

UNDESCRIBED SPECIES OF ERIOPTERINE CRANE-
FLIES FROM THE UNITED STATES AND
CANADA (TIPULIDÆ, DIPTERA),
PART II¹

BY CHARLES P. ALEXANDER

AMHERST, MASSACHUSETTS

The first part under this general title was published in 1929 (Journ. New York Ent. Soc., 37: 49-58). The present report is based on extensive collections made in the southeastern United States by Professor J. Speed Rogers and Mr. Henry Townes, Jr., and additional series taken by the writer and Mrs. Alexander in New England and eastern Canada and by Mr. Owen Bryant in Alberta. Where not otherwise indicated, the types are preserved in the collection of the author.

Genus *Rhabdomastix* Skuse

Subgenus *Sacandaga* Alexander

***Rhabdomastix* (*Sacandaga*) *subarctica* new species**

Allied to *caudata*; general coloration gray; vein R_2 present as a weak element; veins R_3 and R_4 not widely divergent, cell R_2 narrow, especially at base; vein R_3 long, oblique; macrotrichia on veins R_{2+3+4} , R_{3+4} , R_3 , R_4 and outer end of R_s .

Female. Length about 4.5-5 mm.; wing 5-5.5 mm.

Rostrum dark brown; palpi black. Antennae short, black. Head brownish gray.

Pronotum dark brown, pruinose; anterior lateral pretergites yellowish brown. Mesonotum grayish brown, the praescutum with poorly indicated darker brown stripes. Pleura dark gray. Halteres pale throughout. Legs with the coxae and trochanters brownish yellow; femoral bases obscure yellow; remainder of legs dark brown. Wings grayish, the stigma slightly darker; base of wing restrictedly milky-white; veins brown. Macrotrichia of veins relatively numerous, occurring on R_{2+3+4} , R_{3+4} , R_3 , R_4 and outer end of R_s . Venation: Sc_2 lacking; R_2 present as a pale element, without macrotrichia; R_{2+3+4} and R_{3+4} subequal; veins R_3 and R_4 not strongly divergent, cell R_3 at margin about one-third wider than cell R_2 ; vein R_3 long, oblique

¹ Contribution from the Entomological Laboratory, Massachusetts State College.

in position; cell 1st M_2 rectangular; *m-cu* at or shortly beyond the fork of *M*.

Abdomen dark brown.

Habitat.—Eastern Quebec (North Gaspé).

Holotype, ♀, Ruisseau Castor, June 27, 1931 (C. P. Alexander).

Paratopotypes, 2 ♀♀. The same species was seen but not captured on the same day at Cape Morne.

This interesting northern *Rhabdomastix* occurred along small streams pouring down the steep mountain slopes. It was associated with other crane-flies of the Hudsonian life-zone, as *Tipula gaspensis* Alexander, *Dicranota petiolata gaspeana* Alexander, and others. The fly is most nearly allied to *Rhabdomastix* (*Sacandaga*) *caudata* (Lundbeck), differing especially in the venation of the radial field and the more abundant macrotrichia of the veins.

***Rhabdomastix* (*Sacandaga*) *hudsonica* new species.**

Size large (wing, ♂, over 7 mm.); general coloration yellow, the center of vertex, three praescutal stripes, centers of scutal lobes, posterior portion of postnotal mediotergite and areas on pleura conspicuously grayish brown; tips of femora and tibiae and all of tarsi dark brown; wings subhyaline, the veins brown; R_2 lacking.

Male. Length about 6–7 mm.; wing 7.5–8.5 mm.

Female. Length about 7 mm.; wing 8.5 mm.

Rostrum obscure yellow. Antennae with the scape yellow, the remainder black. Head yellow, the vertex with a conspicuous dark brown median area.

Pronotum yellow, trivittate with brown; anterior lateral pretergites conspicuously light sulphur-yellow. Mesonotal praescutum light yellow to obscure yellow, with three grayish brown stripes, the median one ending far before the suture, the interspaces reduced to linear strips or lacking; pseudo-sutural foveae and tuberculate pits black; scutum yellow, each lobe with a grayish brown area that is a caudal prolongation of the lateral praescutal stripe; median area of scutum restrictedly darkened; scutellum testaceous-yellow; postnotal mediotergite brownish gray, more yellowish antero-laterally. Pleura and pleurotergite yellow, variegated with grayish brown areas on ventral sternopleurite, meron, anepisternum and ventral pleurotergite. Halteres yellow. Legs with the coxae and trochanters yellow, the fore coxae darkened; femora yellow, the apices broadly brown; tibiae brown, the tips narrowly darkened; tarsi dark brown. Wings subhyaline, the veins brown, conspicuous. No macrotrichia on Rs , R_{2+3+4} , R_3 or R_4 . Venation: R_3 transverse, perpendicular or nearly so, less than one-third the long, nearly straight R_4 .

Abdomen brown; caudal margins of outer sternites broadly yellow; hypopygium obscure yellow.

Habitat.—Eastern Quebec (Gaspé).

Holotype, ♂, Ste. Anne des Monts, north shore, June 26, 1931 (M. M. Alexander).

Allotopotype, ♀.

Paratopotypes, 8 ♂♂; paratype, 1 ♂, Chandler, south shore.

Rhabdomastix (Sacandaga) hudsonica is another species of the Hudsonian life-zone, well-distinguished from the other regional members of the subgenus by its large size and conspicuous dark pattern of the head and thorax. The types were taken while flying in a small swarm on the shores of the Gulf of St. Lawrence.

***Rhabdomastix (Sacandaga) brittoni* new species.**

Male. Length about 4–4.2 mm.; wing 4.8–5 mm.

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

Related to *R. (S.) flava* (Alexander), differing most evidently in the small size and details of venation and trichiation of the wings.

Color of body light sulphur-yellow, the praescutum with scarcely indicated darker stripes. Wings nearly hyaline, the veins pale and difficult to delimit; stigma lacking. Macrotrichia on distal half of the gently curved vein R_4 .

Habitat.—Connecticut.

Holotype, ♂, Kent Falls, Litchfield Co., July 23, 1931 (C. P. Alexander).

Allotopotype, ♀.

Paratopotypes, 3 ♂♂.

Occurred along the relatively small Kent Brook, where it was swept from rank herbage, in association with *Cryptolabis paradoxa* O. S. I take great pleasure in naming this fly in honor of Dr. W. E. Britton.

***Rhabdomastix (Sacandaga) mediovena* new species.**

Size small (wing, ♀, 6 mm.); general coloration light yellow; wings pale yellow, subhyaline, stigma lacking; Sc_1 ending about opposite three-fourths the length of Rs ; vein R_4 subequal to or longer than R_{2+3+4} , only gently curved, with macrotrichia over most of its length.

Male. Length about 4.5 mm.; wing 5 mm.

Female. Length about 5.5 mm.; wing 6 mm.

Rostrum yellow; palpi brownish black. Antennae with the scape yellow; pedicel and flagellum dark brown; flagellar verticils elongate. Head light sulphur-yellow (♂) to more grayish brown (♀).

Mesonotum obscure yellow, the praescutum and scutum with more reddish stripes, darker in ♀. Pleura yellow, more obscure in ♀. Halteres yellow. Legs yellow, the outer tarsal segments slightly darker. Wings pale yellowish subhyaline, iridescent; veins pale and little evident. Vein R_4 with about eight macrotrichia distributed over most of its length. Venation: Sc_1 ending about opposite three-fourths the length of Rs ; R_4 slightly curved, subequal to or longer than R_{2+3+4} ; outer section of M_{1+2} arcuated at origin; $m-cu$ at near one-third the length of cell 1st M_2 .

Abdomen pale yellow, somewhat more brownish yellow in female.

Habitat.—South Carolina.

Holotype, ♂, Greenville, June 16, 1931 (Henry Townes, Jr.).

Allotopotype, ♀.

The three small species of *Sacandaga* described at this time as *brittoni*, *mediovena* and *brachyneura* are most readily told among themselves by the wing-venation, especially the length of Sc in relation to Rs . In *brachyneura*, Sc is shortest, Sc_1 ending between one-third and one-half the length of Rs ; in *mediovena*, Sc_1 is opposite or close to three-fourths the length of the vein; in *brittoni*, Sc_1 is opposite or close to four-fifths the length of the vein. The present fly is further told from *brittoni* by the long and only gently arcuated vein R_4 , with macrotrichia distributed over most of its length.

***Rhabdomastix (Sacandaga) brachyneura* new species.**

General coloration brownish yellow, the mesonotum with more grayish brown areas; antennal flagellum with very elongate verticils; halteres pale yellow; wings with a grayish suffusion, the stigma pale brown; macrotrichia on entire length of veins R_{2+3+4} and R_4 ; Sc very short, Sc_1 ending opposite or just beyond midlength of Rs ; R_2 short and nearly perpendicular, approximately one-fourth as long as R_4 ; distal section of M_{1+2} beyond cells 1st M_2 but little arched.

Male. Length about 5 mm.; wing 6 mm.

Rostrum and palpi black. Antennae with the scape black, the remaining segments dark brown; flagellar segments with very long black verticils that are nearly three times as long as the individual segments. Head blackish gray.

Mesonotum brownish yellow, the praescutum with more grayish brown stripes. Pleura yellowish brown. Halteres pale yellow. Legs with the coxae and trochanters reddish brown; remainder of legs chiefly pale yellow. Wings with a grayish suffusion, the oval stigma somewhat darker; wing-base restrictedly more whitish; veins pale brown. Macrotrichia of veins relatively numerous, including series on the entire length of veins R_{2+3+4} and R_1 , but none on R_3 . Venation: Sc unusually short, Sc_1 ending be-

tween one-third and one-half the length of R_s ; R_4 a little longer than R_{2+3+4} ; R_3 very short, about one-fourth R_4 , nearly perpendicular; distance on costa between R_{1+2} and R_3 subequal to length of the latter; vein M_{1+2} beyond cell 1st M_2 but little arched; $m-cu$ at nearly its own length beyond the fork of M .

Abdomen dark brown, the hypopygium slightly brighter in color.

Habitat.—South Carolina, North Carolina.

Holotype, ♂, River Falls, near Greenville, altitude about 3000 feet, July 1, 1931 (Henry Townes, Jr.). Paratype, ♂, Highlands, Macon Co., North Carolina, altitude 4000 feet, June 22, 1930 (J. S. Rogers); in Rogers collection.

Rhabdomastix (Sacandaga) brachyneura is distinguished from other regional species by the length of the antennal verticils and by the details of venation, notably the unusually short Sc . In the general features of venation and trichiation of the veins, the fly seems to be allied to *R. (S.) fasciger* Alexander and a few related species in western North America. The holotype specimen appears to be slightly teneral and there may be a faintly darkened cloud on the anterior cord of wings, not mentioned in the above description.

Genus *Erioptera* Meigen

Erioptera (Erioptera) osceola new species.

Allied to *septemtrionis*; general coloration reddish brown; knobs of halteres darkened; wings narrow, tinged with brown; male hypopygium with both dististyles simple, appearing as flattened blades.

Male. Length about 3–3.2 mm.; wing 3.5–3.7 mm.

Rostrum, palpi and antennae pale brown, the scape and pedicel darker. Eyes (♂) large, broadly contiguous beneath. Head light brown, the orbits more yellowish.

Mesonotum chiefly light reddish brown; posterior sclerites of mesonotum and the pleura more testaceous, with a faint grayish cast. Halteres pale, the knobs infuscated. Legs with the coxae and trochanters pale; remainder of legs brownish yellow, the terminal segments darkened. Wings narrow, faintly tinged with brown; veins and macrotrichia darker. Venation: As in the subgenus, the cells unusually narrow due to the conformation of the wing.

Abdomen dark brown, the sternites and hypopygium brighter. Male hypopygium with the tergal plate depressed, its caudal margin broadly notched. Both dististyles simple, the outer longest, slender, on distal third dilated into a smooth blade; inner style a shorter, flattened blade, the apex obliquely truncated, obtuse. Gonapophyses appearing as simple curved horns.

Habitat.—Florida.

Holotype, ♂, Gainesville, Alachua Co., April 6, 1928, (J. S. Rogers); Coll. No. 230.

Paratopotypes, several ♂♂, February 2–April 25 (J. S. Rogers); paratypes, 2 ♂♂, “Camp Torreya”, Liberty Co., April 25, 1924 (J. S. Rogers).

Type in the Collection of the University of Michigan.

The only allied regional species of the subgenus with the knobs of the halteres darkened are *E. (E.) septentrionis* O. S., which has a hypopygium with an acutely pointed outer dististyle and a bifid inner dististyle; and *E. (E.) uliginosa* Alexander, which has much broader and darker wings, a darker body-coloration, and with a male hypopygium having a small pointed inner dististyle.

Erioptera (Erioptera) seminole new species.

Belongs to the *chlorophylla* group, most closely related to *E. (E.) furcifer* Alexander and *E. (E.) subfurcifer* Alexander, differing especially in the structure of the male hypopygium.

Male. Length about 4.3–4.5 mm.; wing 5–5.2 mm.

Eyes (♂) large, contiguous beneath. Head yellowish green, the antennae chiefly pale.

Mesonotal praescutum yellowish, presumably green in living individuals, with four more reddish stripes that cover most of the disk; scutal lobes extensively reddish brown; posterior sclerites of mesonotum and the pleura yellowish green, paling to whitish yellow in dried specimens. Halteres pale, the knobs more greenish. Legs chiefly yellow, tinged with green. Wings strongly suffused with yellow, with greenish tints persisting; veins darker yellow.

Abdomen pale green, the hypopygium paler. Male hypopygium with the outer dististyle a flattened blade that expands outwardly, its apex subobliquely truncated and weakly blackened; outer apical angle a little more produced, the remainder of apex with microscopic spinulae. Inner dististyle profoundly bifid, as in *furcifer* and allies, entirely glabrous. Gonapophyses appearing as unusually slender rods, pale at base, gradually narrowed outwardly, the distal half with microscopic spinulae.

Habitat.—Florida.

Holotype, ♂, Gainesville, Alachua Co., April 20, 1929 (J. S. Rogers); Coll. No. 259.

Paratopotypes, several of both sexes, chiefly in the Rogers Collection.

Type in the Collection of the University of Michigan.

Erioptera (Erioptera) seminole has the inner dististyle of the male hypopygium of a form that is found only in *furcifer* and *subfurcifer* among the described species of the group. *E. (E.) furcifer* is readily told by the narrow outer dististyle, the conspicuous setiferous spine of the inner dististyle, and the broader gonapophyses. *E. (E.) subfurcifer* has the outer dististyle somewhat as in the present species but the apex of the inner style is provided with microscopic erect setulae, while the gonapophyses are broad and of an unusually powerful construction. There are now eight species of light green *Erioptera* in the eastern United States and Canada. Of these, *chlorophylla*, *chlorophylloides*, *gaspeana*, *subfurcifer* and *viridula*, are more northern in their range, with all but the fourth having been taken in Canada; while the remaining three species, *furcifer*, *seminole* and *subchlorophylla*, are confined to the Carolinian and Austroriparian zones.

***Erioptera (Mesocyphona) evergladea* new species.**

Closely allied to *knabi*, differing especially in the narrower wings, general coloration of body and structure of male hypopygium.

Male.—Length about 2.8–3 mm.; wing 3.6–3.7 mm.

Female.—Length about 3.5 mm.; wing 3.5 mm.

Antennae pale yellow to brown. Mesonotal praescutum almost covered by grayish brown stripes that are confluent or nearly so, the humeral triangles conspicuously yellow; median region of scutum and adjoining medial portion of praescutum before suture obscure yellow; scutellum obscure whitish; postnotal mediotergite dark, the lateral margins narrowly but conspicuously yellow. Pleura dark brown, with two conspicuous whitish longitudinal stripes, the more dorsal including the dorso-pleural region, wing-root and most of the pleurotergite; the ventral stripe begins behind the fore coxa, passing to abdomen, including the root of the haltere. Femora with the distal half darkened, especially the broadly blackened tip which is preceded by a narrow but conspicuous yellow ring; tibiae and tarsi yellow, the tips of the latter darkened. Wings of the general pattern of *knabi* but much narrower, the cells, especially the Anal cells, correspondingly narrowed. Male hypopygium with the inner dististyle ending in a small, conical point, not produced into a long terminal spine, as in *knabi*. Gonapophyses longer and more slender than in *knabi*, bent mesad, the tips conspicuously pale.

Habitat.—Florida.

Holotype, ♂, Charlotte Co., October 22, 1928 (J. S. Rogers).

Allotype, ♀, Fort Myers, Lee Co., October 20, 1928 (J. S. Rogers).

Paratopotype, 1 ♂; paratypes, 6 ♂♂, with the allotype.

Type in the Collection of the University of Michigan.

Erioptera (*Mesocyphona*) *evergladea* differs from *E. (M.) knabi* Alexander (Middle America) by the thoracic pattern and structure of the male hypopygium. The general coloration is more like that of *E. (M.) hubbelli* Rogers (Oklahoma-Kansas), which differs more especially in the broader wings and details of the male hypopygium, notably the gonapophyses. These three flies form a compact group of species that agree well in the general features of wing- and leg-patterns.

Genus *Ormosia* Rondani

Ormosia albertensis new species

General coloration gray; antennae (♂) elongate, if bent backward extending about to midlength of the abdomen; wings with cell M_2 open by atrophy of basal section of M_3 ; vein 2nd A sinuous on distal third and thus extending generally parallel to 1st A ; male hypopygium with the gonapophyses appearing as broad, flattened plates, the tip of each produced into a stout spinous point.

Male.—Length about 4.5 mm.; wing 5.5 mm.; antenna about 3 mm.

Rostrum and palpi dark brown. Antennæ (♂) elongate, if bent backward extending to about opposite midlength of the abdomen, dark brown throughout; flagellar segments elongate-fusiform. Head gray.

Pronotum light brown; anterior lateral pretergites almost white. Mesonotum dark brown, sparsely pruinose, the small pseudosutural foveæ black; humeral region of præscutum restrictedly brightened; scutellum brownish yellow. Pleura brown, with a paler longitudinal stripe crossing the dorsal sternopleurite. Halteres dusky, with yellow setæ. Legs with the coxæ and trochanters yellow; remainder of legs brown. Wings with a grayish tinge; stigmal region damaged in mounting and so undescribable; veins pale brown. Venation: Cell M_2 open by atrophy of basal section of M_3 ; vein 2nd A arcuated on distal third and so extending generally parallel to 1st A for this distance.

Abdomen brown, the hypopygium somewhat brighter. Male hypopygium with the dististyles much as in *longicornis* and allied forms; outer style small, ear-like; inner style slender, pale, narrowed to the obtuse apex. Gonapophyses appearing as broad flattened plates, the apex of each produced into a stout spinous point.

Habitat.—Alberta.

Holotype, ♂, Banff, Upper Hot Spring, July 13, 1928 (Owen Bryant).

Type returned to Mr. Bryant.

Ormosia albertensis is allied and generally similar to *O. longicornis* (Doane), differing in the shorter antennæ of male and the structure of the male hypopygium, especially of the gonapophyses.

***Ormosia townesi* new species**

Allied to *nimbipennis*; mesonotal præscutum reddish brown, the posterior sclerites of mesonotum and the pleura dark brown; wings strongly tinged with brownish; cell 1st M_2 open by the atrophy of basal section of M_3 ; vein 2nd A sinuous; male hypopygium with two elongate dististyles; aedeagus tridentate at apex.

Male.—Length about 4.5 mm.; wing 5.8 mm.

Female.—Length about 5 mm.; wing 6 mm.

Rostrum and palpi black. Antennæ short in both sexes, pale brown. Head brownish gray.

Mesonotal præscutum light reddish brown, without distinct stripes; posterior sclerites of mesonotum dark brown. Pleura dark brown, sparsely pruinose. Halteres pale yellow. Legs with the fore coxæ dark, the remaining coxæ and all trochanters obscure yellow; remainder of legs brownish yellow. Wings with a strong brownish tinge, the costal region somewhat darker; stigma conspicuous, dark brown; veins dark, narrowly and vaguely seamed with brown. Venation: Forks of cells beyond cord deep; cell 1st M_2 open by atrophy of basal section of M_3 ; cell 2nd M_2 approximately four to five times its petiole; vein 2nd A sinuous.

Abdomen dark brown; male hypopygium very slightly brighter. Male hypopygium with two distinct dististyles, the outer a long, slender, nearly straight rod that is a little expanded outwardly, abruptly narrowed at apex into an acute black spine. Inner dististyle a longer, curved, slender rod, not very different in form from the corresponding structure in *nimbipennis*. Gonapophyses appearing as four blackened horns, the longer pair gently curved, the inner pair about one-half as large, nearly straight. Aedeagus unequally trifid at apex, the median spine being much smaller than the laterals.

Habitat.—North Carolina.

Holotype, ♂, Cedar Mt., Transylvania Co., altitude about 2700 feet, August 28, 1931 (Henry Townes, Jr.).

Allotopotype, ♀, August 27, 1931.

I take great pleasure in naming this very distinct *Ormosia* in honor of the collector, Mr. Henry Townes, Jr., who has discovered several new and rare Tipulidæ in the Carolina Mountains. The species is most nearly allied to *nimbipennis* Alexander, dif-

fering very conspicuously in the elongate outer dististyle of the male hypopygium. In *nimbipennis*, and allied *O. ingloria* Alexander, the outer dististyle is reduced to a tiny thimble-like structure, so small as to appear almost lacking. The tridentate ædeagus of the present species is very similar to that found in *nimbipennis*.