wings subhyaline, very restrictedly patterned with darker, including the small stigma and a scarcely evident seam over the anterior cord; veins brown, those at wing base paler. Venation:

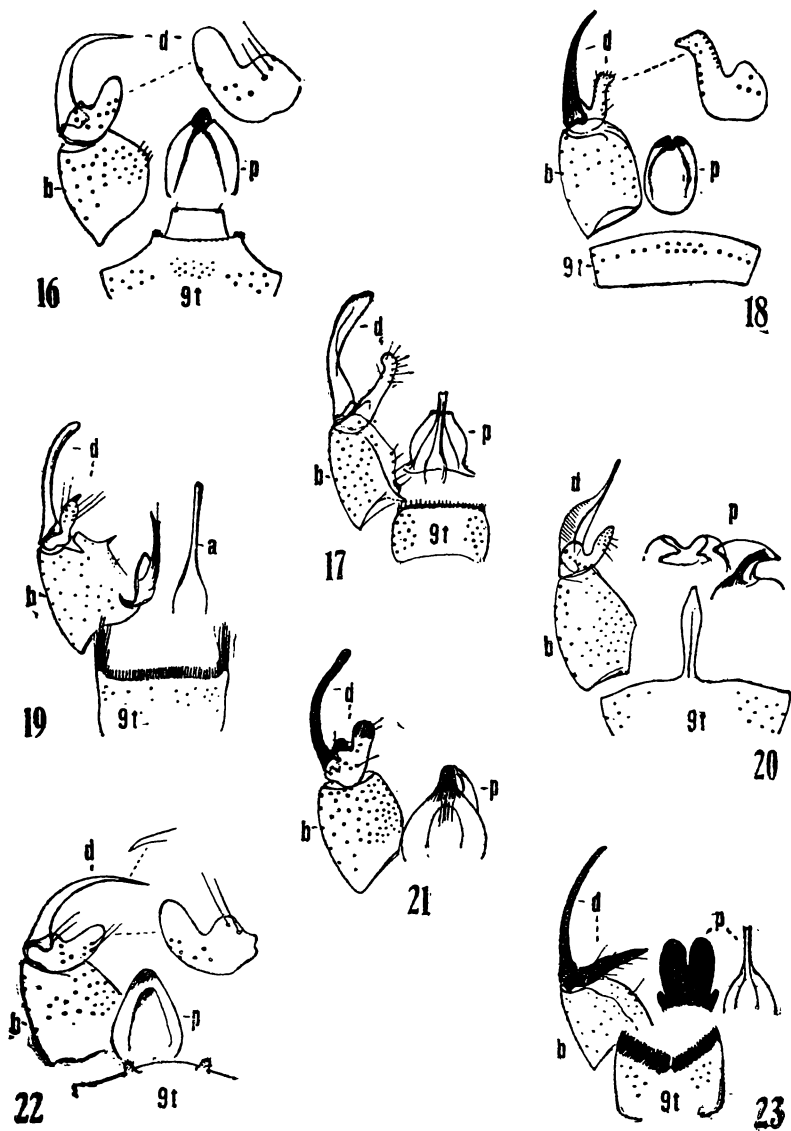


Fig. 16. *Gnophomyia (Gnophomyia) peracutior* Alexander; male hypopygium. — Fig. 17. *Gnophomyia (Gnophomyia) perdebilis* Alexander; male hypopygium. — Fig. 18. *Gnophomyia (Gnophomyia) persevera* Alexander; male hypopygium. — Fig. 19. *Gnophomyia (Gnophomyia) petentis* Alexander; male hypopygium. — Fig. 20. *Gnophomyia (Gnophomyia) sagitta*, s. n.; male hypopygium. — Fig. 21. *Gnophomyia (Gnophomyia) socialis* Alexander; male hypopygium. — Fig. 22. *Gnophomyia (Gnophomyia) subflebilis* Alexander; male hypopygium. — Fig. 23. *Gnophomyia (Gnophomyia) tiresias*, sp. n.; male hypopygium. — (Explanation of symbols: a, aedeagus; b, basistyle; d, dististyles; p, phallosome; t, 9th tergite).

Sc_1 ending shortly beyond R_2 , Sc_1 alone exceeding one-half the length of R_3 ; vein R_3 relatively short, as normal for the genus; $m-cu$ nearly its own length beyond the fork of M .

Abdomen, including hypopygium, chiefly dark brown, sparsely pruinose. Male hypopygium (Fig. 27) with the tergal spines, *9t*, long and strong, heavily blackened, gently curved to the narrowly obtuse tips. Both dististyles, *d*, dark-colored, the outer strongly bent before midlength, with five strong yellow setae, two of which are apical in position. Inner dististyle a broader scooplike structure, the basal flange with about three strong black setae; apical margin of style microscopically serrulate or roughened. Phallosome, *p*, diagnostic, the apex deeply notched, either half appearing as a strongly rolled blade, the oblique apex narrowly blackened.

Habitat: Ecuador. Holotype, ♂, Rio Blanco, Baños, altitude 2200 meters, April 1948 (Segundo Velastegui). Paratopotype, ♂, pinned with type.

The most nearly allied species include *Neognophomyia cochlearis* Alexander, *N. consociata* Alexander, and *N. scapha* Alexander, all of which differ very evidently in the structure of the male hypopygia.

Neognophomyia debilitata, sp. n.

Thorax reddish yellow, the pleura clearer yellow, with a weak darkening on the anepisternum; legs yellow, the outer tarsal segments brownish black; wings whitish subhyaline, with a scarcely indicated darkened seam over the cord; abdomen conspicuously patterned, the basal tergites chiefly yellow with their lateral portions infuscated, on the fifth and sixth segments more extensively darkened; subterminal segments uniformly pale yellow; male hypopygium with the tergal spines weak and narrow, the pale apex about one-third that of the darkened blade; outer dististyle with five setae, one apical; inner dististyle with the apex narrowly blackened, subacute; phallosomic plate suboval in outline, the apex narrowly truncate to broadly obtuse, undarkened.

Male: Length about 5 mm.; wing 4.8-5 mm. Female: Length about 5.5 mm.; wing 5.5 mm. Rostrum yellow, palpi a little darker. Antennae with the scape and pedicel obscure yellow, flagellum brownish black; flagellar segments long-oval. Head yellow; anterior vertex nearly twice the diameter of the scape.

Thoracic dorsum reddish yellow; pleura clearer yellow with a weak darkening on the anepisternum. Halteres with stem yellow, knob infuscated. Legs with the coxae and trochanters yellow; remainder of legs yellow, the outer three tarsal segments passing into brownish black. Wings whitish subhyaline, the prearcular and costal fields pale yellow; a very narrow to scarcely indicated darkened seam over the cord; veins brown, paler in the more

yellowed fields. Venation: Vein R_3 short and oblique, as is the usual condition in the genus; $m-cu$ before or close to midlength of M_{3-4} .

Abdomen conspicuously patterned; basal tergites chiefly yellow, the lateral portions infuscated; fifth and sixth segments more extensively and uniformly darkened; subterminal segments uniformly pale yellow, the hypopygium a trifle darker yellow. Male hypopygium (Fig. 28) with the tergal spines, $9t$, weak and narrow, the pale apex of each about one-third as long as the darkened blade. Outer dististyle, d , with five setae, one of which is apical. Inner dististyle with the apex narrowly blackened, subacute. Phallosomic plate, p , suboval in outline, the apex narrowly truncate to broadly obtuse, not darkened.

Habitat: Peru. Holotype, ♂, Contamana, Loreto, May 22, 1947 (Schunke). Allotopotype, ♀ Paratopotypes, 2 ♂♂, on pin with the holotype.

The present fly is closest to species such as *Neognophomyia productissima* Alexander and *N. trinitatis* Alexander, differing chiefly in the structure of the male hypopygium.

Neognophomyia setilobata, sp. n.

General coloration of notum fulvous, the pleura paler, with two large and conspicuous brownish black spots, one on the anepisternum, the other on the posterior pleurotergite; antennae pale; legs yellow; wings uniformly pale yellow, vein R_3 short, oblique; abdominal tergites obscure brownish yellow, darker laterally, the sternites and hypopygium yellow; tergal spines appearing as stout lobes that bear several setae; both dististyles simple, the outer a flattened blade, its margin with five strong setae; phallosome a narrow plate, the margins involuted, the narrow apex blackened and weakly bilobed.

Male. — Length about 5 mm.; wing 5 mm. Rostrum and bases of palpi pale, testaceous yellow, the outer palpal segments infuscated. Antennae pale, the outer flagellar segments very weakly infuscated; flagellar segments passing through oval to long-oval; basal two flagellar segments more or less united into a fusion-segment, the suture distinct. Head testaceous yellow.

Thoracic dorsum chiefly fulvous, the pleura a trifle paler, with two conspicuous brownish black spots, one on the anepisternum, the other on the posterior part of the pleurotergite. Halteres pale. Legs yellow, the terminal tarsal segments brownish

black. Wings uniformly pale yellow, including the veins. Venation: Sc_1 ending just before the level of R_2 ; vein R_3 short, oblique; $m-cu$ about one-half its length beyond the fork of M .

Abdominal tergites obscure brownish yellow, darker laterally; sternites and hypopygium yellow. Male hypopygium (Fig. 29) with the tergal armature, $9t$, distinctive, the caudal margin being produced into a median plate, each outer angle of which is further produced into a stout lobe that narrows into a pale tip, this provided with several setae; space between the lobes pale and membranous, with abundant microscopic setulae. Both dististyles, d , unusually simple, the outer a flattened pale blade, its margin with five strong setae, the margin of style near base with an obtuse tooth. Inner dististyle shorter, appearing as a slightly curved rod, the outer half blackened, the margin and outer surface with strong setae, the latter stoutest; apex of style weakly notched. Phallosome, p , a narrow plate, the margins involuted, the narrow apex blackened and slightly bilobed.

Habitat: Peru. Holotype, ♂, Cerro Azul, Loreto, April 20, 1947 (Schunke).

A very distinct fly, readily told by the entirely unpatterned pale yellow wings and by the male hypopygium, particularly the tergal spines. In the latter regard, the species most resembles *Neognophomyia immaculipennis* (Alexander), of Paraguay and southeastern Brazil, a very different fly.

Gonomyia (Progonomyia) magistrata, sp. n.

Size very large (wing, male, over 7 mm.); mesonotum chiefly dark brown, the pleura dark brown with a narrow yellow stripe; antennal scape yellow, flagellum black; femora obscure yellow basally, passing into brown; wings with a strong brownish tinge, unpatterned except for the slightly darker stigma; Sc very long, Sc_1 ending approximately opposite four-fifths the length of R_s ; cell $2nd\ M_2$ deep, exceeding three times its petiole; male hypopygium with the apex of basistyle obtuse, with about five powerful black setae; outer dististyle longer than the others, bearing a slender lateral spine.

Male. — Length about 7-8 mm.; wing 7.2-8.5 mm. Rostrum obscure yellow; palpi black. Antennae with scape yellow, pedicel chestnut brown, flagellum black; flagellar segments sub-cylindrical, shorter than the longest verticils. Head light gray; anterior vertex broad, a little less than three times the diameter of scape.

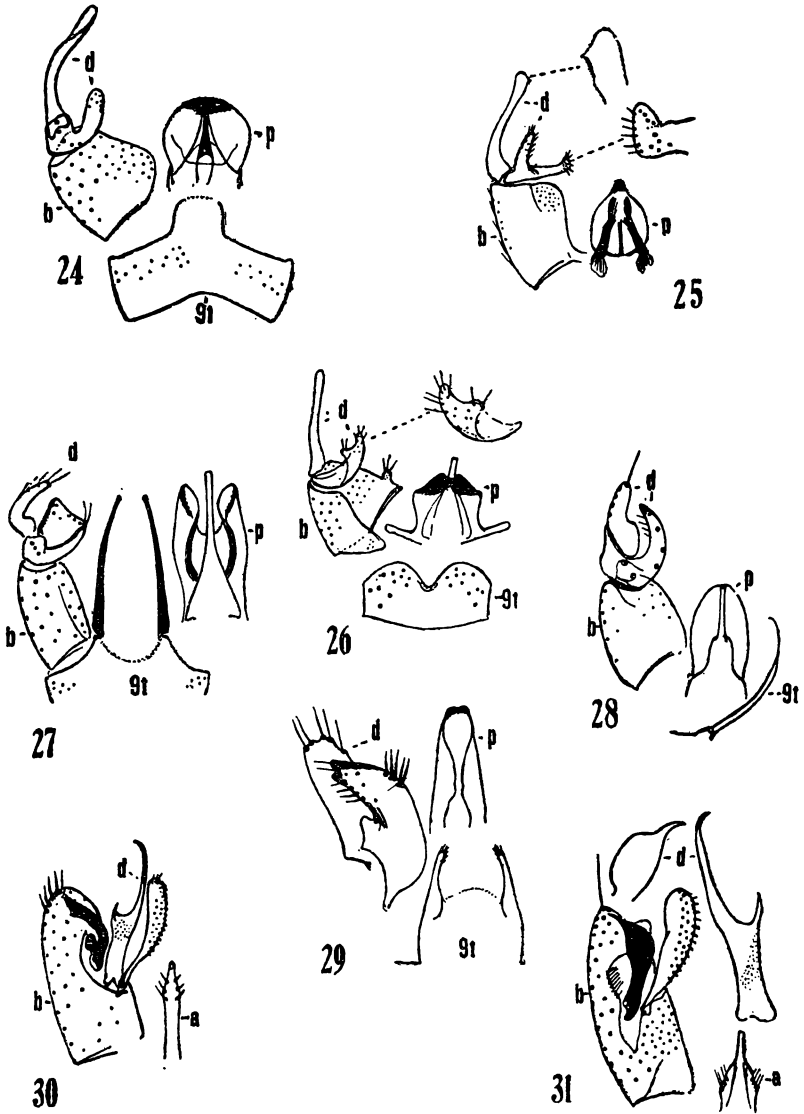


Fig. 24. *Gnophomyia (Gnophomyia) transversa*, sp. n.; male hypopygium. — Fig. 25. *Gnophomyia (Gnophomyia) tricornis* Alexander; male hypopygium. — Fig. 26. *Gnophomyia (Gnophomyia) trisetigera* Alexander; male hypopygium. — Fig. 27. *Neognophomyia adara*, sp. n.; male hypopygium. — Fig. 28. *Neognophomyia debilitata*, sp. n.; male hypopygium. — Fig. 29. *Neognophomyia setilobata*, sp. n.; male hypopygium. — Fig. 30. *Gonomyia (Progonomyia) magistrata*, sp. n.; male hypopygium. — Fig. 31. *Gonomyia (Progonomyia) ovalis*, sp. n.; male hypopygium. — (Explanation of symbols: a, aedeagus; b, basistyle; d, dististyles; p, phallosome; t, 9th tergite).

Pronotum above light yellow, the sides plumbeous; pretergites light yellow. Mesonotum chiefly dark brown, the surface sparsely pruinose, more heavily so behind; pseudosutural foveae

and tuberculate pits black; sides of scutal lobes, adjoining the wing root, and the cephalic-lateral portions of the mediotergite restrictedly obscure yellow. Pleura dark plumbeous brown dorsally, the ventral sternopleurite more reddened, with a narrow longitudinal yellow stripe on the dorsal sternopleurite, ventral pteropleurite and meron. Halteres dark brown. Legs with the coxae reddish brown; trochanters yellow; femora obscure yellow basally, passing into brown; tibiae and tarsi brown, the outer tarsal segments black. Wings with a strong brownish tinge, unpatterned except for the small oval, slightly darker brown stigma; veins brown, more yellowed in the prearcular field. Venation: *Sc* very long, *Sc*₁ ending approximately opposite four-fifths the length of *Rs*, *Sc*₁ being about as long as *m-cu*; vein *R*₂ faint but indicated, placed just before midlength of the stigma; veins *R*₃ and *R*₄ extending generally parallel to one another, only slightly divergent, cells *R*₂ and *R*₃ at margin being approximately equal in extent; cell *2nd M*₂ deep, exceeding three times its petiole; *m-cu* close to the fork of *M*.

Abdomen dark brown, the hypopygium a trifle paler. Male hypopygium (Fig. 30) with the apex of basistyle, *b*, obtuse, slightly produced beyond the point of insertion of the dististyles, at apex with about five powerful black setae; mesal edge of outer lobe of basistyle with a fringe or group of long yellow setae. Outer dististyle, *d*, longest, widened on basal half, the outer angle thence produced into an equally long slender spine; inner angle of the expanded part produced into a much smaller spine; surface of the expanded base setuliferous; intermediate dististyle a flattened blade, its tip obtuse; inner dististyle very narrow at base, the vestiture short and subspinous. Aedeagus, *a*, simple at tip, with six subapical setae. What is interpreted above as being the inner dististyle, in other members of the subgenus appears to represent a lobe of the basistyle but in the present material seems more correctly homologized as is done.

Habitat: Peru. Holotype, ♂, Chanchamayo, Junin, altitude 1200 meters, May 5, 1948 (Schunke). Paratopotype, 1 ♂, April 29, 1948.

The only other described species of comparable large size include *Gonomyia (Progonomyia) ominosa* Alexander and *G. (P.) paramoensis* Alexander, which are entirely distinct in the coloration and in the structure of the male hypopygium.

Gonomyia (Progonomyia) ovalis, sp. n.

Mesonotum light gray, the praescutum with three conspicuous dark brown stripes; pleura dark, gray pruinose, with a broad yellow longitudinal stripe; antennae with scape yellow, pedicel and flagellum black; legs black; wings subhyaline, patterned with light brown; *Sc* long, *Sc*₁ ending about opposite midlength of *Rs*; male hypopygium with the outer dististyle dilated into an oval blackened head that is further produced into a long apical spine.

Male. — Length about 5.5 mm.; wing 6 mm. Rostrum and palpi black. Antennae with scape yellow, pedicel and flagellum black; flagellar segments passing through long-oval to oval; verticils short. Head above light gray, the center of the vertex with a large oval brown spot; anterior vertex broad.

Pronotum gray, with three dark brown areas, the central one largest. Mesonotal praescutum light gray with three conspicuous dark brown stripes; scutal lobes extensively dark brown, the remainder gray, the posterior lateral angles restrictedly obscure yellow; scutellum infuscated, restrictedly obscure yellow medially; postnotum dark gray, the narrow lateral borders of the mediotergite and the anapleurotergite yellow. Pleura dark, gray pruinose, with a broad yellow longitudinal stripe, extending from the fore coxae across the dorsal sternopleurite over the metapleura. Halteres yellow, the knob very weakly darkened. Legs with the coxae yellow apically, the bases broadly brownish black; trochanters dark brown; remainder of legs black. Wings subhyaline, patterned with light brown, including areas at origin of *Rs*, tip of vein *2nd A* and before midlength of cell *Cu*, forming a broken band; stigma, and further seams over the cord and fork of *M*₁₋₂; veins brownish black, paler in the prearcular field. Venation: *Sc* long, *Sc*₁ ending about opposite midlength of *Rs*; *R*₂ shortly before the fork of *R*₃₋₄; cell *2nd M*₂ relatively deep, nearly twice its petiole.

Abdomen, including hypopygium, brownish black. Male hypopygium (Fig. 31) with the outer dististyle, *d*, dilated at apex into an oval blackened head that is further produced into a long apical spine. Intermediate dististyle opposite the lateral spine much broader than in *peruviana*. Subapical tubercle on mesal face of basistyle dark-colored, conspicuous. In *peruviana*, the outer dististyle on distal half is only slightly dilated.

Habitat: Peru. Holotype, ♂, Utcuyacu, Junin, March 7, 1948 (Woytkowski).

Although generally similar to *Gonomyia* (*Progonomyia*) *peruviana* Alexander, the present fly differs in the details of coloration, including the blackened legs, and in the structure of the male hypopygium.

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

General coloration of mesonotum dark brown, more or less pruinose; pale pleural stripe not or scarcely indicated; rostrum obscure yellow; wings with *Rs* shorter than R_{2-3-4} , the latter only slightly arcuated; male hypopygium with the outer dististyle relatively small, pointed at tip; inner style slender, forked at midlength into a gently curved black hook and a shorter fleshy lobe bearing two unusually strong fasciculate setae; phallosome without blackened spines or points, the apex subtruncate, provided with several setae or fimbriations.

Male. — Length about 5 mm.; wing 5 mm. Rostrum obscure yellow; palpi dark brown. Antennae black; verticils relatively long. Head dark gray.

Pronotum brownish testaceous. Mesonotal praescutum dark brown, more or less pruinose, the sides paler; scutum brown; scutellum chiefly obscure orange; mediotergite dark brownish gray, the sides and the pleurotergite obscure brownish yellow. Pleura chiefly pale brown. Halteres dark brown. Legs dark brown; the coxae and trochanters paler. Wings with a weak dusky tinge, the prearcular and costal fields restrictedly more whitened; stigma long, a little darker than the ground; veins brownish black. Venation: Sc_1 ending just before origin of *Rs*, Sc_2 a comparable distance before this point; *Rs* shorter than R_{2-3-4} , the latter only slightly arcuated; R_3 about one-half R_{2-3-4} ; *m-cu* about two-thirds its length beyond the fork of *M*.

Abdomen dark brown, the hypopygium a trifle more brightened. Male hypopygium (Fig. 32) with the basistyle, *b*, at apex on outer face with a low darkened tubercle that bears a few unusually long setae. Outer dististyle, *d*, relatively small, narrowed to an acute point, bearing relatively few long setae. Inner dististyle slender, elongate, forked at midlength into a gently curved black hook and a shorter fleshy lobe that bears two unusually strong fasciculate setae. Phallosome, *p*, elongate, somewhat widened outwardly, without blackened spines or points; apex subtruncate, each outer angle with several setae or fimbriations.

Habitat: Peru. Holotype, ♂, Chanchamayo, Junin, altitude 1200 meters, April 28, 1948 (Schunke).

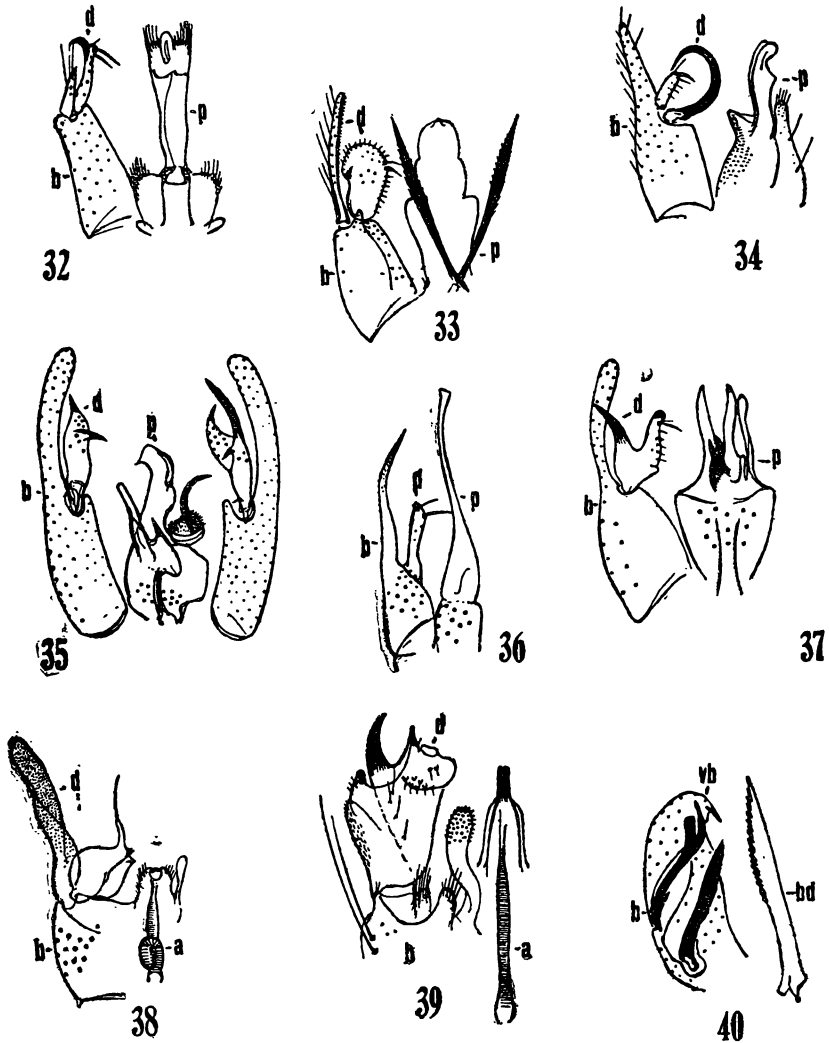


Fig. 32. *Gonomyia (Gonomyia) dasyphallus*, sp. n.; male hypopygium. — Fig. 33. *Gonomyia (Gonomyia) otlösa*, sp. n.; male hypopygium. — Fig. 34. *Gonomyia (Lipophleps) subscimitar* Alexander; male hypopygium. — Fig. 35. *Gonomyia (Lipophleps) tersa* Alexander; male hypopygium. — Fig. 36. *Gonomyia (Lipophleps) troilus* Alexander; male hypopygium. — Fig. 37. *Gonomyia (Lipophleps) vehemens* Alexander; male hypopygium. — Fig. 38. *Cryptolabis (Cryptolabis) pendulifera*, sp. n.; male hypopygium. — Fig. 39. *Cryptolabis (Cryptolabis) semiflava*, sp. n.; male hypopygium. — Fig. 40. *Motophilus (Motophilus) carpishensis*, sp. n.; male hypopygium. — (Explanation of symbols: a, aedeagus; b, basistyle; bd, basal dististyle; d, dististyles; p, phallosome; vb, ventral lobe of basistyle).

While most similar to species such as *Gonomyia (Gonomyia) aspera* Alexander, *G. (G.) crinita* Alexander and *G. (G.) methodica* Alexander, the present fly is entirely distinct in the structure of the male hypopygium, particularly the phallosome.

Gonomyia (Gonomyia) otiosa, sp. n.

General coloration of mesonotum dark brown, the scutellum paler behind; pleura variegated with obscure yellow and brown; rostrum yellow, antennae black throughout; Sc_1 ending opposite the origin of R_s , R_{2-3-4} longer than R_s ; male hypopygium with the apical lobe of basistyle small and inconspicuous; inner dististyle a broadly flattened disk, its length less than twice the greatest width, the outer edge with a small blackened spine; phallosome a large central organ, the apex obtuse; apophyses equal in size, appearing as decussate blades, broadest beyond midlength, thence narrowed into long terminal spines, the surface of the outer two-thirds with numerous short setulae.

Male. — Length about 4.5 mm.; wing 4.5 mm. Rostrum yellow; palpi black. Antennae black throughout; flagellar segments long, the longest verticils unilaterally distributed. Head gray.

Pronotum brown, yellowed behind; pretergites light yellow. Mesonotal praescutum and scutum dark brown, scutellum paler behind; mediotergite brownish gray, pleurotergite testaceous yellow. Pleura obscure yellow, variegated with dark brown, especially on the mesepisternum; posterior pleurites more pruinose but without a distinct whitened stripe. Halteres infuscated, base of stem yellow. Legs with fore coxae dark brown, remaining coxae brownish yellow; trochanters brown; remainder of legs brownish black. Wings with a weak brownish tinge, the prearcular and costal fields restrictedly more whitened; stigma very slightly darker, vaguely delimited; veins dark brown, the prearcular ones paler. Venation: Sc_1 ending opposite origin of R_s , Sc_2 some distance from its tip; R_{2-3-4} longer than R_s ; basal section of R_5 short; $m-cu$ close to fork of M .

Abdomen dark brown, the hypopygium a little more yellowed. Male hypopygium (Fig. 33) with the apical lobe of basistyle, b , small and inconspicuous, only about one-fourth as long as the inner dististyle. Outer dististyle, d , a long narrow rod, the inner margin of outer half with abundant delicate short setulae. Inner dististyle a broadly flattened disk, its length less than twice the greatest width, the two fasciculate setae placed beyond midlength on the inner margin, on the opposite outer edge with a small blackened spine. Phallosome, p , consisting of a large depressed-flattened central organ, the apex broadly obtuse; apophyses equal in size, appearing as decussate blackened blades, broadest beyond midlength, narrowed into long terminal spines, the surface of outer two-thirds with numerous short setulae.

Habitat: Peru. Holotype, ♂, Chanchamayo, Junin, altitude 1200 meters, April 28, 1948 (Schunke).

The most similar described species is *Gonomyia (Gonomyia) platymerina* Alexander, which differs evidently in the structure of the male hypopygium, particularly of the inner dististyle and phallosome.

Gonomyia (Lipophleps) subscimitar Alexander

Type from Satipo, Junin, Peru, November 28, 1940, April 8, 1941 (Paprzycki). Male hypopygium (Fig. 34).

Gonomyia (Lipophleps) tersa Alexander

Type from Pucallpa, Loreto, Peru, March 16, 1947 (Schunke). Male hypopygium (Fig. 35).

Gonomyia (Lipophleps) troilus Alexander

Type from Utcuyacu, Junin, Peru, February 11, 1947 (Woytkowski). Male hypopygium (Fig. 36).

Gonomyia (Lipophleps) vehemens Alexander

Type from Utcuyacu, Junin, Peru, February 9, 1947 (Woytkowski). Male hypopygium (Fig. 37).

Cryptolabis (Cryptolabis) pendulifera, sp. n.

Mesonotum almost uniformly pale brown, the pleura with a conspicuous black dorsal area that appears as a broken stripe; legs pale brown; wings subhyaline, unpatterned, the axillary darkening lacking; *Rs* long, *m-cu* at midlength of *M*₃₋₄; male hypopygium with two dististyles, the outer a long pale flattened blade that is more or less sinuous and pendant, its surface with abundant pale setae; aedeagus relatively slender, strongly convoluted.

Male. — Length about 4.5 mm.; wing 5 mm. Rostrum obscure yellow; palpi dark brown. Antennae (male) short, brown; flagellar verticils long and conspicuous. Head chiefly pale yellow.

Pronotum and pretergites china white. Mesonotum almost uniformly pale brown, the pleura with a conspicuous black dorsal area that appears as a broken stripe, heaviest behind. Halteres weakly darkened, the base of stem restrictedly whitened. Legs with the coxae and trochanters pale; remainder of legs almost uniformly pale brown. Wings subhyaline, the prearcular field a

little more yellowed; no darkening in axillary region; veins brown, yellow in the brightened areas. Macrotrichia in cells beyond cord, lacking in the basal portions, especially of the more posterior cells. Venation: *Rs* long, sinuous at near midlength; *r-m* shortly before fork of *Rs*; R_{2-3-4} arcuated, about one-third longer than R_{2-3} ; *m-cu* at near midlength of M_{3-4} .

Abdominal tergites dark brown, sternites and hypopygium yellowed. Male hypopygium (Fig. 38) distinctive. Two dististyles, *d*, the outer a long pale flattened blade, more or less sinuous and pendant, its surface with abundant pale setae. Inner dististyle shorter, appearing as a flattened suboval disk, the outer margin before apex produced into a long tubercle that is tipped with a single somewhat longer bristle. Aedeagus, *a*, relatively slender, strongly convoluted and transversely striated.

Habitat: Peru. Holotype, ♂, Chanchamayo, Junin, altitude 1200 meters, May 18, 1948 (Schunke).

This very distinct fly is most similar to species such as *Cryptolabis* (*Cryptolabis*) *ecalcarata* Alexander and *C. (C.) roundsi* Alexander, differing from these and all other described species in the somewhat remarkable male hypopygium.

Cryptolabis (*Cryptolabis*) *semiflava*, sp. n.

General coloration pale yellow, the pleura with a conspicuous brownish black dorsolongitudinal stripe; legs yellow, the tips of the tibiae and outer tarsal segments more darkened; wings pale yellow, the axilla and a vague seam at cord weakly darkened; *Rs* long and sinuous, *m-cu* at or close to midlength of M_{3-4} ; male hypopygium with the dististyle apparently single but complex, terminating in two blackened points; basistyle at apex of mesal face bearing a stout sinuous lobe, at its tip with abundant pale spiculate points; aedeagus straight and unusually slender.

Male: Length about 4.5 mm.; wing 5.2 mm. Female: Length about 4.5 mm.; wing 5.1 mm. Rostrum brown; palpi dark brown. Antennae with scape and pedicel dark brown, the flagellum paler; flagellar segments (male) long-oval to subcylindrical, with long verticils. Head yellow.

Thorax chiefly yellow, the notum somewhat more reddish yellow; a conspicuous brownish black dorsolongitudinal pleural stripe, longer and more nearly continuous in the type female, where it extends from behind the fore coxae to the base of abdomen, passing above the root of the halteres; in the type male the stripe is much paler to subobsolete in front, most distinct

as a mark at midlength of the pleura, thence paling behind. Halteres pale. Legs with the coxae and trochanters yellow, the fore pair somewhat darker; remainder of legs yellow, the narrow tips of the tibiae and the outer tarsal segments more darkened. Wings with a pale yellowish tinge, the axilla and a vague seam at cord weakly darkened; veins yellow, more infuscated in the clouded areas at cord. Macrotrichia in apical cells in both sexes, extending more basad in female. Venation: *r-m* at or before fork of *Rs*, the latter long, sinuous at midlength; R_{2-3-4} suberect at origin, a trifle longer than R_{2-3} ; *m-cu* at or shortly beyond midlength of M_{3-4} .

Abdominal tergites brown, sternites and hypopygium paler. Male hypopygium (Fig. 39) with the dististyle, *d*, complex in structure but apparently a single unit, terminating in two blackened points, one a small obtuse knob, the other a powerful curved spine; main body or beak of style with several pale setae. Basistyle, *b*, at apex of mesal face with a stout sinuous lobe that terminates in abundant pale spiculate points; opposite mesal angle of style with a short lobe that bears several setae of various lengths; outer surface of basistyle with relatively few setae but some of these of unusual length, considerably longer than the style itself. Penis straight, unusually slender, the outer portion or aedeagus proper, *a*, narrowed and heavily blackened.

Habitat: Peru. Holotype, ♂, Fundo Sinchono, Huanuco, altitude 1500 meters, August 14, 1947 (Schunke). Allotopotype, ♀, pinned with type.

The present fly is most similar to *Cryptolabis (Cryptolabis) sordidipes* Alexander, *C. (C.) vallicola* Alexander, and others, differing from all known species of the genus in the structure of the male hypopygium.

Molophilus (Molophilus) carpishensis, sp. n.

Belongs to the *plagiatus* group; mesonotum brownish gray, clearer gray behind and on pleura; antennae short in both sexes; wings brownish yellow, restrictedly patterned with brown, most evident as seams along cord and at ends of veins *Cu* and *2nd A*; male hypopygium with the basal dististyle a simple straight rod that terminates in a short apical spine, the lower margin of style for more than one-half the length back from tip with a row of at least 25 appressed spines.

Male: Length about 5.5 mm.; wing 6 mm.; antenna about 1.4-1.5 mm. Female: Length about 6 mm.; wing 6.2-6.3 mm. Rostrum and palpi brownish black. Antennae short in both sexes,

brownish black; flagellar segments oval, with verticils that much exceed the segments. Head gray.

Thoracic dorsum brownish gray, clearer gray behind and on the pleura; pronotal scutellum and pretergites restrictedly whitened; pseudosutural foveae and tuberculate pits black. Halteres pale yellow. Legs with the coxae and trochanters brown; femora dark brown, restrictedly more yellowed basally; tibiae somewhat paler brown, the tarsi dark brown or brownish black; fore tibia (male) with basal glandular area. Wings brownish yellow, restrictedly patterned with brown, the areas along cord further accentuated by dark colored hair patches; the chief clouds include the cord and marginal clouds at or near ends of veins *Cu* and *2nd A*; veins yellow, dark brown in the patterned areas. Venation: R_2 lying slightly distad of level of *r-m*; petiole of cell M_3 approximately twice the sinuous *m-cu*; vein *2nd A* ending about opposite midlength of the cephalic end of *m-cu*.

Abdomen, including hypopygium, brownish black. Male hypopygium (Fig. 40) with the beak of the basistyle, *vb*, slender, nearly straight, the tip acute. Outer dististyle with the two arms unequal, the inner one longer and gently sinuous. Basal dististyle, *bd*, a simple straight rod that terminates in a relatively short apical spine, the lower margin for more than one-half the distance back from apex with a row of at least 25 appressed or sub-appressed spines. Aedeagus long and slender.

Habitat: Peru. Holotype, ♂, Carpish, Huanuco, in dwarf fog forests, altitude 2800 meters, October 8, 1946 (Woytkowski). Allotopotype, ♀, with the type, pinned with a paratype male. Paratopotypes, 3 ♂ ♀, October 8-18, 1946 (Woytkowski).

Most nearly allied to *Molophilus (Molophilus) capricornis* Alexander and *M. (M.) luxuriosus* Alexander, from which it differs especially in the structure of the male hypopygium, notably the basal dististyle.