

*Leptostylus ornatus*, n. sp.

Form rather short and robust, strongly convex, dark brown, densely clothed with cinereous and brownish white pubescence, and the elytra ornamented with brownish black pubescent markings; mandibles black; palpi brownish black, with the tips luteous.

Head between the eyes in front of antennal tubercles about as long as wide, and nearly flat, broadly concave between the antennal tubercles, which are moderately developed and rather widely separated; surface densely clothed with whitish and brownish pubescence giving it a mottled appearance, and concealing the punctures, and with a narrow longitudinal groove extending from the epistoma to occiput; eyes small, rather coarsely granulated, deeply emarginate, and separated from each other on the top by nearly the width of the emargination of the eyes in front, the lower lobes rounded, and the upper lobes very narrow. Antennae about one and one-fourth times as long as the body, the first four joints mottled with brown and white pubescence, the following joints (except the last, which is entirely brown), cinereous, and annulated with brown at the apex; first joint, slender, subcylindrical, feebly expanded toward apex, extending to basal third of pronotum and sub-equal in length to the third joint, which is slightly longer than the fourth.

Pronotum three fifths wider than long, and the base and apex equal in width; sides strongly constricted near apical angles, broadly, arcuately rounded at middle, and parallel to each other at apical fifth; surface with a narrow, transverse depression along the base and apical margin, and with five distinct elevated tubercles arranged transversely on the disk, two in front and three behind, with a row of coarse punctures in the basal and apical depressions, the surface also sparsely, irregularly punctate, densely clothed with recumbent yellowish white pubescence, and ornamented on each side at lateral margin with a black pubescent spot extending from the base to middle. Scutellum wide, broadly rounded behind, the surface nearly flat, and sparsely clothed with yellowish white pubescence.

Elytra about two-thirds longer than wide, and distinctly wider than the pronotum; humeri prominent; sides nearly parallel to middle, then arcuately narrowed to the tips, which are obliquely truncate internally, with the exterior angles obtuse, but not produced; surface regularly convex, with a few irregularly distributed elevations, sparsely, irregularly punctate, the punctures coarser on the basal region but becoming more obsolete toward the apex, densely clothed with recumbent whitish and yellowish white pubescence, and each elytron ornamented with brownish black markings as follows: A row of small spots along the sutural and lateral margins, an irregular shaped, transverse spot behind the humerus and connected laterally to a large spot in front of the middle, which extends from the lateral margin to middle of disk, a narrow, transverse, zigzag fascia at middle, a small triangular spot on disk at apical third, which is connected laterally and posteriorly to a similar spot along the lateral margin.

Body beneath sparsely, rather coarsely punctate, and rather densely clothed with recumbent, whitish pubescence; last abdominal segment strongly narrowed at apex, produced slightly behind the elytra, and densely clothed with long hairs at the apex; tibiae more or less annulated with brown; tarsi and tarsal claws black, and sparsely clothed with whitish pubescence; femora strongly clavate at apex; prosternal process as wide as the coxal cavities.

Length, 10 mm.; width, 4.5 mm.

*Type locality*.—Hope Gardens, Jamaica.

*Type*.—Cat. No. 40207, United States National Museum.

Described from a single female collected at the type locality, October 5, 1925 (C. C. Gowdey).

This species is very closely allied to *Leptostylus bruneri*, Fisher, described from Cuba. In *bruneri* the disk of pronotum has only three distinct tubercles, and is ornamented with a number of small brownish pubescent spots, the pubescence on the elytra more uniformly brownish white, and the median brownish black fascia broader and more oblique.

THE CRANE-FLIES OF JAMAICA <sup>1</sup>

BY

CHARLES P. ALEXANDER, AMHERST, MASS.

Our knowledge of the crane-flies or *Tipulidae* of Jamaica has been very limited. The first species to be recorded from the island was *Geranomyia intermedia*, (Walk.), collected by Gosse (1848)<sup>2</sup>. At the time of the publication of Mr. Johnson's first list (1894), this still remained the only crane-fly known from Jamaica. In his supplement to this basic list, Cockerell (1894) recorded a "*Limnobia*" sp., from Balaclava, the record apparently referring to the specimen of *Rhipidia domestica*, O. S., mentioned later by the writer (Alexander, 1912). In 1913, the writer described *Rhabdomastix parva* and *Limnophila nacrea*, based wholly or in part on Jamaican material, collected by Grossbeck. In 1916, the writer gave additional records of *Geranomyia intermedia*, (Walk.). In his revised list of the *Diptera* (1919), Johnson lists all of the species hitherto made known from the island and adds records for *Gonomyia* (*Progonomyia*) *slossonae*, Alex., and *G. (Lipophleps)* *puer*, Alex., both taken in April at Kingston. In 1926, the writer described as new *Limonia jamaicensis* and *Helius creper*.

Upon his arrival in Jamaica as Entomologist, Mr. C. C. Gowdey, began the systematic collecting that has added so greatly to our knowledge of the insect fauna. Much of this material was sent to the British Museum of Natural History and was not available for inclusion in the present paper. In July, 1926, Dr. G. C. Crampton visited the island and with Mr. Gowdey and his children, Kathleen and Martin, collected in various places at and near Kingston and in the Blue Mts. It is unfortunate that many of the smaller specimens in this latter collection were placed in vials of alcohol and were badly damaged in transit, in many cases so much so that the male hypopygium had to furnish the chief means of identification. The specimens sent to me for naming by Mr. Gowdey have been returned for inclusion in the Departmental Collections. Dr. Crampton has been kind enough to allow me to retain the alcoholic types resulting from his 1926 collections. One additional species, a *Tipula*, is in the American Museum of Natural History and was included in extensive series of crane-flies submitted to me for naming by Mr. C. H. Curran. I wish to express my deep thanks to all of the above colleagues for their help in making known this interesting fauna, but especially to Dr. Crampton and Mr. Gowdey who have done a most valuable and creditable work in unravelling this fauna.

## SUBFAMILY LIMONIINAE

*Limonia*, Meigen.*Limonia basistylata*, sp. n.

General colouration obscure yellow, variegated with brown; mesonotal praescutum with a broad median dark brown (or black) stripe; male hypopygium with the styli dark brown, the eight sternite and aedeagus abruptly paler; basistyles very long and slender, each with three setiferous lobes; dististyle single, terminal in position.

1

Contribution from the Department of Entomology, Massachusetts Agricultural College, Amherst, Massachusetts.

2

Dates refer to the bibliography at the end of the paper.

*Male*.—Length, 7-8.5 mm.; wing, 7-7.5 mm.

Described from alcoholic specimens.

Rostrum and palpi brownish black. Antennae with the first segment obscure yellow, the remainder of the organ black; in one specimen the entire organ in black; flageller segments oval, somewhat shorter outwardly, the last segment pointed at apex. Head dark throughout.

Pronotum dark brown medially, paler laterally. Mesonotal praescutum obscure yellow with a broad conspicuous dark brown (possibly black in living specimens) median stripe that widens out behind, crossing the suture and suffusing the scutal lobes; lateral stripes represented only by a paler brown cloud on the margin of the sclerite shortly behind the pseudosutural fovae; median area of scutum broadly pale, this colouration likewise including the extreme basal median portion of the scutellum which is otherwise uniformly darkened; postnotal mediotergite uniformly infuscated or somewhat darker on the posterior third. Pleura pale, the propleura more yellowish; brown spots and clouds arranged as follows: A transverse girdle on the anepisterum and sternopleurite; a conspicuous spot on the postnotal pleurotergite, immediately before the haltere. Halteres pale, the knob dark brown. Legs with the fore coxae conspicuously darkened, the remaining coxae and the trochanters pale; femora brownish yellow basally, passing into brown, deepening into a dark brown subterminal ring, the extreme tips narrowly pale; tibiae dark brown. Wings badly shredded in all the specimens available, only the costal region preserved; from this it would appear that the wing is rather markedly tinged with brownish grey, the oval stigma darker brown, the veins brownish black. Venation: *Sc*. long, projecting far beyond the origin of *Rs*, the penultimate and antepenultimate sections of *Ri* subequal; *Scii* at the tip of *Sci*; *r* at tip of *Ri* and a trifle longer, both bisecting the stigma.

Abdominal tergites dark brown, the extreme caudal margins of segments two to four paler; basal sternites yellow, the intermediate segments with the basal three-fifths of the segment brown, the apex yellow, the seventh segment uniformly darkened; eighth sternite pale; hypopygium with the basistyles very long and slender, each, on the ventromesal face with a large setiferous lobe just before midlength and a much smaller lobe just beyond; extreme base of each style on ventral face with a much larger truncated darkened lobe that is strongly setiferous. Dististyle single, terminal in position, provided with a short basal appendage on outer margin; beyond this appendage, gently widened to shortly before the tip, there abruptly truncated and further produced into a slender spine. Aedeagus elongate, gently curved.

*Habitat*.—Jamaica.

Holotype, male, Cinchona, Blue Mts., July 25, 1926 (*G. C. Crampton*). Paratypes, 2 badly damaged males (*G. C. Crampton* and *C. C. Gowdey*).

*Limonia jamaicensis*, Alex.

1926. *Limonia jamaicensis*, Alex., Jn. N. Y. Ent. Soc., XXXIV, p. 223—224.

Known only from the types, taken near Troy, May 23 (*A. E. Wight*).

*Dicranomyia*, Steph.

*Neolimnobia*, subgen. n.

Characters as in *Dicranomyia*, s. s., differing in the possession of a supernumerary crossvein in cell *Riii* of the wings at near two-thirds the length of the cell.

Type of subgenus: *Dicranomyia* (*Neolimnobia*) *diva*, Schiner (Neotropical Region).

Besides the type, the closely allied species or forms, *muscosa*, Ender., and *iricineta*, Alex., agreeing in the beautifully reticulated wing-pattern and conspicuously banded femora; and the more isolated species, *translucida*, Alex. (Panama) belong here.

*Dicranomyia* (*Neolimnobia*) *diva*, Schiner.

1868. *Limnobia diva*, Schiner, Novara Reise, Dipt., p. 46.

This beautiful crane-fly is apparently not uncommon in the Blue Mts. Mr. Gowdey sent two pinned females collected at Cinchona, September 20, 1924, by R. S. Martinez. In late July and early August, 1926, a few additional specimens were taken by Messrs. Crampton and Gowdey. These specimens show the fore and middle femora to have two brown rings while the posterior femora have three such rings.

The true relationships of the three named species or forms that centre about *diva* are still not well understood. In 1921, I was enabled to study the type specimen of *diva*, a female from Brazil, through the kind interest of Dr. Hans Zerny. The type measures 8 mm. in length, with the wing 10.2 mm. The fly agrees very closely with Enderlein's figure and description of *muscosa*, except in the colouration of the femora. The praescutal stripes are exactly as described for *muscosa*. Scutal lobes greenish yellow, each with a conspicuous dark brown centre. Halteres distinctly tinged with green. Legs with the trochanters green; femora with the yellow apex and yellow subterminal ring subequal in width, the two taken together about as wide as the subterminal brown ring; besides the subterminal brown ring, there is a broader but less distinct similar ring immediately beyond midlength of the femur. Wing-pattern and venation quite as in Enderlein's figure of *muscosa*, only the series of costal dots are darker brown than those of the remainder of the wing.

In the Vienna Collection there are likewise three specimens (2 females, 1 male) of what appear to represent the same species (Venezuela, Kaden, 57). The wings of the male measure from 11.5-12 mm. These bear the manuscript name "*marmorea*" and a label by Osten Sacken "*Vergl. Limnob. diva*, Schin."

The chief distinctions between the three forms lies in the pattern of the femora, *muscosa* having the least adorned legs, *tricincta* the most, with three brown bands on the femora. Whether the names all pertain to a single highly variable species with a tremendous range in the Neotropics, or whether there are several closely allied species involved, is a question that will require still further material from many parts of South and Middle America.

The proposal to erect a new subgeneric group based on supernumerary crossveins brings the present genus in accord with the other genera and subgenera that have been based chiefly on this character (*Discobola*, O. S., *Dapanoptera*, Westw., *Laosa*, Edw.).

### *Rhipidia*, Meigen.

#### *Rhipidia* (*Rhipidia*) *subcostalis*, Alex.

1922. *Rhipidia* (*Rhipidia*) *subcostalis*, Alex., Proc. U. S. Nat. Mus., LX, Art. 25, p. 3-4.

This interesting crane-fly was previously known only from the unique type (male) from Costa Rica. Two females taken by Mr. Gowdey at Cinchona, July 21 and August 1, 1923, certainly appear to be conspecific and the better preserved individual is described herewith as the allotype. The details of colouration of the antennae and legs, organs that were broken in the type, are noteworthy.

*Allotype*, female. Length, about 6.5 mm.; wing, 7.5 mm.

Agrees with the description of the male sex except in the following regards:—

Antennal flagellum black, the penultimate and antepenultimate segments abruptly yellowish; flagellar segments pectinate, the basal portion of the individual segments simply produced, the shiny apical pedicel conspicuous.

Postnotal mediotergite with the basal two-thirds dark brown medially, not split by a pale line, the posterior third and broad lateral margins buffy yellow. Pleura yellow with two narrow longitudinal dark brown stripes, the more dorsal ending at the root of the halteres, the more ventral stripe somewhat paler coloured, the enclosed area discoloured with brown. Legs with segments two to four of the posterior tarsi conspicuously yellow, the terminal segment black. Wings as in the type except that the cell 1st. *Mii* is more elongate, with *m-cu* at its proximal end.

Ovipositor with the very slender tergal valves gently upcurved to the acute tips.

*Allotype*, female, Cinchona, August 1, 1923, (C. C. Gowdey).

In the second female, the subterminal antennal segments are obscure brownish yellow instead of clear yellow.

The chief differences from the type to be found in the present material lie in the noticeably more elongate cell 1st *Mii*. Members of this same group of the subgenus occur as far south as Argentina and it is probable that more than a single species is involved in the complex but the material available at the present time is not sufficient to separate the species.

*Rhipidia (Arhipidia) schwarzi*, Alex.

1912. *Rhipidia schwarzi*, Alex., Bul. Brooklyn Ent. Soc., VIII, p. 13-14.

Described from Cuba and Santo Domingo. A male taken in Hope Gardens, November 17, 1925 (C. C. Gowdey).

*Rhipidia (Arhipidia) domestica*, O. S.

1859. *Rhipidia domestica*, O. S., Proc. Acad. Nat. Sci. Phila., p. 208. Balaclava (Cockerell). Hopedale, December 11, 1925 and December 20, 1925 (C. C. and M. C. Gowdey). Hope Gardens, December 20, 1925 (M. K. Gowdey).

*Geranomyia*, Haliday

*Geranomyia (Geranomyia) rostrata*, (Say).

1823. *Limnobia rostrata*, Say, Jn. Acad. Nat. Sci. Phila., III, p. 22. One female, Hope Gardens, Jan. 3, 1926 (M. C. Gowdey).

*Geranomyia (Geranomyia) intermedia*, (Walk.).

1848. *Limnobia intermedia*, Walk., List. Dipt. Brit. Mus., 1, p. 47. Kingston, February 10, 1903 (M. Grabham); Apr. 9, 1903 (M. Grabham). Recorded by Alexander (1916: 489-490).

*Geranomyia (Geranomyia) tibialis*, (Lw.).

1851. *Aporosa tibialis*, Lw., Linn. Ent., V, p. 397. Hope Gardens, November 29, 1925 (C. C. Gowdey); October 10, 1926 (M. C. Gowdey).

*Helius*, St. Fargeau.

*Helius creper*, Alex.

1926. *Helius creper*, Alex., Jn. N. Y. Ent. Soc., XXXIV, p. 225. The types were taken near Troy, May 12-14 (A. E. Wight). Paratypes were secured by Crampton and Gowdey at various localities in the Blue Mts., especially near Cinchona, in late July and early August, 1926. Pinned specimens from Cinchona, August 2, 1926 (C. C. Gowdey). Some of these paratypes are very large, darker coloured specimens (wings, male, up to 10.5 mm.), but the range in the series is such that but a single species appears to be included.

*Diotrepha*, Osten Sacken.*Diotrepha flavicosta*, sp. n.

Legs with the femora yellow, the tips narrowly dark brown, preceded by a wider more whitish ring; tibiae white, the tips not darkened; tarsi white, the terminal segments darkened; wings with a dusky tinge, the costal region conspicuously yellow; macrotrichiae of veins relatively extensive, including the distal end of *Rs*.

*Male*.—Length, 8.5 mm.; wing, 6 mm.

*Female*.—Length, 10 mm.; wing 7 mm.

Rostrum and palpi dark brown. Antennae with the scapal segments brown, the flagellum yellowish; flagellar segments oval to long-oval. Head brown, with orbits more greyish; anterior vertex very narrow.

Pronotum dark brown. Mesonotum and dorsal pleurites dark brown, the ventral pleurites more yellowish; postnotal mediotergite dark brown, the pleurotergite paler. Halteres pale, the knobs weakly infuscated. Legs with the coxae and trochanters pale yellow; femora yellow, the extreme tips dark brown, preceded by a much wider, more nearly white ring; tibiae and tarsi white, the tips of the latter darker. Wings with a strong dusky tinge, especially intensive along vein *Cu* and in the bases of cells *Cu* and *1st. A*; costal region conspicuously light yellow; veins brown, *C*, *Sc*. and *R*. light yellow. Macrotrichiae relatively extensive, occurring on the distal fourth or more of *Rs*, both sections of *Rii+iii*, distal section of *Riv+v* and both branches of *M* back almost to fork. Venation *Sc* ending opposite one third to two fifths the length of *Rs*, *Scii* at the extreme tip or even slightly beyond; *Rs* weakly angulated at origin; *r* some distance from the tip of *Ri*, the basal section *Rii+iii* and the distal section of *Ri* subequal or the latter longer; inner end of cell *Riii* lying far proximad of cell *Mii*; *m-cu* at near mid-distance between arculus and origin of *Rs*.

Abdominal tergites brown, the incisures narrowly darker, sternites obscure brownish yellow, the incisures restrictedly dark brown; subterminal segments of abdomen and the hypopygium brownish black.

*Habitat*.—Jamaica.

Holotype, male, Cinchona, Blue Mts., Aug. 2, 1926 (*C. C. Gowdey*). Allotopotype, female, alcoholic (*G. C. Crampton* and *M. C. Gowdey*). Paratopotypes, 2 damaged males, in Crampton's collection, July 25, 1926. (*Crampton* and *Gowdey*).

*D. flavicosta* is readily distinguished from all of the described species of the genus by the large size, leg-pattern (femoral tips narrowly darkened, tibiae uniformly pale) and the wings (conspicuous yellow costal margin and the recession of *r*).

*Limnophila*, Macq.*Limnophila nacrea*, Alex.

1913. *Limnophila nacrea*, Alex., Proc. U. S. Nat. Mus., XLIV, p. 544-545.

The type and only known specimen was taken at Cinchona, February 24, 1911, by the late Mr. Grossbeck.

*Ericcera*, Macq.*Eriocera cramptoni*, sp. n.

General colouration of the thoracic notum rich dark fulvous, narrowly margined laterally with pale yellow, on the praescutum this colouration narrowly bordered internally with dark brown; head blackish grey; legs black; wings yellowish grey, the costal margin brighter, the surface of the wing with brown spots and abundant dusky spots.

*Male*.—Length, about 11 m.; wing, 11.5 mm.

Described from alcoholic material.

Rostrum and palpi black. Antennae moderately elongate; scape and basal two flagellar segments yellow; intermediate two flagellar segments weakly bicolourous, black, with the extreme tips yellow; last flagellar segment uniformly darkened; antennae 7-segmented, all flagellar segments long cylindrical, with elongate verticils. Head dark blackish grey

Pronotum small, pale. Mesonotum rich dark fulvous, the praescutum narrowly margined laterally with pale yellow, this colour margined internally by a subequal line of dark brown; scutal lobes indistinctly margined with darker; scutellum narrowly margined posteriorly with dark brown. Pleura yellow, the dorsal pleurites traversed by a dusky longitudinal stripe, the dorso-pleural membrane abruptly pale yellow, confluent with the narrow praescutal margin, as described above. Halteres yellow, the knobs dark brown. Legs with the coxae pale, trochanters yellow; remainder of legs black. Wings yellowish grey, the costal region more brightly coloured, the wing surface conspicuously variegated with brown spots and abundant greyish brown or dusky dots; larger spots at origin of *Rs*, at *Scii* and at *r*, including the tip of *Ri*; the dots are especially distinct in the costal and radial fields, becoming more vague and diffuse in the posterior cells; cord and outer end of cell 1st *Mii* narrowly seamed with brown; posterior prearcular region infuscated; veins pale brown, more yellowish in the costal region (*C*, *Sc*, and *R*); a small dusky lobe on the wing axilla, close to the base. Venation; *Sci* ending a short distance beyond the fork of *Rii+iii*, *Scii* some distance from its tip, *Sci* alone being about three fourths the length of *Rii+iii*; *Rii+iii* elongate, a little longer than the basal section of *Rii*; *Ri* beyond *r* a little more than twice the length of the latter; cell 1st *Mii* long and narrow, *m* a little shorter than the outer deflection of *Miii*, the veins issuing from cell 1st *Mii* elongate; *m-cu* at or beyond two-thirds the length of the cell; anterior arculus preserved.

Abdominal tergites brown medially, more yellowish laterally; sternites more uniformly yellow, hypopygium brownish yellow. Male hypopygium with the tip of the outer dististyle narrowed into an acute point.

*Habitat*.—Jamaica.

Holotype, male, Cinchona, Blue Mts., July 25, 1926 (*G. C. Crampton*). Paratopotype, male. Types badly broken, preserved in alcohol.

This very interesting crane-fly is named in honour of my friend and colleague, Dr. G. C. Crampton, to whom I am vastly indebted for advice and assistance upon many difficult points of crane-fly morphology. *E. cramptoni* bears a curious superficial resemblance to certain Neotropical species of *Epiphragma*. In its spotted and dotted wing-pattern, the fly departs notably from the normal colouration of the genus. Members of the genus *Eriocera* have now been discovered on all of the major islands of the Greater Antilles.

### *Erioptera*, Meigen.

#### *Erioptera (Empeda) nymphica*, sp. n.

General colouration dark brown; legs black, the tibiae and basitarsi each with a conspicuous pure white ring; wings feebly dimidiate, the basal half and costal region yellowish, the distal half more greyish.

*Female*.—Length, about 4 mm.; wing, 3.8 mm.

Type preserved in alcohol.

Rostrum and palpi dark brown. Antennae black throughout, the first flagellar segment enlarged, globular; remaining flagellar segments progressively smaller, at near midlength of the organ passing into oval. Head black.

Pronotum obscure yellow, narrowly dark brown medially. Mesonotum dark brown, the humeral region very restrictedly paler. Pleura dark brown, the dorso-pleural membrane paler. Halteres pale yellow. Legs with the fore coxae dark brown, the remaining coxae and all trochanters yellowish brown; femora black; tibiae black with a broad pure white ring just beyond midlength, the ring about one half as long as the black apex beyond; basitarsi pure white, the distal third and remainder of the tarsi black. Wings with the basal half and costal region yellowish, the distal half passing into grey; stigma elongate-oval, brown; veins in the basal half of the wing yellow, the cord and beyond passing into dark brown. Venation: *Sci* ending about opposite one third the length of *Rs*, *Scii* a short distance from its tip, *Sci* alone about equal to *r*; *r* on *Rii+iii* at a little less than its own length beyond the fork of *Rs*; petiole of cell *Miii* a little longer than *m-cu*.

Abdomen dark brown. Ovipositor with the relatively small tergal valves upcurved; darker brown than the sternal valves, the bases narrowly blackened; sternal valves straight, obscure yellow.

*Habitat*.—Jamaica.

Holotype, female, Cinchona, Blue Mts., July 24, 1925 (*G. C. Crampton*).

*Gonomyia*, Miegen.*Gonomyia* (*Progonomyia*) *slossonae*, Alex.

1914. ? *Gonomyia slossonae*, Alex., Proc. Acad. Nat. Sci. Phila., p. 588-589.

1917. *Gonomyia* (*Gonomyella*) *slossonae*, Alex., Ann. S. Afr. Mus., XVII, p. 152.

This species ranges from South Carolina to Panama. Mr. Johnson records it from Kingston in April (1919: 422).

*Gonomyia* (*Lipophleps*) *puer*, Alex.

1913. *Gonomyia* (*Leiponeura*) *puer*, Alex., Proc. U. S. Nat. Mus., XLIV, p. 506.

Mr. Johnson records this species from Kingston (April) (1919: 422). A female of what is presumably this species was collected by Mr. Gowdey in Hope Gardens, December 20, 1925. The fly was described from Santo Domingo but is now known to range from the southern United States to northern South America.

*Gonomyia* (*Lipophleps*) *pleuralis*, (Will.).

1896. *Atarba pleuralis*, Will., Trans. Ent. Soc. Lond., p. 289.

A female of what is very probably this species was taken at Hopedale, December 11, 1925 (M. C. Gowdey).

*Rhabdomastix*, Skuse.*Rhabdomastix* (*Sacandaga*) *parva*, (Alex.)

1913. *Sacandaga parva*, Alex., Proc. U. S. Nat. Mus., XLIV, p. 508-509.

The type and only known specimen from Jamaica was taken at Yallahs Valley, Blue Mts., February 24, 1911, by Mr. Grossbeck.

*Trentepophila*, Bogot.*Trentepophila* (*Paramongoma*), near *niveitarsis*, (Alex.).

1913. *Mongoma niveitarsis*, Alex., Proc. U. S. Nat. Mus., XLIV, p. 501.

The types of this species were taken on El Yunque, Porto Rico, altitude 2,850 feet. Dr. Crampton brought home a single fragmentary specimen of *Trentepophila*, without antennae, legs or wings, taken in the Blue Mts., July 25, 1926. From a study of the male genitalia, it may be stated that the insect is very close to, if not actually identical with, this species.

*Teucholabis*, Osten Sacken.*Teucholabis* (*Teucholabis*) *gowdeyi*, sp. n.

Allied to *T. melanocephala*, (F.); premedial ring of femur narrow and indistinct; wings with cell 1st. *Mii* open by the atrophy of the outer deflection of *Miii*; male hypopygium with the outer dististyle terminating in a simple pale spine; inner dististyle with the inner arm a subcylindrical blackened rod.



*Male*.—Length, about 8.5 mm.; wing, 7 mm.

*Female*.—Length, about 9 mm.; wing, 7.2 mm.

Rostrum brown, somewhat paler beneath; palpi brownish black. Antennae with the scapal segments obscure yellow; flagellum dark brown, the basal two or three segments a trifle paler; flagellar segments oval, passing into elongate-cylindrical. Head obscure yellow, the vertex largely covered by a triangular dark brown mark; anterior vertex narrowed, about as wide as the diameter of the first scapal segment.

Cervical sclerites conspicuous, dark brown. Pronotum prominent, reddish brown, darker laterally. Mesonotal praescutum shiny obscure yellow with three conspicuous reddish chestnut stripes, the median stripe more pollinose in front; scutum yellow, each lobe with two confluent dark brown spots; scutellum yellowish testaceous, darker basally; postnotal mediotergite yellowish brown laterally and on the cephalic half, the posterior half dark brown. Pleura shiny obscure yellow, the sternopleurite darkened, especially ventrally; sternopleurite and pteropleurite covered with a microscopic silvery scaling; dorso-pleural region blackened. Halteres yellow, the outer end of the stem and base of the knob brownish black, the apex of the knob yellow; femora yellow with a narrow dark brown subterminal ring, the yellow apex beyond this ring narrower than the annulus and more brightly coloured beneath; a very narrow and ill-defined brown ring before midlength of the femur; tibiae obscure yellow, the tips narrowly blackened; tarsal segment two light brown, the tips and remaining tarsal segments brownish black. Wings whitish subhyaline with three pale brown crossbands, the first lying just before the origin of *Rs*, the second just beyond the cord, the last occupying the very narrow wing tip; stigma subcircular, darker brown; costal and subcostal veins bright yellow, the others brown, becoming still darker brown where they traverse the crossbands. Venation *Sc* ending about opposite midlength of the long arcuated *Rs*, *Scii* a short distance from its tip; *r* at about its own length beyond the fork of *Rs* and at slightly less than this length from the tip of *Ri*; cell 1st *Mii* open by atrophy of the outer deflection of *Miii*, cell *Mii* being about two and one half times as long as its petiole; *m-cu* shortly beyond the fork of *M*.

Abdominal tergite one brownish black, paler basolaterally; remaining tergites yellow with a narrow blackish ring just beyond midlength of the segment; sternites similar, each segment on either side with a conspicuous blackened area that is confluent or subconfluent on the median line; hypopygium brownish yellow. Abdomen elongate; sternite five with the curious setiferous pocket characteristic of males of the genus; sternite six with about five curved setae on either side of the median line. Male hypopygium (Fig. 1) with the basistyle produced into a relatively elongate outer lobe; ventral face with a short, curved, blackened hook, the concave face of the latter with a dense row of setae; dorso-mesal margin of basistyle not heavily chitinized, weakly and coarsely toothed.

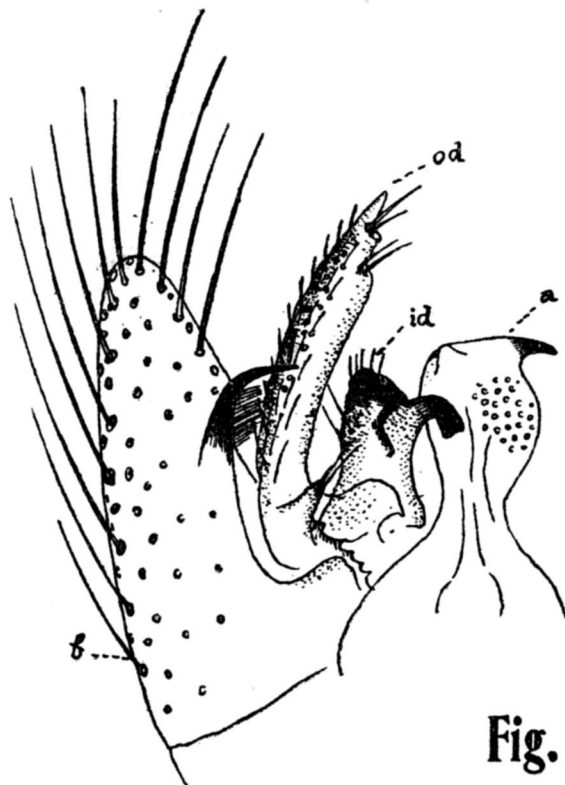


Fig. 1

Fig. 1 Male hypopygium of *Teucholabis gowdeyi*, sp. n. Explanation of symbols: a = aedeagus; b = basistyle; id = inner dististyle; od = outer dististyle.

Outer dististyle a nearly straight pale rod, the outer face setiferous, the apex a single pale spine. Inner dististyle bifid, the two arms blackened apically, the inner arm sub-

cylindrical, gently curved, the outer arm setiferous. Aedeagus compressed, the disk setiferous, the apex a small chitinized point.

*Habitat*.—Jamaica.

Holotype, male, Hope Gardens, Nov. 12, 1925 (C. C. Gowdey). Allotype, female, Hopedale, Mar. 18, 1926 (M. C. Gowdey).

This very interesting crane-fly is named in honour of the Government Entomologist of Jamaica, Mr. C. C. Gowdey, to whom I am very greatly indebted for co-operation in making this survey of the Jamaican *Tipulidae*. The species is allied to *T. melanocephala*, (F.), *T. annulata*, Will., and related forms, from all of which it is readily told by the open cell 1st *M*.

*Teuchclabis* (*Teucholabis*) *nebulipennis*, sp. n.

General colouration obscure yellow, the praescutum with three separated darker brown stripes; pleura pale, with two broad dark brown longitudinal stripes; wings tinged with grey, with pale greyish brown clouds, including the origin of *Rs*, centre of cell *M* and cell 2nd. *A*.

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

Described from poorly preserved alcoholic material.

Rostrum pale, dark brown above; palpi brown. Antennae brown, the flagellar segments oval, gradually decreasing in size outwardly. Head pale yellowish brown, with a darker brown spot on the vertex.

Pronotum pale. Mesonotal praescutum pale with three separated darker brown stripes, the median one ending shortly before the suture, its caudal end squarely truncated; lateral stripes broad, margined laterally by a narrower darker line; a shiny blackish triangle begins at the suture, the point extending back onto the median area of the scutum; scutum yellow, the lobes darker, margined laterally by a narrow darker line; scutellum pale yellow with a dark spot at each lateral angle; postnotal mediotergite pale with a dark brown median triangle, the point directed backward. Pleura pale with two broad dark brown longitudinal stripes, the more dorsal extending from the pronotum across the dorsal pleurites to the base of the abdomen, including the root of the halteres; ventral stripe occupying the sternopleurite. Halteres pale, the knobs darker with pale tips. Legs with the coxae and trochanters pale; femora light brown, the tips rather broadly and conspicuous infuscated, preceded by a slightly wider obscure yellow ring; remainder of legs broken. Wings with a faint greyish tinge; stigma oval, brown; wing-surface variegated with pale greyish brown clouds, as follows: Origin of *Rs*; at one-third the length of cell *M* and at end of 1st *A*. these markings forming an irregular broken band at this level; cord and outer end of cell 1st *Mii* seamed; paler clouds at origin and near mid-length of cell 2nd. *A*; basal half of cell *Sc* darker; veins dark brown. Venation *Sci* ending just before midlength of *Rs*, *Sc ii* some distance from its tip, *Sci* alone a little shorter than *m-cu*; *Rs* angulated and weakly spurred at origin; *r* on *R ii+iii* at about its own length beyond the fork of *Rs*.

Abdominal tergites dark brown, the caudal margins of the individual segments narrowly margined with paler; basal lateral angles of the sternites with a brown triangular marking, continued across the segment as a paler band, the posterior half or more of the segments pale. Ovipositor with the strongly upcurved sternal valves reddish horn-colour.

*Habitat*.—Jamaica.

Holotype, female, Cinchona, Blue Mts., July 24, 1926 (G. C. Crampton). Paratopotype, female.

*T. nebulipennis* is allied to the Cuban *T. myersi*, Alex., in the general colouration and sparsely clouded pattern of the wings. In the present species the wing is even more extensively clouded and the body colouration is different.

SUBFAMILY TIPULINAE

*Tipula*, Linnaeus.

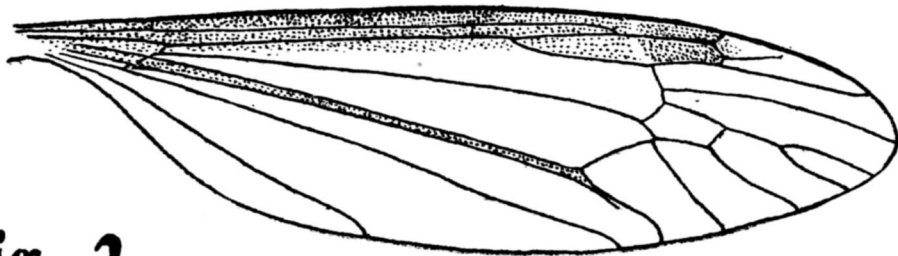
*Tipula* (*Tipula*) *jamaicensis*, sp. n.

Belongs to the *oleracea* (*tricolor*) group; size small, form slender, as in *T. virgo*, O. S.; antennae bicourous; wings with the tip of vein *Rii* atrophied; *Rs* and *Riii* long, subequal in length; abdominal tergites brown with two darker sublateral stripes.

*Female*.—Length, 13 mm.; wing, 11.5 mm.

Frontal prolongation of head relatively short, light grey above, dark brown laterally and beneath; nasus very short and stout. Antennae with the basal segment of the scape a little darkened; second segment yellow; flagellum yellow, the basal third of each segment darker, to produce a bicolourous appearance; outermost segments uniformly darkened. Head grey with a capillary dark brown median vitta, extending almost to the occiput.

Mesonotal praescutum obscure brownish grey anterolaterally, the disk almost covered by the three usual brown stripes, these indistinctly and narrowly margined with a darker brown, the median stripe split by a capillary vitta of the same colour; interspaces behind more buffy; scutal lobes dark in front, behind passing into whitish grey; scutellum large, whitish grey, with a very indistinct capillary brown line; postnotal mediotergite silvery white, dark brown laterally. Pleura brownish grey, clearer grey beneath the wing-root. Halteres pale brown, the knobs darker brown. Legs with the coxae whitish grey; trochanters brownish yellow; femora obscure brownish yellow, the tips more infuscated; tibiae brownish yellow, the tips weakly darkened; tarsi brownish yellow, passing into darker brown outwardly. Wings with a greyish tinge, the costal margin and stigma narrowly dark brown, followed by a more whitish colouration in the radial field, the brown costal region includes cells *C*, *Sc*, the cephalic portions of *R* and cell 1st *Ri*; prearcular region and the broad space between the branches of *Cu* similarly darkened; the whitish vitta includes portions of cells *R* and *M*, extending into the base of cells *Riii* and *Rv*; a brighter obliterative marking along the cord into cell 1st *M ii*; veins brown, more yellowish in the paler areas. Venation (Fig. 2) *Rs* elongate, approximately as long as *Riii* and fully twice *R ii + iii*; cell *Rii* elongate; distal section of *Rii* atrophied, the basal half or less with a few macrotrichiae; petiole of cell *Mi* nearly twice *m*; distal section of *Cui* strongly sinuous.



**Fig. 2**

Fig. 2 Wing of *Tipula jamaicensis*, sp. n.

Abdominal tergites brown medially, darker brown sublaterally, the lateral margins broadly greyish; sternites dark brown. Ovipositor with the tergal valves very slender, straight; sternal valves very compressed, the tips obtuse.

*Habitat*.—Jamaica.

Holotype, female, Clarendon, Cumberland District, altitude about 3,000 feet, Dec., 15-18, 1919. In the American Museum of Natural History, No. F. 4471 A; received through Mr. C. H. Curran.

*T. jamaicensis* is most closely allied to *T. virgo*, O. S., (Biol. Centr.-Am., Dipt., 1, p. 14 (1886)) from the high mountains of Durango, Mexico, differing especially in the bicolourous antennae and the different wing-pattern, the whitish submarginal area including only the extreme proximal end of cell *Rv*, whereas in *virgo* it occupies most of cells *Riii* *Rv*, ending shortly before the wing-apex.

#### BIBLIOGRAPHY

Alexander, C. P.

1912. On the Tropical American Rhipididae (*Tipulidae*, Dipt.).

1913. A synopsis of Part of the Neotropical Crane-Flies of the Subfamily *Limnobiinae* (Proc. U. S. Nat. Mus., XLIV, pp. 481-549, 4 pls.).

1916. New or Little Known Crane-Flies from the United States and Canada: *Tipulidae*, *Ptychopteridae* (Proc. Acad. Nat. Sci. Phila., Pt. 3, pp. 486-549 (1916)).

1926. Undescribed Species of Crane-Flies from Cuba and Jamaica:  
*Tipulidae, Dipt.* (Jn. N. Y. Ent. Soc., XXXIV, pp. 223-230).

Cockerell, T. D. A.

1894. A Supplementary Note to Mr. Johnson's List of Jamaican  
Diptera (Proc. Acad. Nat. Sci. Phila., pp. 419-420.).

Johnson, C. W.

1894. List of the Diptera of Jamaica with Descriptions of New  
Species (Proc. Acad. Nat. Sci. Phila., pp. 271-281).

1919. A Revised List of the Diptera of Jamaica (Bull. Am. Mus.  
Nat. Hist., XLI, Art. 8, pp. 421-449).

Walker, Francis.

1848. List of the Diptera in the Brit. Mus., 1, p. 47.

---

## RECORDS AND DESCRIPTIONS OF DIPTERA, MOSTLY FROM JAMAICA.

BY

C. H. CURRAN, ENTOMOLOGICAL BRANCH, OTTAWA, CANADA.

The Diptera mentioned in the following pages, with one exception, have been collected by C. C. Gowdey and Martin Gowdey. Most of the specimens are from Jamaica and constitute new records from that island; others were collected by the above in Columbia during a visit to that country in the spring of 1926.

### MYCETOPHILIDAE

#### *Cerotelion major, n. sp.*

Distinguished from the remaining American species by the broadly deep brown costal border which bears two hyaline spots. Length, 7.5 mm.

*Female.* Dull yellowish, with black and brown markings. Face, palpi and proboscis yellowish, the head elsewhere black; front brown, the occiput grey pollinose. Basal two antennal segments brownish, the apical segment pale yellow, the others black.

Mesonotum with five narrow brown vittae which are united in front of the scutellum, the median three for some distance, the outer ones united at the anterior fourth of the thorax. Mesopleura, scutellum and sternum brown. Hair blackish.

Coxae and femora whitish yellow, the apices of the coxae, trochanters and bases of femora, brown; middle tibiae yellowish brown, their tarsi brown, the segments broadly yellow apically; hair black; tibial spines pale. The front and hind legs are missing.

Wings deep brown in front, broadly greyish brown along the veins and on the apical fourth, the brown costal border interrupted by a sub-rectangular hyaline spot between the first and second veins and another beyond the fork of the third vein; base of wings very pale yellowish. Halteres missing.

Abdomen pale yellowish, with narrow sublateral border and the rather narrow apex of each segment black, the sixth and seventh segments evidently mostly blackish, the black lateral border interrupted at the bases of the segments. The sternites bear a linear median vitta, broad lateral border and a broad undulated median fascia of a brownish colour. Hair black.

Type, female, Cinchona, Jamaica, Aug. 3, 1926 (C. C. Gowdey).