

RECORDS AND DESCRIPTIONS OF NEOTROPICAL CRANE-FLIES (TIPULIDÆ, DIPTERA), XXV

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The preceding article under this general title was published in the Journal of the New York Entomological Society, **57**: 253-265; 1949. The novelties herein described are from Guatemala, British Guiana, Brazil and Peru, where they were collected by Messrs. Thomas H. Farr, Neal R. Weber, the late Mr. J. F. Zikán, and Mr. José M. Schunke, respectively. Except where indicated to the contrary, the types of the new species are preserved in my personal collection of these flies.

Genus *Limonia* Meigen

Limonia (*Limonia*) *imperturbata* new species

Belongs to the *insularis* group; size very large (wing, male, 16 mm.); general coloration black, more or less pruinose; femora brownish yellow, darker before the tips which are narrowly yellow; tibiæ brownish black, the narrow base and broader tip yellow; basitarsus brownish black, the tip and succeeding segments yellow, the outer segments darkened on lower surface; wings very obtuse at apex, dusky, weakly patterned with darker; free tip of Sc_2 and R_2 subequal, vein R_{1+2} projecting beyond them as a spur; outer end of vein R_3 deflected very strongly caudad, of vein R_{4-5} less so; male hypopygium with the spines of the rostral prolongation very small and inconspicuous, placed on the proximal half of the compressed-flattened blade; gonapophysis with mesal-apical lobe a blackened spine.

Male. Length about 13 mm.; wing 16 mm.; antenna about 3.1 mm.

Rostrum and palpi black. Antennæ black throughout; flagellar segments passing through oval to elongate, with short apical necks, these becoming longer and narrower on the outer segments; longest verticils unilaterally arranged, about one-half longer than the segments; terminal segment elongate, about one-half longer than the penultimate. Head black, sparsely pruinose, more heavily so on the genæ and on the sides of the posterior vertex; anterior vertex behind the antennal bases silvery white; narrowest point of anterior vertex about one-half the diameter of scape.

Pronotum black, sparsely pruinose. Mesonotal præscutum black, sparsely pruinose, more conspicuously so on the sides; posterior sclerites of notum pruinose. Pleura black, the dorsopleural membrane darkened. Halteres brown, knobs blackened. Legs with the coxæ black; trochanters brownish yellow; femora obscure brownish yellow, before the tips passing into black,

forming a more or less distinct ring, the actual tip narrowly yellow; tibiae brownish black, the base narrowly yellow, less than the femoral apex, the tips more broadly yellow; basitarsi brownish black, the tips and succeeding segments paling to yellow, the outer segments infuscated on lower surface; claws (male) long and slender, with a strong spine at near the basal third. Wings with a strong dusky tinge, the prearcular and costal fields a trifle more yellowish brown; wing apex in outer radial field more heavily but narrowly darkened; Rs and cord less evidently seamed with pale brown; veins brown, Sc more yellowed. Wing apex very obtuse to nearly truncate. Venation: Sc_1 ending shortly before the fork of Rs , Sc_2 a little shorter than Sc_1 ; Rs subperpendicular at origin; free tip of Sc_2 and R_2 subequal, both shorter than vein R_1 lying between them; a spur of R_{1+2} about equal in length to R_2 ; veins R_3 and R_{4+5} , especially the former, deflected very strongly caudad to end at and beyond the wing tip; cell 1st M_2 a little longer than vein M_4 ; $m-cu$ close to the fork of M , shorter than the distal section of Cu_1 ; vein 2nd A only gently arcuated.

Abdomen, including hypopygium, brownish black. Male hypopygium with the ninth tergite large, the caudal border narrowly but deeply divided medially, the low lobes with conspicuous black setae. Basistyle with ventromesal lobe conspicuously setiferous on outer end. Dorsal dististyle sinuously curved, the outer surface scabrous, as in the group. Ventral dististyle subequal in area to the basistyle; rostral prolongation yellow, appearing as a compressed cleaver-like blade; spines very pale and difficult to see, placed in large pale depressions on basal half of blade. Gonapophysis with mesal-apical lobe a blackened curved spine that narrows to the acute tip.

Habitat. Guatemala.

Holotype, ♂, Chicacao, altitude 3,300 feet, August 8, 1949 (T. H. Farr).

From the other members of the *insularis* group of outstanding size, including *Limonia* (*Limonia*) *felix* Alexander, *L. (L.) ingens* Alexander, and *L. (L.) pernobilis* Alexander, the present fly is readily told by pattern of the legs and wings.

***Limonia* (*Limonia*) *scenalis* new species**

Mesonotal præscutum yellowish brown, clearer laterally, with a broad brown central stripe; antennae black, the flagellar segments with short apical necks; legs black; wings with a strong blackish tinge, the stigma scarcely differentiated; male hypopygium unusually complex in structure, particularly the basistyle and dististyle.

Male. Length about 6.5 mm.; wing 6.9 mm.

Rostrum brown; palpi black. Antennae brownish black, relatively long, if bent backward extending nearly to the root of the halteres; flagellar segments well separated by short apical necks, the swollen bases of the

more proximal segments subcordate, of the outer segments narrower and more oval. Head gray.

Pronotum brownish yellow. Mesonotum yellowish brown, the præscutum clearer yellow laterally, with a broad black central stripe, more intense in front, behind confluent with the shorter lateral stripes, the whole forming a blackened discal shield; scutal lobes infuscated. Pleura weakly infuscated above, brighter ventrally. Halteres brownish black, the base of stem narrowly yellow. Legs with the coxæ and trochanters yellow; remainder of legs black; claws long and slender, with a long basal spine and a smaller very acute spine on upper face at near two-thirds the length. Wings with a strong blackish tinge, the stigma scarcely differentiated; veins dark brown. Venation: Sc_1 ending shortly before the fork of R_s , Sc_2 near its tip and subequal in length; R_s long, arcuated, more than twice the basal section of R_{4+5} ; free tip of Sc_2 and R_2 both pale and in transverse alignment; cell 1st M_2 a little longer than vein M_1 ; $m-cu$ at or just beyond the fork of M ; vein 2nd A virtually straight for most of its length.

Abdominal tergites dark brown, sternites yellow; hypopygium brownish yellow. Male hypopygium unusually complex in structure. Ninth tergite transverse, its caudal margin very gently emarginate, scarcely forming lobes; a transverse row of setæ across the posterior third, four or five near the outer end of the row very long, approximately equal to the transverse diameter of the sclerite, the central setæ shorter and stouter. Basistyle very complex, the outer end of mesal face produced into a stout lobe that bears abundant setæ from conspicuous basal tubercles, these more concentrated at tip; on mesal face of style with a further very low lobe tipped with a few long setæ and two glabrous blackened blades or plates; still more basad on face of style with a circular darkened area provided with long strong setæ. Dististyle complex, including three major blackened structures, the more dorsal one shorter, its lower margin with numerous long setæ; the two longer rods lie superimposed in the slide mount of the type, the upper one forking into two points at tip, the lower a simple slightly decurved hook. Gonapophysis stout, especially the mesal-apical lobe which is narrowly blackened at tip and directed slightly laterad. Aedeagus very slender, bilobed at apex.

Habitat. Peru.

Holotype, ♂, Chanchamayo, Junin, altitude 1,100 meters, February 12, 1949 (J. M. Schunke).

This very distinct fly requires no comparison with other described forms. In some respects it suggests *Limonia* (*Limonia*) *somnifica* Alexander, but the relationship is not close.

Genus *Epiphragma* Osten Sacken

***Epiphragma* (*Epiphragma*) *farri* new species**

Thorax above polished black, the præscutum with four yellow stripes, the anterior portions of the scutal lobes similarly yellow; scutellum yellow, the

posterior border black; postnotum and pleura chiefly yellow; femora yellow, each with two narrow pale brown rings; wings pale brown, restrictedly patterned with darker brown, the markings not at all ocelliform; a broad, bright yellow longitudinal stripe in the subcostal and cephalic radial fields, reaching the wing tip in cell R_4 .

Male. Length about 12 mm.; wing 11 mm.; antenna about 2.2 mm.

Female. Length about 14 mm.; wing 12 mm.; antenna about 2 mm.

Rostrum light brownish yellow; palpi black. Antennæ relatively short in both sexes; scape brown, pedicel black; fusion-segment of flagellum yellow, the outer end and remainder of flagellum black; flagellar segments long-cylindrical, with elongate verticils that exceed the segments. Head above chestnut brown.

Pronotum brown, the scutellum and pretergites more yellowed. Mesonotal præscutum polished black, handsomely patterned with yellow, the latter including four stripes and an isolated circular area in the humeral field; intermediate stripes separated by a capillary black line that is widest at its anterior end; lateral stripes crossing the suture and covering the anterior parts of the scutum, the posterior borders and lateral margin black; scutellum and parascutella obscure yellow, the posterior border of the former broadly brownish black; postnotum brownish yellow. Pleura yellow or weakly brownish yellow, the pteropleurite and meral region somewhat paler yellow; dorsopleural region more or less spotted with brown, especially on the propleura and before the wing root. Halteres infuscated. Legs with the coxæ yellow, the fore pair a trifle darker; trochanters yellow; femora yellow, each with two narrow and relatively indistinct pale brown rings that are scarcely half as wide as the broad pale apex or interspace; remainder of legs yellow. Wings with the ground color pale brown, restrictedly patterned with darker brown; a very conspicuous bright yellow longitudinal stripe in the subcostal and cephalic radial field, extending from the pre-arcular area to the wing tip in outer end of cell R_4 ; the darker areas appear as spots above and below the yellow stripe, near arculus, origin of Rs and at tip of Sc ; more evident seams in outer radial and medial fields, the longest extending obliquely from cell R_5 to the margin at end of vein M_3 ; small to scarcely apparent clouds on $m-cu$ and at or near ends of veins M_4 , Cu_1 , 1st A and 2nd A ; extreme outer radial field dusky, appearing as a narrow band lying outside the yellow stripe, ending at wing tip in cell R_5 ; no evidence of an ocelliform pattern, as common in the genus; veins brown, those in the centers of the yellow stripe a trifle paler. Venation: Supernumerary crossvein in cell C erect; Rs square and short-spurred at origin; R_{2+3+4} longer than basal section of R_5 ; cell M_1 a trifle longer than its petiole; $m-cu$ at near one-third the length of cell 1st M_2 .

Abdominal tergites dark brown; basal sternites yellow, the outer segments more darkened; hypopygium brownish yellow, the tips of the basistyles paling to yellow. Male hypopygium with the tergal lobes small, separated by a small V-shaped notch. Outer dististyle terminating in a simple decurved point, shorter than the inner style. Interbase appearing as an erect slender rod, the tip recurved into an acute point.

Habitat. Guatemala.

Holotype, ♂, El Naranjo, Chicacao, altitude 5,000 feet, July 11, 1949 (T. H. Farr). Allotopotype, ♀, altitude 5,200 feet, July 11, 1949 (T. H. Farr).

This crane-fly is named in honor of Mr. Thomas Howard Farr, to whom I am indebted for several unusually interesting Tipulidæ from Guatemala. The species is entirely distinct, with no close relative so far described. The still poorly known *Epi-phragma* (*Epi-phragma*) *nebulosa* (Bellardi), of Mexico, is much larger and has all details of coloration distinct. The very striking wing pattern of the present fly strongly suggests that found in various species of the Pediciine genus *Nipponomyia* Alexander, occurring in eastern and southern Asia.

Genus *Hexatoma* Latreille

Hexatoma (*Eriocera*) *weberi* new species

Size medium (wing, female, 8.5 mm.); general coloration of thorax almost uniform reddish brown, the surface sparsely pruinose; mouthparts greatly reduced, rostrum lacking; antennæ dark brown, 7-segmented in female; wings with a weak brownish tinge, the costal border somewhat darker; vein R_1 lying very close to costa, cell R_1 thus very narrow in the stigmal region; R_{1+2} appearing as a very short element, vein R_2 bent backward, long and arcuated; $r-m$ nearly its own length before the fork of Rs ; cell M_2 open by atrophy of m ; $m-cu$ at fork of M , subequal in length to distal section of vein Cu_1 ; abdomen obscure yellow, the posterior borders of the segments narrowly brown; ovipositor with elongate valves.

Female. Length about 11.5 mm.; wing 8.5 mm.; antenna about 1.7 mm.

Mouthparts greatly reduced, appearing as small yellow palpi, the entire face on a vertical plane, with no indication of a rostrum. Antennæ (female) 7-segmented, dark brown throughout; flagellar segments with abundant relatively short setæ; first flagellar segment more than twice the length of the second. Head below the mouthparts silvery gray pruinose; strip of the front between the mouthparts and antennæ brownish testaceous, relatively narrow, sub-equal in width to the diameter of scape; head above light gray pruinose; vertical tubercle high and conspicuous, entire.

Thorax almost uniformly reddish brown, the surface sparsely pruinose; præscutum with a very delicate capillary gray vitta; a narrow furrow extends from the humeral region diagonally inward toward the midline. Pleura obscure yellowish brown, the ventral sternopleurite clearer yellow. Halteres dusky, the base of stem yellow, the knob weakly darkened. Legs with the coxæ brownish yellow, the fore pair somewhat darker; trochanters testaceous yellow; remainder of legs brown; tibial spurs apparently lacking. Wings with a weak brownish tinge, the costal border somewhat darker; veins pale brown. Veins beyond cord with abundant macrotrichia; basad of

cord with trichia over most of R_s and outer end of vein M . Venation: Sc_1 ending about opposite $r-m$, the latter nearly its own length before the fork of R_s ; vein R_1 lying close to costa, greatly narrowing the costal cell in the stigmal area; R_{1+2} appearing as a very short oblique element, R_2 long, bent backward, somewhat as in the genus *Trentepohlia*; R_{2+3} very short to punctiform; R_s relatively short; cell M_2 open by the atrophy of m ; cell M_3 shorter than its petiole; $m-cu$ at fork of M , subequal to distal section of Cu_1 ; cell 2nd A relatively broad.

Abdomen obscure yellow, the posterior borders of the segments narrowly brown to produce a weak banded appearance. Ovipositor with the cerci long and slender, nearly straight, the tips gently upcurved.

Habitat. British Guiana.

Holotype, ♀, Waricabra Falls, Courantyne River, July 10, 1936 (Neal R. Weber); University of Michigan No. 553.

The species is named for Dr. Neal R. Weber, distinguished ant specialist. This small fly shows several features of unusual interest in the genus. The loss of the rostrum is very noteworthy. Similarly, the venation shows some features that are unique in the genus, as far as known, particularly in the radial field. Here the venation simulates that of the genus *Lechria* Skuse (tribe Lechriini) in a surprising manner yet it is believed that the end result in these two flies has been derived in two entirely different ways, the last vein of the radial field in *Lechria* being R_{4+5} whereas in the present fly it is R_5 alone. The only other regional *Hexatoma* with cell M_2 open is *Hexatoma (Eriocera) patens* Alexander, where this cell is open by the atrophy of the basal section of vein M_3 rather than by the loss of m , as in the present fly.

***Hexatoma (Eriocera) opulenta* new species**

Mesonotum dark liver-brown, including the confluent præscutal stripes; head deep orange; femora yellow, with two dark brown rings, the outer segments darkened; wings obscure brownish yellow, variegated with clearer yellow markings and with brown washes and seams; veins virtually glabrous; abdomen dark brown above, the incisures more reddened.

Female. Length about 27 mm.; wing 20 mm.; antenna about 3.2 mm.

Rostrum and palpi dark brown. Antennæ (female) 9-segmented; scape dark above, obscure yellow beneath; pedicel reddish brown; flagellar segments dark brown, the first paler, the segments cylindrical, gradually decreasing in length and thickness outwardly, the terminal segment about one-third longer than the penultimate. Head deep orange; vertical tubercle bilobed.

Pronotum dark brown, more pruinose on the sides. Mesonotum chiefly dark liver-brown, including the confluent præscutal stripes; humeral and lateral regions of præscutum broadly yellow pollinose; median region of scutum dusted with more brownish pollen. Pleura dark liver-brown, conspicuously variegated with gray, including the dorsal sternopleurite and adjacent parts of the pteropleurite and anepisternum; a more yellowed spot on cephalic part of the anepisternum; dorsopleural membrane dark brown. Halteres with stem obscure yellow, knob dark brown. Legs with all coxæ and trochanters dark brown, pruinose; femora yellow, with two dark brown rings, the broad basal one at near midlength, exceeding the yellow sub-terminal ring on the fore and middle legs, subequal to this ring on the posterior femora; remainder of legs brown to dark brown; tarsi passing into black. Wings with the restricted ground obscure brownish yellow, the cephalic interspaces, especially the broad area above the fork of R_s and before the stigma clearer yellow; ill-defined darker brown washes and seams include the stigma, origin of R_s , vein R_5 , with still more extensive clouds at bases of cells M and Cu and in the Anal field; veins brown, yellowed in the more brightened portions. Veins beyond cord virtually glabrous. Venation: Sc_1 ending nearly opposite midlength of R_{2+3+4} , Sc_2 scarcely one-third to one-fourth as long as Sc_1 ; R_{2+3} nearly equal to R_2 and a little shorter than R_{1+2} ; cell 1st M_2 rectangular, about twice as long as wide, with $m-cu$ just before one-third the length.

Basal abdominal tergites chiefly dark brown, the outer ones variegated with reddish, especially at the incisures; sternites almost uniformly reddened, sparsely pruinose, particularly on lateral portions and on the sub-terminal segments. Ovipositor with long slender valves.

Habitat. Brazil.

Holotype, ♀, Campo Bello, Rio de Janeiro, altitude 407 meters, January 28, 1942 (J. F. Zikán). A further specimen from the type locality, taken December 7, 1940, by Zikán, may be conspecific.

The most similar species is *Hexatoma (Eriocera) gomesiana* Alexander, which differs in the coloration of the body, legs and wings, and in the details of venation.

Hexatoma (Eriocera) pullatipes new species

General coloration of mesonotum dark gray, the præscutum with three brownish black stripes; head above obscure orange, more pruinose on sides; antennæ with scape and pedicel yellow, flagellum black; legs black, the femoral bases yellow; wings with a strong brownish tinge, the costal border darker; macrotrichia on outer radial veins; vein Sc_1 weak, Sc_2 correspondingly enlarged; $m-cu$ a short distance beyond the fork of M ; abdomen with basal four segments orange-yellow, segments five to eight, inclusive, dark brown; hypopygium orange.

Male. Length about 11 mm.; wing 10.3 mm.; antenna about 2.5 mm.

Rostrum obscure yellow; palpi black. Antennæ (male) 7-segmented; scape and pedicel yellow, flagellum black, the extreme base of the first segment yellowed; flagellar segments gradually decreasing in length outwardly, segments two and three subequal; vestiture of segments consisting of coarse black setæ. Head above obscure orange, the genæ light gray pruinose; vertical tubercle weakly emarginate, with a pair of brown spots on anterior face.

Pronotum dark brown; anterior pretergites obscure reddish orange. Mesonotal præscutum with the ground yellow pollinose, with three brownish black stripes, the median one very vaguely divided by a pale line on about the posterior half; lateral borders broadly paler brown, the humeral region brownish black; posterior sclerites of notum gray, the centers of the scutal lobes extensively dark brown; posterior portions of mediotergite paling to brown. Pleura and pleurotergite brownish black, heavily gray pruinose; dorsopleural membrane brownish yellow. Halteres brownish black, the base of stem yellow. Legs with the coxæ black, pruinose; trochanters obscure brownish yellow; remainder of legs black, the femoral bases yellow, including about the proximal fourth of segment; posterior tibiæ more brownish black. Wings with a strong brownish tinge, cells *C* and *Sc* still darker; stigma vaguely darker than the ground; veins brown. Macrotrichia on outer radial veins, including complete series on veins R_3 and R_4 , on vein R_5 more restricted to the outer end. Venation: Sc_2 ending nearly opposite the fork of Rs , vein Sc_1 weak and perpendicular; R_{1+2} nearly three times R_2 ; R_{2+3} about one-third R_2 ; *m-cu* about one-fourth its length beyond the fork of *M*, subequal to or longer than the distal section of Cu_1 .

Abdomen with basal four segments clear orange-yellow, unpatterned; segments five to eight dark brown, the extreme base of the fifth brightened; hypopygium orange-yellow, the color involving part of the eighth sternite.

Habitat. Peru.

Holotype, ♂, Fundo Sinchono, Cordillera Azul, Huanuco, altitude 1,500 meters, August 8, 1947 (J. M. Schunke).

The most similar allied species include *Hexatoma* (*Eriocera*) *cornigera* (Alexander), *H. (E.) interlineata* Alexander, *H. (E.) zonata* (Osten Sacken), and others, all of which have the legs chiefly yellow, and with the other details of coloration distinct.

***Hexatoma* (*Eriocera*) *perfestiva* new species**

General coloration black, gray pruinose; antennæ with basal segments yellow, the outer ones dark brown; head orange yellow; femora yellow, each with two black rings; wings crossbanded with light yellow and medium brown; veins virtually glabrous; vein R_2 before the fork of the cell, producing a short element R_{3+4} , cell R_3 short; *m-cu* before the fork of *M*; abdomen variegated with black and yellow.

Female. Length about 15 mm.; wing 11.5 mm.; antenna about 3 mm.

Rostrum yellow, pruinose; palpi with basal segment yellow, the outer ones dark brown. Antennæ (female) 11-segmented; basal four segments yellow, the outer ones dark brown; segments gradually decreasing in size outwardly; verticils shorter than the segments. Head orange-yellow; verticle tubercle bulbous, especially on sides, the central part more depressed, with two weak parallel impressions.

Pronotum black, pruinose. Mesonotum almost uniformly black, the surface pruinose, the sides of the præscutum and the pleura more heavily so. Halteres black. Legs with the coxæ black, pruinose; trochanters dark brown; femora yellow, each with two conspicuous black rings, one terminal, the other broader, at near midlength and subbasal in position; in what appears to be the detached posterior femur, the yellow subterminal ring is broadest, exceeding the darkened apex; tibiæ brown, the tips narrowly blackened; tarsi black. Wings variegated light yellow and medium brown, appearing as alternating, almost parallel bands; apical dark band extending basad to outer end of cell 1st M_2 ; central dark band before the cord, its outer end at midlength of R_s and almost touching the distal section of Cu_1 ; further darkenings on outer half of cell 2nd A and a very small post-arcular spot in cell R ; dark central band virtually equal in extent to the yellow band beyond it; cell C chiefly yellow, narrowly darkened at midlength along costa; veins brown, clear yellow in the flavous parts. Veins beyond cord virtually glabrous, with scattered trichia on outer half of distal section of R_5 . Venation: Sc_1 ending nearly opposite the fork of R_s , Sc_1 alone about equal to m ; cell R_3 short, outer end of vein R_3 curved slightly cephalad; R_{3+4} about one-half R_2 , the latter slightly more than one-half R_{1+2} ; $m-cu$ a short distance before the fork of M , slightly exceeding the distal section of Cu_1 ; vein 2nd A very gently to scarcely sinuous.

First abdominal segment black; tergites two and three, together with most of four yellow, the succeeding segments black, their lateral margins yellow, narrower on the fourth and fifth tergites, broader on the sixth; succeeding segments, including the genital shield, orange; basal sternite black, succeeding three segments yellow, the outer ones almost if not quite black, without the yellow lateral borders. Ovipositor with the cerci slender, nearly straight, yellow, their bases, together with the hypovalvæ, dark chestnut brown.

Habitat. Peru.

Holotype, ♀, Chanchamayo, Junin, altitude 1,200 meters, December 19, 1948 (J. M. Schunke).

This most attractive species is generally similar to forms such as *Hexatoma (Eriocera) aglaia* Alexander and *H. (E.) magistra* Alexander, differing in all details of coloration of the body, legs and wings, and in the details of venation.

Genus *Gnophomyia* Osten Sacken*Gnophomyia* (*Eugnophomyia*) *excordis* new species

Size small (wing, male, 5.4 mm.); general coloration of head and thorax dark plumbeous gray, the pretergites obscure orange; pleura with an extensive more whitened longitudinal stripe; legs brownish black, the femoral tips darker, more narrowly and abruptly on the posterior legs, tarsi dark; wings with a strong brownish tinge, the narrow stigma darker brown; abundant macrotrichia in the cells beyond the cord; *Sc* relatively long, *Sc*₁ ending only a short distance before fork of *Rs*; a short element *R*₃₊₄ present; male hypopygium with the apex of basistyle produced; both dististyles glabrous; phallosome a broadly flattened plate, the gonapophyses separate, at tips narrowed into slender rods.

Male. Length about 5.5 mm.; wing 5.4 mm.; antenna about 1.5 mm.

Rostrum brown; palpi black. Antennæ black, scape pruinose; flagellar segments oval, shorter than the verticils. Head dark gray.

Thorax dark plumbeous gray, the pretergites obscure orange. Pleura dorsally dark gray, the ventral region chiefly much paler, forming a broad longitudinal stripe, ventral sternopleurite slightly darkened, dorsopleural membrane buffy. Halteres with stem infuscated, narrowly yellow at base, knob brownish black. Legs with coxæ gray pruinose; trochanters light brown; fore and middle legs chiefly brownish black, the femoral bases vaguely paler; posterior femora brown, the tips more narrowly blackened; tibiæ and tarsi brown. Wings with a strong brownish tinge, the narrow stigma darker brown; veins brown. Abundant macrotrichia in centers of cells beyond cord. Venation: *Sc* relatively long, *Sc*₁ ending only a short distance before the fork of *Rs*, *Sc*₂ a short distance from its tip; vein *R*₂ oblique, about three-fifths as long as *R*₂₊₃₊₄; *R*₃₊₄ present, slightly more than one-third vein *R*₂; cell 1st *M*₂ about equal in length to vein *M*₄; *m-cu* more than one-half its length beyond the fork of *M*.

Abdomen dark brown, the basistyles brownish black. Male hypopygium with the apex of basistyle prolonged into a lobe, the tip subacute; surface of style with numerous pale punctures bearing long erect yellow setæ; at apex of lobe with a few stout retrorse spinous setæ. Two dististyles, both glabrous, the outer shorter and more slender, its apex obliquely truncate; inner dististyle broad on basal half, thence more narrowed, the lower edge of outer portion with a short flange. Phallosome a broadly flattened plate, the apex of the ædeagus curved. Gonapophyses broad-based, the outer third narrowed into a slender rod.

Habitat. Guatemala.

Holotype, ♂, El Naranjo, Chicacao, altitude 4,100 feet, July 12, 1949 (T. H. Farr).

From other generally similar small species of the subgenus, as *Gnophomyia* (*Eugnophomyia*) *juniniana* new species and

G. (E.) posticata Alexander, the present fly differs in the details of coloration and venation, as well as in the degree of development of wing trichia. The male hypopygium of such allied forms is still unavailable for comparisons.

Gnophomyia (Eugnophomyia) juniniana new species

General coloration of thorax almost uniformly dark gray; antennæ, halteres and legs black; wings with a brownish tinge, the costal field not further darkened; macrotrichia in wing cells unusually abundant, including the outer ends of the basal cells, as well as those beyond the cord; Sc_1 relatively long, subequal to $r-m$.

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

Rostrum and palpi black. Antennæ black, scape more pruinose; flagellar segments long-oval, shorter than the verticils. Head dark plumbeous gray, more pruinose with light gray on front and anterior vertex.

Thoracic notum almost uniformly dark gray, the lateral borders more blackened. Pleura chiefly light gray, the dorsal anepisternum and pteropleurite more blackened; dorsopleural region dark. Halteres uniformly black. Legs with the coxæ gray pruinose; trochanters brownish black; remainder of legs black. Wings with a brownish tinge, the prearcular and costal fields not more darkened; a vague to scarcely evident darkening in the region of the stigma; veins and macrotrichia dark brown. Abundant macrotrichia in cells beyond cord and also in most of cell R_1 , outer fourth of R , all of cell M except the base, and in outer ends of cells Cu , 1st A and 2nd A . Venation: Sc_1 ending about opposite five-sixth Rs , Sc_2 some distance from its tip, Sc_1 alone subequal in length to $r-m$; R_2 more than twice R_{2+3} ; $m-cu$ just beyond the fork of M , close to the inner end of cell 1st M_2 , the latter about three-fifths as long as the distal section of vein M_3 ; cell 2nd A broad.

Abdomen brownish black; cerci long and slender, very gently upcurved.

Habitat. Peru.

Holotype, ♀, Chanchamayo, Junin, altitude 1,100 meters, January 20, 1949 (J. M. Schunke).

Most similar to the other small species of the subgenus discussed at the end of the account of the preceding fly. All three are distinguished among themselves by relatively slight differences in coloration, venation and wing-trichiatio.

Gnophomyia (Gnophomyia) sagittoides new species

General coloration brownish black, the anterior pretergites conspicuously whitened; wings with a grayish tinge; vein R_2 very faint to subatrophied; male hypopygium with the caudal margin of the ninth tergite produced caudad into a depressed-spatulate blade, the apex truncate; outer dististyle

expanded on basal three-fifths, the outer portion suddenly narrowed, the entire surface smooth; phallosome consisting of a massive central plate, its truncated apex blackened.

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

Head missing. Pronotum brownish black; anterior pretergites conspicuously whitened. Mesonotal praescutum and scutum brownish black, the lateral border of the praescutum very narrowly more reddened, more or less pruinose; posterior sclerites of notum more brownish. Pleura dark plumbeous gray, the meral region abruptly whitened, this color also involving the posterior coxæ; dorsopleural membrane dusky. Halteres with stem pale, the knobs broken. Legs brown, the fore coxæ light brown, mid-coxæ small, pale, hind coxæ whitened, as described. Wings with a grayish tinge; stigma pale brown, very restricted, virtually limited to the space beyond vein *Sc* and cephalad of R_1 ; veins delicate, dark brown. Venation: *Sc*₁ ending about opposite two-thirds the length of R_{2+3+4} ; *Rs* in longitudinal alignment with R_5 ; R_{2+3+4} only moderately arcuated; vein R_2 very faint to subatrophied; *m-cu* more than its own length beyond the fork of *M*.

Abdomen, including hypopygium, dark brown; basal sternites paler. Male hypopygium with the caudal margin of tergite extended into a depressed-spatulate blade, its apex truncate, at the widest part of the blade with darkened lateral margins; on either side before apex with a pair of small setæ. Outer dististyle somewhat as in *sagitta*, the basal three-fifths expanded, the outer part suddenly narrowed, the entire surface glabrous and without ridges or corrugations. Phallosome consisting of a massive central plate, the truncated apex blackened, the tip of the ædeagus projecting caudad beyond its tip.

Habitat. Peru.

Holotype, ♂, Fundo Sinchono, Cordillera Azul, Huanuco, altitude 1,500 meters, August 4, 1947 (J. M. Schunke).

The most similar described species is *Gnophomyia* (*Gnophomyia*) *sagitta* Alexander, which differs in all details of the male hypopygium, including the lobe of the ninth tergite, dististyles, and phallosome.