

UNDESCRIBED SPECIES OF CRANE-FLIES FROM
CUBA AND JAMAICA (TIPULIDAE, DIPTERA)¹

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The new species described at this time are based upon two interesting species in the Museum of Comparative Zoölogy, taken by Mr. Wight in Jamaica, and kindly loaned me for study by Dr. Nathan Banks; a very striking species of *Teucholabis* from Cuba, kindly given to me by Professor Bruner; and a very interesting series of Cuban Tipulidae taken at and near Soledad by Messrs. John G. Myers and George Salt. The types of the Cuban species are retained in the writer's collection through the kindness of the collectors. I would express my sincere thanks to all the above named gentlemen for their kind coöperation in making known the interesting crane-fly fauna of the Greater Antilles.

Limonia jamaicensis new species.

General coloration yellowish brown, the pleura variegated with darker; anterior vertex silvery; antenna black; halteres yellow, the knobs dark brown; femora with a dark brown subterminal ring, preceded by a narrower yellow ring; wings relatively long and narrow, with a brownish yellow tinge, sparsely spotted with brown.

Male.—Length about 7.5 mm.; wing, 10.5 mm.

Female.—Length about 8 mm.; wing, 10.5–11 mm.

Rostrum and palpi black. Antennæ black throughout; flagellar verticils relatively elongate, the longest exceeding the segments. Head brownish

¹ Contribution from the Department of Entomology, Massachusetts Agricultural College.

black, the anterior vertex and frons pale silvery; anterior vertex (δ) reduced to a narrow strip.

Pronotum light yellowish brown, the sides pruinose. Mesonotum light yellowish brown, scarcely darker medially, the sides of the sclerite behind the humeral region broadly pruinose; remainder of the mesonotum darker brown, the lateral margins of the postnotal mediotergite paler. Pleura light brown, the surface with a sparse pruinosity; darker brown areas distributed as follows: On anepisternum and dorsal portions of sternopleurite; meron and on all the postnotal pleurotergite excepting the ventral portion. Halteres yellow, the knobs dark brown. Legs with the coxæ dark brown, pruinose; trochanters obscure yellow; femora brown, paler at extreme base; a broad darker brown subterminal ring, preceded by a narrower light yellow one, the extreme tip of the segment obscure yellow; tibia dark brown; tarsi beyond base broadly yellowish brown, the terminal two segments dark brown. Wings relatively long and narrow, faintly tinged with brownish yellow, the costal region clearer yellow; small brown spots and seams, as follows: Tip of Sc , origin of Rs , fork of Rs , along the cord and outer end of cell $1st M_2$; tip of R_1 and r ; a series of marginal clouds at the ends of all the longitudinal veins; veins dark brown, more yellowish in the costal region. Venation: Sc long, Sc_1 extending to shortly before $r-m$, Sc_2 at its tip; Rs weakly angulated at origin; r at tip of R_1 and near midlength of R_{2+3} ; veins R_{2+3} and R_{4+5} long, running generally parallel to one another, both deflected at tips toward the wing-apex; basal deflection of R_{4+5} relatively long, nearly as long as cell $1st M_2$, the latter of moderate size, subrectangular, shorter than vein M_3 beyond it; $m-cu$ beyond the fork of M .

Abdomen dark brown, the extreme margins of the tergites narrowly pale, of the sternites more broadly so; male hypopygium with the ventral dististyles pale ochreous. In the female, the tergites are uniformly dark brown, the sternites bicolorous. Male hypopygium with the basistyles relatively large, the ventro-mesal lobe very large. Ventral dististyle much smaller than the basistyle, the rostral prolongation very large, arising near the base of the style, directed caudad, the narrowed apex further directed mesad; rostral spines two, placed at the angle of the rostrum, blunt and peg-like, the outer peg somewhat stouter. Dorsal dististyle a slender rod, narrowed distally, at apex dilated into a triangular head that runs out into an acute point. Gonapophyses broad and flattened, the apex of each a slender, gently curved lobule. Ovipositor with the valves relatively short and small.

Habitat.—Jamaica.

Holotype, δ , near Troy, May 23 (A. E. Wight). Allotopotype, φ , May 14. Paratopotype, φ , with the holotype.

Types in the Collection of the Museum of Comparative Zoölogy.

Helius creper new species.

Allied to *H. niveitarsis* (O. S.); general coloration dark reddish brown; tarsi yellowish white; wings with cell $1st M_2$ small, irregularly pentagonal. Male.—Length about 5.5 mm.; wing, 6.5 mm.

Rostrum longer than the head, brownish black, the palpi concolorous. Antennæ black throughout. Head black.

Pronotum brown. Mesonotum dark reddish brown, the præscutum somewhat darker medially, the sutural region paler; scutellum dark brown. Pleura shiny brown, somewhat darker than the præscutum. Halteres brown, the base of the stem slightly paler. Legs with the coxæ and trochanters brownish testaceous; femora and tibiæ brown, the tarsi paling into yellowish white. Wings with a faint brown tinge, the stigma elongate-oval, darker brown; veins dark brown. Venation: Sc ending about opposite $r-m$, Sc_1 subatrophied; Rs relatively short, varying from twice the length to only one-half longer than the basal deflection of R_{4+5} ; veins R_{2+3} and R_{4+5} long, the former sinuous; $r-m$ elongate; cell $1st M_2$ small, irregularly pentagonal, the basal sections of M_{1+2} and M_{3+4} longest, the second sections of M_{1+2} and M_{3+4} and the basal section of M_3 subequal or the latter still shorter; veins issuing from cell $1st M_2$ elongate; $m-cu$ beyond midlength of cell $1st M_2$, in cases near the outer end of the cell, thus greatly reducing the second section of M_{3+4} .

Abdomen dark brown, including the hypopygium.

Habitat.—Jamaica.

Holotype, δ , near Troy, May 12 (A. E. Wight). Paratopotypes, 2 $\delta \delta$, May 12–14. Paratypes, several $\delta \varphi$, Blue Mountains, July, 1926 (Crampton and Gowdey).

Types in the Collection of the Museum of Comparative Zoölogy.

Gonomyia (Gonomyia) brevicula new species.

Belongs to the *subcinerea* group; scapal segments orange; head yellow, with a dark spot on vertex; pleura with two conspicuous brown stripes; halteres elongate, dark brown; wings with Sc very short, Sc_1 ending far before the origin of Rs , Sc_2 at its tip; abdominal tergites uniformly dark brown.

Female.—Length about 4 mm.; wing, 5 mm.

Rostrum and palpi black. Antennæ with the scape orange; flagellum dark brown. Head yellow, the center of the vertex with a dark spot.

Pronotum light yellow. Lateral pretergites clear light yellow. Mesonotal præscutum dark brownish gray, without evident stripes, the lateral margin narrowly light yellow; pseudosutural foveæ shiny brown; scutum dark brown, the caudal margin a little paler; postnotal mediotergite yellow, darker medially, the caudal margin narrowly dark brown, this being a continuation of the dorsopleural stripe. Pleura yellow, with two con-

spicuous dark brown longitudinal stripes, the more dorsal extending from the cervical sclerites caudad, passing above the halteres, to the postnotum; ventral stripe occupying the dorsal portion of the sternopleurite and the meron, including the bases of the middle coxæ. Halteres elongate, dark brown. Legs with the coxæ yellow, the middle coxa darkened as described above; trochanters brown; remainder of the legs dark brown. Wings with a faint brownish tinge, the stigmal region faintly darker; veins dark brown. Venation: *Sc* short, *Sc*₂ close to the tip of *Sc*₁, the distance on costa between the latter and the origin of *Rs* about two-thirds the length of the latter vein alone or fully one-half longer than *m-cu*; *Rs* gently arcuated, longer than *R*₂₊₃; distance on costa between tips of *R*₁ and *R*₂ about two-thirds *m-cu*; basal deflection of *R*₄₊₅ relatively short, a little less than *m*; *m-cu* at fork of *M*.

Abdominal tergites uniformly dark brown, the extreme caudo-lateral portions of the intermediate tergites vaguely paler, the shield and base of tergal valves of ovipositor dark brown; sternites brownish yellow, darker on the median area of the basal sternites, the caudal margins of the segments very narrowly of a lighter yellow.

Habitat.—Cuba.

Holotype, ♀, Hanabanilla Falls, near Cumanayagua, April 7, 1925 (J. G. Myers).

Gonomyia brevicula is most closely related to *G. remota* Alexander, of Mexico. These species, together with *G. brevissima* new species, form a peculiar section of the *subcinerea* group, distinguished by the yellow coloration of the antennal scape and the short to very short subcosta. The three species now known to be included in this group may be separated by means of the following key:

1. *m-cu* approximately its own length before the fork of *M*; *Sc* very short, the distance on costa between *Sc*₁ and the origin of *Rs* greater than the length of the latter vein; a narrow brown seam along the anterior cord; only the dorsal pleural stripe well-defined. (Cuba).....*brevissima* new species
m-cu at or close to the fork of *M*; *Sc* longer, the distance on costa between *Sc*₁ and the origin of *Rs* less than the length of the latter; wings unmarked except for the stigmal blotch; pleura with two dark longitudinal stripes2
2. *Sc*₂ lying detached some distance beyond the tip of *Sc*₁; abdominal tergites dark, with broad caudo-lateral yellow triangles. (Mexico).....*remota* Alexander.
*Sc*₂ at the tip of *Sc*₁; abdominal tergites uniformly darkened. (Cuba).....*brevicula* new species.

***Gonomyia (Gonomyia) brevissima* new species.**

Belongs to the *subcinerea* group; scapal segments orange; præscutum light brown; pleura with a conspicuous dorsal brown stripe; wings with a faint brown seam along the cord; *Sc* very short, *Sc*₁ ending far before the origin of *Rs*; *m-cu* some distance before the fork of *M*; abdominal tergites dark brown, the sternites yellow.

Female.—Length about 3.3 mm.; wing, 4.3 mm.

Rostrum and palpi black. Antennal scape orange-yellow; basal flagellar segment brown, the remainder of the flagellum passing into black. Head brownish yellow, the center of the vertex apparently with a dusky spot.

Pronotum yellow. Lateral pretergites light yellow. Mesonotal præscutum light brown, the lateral margin narrowly light yellow; pseudosutural foveæ shiny reddish brown; scutal lobes brown, the median area of the scutum brownish testaceous; scutellum dark; postnotal mediotergite infuscated, darker posteriorly. Pleura yellow with a single narrow dark brown stripe extending from the cervical sclerites to the postnotum, passing above the root of the halteres; the sternopleurite is very vaguely darker than the ground-color of the pleura but does not form a stripe. Halteres brown. Legs with the coxæ and trochanters yellowish testaceous; remainder of legs brown, the femoral bases a trifle paler. Wings with a faint brownish tinge, the stigmal region oval, slightly darker brown; faint dusky seams along the cord and outer end of cell 1st *M*₂, more distinct on the anterior cord; veins dark brown. Venation: *Sc* very short, *Sc*₁ ending a distance before the origin of *Rs* that is greater than the length of the latter and approximately two and one-half times as long as *m-cu*; *Sc*₂ not well indicated but apparently at the tip of *Sc*₁; *Rs* relatively short, strongly arcuated, approximately as long as *R*₂₊₃; cell 1st *M*₂ relatively small; *m-cu* approximately its own length before the fork of *M*.

Abdominal tergites dark brown; sternites yellow.

Habitat.—Cuba.

Holotype, ♀, Trinidad Mts., altitude 1,600 feet, March 24, 1925 (J. G. Myers).

***Teucholabis (Teucholabis) bruneri* new species.**

General coloration black, the head, pronotum, scutellum and pleura largely shiny reddish to yellow; knobs of halteres orange; femora largely reddish; wings whitish with a conspicuous brown pattern; *Sc* short, *Sc*₁ ending opposite the origin of *Rs*; cell *R*₃ at wing-margin much wider than cell 2nd *R*₁.

Male.—Length about 5.5 mm.; wing, 6.8 mm.

Rostrum dark reddish; palpi dark brown. Antennæ black, the basal segment of the scape dark reddish. Head dark reddish throughout.

Pronotum shiny obscure yellow, the lateral margins of the anterior notum and the medially depressed portion of the posterior notum a little darker.

Mesonotal præscutum dull black, the small humeral triangles obscure orange-yellow; scutal lobes black, the median area obscure yellowish brown; scutellum broad, shiny yellow, the parascutella black; postnotum black, including the pleurotergite. Pleura shiny orange-yellow, the sterno-pleurite and meron blackened. Halteres black, the knobs orange. Legs with the coxæ and trochanters shiny orange; femora orange-yellow, the tips narrowly blackened, more extensively so on what seems to be the clavate posterior femur; tibiæ and tarsi black; all legs of the unique type were detached when received and their association is not entirely certain; another pair shows a distinct oval swelling near four-fifths the length of the tibia, together with a dilation of the bases of the basitarsi. Wings whitish, with a conspicuous brown pattern; cell *Sc* uniformly infuscated; conspicuous brown seams along the cord and outer end of cell *1st M*₂, darkest in the region of the subtrigonal stigma; wing-apex conspicuously darkened; a small triangular brown seam at origin of *Rs*; a conspicuous brown wash extending longitudinally in cells *M* and *Cu*; caudal margins of cells *1st A* and *2nd A* infuscated; veins black. Venation: *Sc* short, *Sc*₁ ending immediately beyond the origin of *Rs*, *Sc*₂ not far from its tip and lying before this origin; *Rs* long, arcuated; *r* in alignment with the cord and close to the tip of *R*₁; veins *R*₂₊₃ and *R*₄₊₅ strongly divergent, the latter ending about at the wing-tip; cell *R*₃ at wing-margin about one-half wider than is cell *2nd R*₁; cell *1st M*₂ strongly widened distally; *m-cu* immediately beyond the fork of *M*.

Abdomen black, the basal sternite more reddish; hypopygium black.

Habitat.—Cuba.

Holotype, ♂, Summit of the Pico Turquino, Sierra Maestra, altitude 6,630 feet, July 20, 1922 (S. C. Bruner and C. H. Ballou).

This handsome and very distinct species of *Teucholabis* is named in honor of Professor S. C. Bruner, to whom I am indebted for many kind favors.

Teucholabis (Teucholabis) myersi new species.

General coloration dark brown, with a microscopic appressed pubescence that appears like a pruinosity; pleura with a broad pale longitudinal stripe; tips of the femora broadly dark brown; wings subhyaline, with three small brown clouds, in addition to the stigmal spot; cell *1st M*₂ large; cell *M*₄ narrowed distally; abdominal segments bicolorous, the caudal margins of the segments paler.

Female.—Length about 5 mm.; wing, 5.1 mm.

Rostrum and palpi black. Antennæ black throughout, the flagellar segments oval. Head brown, with a microscopic gray pubescence.

Pronotum dark brown. Mesonotal præscutum brown, the interspaces with an appressed microscopic gray pubescence; scutum dark brown, the median area paler behind, the lobes with a microscopic gray pubescence; scutellum testaceous, the parascutella dark; postnotum dark brown, with a sparse microscopic pubescence. Pleura dark brown, with a broad paler longitudinal stripe that extends from the fore coxæ to the base of the abdomen, passing above the coxæ and beneath the halteres, the surface of the stripe with conspicuous microscopic gray setulæ. Halteres light brown, the knobs obscure yellow. Legs with the coxæ and trochanters yellowish testaceous; femora yellow, the tips broadly and conspicuously dark brown; tibiæ yellow, the tips narrowly dark brown; tarsi dark brown, the proximal half of the basitarsi paler. Wings subhyaline; stigma short-oval, dark brown; conspicuous but paler brown clouds at *m-cu*, *m* and near the distal end of vein *2nd A*; veins dark brown, the costal vein beyond the base more yellowish. Venation: *Sc*₁ extending to opposite two-fifths the length of the gently arcuated *Rs*, *Sc*₂ opposite the origin of *Rs*; *r* about one-half its length from the tip of *R*₁ and two-thirds its length beyond the origin of *R*₂₊₃; cell *2nd R*₁ at margin somewhat wider than cell *R*₃; cell *1st M*₂ large, strongly widened distally, approximately as long as the longest veins issuing from it; *m* arcuated, longer than the outer deflection of *M*₃; *m-cu* at fork of *M*; cell *M*₄ long and narrow, narrowed at the margin; vein *2nd A* rather strongly sinuous.

Abdominal tergites dark brown, the caudal margins of the segments conspicuously silvery yellow; sternites similar, the basal sternites yellow. Ovipositor with the bases of the valves dark brown, the apices yellow, the tergal valves strongly upcurved.

Habitat.—Cuba.

Holotype, ♀, Soledad, February 20, 1925 (J. G. Myers).

Teucholabis myersi is named in honor of the collector, my friend, Dr. John G. Myers. The fly is very different from the other described species of the genus in the restricted wing-pattern.

Eriocera cubensis new species.

Head brownish gray; antennæ uniformly black; pronotum and mesonotum orange; pleura yellowish orange, unmarked; legs beyond the narrow pale femoral bases entirely black; wings whitish subhyaline with a heavy brown pattern; *m-cu* near midlength of cell *1st M*₂; abdomen orange yellow basally, the distal portion black.

Male.—Length, 11–13 mm.; wing, 10.3–13 mm.

Rostrum and palpi black. Antennæ black, the scapal segments weakly pruinose; antenna relatively short, if bent backward not extending far beyond the base of the wing. Head brownish gray.

Pronotum and mesonotum light orange, more intense on the præscutum and scutum, the pleura more yellowish orange. Halteres brown, the knobs brownish black. Legs with the coxæ and trochanters yellow; remainder of the legs black, only the femoral bases narrowly yellowish, slightly more extensively so on the fore legs, very narrow on the hind legs. Wings whitish subhyaline, with a heavy brown pattern; cells *C*, *Sc* and *Sc*₁ uniformly dark brown; broad conspicuous seams at arculus; origin of *Rs*; along cord and outer end of cell 1st *M*₂; at *r*; wing-margin conspicuously seamed, broader and darker colored at the wing-tip; veins *M* and *Cu* broadly seamed with brown; the general effect of this heavy brown pattern is to restrict the ground-color to the centers of the cells; veins dark brown. Venation: *Sc*₁ ending about opposite three-fourths the length of *R*₂₊₃; *Rs* long, in alignment with the short basal deflection of *R*₄₊₅; *r* about twice its length from the tip of *R*₁ and varying from a little more than its length to fully twice its length beyond the origin of *R*₂; cell *M*₁ lacking; *m-cu* sinuous, placed near midlength of cell 1st *M*₂, longer than the distal section of *Cu*₁.

Abdomen with the two basal segments orange, thence passing through brown into black, the latter color involving segments five to nine.

Habitat.—Cuba.

Holotype, ♂, Trinidad Mts., near water-fall, altitude 1,600 feet, March 24, 1925 (J. G. Myers). Paratopotype, ♂.

By the writer's key to the Antillean species of *Eriocera* (Ent. News, 27: 347; 1916), the present species runs out at couplet 3 by the wing-pattern and uniform black coloration of the legs. Like all of the other known Antillean species, it belongs to a small group of handsomely colored flies that seem to be confined to the islands of the Greater Antilles.