

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

BY CHARLES P. ALEXANDER

AMHERST, MASSACHUSETTS

The preceding part under this general title was published in December, 1941 (JOURNAL OF THE NEW YORK ENTOMOLOGICAL SOCIETY, 49: 345-356). The species discussed herewith are all from Ecuador and were collected in northwestern Ecuador (Manabi and Pichincha Provinces) by Mr. David B. Laddey and in Los Rios, Tungurahua and the Oriente by Mr. William Clark Macintyre and his co-workers. The types are preserved in my collection of these flies. I express my deepest thanks to Messrs. Laddey and Macintyre for their cooperation in making known the vast tipulid fauna of Ecuador.

Genus *Ozodicera* Westwood**Ozodicera (*Ozodicera*) multitermis** new species.

General coloration brownish yellow, the praescutum with four ill-defined darker brown stripes that are very insensibly bordered by darker brown; wings yellowish brown, the prearcular and costal fields slightly more saturated; male hypopygium with the inner dististyle complex in structure, with three spinous arms.

MALE.—Length about 22 mm.; wing 19.5 mm.; antenna about 5.8 mm.

Frontal prolongation of head brownish yellow above, darker laterally; nasus distinct; palpi black. Antennae with the basal nine segments obscure yellow, the terminal four simple segments black; flagellar branches slightly dusky. Head yellowish gray; eyes (male) large, the anterior vertex much reduced, about one-third the diameter of scape.

Pronotum brownish yellow. Mesonotal praescutum brownish yellow, with four ill-defined darker brown stripes that are very insensibly bordered by darker brown, especially the lateral stripes; remaining sclerites of notum chiefly yellow pollinose, the scutal lobes variegated by slightly darker brown. Pleura yellow pollinose, the ventral pleurotergite and sternopleurite more grayish pruinose. Halteres brown, the base of stem more yellowish, the knob darker brown. Legs with the coxae yellowish gray pruinose; trochanters obscure yellow; femora yellow, the tips narrowly brownish black; tibiae yellowish brown, the tips narrowly darkened; tarsi black. Wings yellowish brown, the prearcular and costal fields slightly more saturated; stigma long-oval, pale brown; veins brownish yellow. Venation: Cell  $M_1$  broadly sessile.



Abdomen with basal tergite yellowish gray; succeeding tergites yellow, trivittate with brown, the latter becoming more extensive and restricting the ground color on the outer segments; sternites yellow; hypopygium yellow. Male hypopygium generally as in *trispinifer* but differing conspicuously in the structure of the ninth tergite and inner dististyle. Ninth tergite deeply notched medially, the lateral lobes thus formed slightly produced. Inner dististyle with three principal arms that are relatively slender, the outermost bearing a single lateral spine on margin. In *trispinifer* the tergite is very shallowly notched, the lateral lobes very low and obtuse; inner dististyle with the details of structure entirely different.

Habitat.—Ecuador (Oriente).

Holotype, ♂, Rio Jatun Yacu (Macintyre).

The nearest relative of the present fly is *Ozodicera* (*Ozodicera*) *trispinifer* Alexander, likewise from Amazonian Ecuador, which differs especially in the structure of the male hypopygium, as described above.

### Genus *Tipula* Linnaeus

#### ***Tipula* (*Nephrotomodes*) *auricularis* new species.**

Mesonotum grayish brown, without evident stripes; antennæ (male) elongate, about two-thirds the length of wing; flagellum black, the segments long-cylindrical with poorly developed basal tubercles; wings with a weak brown tinge; stigma oval, dark brown; a restricted clouding along cord and outer end of cell 1st  $M_2$ ; vein  $R_{1+2}$  atrophied; male hypopygium with the outer dististyle large and conspicuous, shaped more or less like a dog's ear; inner dististyle appearing as a slender rod, expanded at apex into a triangular head; ninth sternite not or scarcely notched medially, the margin on either side of midline with a blackened bilobed structure that is densely covered with short erect setulæ.

MALE.—Length about 12 mm.; wing 11.5 mm.; antenna about 8 mm.

Frontal prolongation of head relatively short, obscure yellow above, dark brown beneath; nasus short and stout; palpi dark brown, the terminal segment somewhat paler. Antennæ (male) very long, approximately two-thirds the length of wing; scape, pedicel and basal half of first flagellar segment yellow, the remainder black; flagellar segments long-cylindrical, with poorly developed basal tubercles; verticils less than one-half the length of segments; terminal segment reduced. Head obscure yellow; vertical tubercle lacking; anterior vertex of moderate width, approximately twice the greatest diameter of scape.

Mesonotal præscutum and scutum grayish brown, without evident stripes, the scutellum and postnotum a very little paler; vestiture of præscutum very short and sparse. Pleura obscure yellow, the ventral sternopleurite and meron



restrictedly darker; dorsopleural membrane light yellow. Halteres with stem dusky, yellow at base, knob infuscated. Legs with coxæ obscure brownish yellow or grayish yellow; remainder of legs broken. Wings with a weak brownish tinge, the prearcular field and cells *C* and *Sc* slightly darker brown; stigma large, oval, dark brown; restricted dark seams on anterior cord and outer end of cell 1st *M*<sub>2</sub>; a more conspicuous dark seam on *m-cu*; more cream-colored areas before and beyond stigma; wing tip vaguely more darkened; veins brown. Venation: *R*<sub>1+2</sub> more or less atrophied, in both wings of type preserved as a short weak detached element at costa, the remainder lacking; tip of vein *M*<sub>3</sub> atrophied; cell 2nd *A* moderately wide.

Abdominal tergites and sternites yellow or brownish yellow, the caudal margins of the segments broadly brownish black, the basal portion of tergite two similarly darkened; segments seven and eight, with the caudal border of six more uniformly blackened; hypopygium yellow. Male hypopygium with the tergite separate from sternite; ninth sternite without a median incision, as usual in the genus, the caudal border truncate; on either side of the median line with a blackened bilobed structure, separated by a very deep and narrow U-shaped notch, the lobules unequal, each densely set with short erect setulæ. Ninth tergite with caudal margin gently and evenly emarginate; from beneath an elevated rim project two conspicuous lobes, these separated from one another by a U-shaped notch; lobes obliquely truncated, set with abundant short blackened pegs. Outer dististyle large and conspicuous, shaped more or less like a dog's ear, expanded on basal half, narrowed to the subacute tip; at base on mesal margin with a recurved glabrous flange; surface of mesal face with abundant long setæ. Inner dististyle of unusual shape, appearing as an elongate rod that is expanded at apex into a dusky triangular head, provided with several conspicuous setæ, the stem narrowest just before the expanded portions.

Habitat.—Ecuador (Manabi).

Holotype, ♂, Palmar, Playones, altitude 150 meters, May 15, 1941 (Laddey).

*Tipula* (*Nephrotomodes*) *auricularis* is entirely different from other regional species of the subgenus having a weak wing pattern, including *T. (N.) icasta* Alexander, *T. (N.) infida* Alexander, and *T. (N.) luctifica* Alexander, by the very distinctive male hypopygium. The subgenus *Nephrotomodes* Alexander (type, *smilodon* Alexander) was only recently proposed to include a host of species in Tropical America.

***Tipula notoria*** new species.

Belongs to the *glaphyroptera* group; size small (wing, male, 13 mm. or less); general coloration gray, the præscutum with four entire dark brown stripes; antennæ (male) relatively long, virtually simple, flagellum beyond



the basal segment black; halteres elongate, yellow throughout; femora with a dark brown subterminal ring, the extreme tip yellow; wings handsomely patterned with creamy white, yellow, pale brown and dark brown, the yellow including a conspicuous area at arculus and the interspaces of cell *Sc*;  $R_{1+2}$  atrophied; abdomen brown, the more basal segments paler, the outer segments, including hypopygium, black; male hypopygium with the tergite produced caudad into conspicuous yellow sublateral ears; ventro-caudal lobe of basistyle very small, subglobular; eighth sternite unarmed.

MALE.—Length about 9–10 mm.; wing 12–13 mm.; antenna about 4–4.2 mm.

FEMALE.—Length about 13 mm.; wing 13.5 mm.

Frontal prolongation of head dark brown, nasus distinct; palpi black. Antennæ (male) relatively long, as shown by measurements; scape and pedicel yellow; first flagellar segment brownish yellow, remainder of flagellum black; flagellar segments cylindrical, the basal enlargements not or scarcely developed; verticils shorter than the segments, the longest series unilaterally arranged; terminal segment reduced to a tiny thimble. Head obscure yellow in front, passing into brownish gray behind; vertical tubercle very low and small.

Pronotum dark brown, variegated sublaterally with buffy. Mesonotal præscutum light gray, with four distinct dark brown stripes; posterior sclerites of notum dark brownish gray, the scutal lobes conspicuously variegated with dark brown. Pleura light gray, variegated with darker on ventral anepisternum, ventral sternopleurite and meron; dorsopleural membrane buffy. Halteres elongate, obscure yellow throughout. Legs with the coxæ gray pruinose; trochanters obscure yellow; femora pale brown with a dark brown subterminal ring, preceded and followed by clearer yellow, the apical area narrower; tibiæ yellowish brown, the tips weakly and narrowly darkened; tarsi dark brown. Wings creamy white and pale brown, the preareolar and costal portions variegated with darker brown and light yellow; cell *C* brown; cell *Sc* yellow, with four dark brown areas that are less extensive than the interspaces; post-stigmal brightening very variable in degree, in the male sex very restricted, in the female larger and more extensive; major white areas in cells *R*,  $R_1$ , *M*, *Cu* and 1st *A*; a conspicuous yellow area at arculus, completely surrounded by brown markings; veins dark brown, excepting those in the yellow areas where they are of this color. Venation:  $R_{1+2}$  atrophied; cell 1st  $M_2$  relatively small, irregularly pentagonal; *m-cu* close to fork of  $M_{3+4}$  or beyond this point on  $M_4$ .

Abdomen brown, the more proximal segments slightly brightened sublaterally; basal sternites similarly pale; outer segments, including hypopygium, uniformly dark brown. Male hypopygium with the tergite produced caudad into conspicuous yellow sublateral ears, the caudal border between these lobes crenulate, glabrous. Ventro-caudal lobe of basistyle very small, subglobular, with about fifteen powerful setæ. Gonapophyses appearing as flattened, dark-colored blades, broadly dilated at base, before the small head constricted into a neck. Apex of ædeagus with two divergent acute spines, these taken



together forming a straight angle. Eighth sternite entirely unarmed, the margin simple.

Habitat.—Ecuador (Tungurahua).

Holotype, ♂, Pundoa, altitude 3,000 meters, July 12, 1939 (Macintyre). Allotopotype, ♀, pinned with type. Paratopotype, 1 ♂.

*Tipula notoria* is most similar to species such as *T. chicana* Alexander, *T. consonata* Alexander, *T. fraudulentia* Alexander, and *T. obirata* Alexander, differing from all in the pattern of the wings and in the structure of the male hypopygium.

### Genus *Limonia* Meigen

#### ***Limonia* (*Limonia*) *lachesis* new species.**

General coloration of præscutum reddish yellow, patterned with dark brown, most evident as a broad, nearly lateral area; scutum, scutellum and postnotum uniformly blackened; pleura yellow, with a very broad and conspicuous longitudinal black stripe; knobs of halteres blackened; femora obscure yellow with a conspicuous, dark brown, subterminal ring; wings whitish, very heavily patterned with dark brown, the amount of dark color exceeding the ground areas, cell *M* almost entirely darkened; vein *Sc* short, *Sc*<sub>1</sub> ending a short distance beyond origin of *Rs*, *Sc*<sub>2</sub> exactly opposite this origin; *Rs* very strongly arcuated at origin; *m-cu* before fork of *M*; abdominal tergites black, sternites yellow, darkened laterally; cerci small and slender, upcurved.

FEMALE.—Length about 7 mm.; wing 7.8 mm.

Rostrum and palpi black. Antennæ black throughout; flagellar segments oval. Head gray; vertex reduced to a narrow strip that is about equal in width to one-half the diameter of scape.

Pronotum black. Mesonotal præscutum reddish yellow, patterned with dark brown, the discal areas reduced to a short and narrow median line on cephalic portion and the narrowly darkened interspaces, the broad, nearly lateral præscutal borders much wider and more conspicuous; scutum, scutellum and postnotum uniformly blackened. Pleura yellow with a very broad and conspicuous black longitudinal stripe extending from the cervical region to the postnotum; ventral sternopleurite narrowly and less heavily darkened; posterior dorsopleural region yellow. Halteres with stem yellow, knob blackened. Legs with coxæ and trochanters yellow; femora obscure yellow to brownish yellow, with a conspicuous, dark brown, subterminal ring, the apex abruptly yellow, a little less extensive than the darkened ring; tibiæ pale brown; tarsi broken. Wings with the ground color whitish, very heavily patterned with dark brown, the amount of dark color exceeding the pale ground in area; preareular field yellowish; cells *C* and *Sc* pale yellow, becoming even paler outwardly; the dark areas include preareular and postareular markings; major areas at and beyond origin of *Rs*; stigma, cord, outer end of cell 1st *M*<sub>2</sub>



and outer radial field; a large area at one-third the length of cell *R*; all of cell *M* excepting outer end and a slight invasion near base; dark washes in cubital and anal cells; veins brown, brightened in the flavous areas. Venation: *Sc* short, *Sc*<sub>1</sub> ending only a short distance beyond origin of *Rs*, *Sc*<sub>2</sub> exactly opposite this origin; *Rs* strongly arcuated to almost square at origin; *R*<sub>2</sub> lying slightly distad of level of free tip of *Sc*<sub>2</sub>; *m-cu* before fork of *M*.

Abdominal tergites black; sternites pale yellow, darkened laterally; valves of ovipositor reddish horn color, bases of hypovalvæ blackened. Ovipositor with cerci very small and slender, upcurved.

Habitat.—Ecuador (Tungurahua).

Holotype, ♀, Baños, altitude 2,000 meters, April 28, 1939 (Macintyre).

*Limonia* (*Limonia*) *lachesis* is entirely distinct from the species that superficially resemble it, as *L. (L.) indomita* Alexander and *L. (L.) macintyre*i Alexander. The nature of the wing pattern and venation, especially the relatively short *Sc*, readily distinguishes this fly from these generally similar species.

#### Genus *Orimarga* Osten Sacken

***Orimarga* (*Diotrepha*) *syndactyla* new species.**

General coloration pale yellow, the pleura with a very narrow darkened longitudinal line; legs white, the tips of femora and tibiæ blackened; wings tinged with yellow, vaguely clouded with dusky along cord and at certain of the forks; abdomen yellow, the extreme caudal borders of the segments blackened; hypopygium dark; male hypopygium very large; dististyles completely fused for more than their basal two-thirds, the tips of both styles acute; inner dististyle with a linear row of conspicuous setæ along lower margin; phallosome very large and complex in structure.

MALE.—Length about 7 mm.; wing 4.5 mm.

Rostrum pale; palpi dark colored. Antennæ pale, of moderate length. Head discolored in the unique type.

Pronotum dark brown. Mesonotum uniformly pale yellow, the pleura similar, with a very narrow darkened longitudinal line extending from behind the fore coxæ across the dorsal sternopleurite, extending almost to root of halteres. Halteres yellow, the knob dark brown. Legs with the coxæ and trochanters yellow; femora white, the tips rather broadly and conspicuously black; tibiæ white, the tips narrowly and abruptly blackened, the amount about one-third as extensive as the femoral blackening; tibial bases not darkened; tarsi snowy white. Wings tinged with yellow, the prearcular and costal portions somewhat clearer yellow; small to scarcely evident dusky clouds at *R*<sub>2</sub>, fork of *Rs* and along cord; veins yellow, a trifle darker in the clouded areas. Costal fringe relatively long and conspicuous. Venation: *Rs* long, strongly arcuated



at origin;  $Sc_1$  ending about opposite four-fifths to five-sixths the length of  $Rs$ ,  $Sc_2$  at its extreme tip; free tip of  $Sc_2$  faintly indicated, far before  $R_2$ , the distal section of  $R_1$  alone being only a trifle less than  $R_{2+3}$ ;  $R_{1+2}$  atrophied, its position barely indicated at point of union of  $R_1$  and  $R_2$ ;  $m-cu$  at near one-third the length of  $M$ ; cell 2nd  $A$  wide.

Abdomen elongate, yellow, the extreme caudal borders of the segments blackened to produce narrow rings; hypopygium yellowish brown to brown. Male hypopygium of unusual size, the styli especially long. Basistyle before apex on mesal face with two closely approximated powerful setæ, the other vestiture of style weak and scattered. Both dististyles entirely fused for more than their basal two-thirds, thence split into two parts, the outer style a long black spine, the inner style similarly produced at apex into a sharp point, the lower margin with a row of conspicuous setæ that become progressively longer toward outer end of row. Phallosome very large and complex in structure.

Habitat.—Ecuador (Pichincha).

Holotype, ♂, Santo Domingo de los Colorados, altitude 500 meters, September 12, 1940 (Laddey).

*Orimarga (Diotrepha) syndactyla* is entirely distinct from all other described members of the *mirabilis* group. The unusual size and structure of the male hypopygium readily separates the fly from the other species so far made known.

### Genus *Hexatoma* Latreille

***Hexatoma (Eriocera) manabiana* new species.**

Belongs to the "Penthoptera" group; thorax uniformly dark orange, the præscutum unpatterned; head dark gray; halteres elongate, black throughout; legs brownish black, the tarsi extensively white, the proximal ends of all basitarsi darkened; most extensive on fore pair; wings relatively broad, with an almost uniform yellow tinge, the tip undarkened; no stigmal area;  $Rs$  elongate, exceeding the total length of vein  $R_5$ ;  $m-cu$  about one-half its length beyond the fork of  $M$ .

FEMALE.—Length about 10 mm.; wing 10 mm.

Rostrum and palpi black. Antennæ 7-segmented, relatively short, if bent backward ending shortly before the wing-root; scape and pedicel obscure brownish yellow, flagellum black. Head dark gray; anterior vertex of moderate width.

Prothorax and mesothorax almost uniform dark orange, the præscutum unpatterned; præscutal setæ very sparse; pleura and pleurontergite a trifle more yellow than the notum. Halteres elongate, black throughout. Legs with the coxæ orange-yellow; trochanters obscure yellow; femora and tibiæ brownish black; basitarsi brownish black on proximal portion on all legs, the tips whitened, least extensive on the fore legs where only the distal seventh or



eighth is included, widest on the posterior legs where at least the outer half is whitened; remaining tarsal segments white, the last segment weakly infuscated; posterior basitarsi much shorter than the fore pair. Wings relatively broad, with a strong and almost uniform yellowish tinge, the tip not darkened; stigma entirely lacking; veins brown. Abundant macrotrichia on all veins beyond cord. Venation:  $R_s$  elongate, exceeding the total length of vein  $R_5$ ;  $R_{2+3+4}$  relatively short, a little exceeding  $R_{1+2}$ ;  $R_{2+3}$  a trifle longer than  $R_2$  alone; cell 1st  $M_2$  long-rectangular, a little shorter than vein  $M_{1+2}$  beyond it;  $m-cu$  about one-half its length beyond fork of  $M$ ; cell 2nd  $A$  relatively wide.

Abdominal tergites dark brown; sternites yellow; cerci darkened, the tips rather narrowly horn yellow.

Habitat.—Ecuador (Pichincha).

Holotype, ♀, Santo Domingo de los Colorados, altitude 500 meters, January 26, 1941 (Laddey).

The so-called "Penthoptera" or *chirothecata* group of the subgenus now includes several species in Tropical America, ranging as far to the south as southeastern Brazil. The present fly is closest to *Hexatoma* (*Eriocera*) *candidipes* Alexander and *H.* (*E.*) *intermedia* Alexander, differing from both in the coloration of the legs and wings. The various Neotropical species of the group are best separated by the nature of the præscutal pattern, when present; the degree of white color on the basitarsi; the wing pattern, and the details of venation.

***Hexatoma* (*Eriocera*) *laddeyi* new species.**

Thorax almost uniformly orange, scarcely patterned; head dull black; legs and halteres black; wings brownish yellow, sparsely patterned with darker brown, including cell  $Sc$ , stigma, wing tip, and seams along veins beyond the cord; abundant macrotrichia on veins beyond cord;  $R_{1+2}$  about two-fifths the length of the long, gently arcuated  $R_{2+3+4}$ ;  $m-cu$  more than one-half its length beyond fork of  $M$ ; abdomen dark brown, the tergites more reddish laterally; cerci long and slender, blackened basally.

FEMALE.—Length about 12 mm.; wing 11.5 mm.; antenna about 2 mm.

Rostrum and palpi brownish black. Antennæ 8-segmented; scape and pedicel dark brown, deeper in color above; flagellum black; flagellar segments gradually decreasing in length and diameter outwardly. Head dull black, the surface very sparsely pruinose; anterior vertex broad; vertical tubercle low.

Pronotum brown. Mesothorax almost uniform deep orange, the notum with a darkened V-shaped mark at the center of the suture; præscutal stripes not or scarcely differentiated; pleura somewhat more yellowish; vestiture of præscutal interspaces very short and sparse. Halteres black. Legs with the coxæ and trochanters obscure yellow; femora black, the bases very narrowly



and insensibly brightened; tibiae and tarsi black. Wings with a brownish yellow tinge, sparsely patterned with darker; cell *Sc* uniformly darker brown; stigmal area dark but very restricted and confluent with the subcostal infuscation; cord and the veins beyond it slightly seamed with brown; wing-tip weakly darkened; veins dark brown. Abundant macrotrichia on all veins beyond cord. Venation: *Sc*<sub>1</sub> ending shortly beyond fork of *Rs*, *Sc*<sub>2</sub> just before this fork; *R*<sub>2</sub> oblique subequal to *R*<sub>2+3</sub>; *R*<sub>1+2</sub> about two-fifths the length of the long, gently arcuated *R*<sub>2+3+4</sub>; cell 1st *M*<sub>2</sub> rectangular, a little shorter than vein *C*<sub>1+2</sub> beyond it; *m-cu* about two-thirds to three-fourths its own length beyond fork of *M*, longer than distal section of *Cu*<sub>1</sub>; cell 2nd *A* relatively wide.

Abdominal tergites dark brown, more reddened laterally; sternites obscure yellow, the posterior borders narrowly darkened; genital shield dark chestnut brown; cerci long and slender, blackened on basal half, the gently upcurved tips pale horn yellow.

Habitat.—Ecuador (Pichincha).

Holotype, ♀, Santo Domingo de los Colorados, altitude 500 meters, February 7, 1941 (Laddey).

I am very pleased to name this distinct fly in honor of the collector, Mr. David B. Laddey, who has added materially to our knowledge of the Tipulidæ of Ecuador. The nearest relative is *Hexatoma* (*Eriocera*) *semirufa* Alexander, of Venezuela (*dimidiata* Alexander, 1923, nec *dimidiata* Henriksen, 1922) which differs conspicuously in the coloration of the body and wings and in the details of venation.

***Hexatoma* (*Eriocera*) *piatrix* new species.**

General coloration of thorax black, with strong bluish and purplish reflexions; head intense black; halteres and legs black; wings relatively broad, with a strong blackish tinge, the centers of many of the cells paler; relatively sparse macrotrichia on veins *R*<sub>4</sub> and distal section of *R*<sub>5</sub>; abdomen, including hypopygium, black.

MALE.—Length about 11.5 mm.; wing 10.5 mm.

Rostrum and palpi black. Antennæ short, 6-segmented; scape and pedicel dark brown, the flagellum a trifle paler brown; flagellar segments one to three gradually decreasing in length, the terminal segment more elongate, about one-fourth longer than the penultimate; basal two flagellar segments stouter, terminal two with more abundant and conspicuous setæ. Head intense black; vertical tubercle nearly entire.

Thorax black, with strong bluish and purplish reflexions; præscutum without pattern; setæ of interspaces short and relatively sparse. Halteres short, black throughout. Legs black. Wings relatively broad, with a strong blackish tinge, the costal border a trifle more strongly darkened; centers of many



of the cells, especially  $R_1$ ,  $M_1$ ,  $M_4$ , 1st  $A$  and 2nd  $A$  with markedly paler areas; stigma lacking; veins pale brown, inconspicuous against the ground. Relatively sparse trichia on veins  $R_4$  and distal section of  $R_5$ , entirely lacking on other veins beyond cord, including  $R_2$  and  $R_{1+2}$ ; costal trichia before  $h$  more erect and conspicuous than those beyond. Venation:  $Sc_2$  close to tip of  $Sc_1$ , both beyond level of fork of  $Rs$ ;  $R_{1+2}$  longer than  $R_{2+3}$  but only a little more than one-half  $R_{2+3+4}$ ; basal section of  $R_5$  a little more than one-half  $R_{2+3+4}$ ;  $m-cu$  shortly beyond fork of  $M$ ; distal section of  $Cu_1$  shorter than  $m-cu$ ; prearcular field short.

Abdomen, including hypopygium, black, the caudal borders of the segments narrowly more glabrous but not different in color.

Habitat.—Ecuador (Pichincha).

Holotype, ♂, Santo Domingo de los Colorados, altitude 500 meters, February 22, 1941 (Laddey).

*Hexatoma* (*Eriocera*) *piatrix* is most similar to *H. (E.) lessepsi* (Osten Sacken) which differs in the details of venation and in the coloration of the body, especially the orange-red head.

***Hexatoma* (*Eriocera*) *magistra* new species.**

Mesonotal præscutum dark brown, the four stripes yellow pollinose; head fiery orange; antennæ with scape and pedicel light yellow, flagellum black; halteres short; stem yellow, knob brown; femora yellow, the tips narrowly but conspicuously black, the amount subequal on all legs; tarsi black; wings brown, crossbanded with yellow, the broad apex brown; veins beyond cord, with the exception of  $R_5$ , without trichia; abdominal tergites orange, segments six and seven broadly darkened but with the lateral borders pale.

FEMALE.—Length about 13.5 mm.; wing 12 mm.; antenna about 3.2 mm.

Rostrum yellow; palpi with first and last segments yellow, the intermediate segments brown. Antennæ 8-segmented; scape and pedicel light yellow, flagellum black; flagellar segments one to three gradually decreasing in length, four and five subequal, terminal segment a trifle shorter. Head fiery orange; anterior vertex low; vertical tubercle relatively inconspicuous, feebly notched at summit.

Pronotum brown, more yellowish pollinose on sides. Mesonotal præscutum with the ground color dark brown, the four præscutal stripes yellow pollinose, somewhat more obscured near the suture; posterior sclerites of notum light chestnut yellow to pale brown. Pleura obscure yellow, sparsely variegated with brown on ventral anepisternum and ventral sternopleurite. Halteres relatively short, stem yellow, knob brown. Legs with the coxæ and trochanters yellow; femora yellow, the tips narrowly but conspicuously black, the amount subequal on all legs; tibiae obscure yellow basally, passing into black at tips; tarsi black. Wings with the ground color brown, crossbanded with yellow; the brown color includes the broad entire wing-tip, its inner level



extending about to the cord; inner dark band at level of origin of  $R_s$ , paler brown; cell 2nd  $A$  similarly pale brown; the yellow color includes cells  $C$  and  $Sc$ , a broad band chiefly before cord, and the extreme bases of cells  $Cu$  and 1st  $A$ ; proximal portions of cells  $R$  and  $M$  still more weakly darkened; veins pale brown in the patterned areas, yellow in the brightened portions. Veins beyond cord, with the exception of  $R_5$ , without trichia. Venation:  $R_s$  very long, exceeding the total length of vein  $R_5$ ;  $R_{2+3+4}$  short, a little exceeding  $R_{1+2}$ ; cell 1st  $M_2$  short, less than any of the veins beyond it;  $m-cu$  a short distance beyond the fork of  $M$ .

Abdominal tergites orange; central portions of tergites six and seven more darkened to form an incomplete ring, the lateral portions remaining yellow; sternites yellow, more or less discolored, the posterior borders pale; genital segment and ovipositor orange; cerci long and slender.

Habitat.—Ecuador (Oriente).

Holotype, ♀, Rio Huagra Yacu, altitude 900 meters, April 5, 1941 (Macintyre).

The most similar species are *Hexatoma* (*Eriocera*) *ferax* Alexander and *H. (E.) jurata* Alexander which have the wing pattern generally similar but differ in all details of body, leg and wing coloration, and in the venation.

***Hexatoma* (*Eriocera*) *plumbeicolor* new species.**

General coloration black, the head and thorax sparsely pruinose to produce a leaden appearance; abdomen uniformly black; antennæ (male) 7-segmented, black throughout; halteres weakly darkened; legs black, the tibial bases a little paler; wings with a brown suffusion, costal and stigmal regions a trifle darker; veins beyond cord, with exception of  $R_5$ , without trichia;  $R_{2+3+4}$  relatively long, about three times the basal section of  $R_5$ ;  $m-cu$  beyond fork of  $M$ .

MALE.—Length about 12–13 mm.; wing 10–11 mm.; antenna about 2.5 mm.

Rostrum and palpi dark brown. Antennæ (male) 7-segmented, black throughout; flagellar segments decreasing in length outwardly, the penultimate a little exceeding the preceding segment; terminal segment a little less than one-fourth the length of the penultimate segment. Head black, sparsely pruinose.

Pronotum black, sparsely pruinose. Mesonotum dull black, without markings, the surface very sparsely pruinose. Pleura black, very sparsely pruinose; dorsopleural membrane dark. Halteres very weakly darkened throughout. Legs with the coxæ black, very sparsely pruinose; remainder of legs black, the bases of tibiæ a trifle paler; claws (male) with conspicuous basal spine. Wings with a brown suffusion, the cephalic portion of prearcular field pale yellow; costal and stigmal regions a trifle darker than remainder of ground; basal cells with pale linear streaks; veins pale brown. Outer veins without trichia excepting an almost complete series on  $R_5$ . Venation:  $R_{2+3+4}$



relatively long, about three times the basal section of  $R_5$ ; veins  $R_3$  and  $R_4$  becoming paler and weaker toward wing margin; cell 1st  $M_2$  shorter than vein  $M_4$  beyond it;  $m-cu$  from one-third to one-fourth its length beyond the fork of  $M$ .

Abdomen black throughout, without pruinosity; hypopygium with basistyle more reddish brown.

Habitat.—Ecuador (Los Rios).

Holotype, ♂, Playas de Montalvo, altitude 15 meters, March 17, 1938 (Macintyre). Paratopotype, ♂.

*Hexatoma* (*Eriocera*) *plumbeicolor* is quite distinct from somewhat similar uniformly darkened species of the subgenus. Among such forms it is most similar to *H. (E.) cornigera* (Alexander) and *H. (E.) pallidipes* (Alexander), yet quite distinct.





Alexander, Charles P. 1942. "Records and Descriptions of Neotropical Crane-Flies (Tipulidæ, Diptera), XIV." *Journal of the New York Entomological Society* 50, 135–146.

**View This Item Online:** <https://www.biodiversitylibrary.org/item/206025>

**Permalink:** <https://www.biodiversitylibrary.org/partpdf/178272>

#### **Holding Institution**

Smithsonian Libraries and Archives

#### **Sponsored by**

Biodiversity Heritage Library

#### **Copyright & Reuse**

Copyright Status: In Copyright. Digitized with the permission of the rights holder

Rights Holder: New York Entomological Society

License: <http://creativecommons.org/licenses/by-nc/3.0/>

Rights: <https://www.biodiversitylibrary.org/permissions/>

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.