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Undescribed Species of Crane-Flies from the Eastern United States and Canada (Dipt.: Tipulidae). Part XII

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The preceding part under this general title was published in Entomological News 61: 163–171, 1950. Where not indicated to the contrary the types of the novelties herein described are preserved in my personal collection of these flies.

Two interesting species were taken at and near Indian House Lake, northeastern Quebec, during the summer of 1945 by my friend Mr. Roland C. Clement, a former student at the University of Massachusetts. Mr. Clement has supplied me with a detailed account of the station and it is expected that this fuller discussion will be published in a later report. At this time I wish to extract some of the more pertinent information from this excellent account. Indian House Lake lies at 56° 08′ N.Lat., 64° 44′ W.Long., in the valley of the George River, at an altitude of approximately 1,000 feet. Concerning the Tipulidae, Mr. Clement writes as follows: "Many of these flies were taken at light in one of the weather bureau buildings, some in a tiny cove exposed by receding lake waters, others in the rocky gulch of an active brook that runs by the station, and a few on the barrens and small bogs to the southwest of the station." Besides the two species described at this time, there were some further species of interest, some of which remain undetermined. Other species found here are the following.

Tipula (*Vestiplex*) *platymera* Walker. East barren, 1,500 feet, June 21.
T. (*Oreomyza*) *ternaria* Loew. June 19.
T. (*O.*) *trivittata* Say. July 7.
T. (*Lunatipula*) *macrolabis* Loew. July 25–August 4.
Cylindrotoma distinctissima americana Osten Sacken. July 18.
Dactylolabis rhicnoptiloides (Alexander). July 18.
Chionea valga Harris. November 22, 1944.
Erioptera (*Symplecta*) *cana* (Walker). June 21–28.

Tipula (Vestiplex) breviligula n. sp.

Belongs to the *juncea* group; general coloration gray, the praescutum with four brown stripes; dorsopleural membrane yellow; wings grayish yellow, stigma pale brown; *Rs* long, exceeding the distal section of M_4, *m-cu* at or only a short distance beyond the fork of M; abdominal tergites chestnut, with a conspicuous black central stripe; male hypopygium with the tergal horns short; inner dististyle without a long-produced outer basal lobe; ligula of eighth sternite short and broad, transverse, the apex very gently notched, the margin with abundant pale setae.

♂. Length about 17–18 mm.; wing 13.5–14 mm.; antenna about 5.5–6 mm.

♀. Length about 20–22 mm.; wing 15–16 mm.; antenna about 2.8–3 mm.

Frontal prolongation of head obscure yellow, pruinose above at base, nasus short and stout, especially in the female; basal two segments of palpi obscure yellow, outer segments darker. Antennae of male relatively long; scape and pedicel brownish yellow, flagellum black, segments moderately incised longer than the verticils; antennae of female short. Head brownish gray, front and orbits broadly light gray; a conspicuous brown stripe from between the antennal bases back to the occiput, darkest mid-dorsally.

Pronotum brownish gray, variegated by paler gray; scutellum yellow. Mesonotal praescutum gray, with four brown stripes, the lateral pair less distinct; scutum gray, each lobe with two darker areas; scutellum brownish yellow, parascutella clearer yellow; postnotum light gray. Pleura gray; dorsopleural membrane light yellow. Halteres with stem obscure yellow, knob dark brown. Legs with coxae gray; trochanters obscure yellow; femora brownish yellow, the tips narrowly darker brown; tibiae light brown, vaguely darker apically; tarsi dark brown; claws of male with a conspicuous spine. Wings grayish yellow; stigma pale brown; cell *Sc* more yellowed; veins pale brown. Venation: *Rs* long, exceeding the distal section of vein M_4; cell M_1 longer than its petiole; *m-cu* at or close to

fork of M, in cases beyond at fork of M_{3+4}, the latter thus short to very short, in some specimens *m-cu* on M_4.

Abdominal tergites chestnut, with a conspicuous black central stripe that is narrowly broken by pale yellow posterior borders, the latter more extensive on the outer segments; sternites pale brown, the posterior borders yellowed; ninth tergite and eighth sternite darker; remainder of hypopygium more chestnut-brown. Ovipositor of the *juncea* type; cerci short, untoothed. Male hypopygium with the posterior border of the tergite blackened, the lateral angles extended into short black horns, their tips truncate. Ninth sternite with a small cylindrical lobe below the insertion of the dististyles, this provided with long setae. Outer dististyle relatively long; inner style with the beak slender, outer basal lobe not long-produced, as in other members of the *juncea* group. Eighth sternite with the apical ligula very short and broad, transverse, the apex very gently notched, the margin with abundant pale setae.

Habitat.—Northern Ontario, Michigan. *Holotype:* ♂, Cape Henrietta Maria, Hudson Bay, Ontario, July 6, 1948 (Miller); University of Michigan. *Allotopotype:* ♀. *Paratopotypes:* 1 ♂ on microscope slide, Roger's No. 4637 (blue label 2093); 1 ♂, 1 ♀, July 6–12, 1948 ("W.Y.W."). *Paratypes:* 1 ♂, 2 ♀ ♀, Pentwater, Oceana Co., Michigan, June 24–26, 1936 (Henry Dybas); male returned to Camras.

This fly is readily told from the other regional members of the *juncea* group by the genital characters, as diagnosed above. It is the first member of the group to be found in the eastern United States. What I believe represents this same species, but which has not been confirmed to this date, has been taken along the south shore of the Gaspe Peninsula, in eastern Quebec, and along the Little Smoky River, near Triangle, Alberta, all taken by the present writer.

Tipula (Arctotipula) tribulator n. sp.

Allied to *besselsi* and *suttoni;* general coloration gray, the praescutum with four brown stripes, the intermediate pair separated by a broad brownish gray line; antennae black

throughout, flagellar segments short, strongly incised; femora obscure yellow, tips black, claws of male toothed; wings with a grayish brown tinge; stigma dark brown, conspicuous, preceded and followed by extensive pale areas; outer section of vein R_{4+5} with a series of trichia, R_{1+2} entire; male hypopygium with the caudal margin of the tergite with a deep quadrate notch, the lateral lobes large, obtusely rounded; a transverse flattened four-spined plate on ventral face of tergite; inner dististyle with beak long-extended, its outer basal portion obtuse, not spinous.

♂. Length about 11–13 mm.; wing 13.5–15 mm.; antenna about 4–4.5 mm.

Frontal prolongation of head dark brownish gray; nasus stout; palpi black. Antennae black throughout, scape and pedicel pruinose; flagellar segments short but strongly incised; longest verticils subequal in length to the segments. Head brownish gray, the front and orbits clearer gray.

Pronotum brownish gray, the sides of the scutellum obscure yellow. Mesonotal praescutum in front brownish gray, more yellowish gray on the interspaces; four brown stripes, the intermediate pair about as wide as the brownish-gray central area, lateral stripes with their outer portions clearer gray; vestiture long and pale; posterior sclerites of notum gray, the scutal lobes more yellowed on mesal part and here with a small brown spot; scutellum and mediotergite with a central brown line. Pleura and pleurotergite gray, the katapleurotergite more yellowish gray; dorsopleural membrane more buffy yellow. Halteres with stem obscure yellow, knob moderately infuscated. Legs with the coxae light gray, with abundant long pale setae from small black punctures on outer face; trochanters gray; femora obscure yellow basally, passing into yellowish brown, the tips black, the amount subequal on all legs; tibiae yellowish brown or light brown, the tips darker, tarsi passing into black; claws of male toothed. Wings with a brownish or grayish brown tinge, the oval stigma dark brown, conspicuous; prearcular region whitish subhyaline; extensive pale areas before and beyond the stigma; obliterative area across base of cell

1st M_2 restricted and inconspicuous; wing tip in outer radial field strongly infuscated; veins brown, yellow in the brightened areas. Veins beyond cord glabrous, outer section of R_{4+5} with a series of trichia over the entire length. Venation: R_{1+2} entire; petiole of cell M_1 a little longer than *m*; cell *2nd A* broad.

Abdominal tergites dark brown, the caudal margins very narrowly pale, more or less interrupted; lateral tergal borders broadly buffy; sternites gray, the caudal borders narrowly yellow; hypopygium brownish gray, the outer dististyle yellow. Male hypopygium with the caudal margin of the tergite with a deep quadrate notch, the lateral lobes large, flattened, obtusely rounded, fringed on mesal edges with long black setae; a conspicuous blackened plate on ventral surface, provided with four spines, the lateral pair longer. Outer dististyle broadly flattened, the tip obtuse; inner style with the beak long-extended, its outer basal portion obtuse, not produced into a spinous point as in *besselsi* and *suttoni;* dorsal crest with abundant erect setae, the outer ones shorter, stouter and darker.

Habitat.—Northern Quebec. *Holotype:* ♂, Indian House Lake, George River, June 27, 1945 (Roland C. Clement). *Paratopotypes:* 5 ♂ ♂; at camp brook.

There are other high Arctic species of the subgenus having a four-spined ventral plate on the ninth tergite of the male hypopygium. Among such Arctic American species, the present fly is closest to *Tipula* (*Arctotipula*) *besselsi* Osten Sacken and *T.* (*A.*) *suttoni* Alexander, differing especially in the details of coloration and in the structure of the male hypopygium, particularly the tergite and the inner dististyle, as discussed above.

Dicranota (**Dicranota**) **clementi** n. sp.

General coloration gray, praescutal stripes poorly defined; antennae of male relatively long, the flagellar segments oval; legs blackened, femoral bases broadly yellow; wings with a weak dusky tinge, cells *C* and *Sc*, with a broad seam along *Cu*, darker; stigma dark brown, conspicuous; *Rs* subequal in length to the second section of R_{2+3}; male hypopygium with the interbase and inner dististyle unusually slender.

♂. Length about 7 mm.; wing 7 mm.; antenna about 1.6 mm.

Rostrum brown; palpi black. Antennae black, relatively long, as shown by the measurements but shorter than in *bimaculata* or *notmani;* flagellar segments oval, strongly narrowed at the ends, verticils shorter than the segments. Head above chiefly dark brown, the posterior orbits more yellowish gray.

Thoracic dorsum chiefly gray, the praescutal stripes poorly defined, only the median one clearly indicated; postnotum and pleura clearer gray. Halteres yellow, knobs very weakly infuscated. Legs with the coxae gray pruinose; trochanters yellow; remainder of legs blackened, the femoral bases broadly yellow, including more than one-half of either the middle or posterior femora (fore legs broken). Wings with a weak dusky tinge, restrictedly patterned with darker, including cell *C* and cell *Sc* as far distad as Sc_2; stigma still darker brown; moderately broad and conspicuous brown seams along vein *Cu* and adjoining membrane and over the cord; veins brownish black, narrowly yellowed at wing base. Venation: *Rs* of moderate length, about equal to the second section of vein R_{2+3}; Sc_2 a distance before origin of *Rs* a little greater than the length of the latter; R_{2+3+4} shorter than basal section of R_5; R_2 close to extreme tip of vein R_1; cell M_1 present; *m-cu* about one-third its length beyond the fork of *M*; vein *2nd A* curved gently to the margin. In one wing of the type, an adventitious crossvein in cell *Sc* a short distance beyond arculus.

Abdominal tergites gray, with a broad brown median stripe; basal sternites plumbeous gray, the outer ones extensively yellowed; outer segments and hypopygium more uniformly brownish black. Male hypopygium with the inner dististyle unusually long and slender, more so than in the other Nearctic members of the subgenus, only slightly widened outwardly, the length five to six times the width near apex. Interbase likewise unusually slender, the tip subacute. Phallosome evidently destroyed in the unique type.

Habitat.—Northern Quebec. *Holotype:* ♂, Indian House Lake, George River, July 2, 1945 (Roland C. Clement).

I am pleased to name this fly for the collector of the present very interesting series of crane-flies from northern Quebec, Mr. Roland C. Clement. When compared with the various other Nearctic species, it is most similar to *Dicranota* (*Dicranota*) *fumipennis* Alexander and *D.* (*D.*) *notmani* Alexander, differing from both in the coloration and in the structure of the antennae and male hypopygium, particularly the inner dististyle and interbase. Among the western Palaearctic species, it is closest to *D.* (*D.*) *bimaculata* (Schummel), differing in the shorter antennae and in the structure of the male hypopygium.

Erioptera (Erioptera) georgei n. sp.

Belongs to the *chlorophylla* group; most like *chlorophylla* Osten Sacken and *viridula* Alexander, differing evidently and conspicuously in the structure of the male hypopygium.

♂. Length about 5.3–5.5 mm.; wing 5.8–6 mm.

General coloration of head, thorax and abdomen light green, paling to buffy in dried specimens. Legs yellow, strongly tinted with green. Eyes of male relatively large, broadly contiguous beneath. Male hypopygium with the outer dististyle gently dilated outwardly, the outer apical angle produced into a blackened point, the lower angle rounded; inner style subequal in length, narrower, a little expanded outwardly, bifid at tip, including an upper acute blackened spine and a lower obtuse lobe, the two separated by a small notch. Gonapophysis a slender smooth horn, narrowed to the acute tip, pale, with the apex narrowly blackened.

Habitat.—Michigan. *Holotype:* ♂, The E. S. George Reserve of the University of Michigan, Livingston Co., at trap-light No. 2, June 23, 1947 (J. Speed Rogers); Rogers No. 37 A. *Paratopotypes:* 3 ♂♂, July 23–29, 1947; 4 ♂♂ on slide, August 21–22, 1950, in Alexander Collection through Rogers. *Paratypes:* Abundant ♂♂, all from the George Reserve, collected by Rogers and assistants, all in the University of Michigan collection.

I am very pleased to dedicate this interesting crane-fly to the late Colonel Edwin S. George, through whose interest and gen-

erosity the magnificent natural preserve that bears his name was presented to the University of Michigan. For a discussion of the Reserve and its ecology, an important paper by Rogers may be consulted.*

Erioptera (Illisia) venusta nubilosa n. subsp.

Quite as in the typical form excepting for the very distinctive wing pattern. The entire wing surface, except for the restricted base, equally narrow apex, cells *C* and *Sc*, and a small costal invasion just beyond the fork of *Rs*, uniformly brown, slightly more suffused in the stigmal area; the exceptions above noted are pale yellowish white, the basal area continuing into the costal, which ends at the dilated part described, with a further axillary prolongation into cell *2nd A*, extending to just beyond the anal angle; the costal invasion above mentioned in one wing does not reach *Rs*, in the other it crosses this vein and involves a narrow strip in cell *R*; wing tip narrow, extending from cell R_2 to M_3, broken by small brown marginal spots at ends of veins R_4, M_{1+2} and M_3; veins darkened in the infuscated parts, paler in the whitened areas.

Habitat.—MICHIGAN. *Holotype,* a ♂, mounted on microscope slide, Lake Co., July 12, 1936 (Townsend); Rogers No. 3967, University of Michigan.

This puzzling fly, known only from the unique type, as described, proved baffling both to the late Professor Rogers and myself. In its general appearance it differs widely from all of the hundreds of specimens of typical *venusta* that have been seen by us and because of this distinctness it is believed advisable to provide a name for the fly.

Genus **Cryptolabis** Osten Sacken
Subgenus **Phantolabis** n. subgen.

Vestiture of the legs relatively sparse and inconspicuous. Wings with *Rs* long, gently arcuated, in longitudinal alignment

* ROGERS, J. SPEED. The crane-flies (Tipulidae) of the George Reserve, Michigan. Univ. Michigan, Mus. Zool., Misc. Publ. 53: 1–128, 2 tab., 1 map, 8 pls.; 1942.

with R_{2+3+4}; R_{2+3} a little shorter than R_2; tips of veins R_3 and R_4 strongly upcurved, that of R_5 straight; cell M_2 open by atrophy of *m*; vein *2nd A* straight. No macrotrichia in wing cells, those of the veins likewise lacking or very reduced in size and number, even on veins *C* and *R* where usually they are most persistent. Male hypopygium with the styli large and fully exposed; a single dististyle, terminal in position. Gonapophyses undeveloped. Aedeagus long and slender, at near midlength profoundly split into three branches, suggestive of the condition in several groups of Cylindrotominae and some other Tipulidae.

Type of subgenus.—**Erioptera (Psiloconopa) lacustris** Alexander. (Eastern Nearctic Region).

The species was described (Bull. Brooklyn Ent. Soc., 33: 76–77; 1938) from material taken at Raco, Chippewa County, in the northern peninsula of Michigan, not far from Lake Superior. Later it was found in the southern peninsula by Rogers who found it in numbers along small clear streams, a habitat not unlike that of the type of *Cryptolabis, C. paradoxa* Osten Sacken. Ever since I described the species and assigned it to *Erioptera,* it has been realized that this was a highly aberrant fly that did not fit well into this genus. As more material became available and the species was re-examined, it was apparent that it could not be retained in *Erioptera* and evidently was closer to the genus *Cryptolabis,* particularly to the subgenus *Baeoura.* I am herewith proposing a new subgeneric group in *Cryptolabis* for the fly, realizing that later it may well be found to represent a valid genus. Unfortunately the female sex is unknown to me and the nature of the ovipositor cannot be stated.

The structure of the male hypopygium, particularly the phallosome, including the aedeagus, is entirely different from that of any of the other subgenera of *Cryptolabis* so far defined, including besides the typical subgenus, *Procryptolabis* Alexander (Neotropical) and *Baeoura* Alexander (Eastern Palaearctic, Oriental, Ethiopian; a single aberrant species in South Chile).