Reprinted from Annals of the Entomological Society of America Vol. XLII, No. 1, March, 1949

NEW SPECIES OF CRANE-FLIES FROM SOUTH AMERICA. PART XIII¹

(**Diptera: Tipulidae**)

CHARLES P. ALEXANDER,

Amherst, Massachusetts

The novelties discussed herewith are all from Peru and Ecuador, particularly from the former where they were collected in the Departments of Loreto and Huanuco, mostly by my friends Messrs. José M. Schunke and Felix Woytkowski. The types of the novelties are preserved in my large collection of these flies. All species fall in the great tribe Eriopterini, the Neotropical species of which have been listed by the writer in recent papers (Rev. de Entomologia, 17: 375–400, 1946; 18: 65–100, 1947; 18: 317–360, 1947).

Genus **Trentepohlia** Bigot

Trentepohlia (Paramongoma) tethys sp. n.

General coloration dark brown; pleura and pleurotergite yellow; legs with the femora brown, the tips broadly white; tibiae black, the bases white, the tips more broadly so; basitarsi black, the outer third and remainder of tarsi white; wings subhyaline, stigma pale brown, triangular; extreme wing tip vaguely darkened; vein R_3 oblique, in approximate longitudinal alignment with R_{2+3+4} .

Female.—Length, about 11 mm.; wing, 8.5 mm.

Rostrum yellow; basal two segments of palpi yellow, the outer two dark brown. Antennae with the scape and pedicel testaceous yellow, flagellum brownish black; flagellar segments elongate-oval to subcylindrical, verticils short. Front yellow; posterior part of head dark brownish gray; anterior vertex narrow, scarcely one-half the diameter of scape.

Pronotum brown. Mesonotum chiefly dark brown, the surface sparsely pruinose, more heavily so on the scutellum and mediotergite; humeral region of praescutum and central part of scutum obscure yellow; pleura and pleurotergite yellow, the mesepisternum a trifle more obscured. Halteres brownish black. Legs with the coxae and trochanters yellow, the fore coxae a trifle darker; femora brown, vaguely paler at bases, the tips broadly and abruptly snowy white; tibiae black, the bases similarly snowy white, a trifle more extensive than the femoral tips; tibial tips abruptly snowy white, a little more dilated, approximately twice the whitened bases; basitarsi black, the outer third or slightly more, as well as the remainder of tarsi, snowy white. Wings subhyaline; stigma pale brown, small, triangular in outline; extreme wing tip vaguely darkened; veins dark brown, C, Sc and R in the vicinity

¹Contribution from the Entomological Laboratory, University of Massachusetts. The preceding part under this general title was published in the ANNALS OF THE ENTOMOLOGICAL SOCIETY OF AMERICA, 38: 356-380, 1945.

Annals Entomological Society of America [Vol. XLII,

of the stigma paler brown. Venation: Sc_2 before the level of fork of Rs; R_2 about three times R_{3+4} ; vein R_3 oblique, in approximate longitudinal alignment with R_{2+3+4} ; *m-cu* about two-fifths its length before the fork of M.

Abdominal tergites dark brown; sternites pale greenish yellow. *Habitat.*—Peru (Huanuco). *Holotype*, ♀, Fundo Sinchono, altitude 1500 meters, August 4, 1947 (Schunke).

The most similar described species is *Trentepohlia* (*Paramongoma*) *metatarsata* Alexander, which differs in the coloration of the legs and in the venation.

Trentepohlia (Paramongoma) conscripta sp. n.

General coloration brown, the praescutum somewhat darker medially; legs brown, the tarsi paling to yellow; wings with a pale brownish tinge, unpatterned except for the small brown stigma; R_{2+3+4} a triffe longer than R_{3+4} ; cell 1st M_2 large, subequal to the distal section of vein M_3 ; distance on margin between veins Cu_1 and 1st A extensive, nearly equal to *m-cu*.

Male.—Length, about 6 mm.; wing, 7.3 mm.

Rostrum brown; palpi black. Antennae black throughout; flagellar segments oval, the verticils short. Head brown; anterior vertex very reduced.

Cervical region and pronotum brownish black. Mesonotum brown, the praescutum somewhat darker medially; pleurotergite and pleura somewhat more yellowish brown. Halteres infuscated. Legs with the coxae and trochanters brownish testaceous; remainder of legs brown, the tarsi paling to yellow. Wings with a pale brownish tinge, unpatterned except for the small oval brown stigma; prearcular and costal cells pale yellow; veins pale brown, Sc more yellowed. Venation: Sc_1 ending about opposite R_2 ; R_{2+3+4} a trifle longer than R_{3+4} ; cell 1st M_2 large, subequal to the distal section of vein M_3 ; m-cu shortly beyond the fork of M; distance on margin between Cu_1 and 1st A extensive, nearly equal to m-cu.

Abdominal tergites brown, the sternites and hypopygium more brownish vellow.

Habitat.—Peru (Huanuco). Holotype, &, Carpish, in dwarf fog forests, altitude 2800 meters, October 10, 1946 (Woytkowski). Paratopotype, &.

The most similar species is *Trentepohlia* (*Paramongoma*) longifusa Alexander, which is well distinguished by the small size and by details of coloration and venation.

Trentepohlia (Paramongoma) montivaga sp. n.

Size relatively large (wing, male, 6.5 mm. or over); general coloration uniformly pale yellow, including the halteres and legs; wings pale yellow, with a restricted darkened seam over the distal section of vein Cu; vein R_3 oblique, only a little longer than R_{3+4} ; cell 1st M_2 large, only a little shorter than the distal section of vein R_5 .

Male.—Length, about 5-5.5 mm.; wing, 6.5-6.7 mm. Female.—Length, about 6.5-7 mm.; wing, 7.5-8 mm.

Rostrum yellow, the reduced palpi infuscated. Antennae with the scape yellow, pedicel light brown, flagellum dark brown; flagellar segments oval, the verticils short and inconspicuous. Head buffy yellow; anterior vertex reduced to a linear strip.

Thorax uniformly yellow. Halteres uniformly pale. Legs yellow, the terminal tarsal segments weakly more darkened. Wings pale yellow, the prearcular and costal regions clearer yellow; a faintly indicated darkened seam on distal section of vein Cu_1 ; veins yellow, Cu_1 on its distal section especially more darkened. Venation: Rs arcuated; vein R_3 oblique, only a little longer than R_{3+4} ; cell 1st M_2 large, only a triffe shorter than the distal section of vein R_5 ; distal section of vein Cu_1 variable in length, from subequal to fully twice m-cu.

Abdomen obscure brownish yellow; hypopygium, excepting the blackened dististyles, clearer yellow.

Habitat.—Peru (Huanuco). *Holotype*, \heartsuit , Sariapampa, in fog forest, altitude 3600 meters, May 12, 1946 (Woytkowski). *Allotopotype*, \heartsuit . *Paratopotypes*, several $\heartsuit \heartsuit \heartsuit \heartsuit$.

Although very similar in its general appearance to *Trentepohlia* (*Paramongoma*) cubitalis Alexander, of southeastern Brazil, the present fly is obviously distinct, differing particularly in the large size and in the details of venation.

Genus **Teucholabis** Osten Sacken

Teucholabis (Paratropesa) nodulifera sp. n.

Belongs to the *collaris* group. Pronotum light yellow, mesonotum purplish black; knobs of halteres light yellow; middle legs yellow; posterior femora yellow with two black rings; an unusually large dilation on more than the proximal half of the posterior basitarsus; wings pale yellow, conspicuously patterned with brown; basal dark band crossing both Anal cells to the margin, occupying half the extent of cell 2nd A; abdomen black, the posterior borders of the sternites broadly yellow; mesal face of basistyle produced into a slender spine; outer dististyle terminating in a pale spine; aedeagus at apex with an abundance of strong setae, the apex a curved black spine.

Male.—Length, about 8 mm.; wing, 7.4 mm.

Rostrum yellow; palpi black. Antennae with the scape yellow below, more infuscated above; flagellum black; flagellar segments oval. Head above chiefly brownish black, the anterior vertex and posterior portion of the head more brownish yellow.

Prothorax uniformly pale yellow. Mesonotum polished black, the praescutum with vague purplish reflexions. Pleura black, the dorsopleural region restrictedly pale; areas of gray bloom or pubescence above the middle and posterior coxae, apparently representing extensive silvery patches in fresh specimens. Halteres black, the knobs light yellow. Legs with the fore and middle coxae and trochanters light yellow, posterior coxae and trochanters black; fore legs broken; middle legs obscure yellow, the tarsi passing into brown; posterior femora yellow, with two black rings, one subbasal, the other subapical, the latter a little narrower and about one-half as extensive as the intervening yellow band; tibiae obscure yellow; tarsi obscure yellow, the basitarsi with more than the proximal half dilated and blackened; outer tarsal segments brownish black; nodulose area on basitarsus, as described, larger and more conspicuous than in the other similar described species, being approximately three times as thick as the apical diameter of the segment. Wings pale yellow, conspicuously patterned with brown, as follows: A narrow band at cord, narrower and more intense at stigma, widened behind at the posterior border in cell 1st A; wing tip more broadly infuscated, extending basad to the level of the outer end of cell 1st M_2 and fork of R_{3+4} ; basad of cord, the darkenings restricted, very narrow at arculus, more expanded but paler in cells Cu, 1st A and 2nd A, occupying about one-half the extent of the last cell; veins brown, not or scarcely paler in the ground areas. Venation: R_2 just basad of r-m producing a short element R_{3+4+5} ; vein R_3 weakly sinuous, about onethird R_4 ; R_5 extensively fused with M_{1+2} , as in the group; cell 1st M_2 narrow; m-cu^{*} at fork of M.

Abdomen black, the broad posterior borders of the sternites light yellow; subterminal segments and hypopygium black. Sternal pocket of segment five large and conspicuous, covering virtually the entire length of the segment, widened behind, the narrow cephalic end with a semilunate chitinized area; setae lateral, directed inward, the more caudal ones chiefly longer and more slender. Male hypopygium with the apical lobe of the basistyle slender, terminating in a short blackened point; mesal face of style, near base, with a strong erect black spine. Outer dististyle a small slender rod, its basal two-thirds more dilated, provided with about nine strong setae; outer third of style a straight pale spine. Inner dististyle large, complex in structure, the flattened beak black; basal arm with about a dozen strong setae. Aedeagus complex, dilated near apex and here provided with very numerous strong setae, the apex a curved black spine.

Habitat.—Peru (Huanuco). Holotype, A, Fundo Sinchono, altitude 1500 meters, August 4, 1947 (Schunke).

From the various other members of the *collaris* group, including *Teucholabis* (*Paratropesa*) *collaris* (Osten Sacken), the present fly differs in the diagnostic features listed, including the leg and wing pattern and structure of the legs and male hypopygium.

Teucholabis (Teucholabis) ducalis sp. n.

Size large (wing, male, 8 mm. or more); general coloration black, the scutellum broadly light yellow; halteres with stem black, knob yellow; femora yellow, the tips broadly black; tarsi black; wings pale yellow, very heavily patterned with dark brown, including the narrow costal border, broad wing tip and narrow posterior margin; cord narrowly seamed with darker brown; male hypopygium with the spine of the basistyle stout-based; outer dististyle dilated on outer half, at near midlength with a strong spine.

Male.—Length, about 7-7.3 mm.; wing, 8-8.5 mm.

Rostrum short, approximately one-half the remainder of head, black throughout; palpi black. Antennae black throughout; basal five or six flagellar segments large, suboval, slightly produced apically on ventral face; outer segments oval; verticils shorter than the segments. Head dull black.

Pronotal scutum black, the scutellum and pretergites yellow. Mesonotum polished black, the scutellum broadly light vellow; a more restricted yellow median area at suture, involving parts of the praescutum and scutum. Pleura black, with a vague pruinose area on the posterior pleurites; dorsopleural region vellow. Halteres with stem black, knob yellow. Legs with all coxae and trochanters black; femora vellow, the tips broadly and conspicuously blackened, subequal in amount on all legs, including nearly the outer third on the fore and middle legs, the outer fifth on the more lengthened posterior femora; tibiae light to dark brown, the tips narrowly blackened; tarsi black; glandular area of posterior basitarsus only feebly dilated. Wings pale yellow, very heavily and conspicuously patterned with dark brown, including cells C and Sc; the broad wing tip, this continued around the posterior margin of wing as a narrow border; stigma, cord and outer end of cell 1st M_2 narrowly darker brown; vague brown clouds or washes in the basal wing cells; veins brownish black. Venation: Sc_1 ending about opposite two-thirds the length of Rs; R_{2+3+4} very short.

Abdomen, including hypopygium, black. Sternal pocket of segment five appearing as a long triangular area, narrowed in front, the inner vestiture consisting of relatively long black setae directed mesad; outer setae strong and powerful, likewise directed mesad. Male hypopygium with the spine of the basistyle near apex of mesal face, a stout-based rod that narrows at midlength into a strong black spine, at the point of narrowing with a dense brush of yellow setae; mesal flange not conspicuously crenulated or toothed. Outer dististyle a strong rod, the basal half a slender stem, the outer half more dilated or bulbous, the apex weekly bidentate; on mesal face at base of the expanded portion with a powerful spine, the opposite margin of style microscopically scabrous. Inner dististyle with the beak terminating in a cultriform blade, the usual lower spine replaced by a series of five or six weak serrations. Aedeagus terminating in a stout blackened subapical spine, the protruded axis with two pairs of setae, the more lateral ones stouter.

Habitat.—Peru (Huanuco). *Holotype*, \mathcal{A} , Fundo Sinchono, altitude 1500 meters, August 6, 1947 (Schunke). *Paratopotypes*, 3 \mathcal{A} , August 6–28, 1947 (Schunke).

This large and striking species is not closely related to others so far described. Superficially it suggests species such as *Teucholabis* (*Teucholabis*) decora Alexander, despite the body coloration, but all structures of the male hypopygium are distinct.

Teucholabis (Teucholabis) subanthracina sp. n.

Allied to anthracina. General coloration of body polished black; thoracic pleura with a broad longitudinal more silvery stripe; wings subhyaline, patterned with brown, including a narrow band at cord and the broader wing tip; Sc_1 ending about opposite two-thirds the length of Rs; male hypopygium with the outer dististyle long, terminating in two short spines, with a further slender spine on mesal edge at near midlength; inner dististyle with the beak produced into a single point, the lower or subapical one obsolete; lobe of style tipped with about six short stout spines of approximately equal size.

Male.—Length, about 6 mm.; wing, 4.9-5 mm.

Rostrum long and slender, subequal in length to the remainder of head, black, longer than in *anthracina*; palpi black. Antennae black throughout; flagellar segments oval, smaller and slightly more elongated outwardly, shorter than the verticils. Head black.

Thorax almost uniformly polished black, the pronotal scutellum and pretergites more reddened; mesonotal scutellum brownish black; dorsopleural membrane dark. Thoracic pleura with a broad longitudinal more silvery stripe extending from behind the fore coxae to the base of abdomen, passing beneath the root of the halteres. Halteres infuscated, knobs obscure yellow. Legs with all coxae black; trochanters dark brown; femora brownish black, the bases obscure yellow, involving approximately the basal half or less, the tips more blackened; tibiae brownish black; tarsi black; posterior basitarsi moderately dilated on proximal third. Wings subhyaline, patterned with pale brown, including a narrow band at cord and the broader apex, the latter not including the bases of cells $2nd M_2$ and M_3 ; stigma oval, darker brown; cells basad of cord not or scarcely darkened. Venation: Sc_1 ending about opposite two-thirds the length of Rs, Sc_2 just beyond one-fourth the length of Rs; branches of Rs parallel for most of their lengths, R_5 thence diverging strongly almost to the wing tip; m-cu from one-third to one-half its length beyond the fork of M.

Abdomen, including hypopygium, black. Sternal pocket of segment five placed near the posterior end of segment, long-oval, the center with microscopic setulae, the border with relatively few long strong bristles that are directed mesad: on sternite six with about a dozen strong setae in a longitudinal row on either side of the broad midline, the rows slightly more narrowed behind; an even weaker sternal area on segment seven, including five or six weak setae on either side of a median area. Male hypopygium with the spine of the basistyle on mesal face just beyond midlength, stout, extended at tip into a strong black spine: mesal margin with a row of long yellow setae; mesal flange blackened, conspicuous, the margin coarsely crenulate. Outer dististyle long, terminating in two short spines, with a long slender spine on mesal edge at near midlength; surface of style with numerous long coarse setae. Inner dististvle with the outer arm or beak produced into a single developed spine; lobe of style terminating in about six or seven short stout spines of approximately equal size. Aedeagus terminating in a strong blackened spine; surface of organ, at near midlength, with four long setae.

Habitat.—Ecuador (Santiago-Zamora). Holotype, S, Zumbi, Rio Zamora, altitude 700 meters, October 28, 1941 (Laddey). Paratopotype, S, October 31, 1941 (Laddey).

Although very similar in its general appearance to *Teucholabis* (*Teucholabis*) anthracina Alexander, the present fly seems to be quite distinct in the hypopygial characters, as above described. The type specimens had earlier (Rev. de Entomologia, 16: 374; 1945) been identified as anthracina.

Teucholabis (Teucholabis) desdemona sp. n.

Size small (wing, male, about 4.5 mm.); general coloration polished black, variegated with yellow, including the scutellum; knobs of halteres

yellow; wings whitish, restrictedly patterned with brown, most conspicuous as the stigma and over the anterior cord; Sc short, Sc_1 ending about opposite one-fourth the length of Rs, the branches of the latter strongly divergent; cell M_2 normally open by the atrophy of the basal section of M_3 ; abdominal segments bicolored, black and yellow; male hypopygium without an apical spine on basistyle; outer dististyle a long rod bearing a lateral spine at near two-thirds the length, terminating in a long straight spine; aedeagus with the apical point directed laterad.

Male.—Length, about 4-4.5 mm.; wing, 4-4.6 mm.

Rostrum short, black; palpi black. Antennae relatively long, if bent backward extending about to the root of wings; scape and pedicel obscure yellow, flagellum black; flagellar segments short-oval, strongly narrowed at outer ends, shorter than the verticils. Head polished black.

Prothorax and pretergites uniformly pale yellow. Mesonotum polished black, the scutellum and a central spot at suture yellow. Pleura chiefly occupied by a broad yellow longitudinal stripe extending from the prothorax across the dorsal sternopleurite, becoming more expanded on the meral and metapleural regions, the surface silvery pollinose; a large isolated black area on the ventral sternopleurite. Halteres brownish black, the knobs yellow. Legs with all coxae and trochanters vellow; fore femora black, the bases broadly yellow; tibiae yellowish brown, the tips blackened; tarsi black; middle and hind legs yellow, the tips of the femora and tibiae narrowly blackened; tarsi black; posterior basitarsi dilated on proximal third. Wings whitish, restrictedly patterned with brown, including cell Sc, stigma, a seam along the cord and a more or less distinct cloud at the outer medial fork; veins brown, those of the wing base more yellowed. Venation: Sc short, Sc_1 ending about opposite one-fourth to one-fifth Rs, Sc_2 a short distance beyond this origin; R_2 at or close to fork of Rs; branches of Rs strongly divergent, R_5 bent strongly caudad to the wing tip, cell R_4 thus very wide, at least five times cell R_5 ; cell M_2 normally open by the atrophy of basal section of vein M_3 , in one specimen, cell 1 st M_2 closed; cell M_4 distinctly narrowed at margin; m-cu close to fork of M.

Abdominal segments bicolored, black, the posterior borders of the intermediate segments broadly yellow; subterminal segments more uniformly yellow; hypopygium uniformly blackened. Sternal pocket of segment five broad, with abundant setae; of segment six with less numerous but stouter setae that are directed inward, arranged in two more or less parallel rows. Male hypopygium with the apex of basistyle obtuse, without a spine; mesal flange long and narrow, blackened, its margin weakly crenate. Outer dististyle a long rod, dilated on basal half and here with scattered setae and appressed spinulae, at near twothirds the length with an appressed lateral spine, beyond which the style narrows into a long nearly straight spine. Inner dististyle without setae, the lower beak weakly bidentate. Aedeagus with the apical spine directed laterad, blunt at tip; surface of aedeagus with relatively numerous though not particularly strong setae.

Habitat.—Peru (Loreto). Holotype, J, Pucallpa, altitude 180 meters, March 22, 1947 (Schunke). Paratopotypes, 4 J, March 19-20, 1947 (Schunke).

From the other species of *Teucholabis* having no spine on the basi-

style of the male hypopygium, the present fly is readily told by the small size, coloration of the body and wings, and by the normally open cell M_2 .

Genus Gnophomyia Osten Sacken

Gnophomyia (Eugnophomyia) flammeithorax sp. n.

Allied to *tempestiva*. General coloration black, the thorax, including the pleura and sternum, uniformly bright orange, only the region of the metapleura blackened; antennae, halteres and legs black; wings with a strong blackish tinge; macrotrichia of cells beyond cord unusually numerous; R_2 subequal to R_{2+3+4} and more than twice R_{3+4} .

Female.—Length, about 6.5 mm.; wing, 7.8 mm.; antenna, about 1.8 mm.

Rostrum and palpi black. Antennae black throughout; basal flagellar segments very short-cylindrical, the outer ones passing into oval; verticils subequal to or a trifle exceeding the segments. Head black.

Pronotum and propleura black. Mesonotum and pleura, with the sternum, uniformly bright orange, excepting only the meral and metapleural area above the hind legs. Halteres and legs uniformly black. Wings with a strong blackish tinge, the prearcular and costal fields slightly darker; stigma small, still darker brown; veins brownish black. Macrotrichia of cells beyond cord unusually numerous and conspicuous, lacking in the bases of the cells. Venation: Sc_1 ending just before the level of the fork of Rs, Sc_2 close to its tip; R_2 subequal to R_{2+3+4} and more than twice R_{3+4} ; *m-cu* about one-third its length beyond the fork of M.

Abdomen uniformly black. Ovipositor with the valves strongly developed, dark horn yellow.

Habitat.—Peru (Huanuco). Holotype, Q, Carpish, in dwarf fog forests, altitude 2800 meters, October 2, 1946 (Woytkowski).

Among the various species of the subgenus having the thorax variously patterned with orange, the present fly is closest to species such as *Gnophomyia* (*Eugnophomyia*) *flagrans* Alexander and *G*. (*E*.) *tempestiva* Alexander, differing in the very extensive orange color of the thorax and in details of venation and trichiation of the wings.

Gnophomyia (Gnophomyia) magniarcuata sp. n.

Belongs to the *arcuata* group. Size very large (wing, female, 8 mm.); mesonotal praescutum almost uniformly plumbeous, pseudosutural foveae black; wings whitish subhyaline, stigma dark brown; vein Sc_1 very long, approximately three-fourths as long as Rs; *m-cu* about onehalf its length before the fork of M.

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

Rostrum gray pruinose; palpi black. Antennae black throughout; flagellar segments cylindrical, longer than the verticils. Head dark gray; anterior vertex broad, fully three times the diameter of scape.

Pronotum dark brownish gray; pretergites dark. Mesonotal praescutum almost uniformly dark gray or plumbeous; pseudosutural foveae black, extensive; posterior portion of scutal lobes, scutellum and

postnotum clear light gray, the mediotergite darker posteriorly. Pleura in front dark plumbeous gray, clear light gray behind, including the coxae. Halteres blackened. Legs with the coxae light gray; remainder of legs black. Wings whitish subhyaline; stigma dark brown; extreme wing base, including squama and the region of arculus, vaguely darkened; veins black. Venation: Sc long, Sc_1 ending just before the fork of Rs, Sc_2 far retracted so Sc_1 is very long, approximately three-fourths Rs; R_{2+3+4} very strongly arcuated to subperpendicular at origin; R_{3+4} shorter than R_2 ; vein R_4 deflected strongly caudad on outer half, ending close to the wing tip; *m-cu* about one-half its length before the fork of M.

Abdomen elongate, black. Ovipositor with the cerci elongate, compressed-flattened; hypovalve much shorter, approximately one-third as long.

Habitat.—Peru (Huanuco). Holotype, 9, Huamincha, forest zone, altitude 1600 meters, April 4, 1946 (Woytkowski).

The other described members of the group, including Gnophomyia (Gnophomyia) arcuata Alexander, G. (G.) diazi Alexander, and G. (G.) subarcuata Alexander, are all much smaller, with vein Sc_1 shorter.

Gnophomyia (Gnophomyia) perdebilis sp. n.

Belongs to the tristissima group. Allied to maestitia; general coloration black, the meral and metapleural region of thorax paling to yellow; antennae unusually long, approximately one-half the entire body; halteres black; wings with a strong blackish tinge, with somewhat darker washes over the anterior cord, in bases of cells R and M and along vein Cu in cell M; prearcular and costal fields more whitened; male hypopygium with the tergite conspicuous, its posterior margin with a row of scattered weak setae; mesal face of basistyle virtually unarmed; inner dististyle unusually long, approximately one-half as long as the simple outer style.

Male.—Length, about 5.5 mm.; wing, 6 mm.; antenna, about 2.7–2.8 mm.

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

Rostrum and palpi black. Antennae (male) of unusual length for a member of the group, approximately one-half the length of body, black throughout; flagellar segments elongate-fusiform, narrowed at either end, subequal to the longest verticils. Head black, the front and anterior vertex more pruinose; anterior vertex broad, approximately four times the diameter of scape.

Pronotum and mesonotum black, the very restricted pretergites a trifle paler. Pleura dull black on dorsal portion, gray pruinose ventrally, the meral and metapleural regions paling to light yellow. Halteres uniformly black. Legs black. Wings with a strong blackish tinge, the elongate stigma darker brown; more dusky washes over the anterior cord, bases of cells R and M, and along vein Cu in cell M; prearcular and costal fields more whitened; a pale area near outer ends of cells R and M before cord; veins black. Venation: Sc_1 ending just beyond the fork of R_{2+3+4} ; r-m just before the fork of the nearly straight Rs; m-cu at or close to midlength of cell $1st M_2$.

Abdomen, including the genitalia, black throughout. Male hypopygium with the ninth tergite transverse, subrectangular, the caudal margin with a row of scattered weak seta-like fimbriations, slightly more concentrated at the outer lateral portions; lateral fourth of tergal plate slightly more darkened, with scattered long coarse setae. Basistyle short and stout, the mesal face with about five strong slender setae but without further vestiture. Outer dististyle a stout flattened black blade, the apex obtuse. Inner dististyle unusually long, approximately one-half as long as the outer dististyle, apical portion strongly bent, the tip obtuse; distal half of style, especially the apex, with scattered strong setae, some much longer.

Habitat.—Peru (Huanuco). Holotype, \mathcal{A} , Fundo Sinchono, altitude 1500 meters, August 1, 1947 (Schunke). Allotopotype, \mathcal{Q} , pinned with type. Paratopotypes, 7 $\mathcal{A}\mathcal{A}$, January and August 1947 (Schunke).

The present fly is readily told from the most similar species, including *Gnophomyia* (*Gnophomyia*) kertesziana Alexander, G. (G.) maestitia Alexander, and G. (G.) podacantha Alexander, by the structure of the male hypopygium, especially the scarcely modified ninth tergite and the dististyles. The spines and fimbriations of the tergite in all of the now known numerous species appear to be direct extensions of the tergal plate rather than modified setae.

Gnophomyia (Gnophomyia) petentis sp. n.

Belongs to the tristissima group, allied to maestitia. Body and appendages black; antennae (male) unusually long, approximately onehalf the length of the wing; wings with a strong blackish tinge; brown clouds over the anterior cord and along vein Cu in cell M; male hypopygium with the tergite large, the caudal margin nearly truncate, with a double row of strong spines, the lateral angles produced and tufted with longer spines; basistyle on mesal face at base bearing a strong blackened rod from an expanded ear-like base, with a further smaller spine on style near outer end; inner dististyle long-oval, terminating in a blackened spinous point; aedeagus long and slender.

Male.—Length, about 5-5.5 mm.; wing, 5-6 mm.; antenna, about 2.5-2.7 mm.

Female.—Length, about 6.5 mm.; wing, 5.5 mm.

Entire body, with the palpi, antennae, halteres and legs, black; anterior pretergites with a small yellow area. Antennae unusually long, as shown by the measurements; flagellar segments elongatesubcylindrical or slightly dilated at midlength, a little shorter than the verticils. Wings with a strong blackish tinge, the stigma elongate, still darker; brown clouds, intermediate in color, over the anterior cord and along vein Cu in cell M; veins brownish black. Venation: Rsnearly straight; basal section of R_5 lacking or virtually so, Rs in alignment with R_5 ; *m-cu* at near midlength of cell 1st M_2 .

Male hypopygium with the tergite large, the caudal margin nearly truncate, with a double row of strong spines, totalling about 80 to 90; lateral ends of tergal plate produced, bearing about a dozen longer black spines. Basistyle on mesal face of proximal end bearing a very strong blackened rod with a flattened ear-like base; near outer end of style on mesal face with a further smaller strong spine. Outer dististyle a simple gently curved rod, the tip obtuse. Inner dististyle small, long-oval, terminating in a blackened spinous point; surface with several

setae, the longest subequal in length to the style itself. Aedeagus long and slender.

Habitat.—Peru (Huanuco). Holotype, \mathfrak{S} , Fundo Sinchono, altitude 1600 meters, August 25, 1947 (Schunke). Allotopotype, \mathfrak{S} . Paratopotype, \mathfrak{S} , August 2, 1947 (Schunke).

The most similar described species include Gnophomyia (Gnophomyia) kertesziana Alexander, G. (G.) podacantha Alexander, G. (G.) permagica Alexander, and G. (G.) tungurahuana Alexander, all of which differ conspicuously among themselves and from the present fly in the structure of the male hypopygium.

Gnophomyia (Gnophomyia) trisetigera sp. n.

General coloration black, including also the antennae, halteres and legs; antennae (male) relatively long, nearly one-half the body; pleura with a broad silvery longitudinal stripe on the dorsal sternopleurite, paling to yellow on the meral region; halteres brownish black; wings with a strong brownish tinge, vaguely patterned with still darker brown; r-m at fork of Rs; R_2 nearly obsolete, transverse; male hypopygium with the tergite large, conspicuously emarginate by a V-shaped notch, the margins of the lobes without spines or modified setae; basistyle on mesal face of cephalic end with a strong dusky lobe that bears three strong setae; inner dististyle bilobed on outer half, both lobes bearing relatively few setae.

Male.—Length, about 5.5 mm.; wing, 5.8 mm.; antenna, about 2.5 mm.

Rostrum and palpi black. Antennae (male) relatively long, nearly one-half the body, black throughout; flagellar segments elongatesubcylindrical, the longest verticils subequal to or slightly longer than the segments. Head dull black; anterior vertex very broad, nearly four times the diameter of the scape; a low tubercle on anterior vertex.

Pronotum brownish black; anterior pretergites and lateral ends of the pronotal scutellum yellow. Mesonotum black, the scutellum and mediotergite slightly pruinose. Pleura black, with a broad silvery longitudinal stripe on the dorsal sternopleurite, paling to yellow on the ventral pteropleurite and meral region; dorsopleural membrane infuscated. Halteres brownish black. Legs with the fore coxae brownish black, the middle and posterior pairs paler; trochanters brown; remainder of legs black. Wings with a strong brownish tinge, even deeper in color over the anterior cord and in cell M adjoining vein Cu; stigma elongate, darker brown; veins brownish black. Venation: Sc_1 ending nearly opposite the fork of R_{2+3+4} , Sc_2 some distance from its tip; *r-m* at fork of Rs; vein R_2 nearly obsolete, transverse; cell 1st M_2 long, with *m-cu* just before midlength. The right wing of the holotype has an adventitious crossvein near the base of cell 2nd M_2 .

Abdomen black. Male hypopygium with the ninth tergite large, conspicuously emarginate by a V-shaped notch, the margins of the broad lobes thus formed smooth; dorsum of each lobe with about a dozen strong setae. Basistyle short and stout, near base of mesal face with a strong dusky tubercle bearing three strong setae. Outer dististyle a simple slender glabrous rod, its tip obtuse. Inner dististyle bilobed on outer half, the outer arm or lobe longest, both lobes bearing few setae. Apex of phallosome emarginate.

Habitat.—Peru (Huanuco). Holotype, &, Fundo Sinchono, altitude 1500 meters, August 2, 1947 (Schunke). Allotopotype, Q, pinned with type.

While generally similar in appearance to species such as *Gnophomyia* (*Gnophomyia*) maestitia Alexander and related species, the present fly is entirely distinct in the structure of the male hypopygium, particularly the tergite, basistyle and inner dististyle.

Gnophomyia (Gnophomyia) socialis sp. n.

General coloration of praescutum brownish gray, paling to reddish brown on sides; thoracic pleura striped with brownish black; halteres yellow, knob dark brown; femora yellow, the tips narrowly dark brown; wings yellow, restrictedly patterned with brown, best indicated by a darkening of the cord and outer end of cell 1st M_2 ; vein R_2 close to the fork of R_{2+3+4} , about one-third R_{1+2} ; cell 1st M_2 long and narrow; male hypopygium with the inner dististyle bilobed, both lobes blackened. Male.—Length, about 6 mm.; wing, 6.5 mm.

Rostrum yellow; palpi brown. Antennae with scape and pedicel obscure testaceous yellow, flagellum black, the first segment paler; flagellar segments oval, slightly shorter than their verticils. Head vellow.

Pronotum yellow above, brown on the sides; pretergites whitened. Mesonotal praescutum brownish gray medially, paling to reddish brown on sides, humeral region and lateral border pale yellow; posterior sclerites of notum dark brown; posterior angles of scutal lobes obscure yellow; posterior border of scutellum yellow. Pleura and pleurotergite yellow, with a broad conspicuous brownish black longitudinal stripe extending from the cervical region across the dorsal pleurites, merging gradually with the yellow ground of the ventral edge; dorsopleural membrane abruptly yellow. Halteres with stem light yellow, knob dark brown. Legs with coxae and trochanters pale yellow; femora yellow, the tips narrowly dark brown; remainder of legs yellow, the outer tarsal segments infuscated. Wings with the ground yellow, the prearcular and costal fields even clearer yellow; a restricted brown pattern, including the stigma, cord and outer end of cell 1st M_2 , the latter two best-indicated by the darkened veins; very pale brown washes near outer end of cell M and across bases of cells Cu and 2nd A; veins yellow, those beyond cord somewhat darker. Venation: Sc_1 ending a short distance before the level of vein R_2 ; r-m shortly before the fork of Rs; R_2 at or close to fork of R_{2+3+4} , about one-third \check{R}_{1+2} ; veins R_3 and R_4 long, generally parallel to one another for their entire lengths; cell 1st M_2 long and narrow, gently widened outwardly; *m-cu* at near midlength of M_{3+4} .

Abdominal tergites brownish black, the lateral borders narrowly pale. Male hypopygium with the basistyle short and stout, unarmed. Outer dististyle a simple blackened rod, the tip obtuse, the mesal face at near midlength microscopically scabrous. Inner dististyle unusually compact, unequally bilobed, the outer lobe a blackened knob, the tip obtuse, the inner lobe smaller, likewise blackened; surface of style above with a transverse row of five strong bristles. Phallosome depressed-flattened, terminating in a central blackened knob, its tip obtuse.

Habitat.—Peru (Huanuco). Holotype, \mathcal{O} , Chinchao, altitude 2500 meters, in wooded hills, September 20, 1947 (George Woytkowski).

Among the other regional species that have the wings slightly patterned with darker, including *Gnophomyia* (*Gnophomyia*) argutula Alexander, G. (G.) duplex Alexander, and G. (G.) regnatrix Alexander, the present fly is most similar to the last in general coloration and wing pattern. It differs conspicuously in the small size and in the details of venation. The male sex of regnatrix is still unknown.

Gnophomyia (Gnophomyia) subflebilis sp. n.

Male.—Length, about 5 mm.; wing, 5.5 mm.; antenna, about 1.1 mm. Characters generally as in *flebilis* Alexander, differing in important hypopygial characters. Wings with the base not so scarcely brightened; stigma present but very narrow. Male hypopygium having the ninth tergite with its caudal margin very gently convex, on either side of the midline and widely separated with a stout darkened tubercle. Outer dististyle unusually long and slender, narrowed very gradually to the acute tip. Inner dististyle with the basal lobe low, provided with two strong setae, the remainder of upper face of style with nine further similar setae; ventral surface of apex with a further group of short spinous setae. Phallosome relatively narrow, the apex blackened, obtuse.

Habitat.—Ecuador (Santiago-Zamora). Holotype, \mathcal{O} , Zumbi, Rio Zamora, altitude 700 meters, November 1, 1941 (Laddey).

The present fly is close to Gnophomyia (Gnophomyia) flebilis Alexander and G. (G.) peracutior sp. n., the chief distinctions being found in the structure of the male hypopygium. Both peracutior and subflebilis have the knobs of the halteres deep vellow.

Gnophomyia (Gnophomyia) peracutior sp. n.

General coloration black, the posterior pleurites faintly pruinose; halteres with stem blackened, knob deep yellow; femora brownish black; wings with a strong brownish tinge, more yellowed at base; no stigmal darkening; R_{1+2} relatively long, exceeding one-half Rs; male hypopygium with inconspicuous lateral tergal tubercles; outer dististyle gradually narrowed into a long acute spine.

Male.—Length, about 5.5 mm.; wing, 6 mm.; antenna, about 1.4 mm. Rostrum and palpi black. Antennae black throughout; flagellar segments oval. Head black.

Thorax almost uniformly black, the surface subnitidous; pretergites narrowly obscure yellow; posterior pleurites faintly pruinose, more heavily so on the metapleural region; meron paler. Halteres with stem blackened, knob deep yellow. Legs with the coxae brownish black; trochanters brownish yellow; femora brownish black, the bases narrowly more yellowed, most evidently so on the posterior pair; tibiae and tarsi brownish black to black. Wings with a strong brownish tinge, the prearcular field narrowly but conspicuously yellow; no evidence of a stigmal darkening; veins brown, pale in the brightened basal portions. Venation: Rs gently arcuated, not as extended basally as in *subflebilis*; R_{1+2} longer than in the latter species, exceeding one-half the length of Rs; cells beyond cord longer than in *subflebilis*.

Annals Entomological Society of America [Vol. XLII,

Abdomen, including hypopygium, brownish black. Male hypopygium with the outer lateral angles of the tergite terminating in a small inconspicuous tubercle; from beneath the tergite juts caudad what is presumed to be the proctiger, each outer lateral angle of which bears a single strong seta. Outer dististyle long and slender, gradually narrowed into a long acute spine, this apparently more slender than in *subflebilis*. Inner dististyle stout, with about four strong setae on the low basal lobe and six others more distad. Phallosome terminating in a relatively narrow blackened knob.

Habitat.—Peru (Huanuco). Holotype, ♂, Fundo Sinchono, altitude 1500 meters, August 5, 1947 (Schunke).

This fly is most nearly allied to *Gnophomyia* (*Gnophomyia*) subflebilis sp. n., differing especially in the coloration of the body and wings and in the details of venation and structure of the male hypopygium.

Gnophomyia (Gnophomyia) tricornis sp. n.

General coloration of the body black, the mesonotum subnitidous; anterior pretergites restrictedly yellow; metapleural region and knobs of halteres abruptly yellow; wings whitish subhyaline, stigma large, pale brown, inconspicuous; r-m at or before the fork of Rs; R_2 very faint to virtually obsolete; cell 1st M_2 elongate; male hypopygium with the outer dististyle a strong glabrous rod, narrowed to the obtuse more yellowed apex; inner dististyle with two arms, the basal lobe being unusually long, approximately two-thirds the main axis of the style.

Male.—Length, about 5.2-5.3 mm.; wing, 6 mm.; antenna, about 1.3-1.4 mm.

Rostrum and palpi black. Antennae black throughout; flagellar segments oval to long-oval. Head dull black, sparsely pruinose.

Pronotum black, the anterior pretergites restrictedly yellow. Mesonotum uniformly black, the surface subnitidous. Pleura black, sparsely pruinose to produce a somewhat plumbeous appearance; metapleural region abruptly yellow; dorsopleural membrane black. Halteres with stem black, knob conspicuously light yellow. Legs uniformly black. Wings whitish subhyaline or with a very weak brownish tinge; stigma large, pale brown, inconspicuous; veins dark brown, Sc more yellowed. Venation: Sc_1 ending from about opposite the fork of Rs to near midlength of R_{2+3+4} , Sc_2 some distance from its tip; r-m at or shortly before the fork of Rs; R_2 transverse, very faint to virtually obsolete; cell $1st M_2$ long, subequal to vein M_3 beyond it; m-cu at near one-third to one-fourth the length of cell $1st M_2$.

Abdomen, including hypopygium, black throughout. Male hypopygium distinctive. Tergal region not well developed nor spinous. Basistyle simple, unarmed, the inner apical portion with a group of very long yellow setae from hyaline punctures; outer face of style with the setae small and scattered. Outer dististyle a strong simple glabrous rod, narrowed to the obtuse yellow apex, on mesal face before apex microscopically serrulate, including an outer stronger apiculate point. Inner dististyle a long straight arm, at apex bent upward into a lobe that is provided with strong setae; at base of this arm with a strong branch that is approximately two-thirds as long, from a dilated base, the surface of outer face and apex with strong scattered setae. Phall-

osome a blackened mass, the apex narrowed into an obtuse, more strongly darkened part.

Habitat.—Peru (Huanuco). Holotype, 3, Sariapampa, in fog forest, altitude 3600 meters, May 4, 1946 (Woytkowski). Paratopotype, 1 3, May 11, 1946 (Woytkowski).

Superficially the present fly resembles species such as *Gnophomyia* (*Gnophomyia*) maestitia Alexander and relatives but is entirely distinct from all other black species having the knobs of the halteres yellow. The structure of the inner dististyle of the male hypopygium is distinctive.

Gnophomyia (Gnophomyia) adjusta sp. n.

General coloration black, the mesonotum subopaque by a weak bloom; antennae and legs black; halteres black, the knobs conspicuously bright yellow; wings with a strong brownish tinge, stigma not indicated; Sc short, Sc_1 ending about opposite the fork of Rs; cell 1st M_2 long and narrow, subequal to vein M_4 ; male hypopygium with the median region of the caudal border produced into pale membranous tissue; outer dististyle blackened, twisted before the more yellowed obtuse apex; inner dististyle with unusually numerous setae.

Male.—Length, about 6.5 mm.; wing, 5.8 mm.; antenna about 1.5 mm.

Rostrum and palpi black. Antennae black throughout, the scape more pruinose; flagellar segments oval, the outer ones progressively shorter; verticils much longer than the segments. Head dull black; anterior vertex broad, the eyes relatively small.

Pronotum brownish black, the lateral ends and the anterior pretergites obscure orange yellow; an even more restricted brightening on the posterior pretergites before the wing root. Mesonotum black, the surface subopaque by a weak bloom. Pleura black, more pruinose ventrally, especially behind; meral region vaguely brightened. Halteres black, the knobs conspicuously bright yellow. Legs with the coxae black, more or less pruinose, the middle pair heavily so; remainder of legs black. Wings with a strong brownish tinge; stigma not indicated; veins dark brown. Venation: Sc short, Sc_1 ending about opposite the fork, Sc_2 about opposite two-thirds the length of Rs; Rs oblique, nearly straight, *r-m* close to its fork; vein R_2 faint, slightly oblique, at or beyond the fork of R_{2+3+4} ; cell 1st M_2 long and narrow, slightly widened outwardly, subequal in length to vein M_4 ; *m-cu* just before midlength of cell 1st M_2 .

Abdomen, including hypopygium, black. Male hypopygium with the tergite transverse, relatively long, the median region of the caudal border further produced into paler membranous tissue, as is common in a section of the subgenus; this is distorted and torn in the type and cannot be accurately described. Basistyle stout, blackened, without lobes. Outer dististyle a glabrous blackened rod, gently curved, twisted before the obtuse more yellowed apex. Inner dististyle with the apical portion a cylindrical tumid lobe, its tip obtuse; basal part lower and slightly more pointed, the margin of the notch microscopically roughened; surface of entire style with unusually numerous setae. Phallosome blackened, nearly cordate in outline, the obtuse apex more blackened.

Habitat.—Peru (Huanuco). Holotype, &, Sariapampa, in fog forest, altitude 3600 meters, May 8, 1946 (Woytkowski).

In its blackened body and legs, the present fly is superficially like various members of the tristissima group, such as maestitia Alexander, having the ninth tergite of the male hypopygium variously armed with spinous setae. From the structure of the male hypopygium, it is evident that it is closer to species such as Gnophomyia (Gnophomyia) fessa Alexander, G. (G.) justa Alexander, G. (G.) lata Alexander, G. (G.) porteri Alexander, and others, differing in the details of structure of the hypopygium, in the venation, and in the uniformly blackened legs.

Gnophomyia (Gnophomyia) pauciseta sp. n.

General coloration of thorax black, sparsely pruinose; knobs of halteres yellow; legs brownish black; wings with a weak brownish tinge; vein R_2 slightly oblique; male hypopygium with the tergite long, with numerous setae; mesal face of basistyle produced into a large obtuse lobe; outer lobe of inner dististyle with unusually few setae, these restricted to the outer third; phallosome broadly oval, the apex blackened. entire.

Male.-Length, about 7.5 mm.; wing, 7.5 mm.; antenna, about 1.6 mm.

Rostrum and palpi black. Antennae black throughout, of moderate length; flagellar segments subcylindrical, a little shorter than the verticils. Head dull black; eyes very large, the anterior vertex correspondingly reduced.

General coloration of thorax black, the surface opaque by a sparse pruinosity, the anterior pretergites restrictedly more brightened; humeral region of praescutum light gray pruinose, enclosing the black pseudosutural foveae; posterior borders of scutal lobes obscure yellow. Pleura somewhat paler across the dorsal sternopleurite, becoming pruinose behind, the metapleura yellow. Halteres infuscated, the knobs conspicuously yellow. Legs with the coxae dark brown; trochanters yellowish brown, the hind pair clearer yellow; remainder of legs dark brown to brownish black, the tibiae a trifle paler than the femora. Wings with a weak brownish tinge, the restricted prearcular field more yellowed; stigma long and very narrow, slightly darker brown, inconspicuous; veins brown, yellow in the prearcular field. Venation: Sc_1 ending immediately before the cephalic end of the slightly oblique R_2 ; r-m close to the fork of Rs; cell 1st M_2 subequal in length to vein M_4 , with m-cu just beyond one-fourth the length.

Abdomen, including hypopygium, black. Male hypopygium with the tergite relatively long, the length approximately one-third the transverse diameter or width; surface with relatively numerous setae, the lateral ones long and stout; median region of tergite produced into a broad flattened lobe, the apex rounded and membranous. Basistyle stout, its mesal face produced into a large obtuse lobe provided with setae. Outer dististyle a simple glabrous rod, the outer half more narrowed, gradually produced to the subacute tip; the style of one side only bears a single strong seta on outer face before apex. Inner dististyle with the outer lobe long, clavate, with unusually few setae, these restricted approximately to the outer third; the enlarged basal 1949]

part of style with relatively few setae. Phallosome broadly oval, the apex blackened, entire; aedeagus jutting beyond the apex of the major phallosomic structure as a slender rod, its apex capitate, yellow.

Habitat.—Peru (Huanuco). Holotype, \mathcal{O} , Fundo Sinchono, altitude 1500 meters, August 5, 1947 (Schunke).

The present fly is most similar to species such as Gnophomyia (Gnophomyia) flebilis Alexander, G. (G.) lata Alexander, G. (G.) perlata Alexander, and others, differing especially in the structure of the male hypopygium.

Gnophomyia (Gnophomyia) persevera sp. n.

Mesonotum almost uniformly dark brown; antennae short; pleura with a brown dorsal stripe; halteres infuscated; wings with a weak brown tinge; veins delicate; Sc_1 ending shortly before the slightly oblique R_2 ; cell 1st M_2 long and narrow, with *m*-cu at one-third its length; male hypopygium brownish black; tergite unusually narrow, unmodified, provided with sparse setae; no lobes on basistyle; phallosome oval, the apex narrowly emarginate.

Male.—Length, about 5.5 mm.; wing, 5.2 mm.; antenna, about 1.2 mm.

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

Rostrum and palpi brownish black. Antennae relatively short, brownish black throughout; flagellar segments subcylindrical, the longest verticils exceeding the segments. Head dark gray, lighter gray on front and anterior vertex, the latter (in male) narrow, about one-half wider than the diameter of the scape, the eyes correspondingly large.

Pronotum orange-yellow above, darker on sides; pretergites paler vellow. Mesonotum almost uniformly dark brown, the praescutum more pruinose; lateral borders of scutal lobes obscure yellow, parascutella brown; pleurotergite dark brown on ventral portion, paling to yellow on dorsal half in male, uniformly darkened in female. Pleura with a broad dark brown longitudinal stripe, the ventral sclerites abruptly brownish yellow, clearer yellow behind; dorsopleural region narrowly vellow. Halteres infuscated, the base of stem narrowly yellow. Legs with the coxae yellow, the fore pair darker, the posterior coxae clear light yellow; trochanters yellow; femora obscure yellow, the tips more infuscated; tibiae and tarsi light brown, the outer tarsal segments passing into brownish black. Wings with a weak brownish tinge, the prearcular field more yellowed; stigma elongate, pale brown, only a little darker than the ground; veins very delicate, brown, more vellowed in the prearcular field. Venation: Sc long, Sc_1 ending shortly before the level of the cephalic end of the oblique semiobliterated R_2 ; Rs straight, r-m at its fork; cell 1st M_2 long and narrow, subequal to or a trifle shorter than vein M_4 , with *m*-cu at one-third its length.

Abdomen, including hypopygium, brownish black. Male hypopygium with the tergite unusually narrow, the transverse width fully five times the longitudinal dimension; caudal margin unarmed and not produced medially behind, as in related species; setae sparse and delicate, arranged virtually in a single row, this becoming double on the central third of the sclerite. Basistyle without lobes. Outer dististyle a glabrous darkened rod, narrowed gradually to the subacute tip. Inner dististyle with the apical lobe nearly parallel-sided, at apex produced ventrad into a lobe; basal lobe moderately developed. Phallosome oval in outline, the apex narrowly emarginate, each lobe thus formed blackened at apex.

Habitat.—Peru (Loreto). Holotype, &, Cerro Azul, April 30, 1947 (Schunke).

Most nearly allied to species such as Gnophomyia (Gnophomyia) banksiana Alexander, G. (G.) subhyalina Alexander, and G. (G.) vilis Alexander, differing from all in the structure of the male hypopygium. The very narrow ninth tergite is noteworthy.

Gnophomyia (Gnophomyia) mediotuberculata sp. n.

Mesonotum chiefly brown, the humeral region of praescutum yellow; pleura yellow with a broad conspicuous brownish black longitudinal stripe across the dorsal sclerites; knobs of halteres brownish black; wings with a weak grayish tinge; stigma brownish yellow, small and scarcely evident; vein R_2 distinct, transverse; cell 1st M_2 small, *m-cu* at near midlength; male hypopygium with the tergite transverse, its posterior portion extended into a long depressed-flattened lobe; on surface of tergite with a tubercle bearing several strong setae; outer dististyle flattened and twisted; inner dististyle produced laterad at tip into a short point; phallosome emarginate medially, the two lateral lobes thus formed blackened and microscopically roughened.

Male.—Length, about 8 mm.; wing, 6.5 mm.; antenna, about 1.8 mm. Female.—Length, about 8 mm.; wing, 7 mm.

Rostrum and palpi black. Antennae with the scape brown, pedicel testaceous yellow, flagellum dark brown; flagellar segments longsubcylindrical, the longest verticils exceeding the segments. Head brownish gray, the orbits clearer gray; eyes large, the anterior vertex (male) relatively narrow, apparently less than three times the diameter of the scape.

Mesonotum chiefly brown, the humeral and lateral portions of praescutum yellow, pseudosutural foveae blackened; posterior lateral portions of scutal lobes and the narrow posterior border of the scutellum obscure yellow; anterolateral parts of mediotergite yellowed. Pleura yellow, with a broad conspicuous brownish black longitudinal stripe extending onto the pteropleurite. Halteres short, brownish black, the basal half of stem yellow. Legs with the coxae and trochanters yellow; femora and tibiae yellow, the tips more infuscated; tarsi brown, the basitarsi paler. Wings with a weak grayish tinge; stigma small and scarcely indicated, brownish yellow, not crossing vein R_{1+2} behind; veins brown, more brightened in the stigmal and prearcular fields. Venation: Sc_1 ending opposite R_2 , Sc_2 just beyond the level of the fork of Rs; r-m at fork of Rs; vein R_2 distinct, transverse; cell 1st M_2 relatively small, shorter than any of the veins beyond it, the second section of vein M_{1+2} less than one-third the outer section in male, somewhat longer in female; m-cu at near midlength of cell 1st M_2 ; cell 2nd A broad, the vein gently arcuated.

Abdominal tergites brownish black, sternites yellow; hypopygium, including tergite and basistyle, yellow, the dististyles darkened. Male hypopygium with the tergite transverse, the posterior portion produced

caudad into a long depressed-flattened extension, the rounded apex with microscopic setulae; on surface at midline of tergite with a rounded tubercle bearing about ten strong setae. Basistyle stout, the mesal face at near midlength produced into a pale fingerlike lobe. Outer dististyle a flattened twisted rod, the mesal margin near base microscopically toothed or roughened. Inner dististyle about two-thirds as long, at apex produced laterad into a blunt point. Phallosome with the lobe of either side blackened, the surface microscopically roughened; tip of aedeagus jutting caudad beyond the central emargination.

Habitat.—Peru (Loreto). Holotype, A, Contamana, Upper Ucayali River, May 22, 1947 (Schunke). Allotopotype, Q, pinned with type.

Most like species such as Gnophomyia (Gnophomyia) apicularis Alexander, G. (G.) subapicularis Alexander, and allies, differing most evidently in the structure of the male hypopygium, especially the tergite, dististyles, and phallosome.