

NEW NEARCTIC CRANE-FLIES (TIPULIDAE, DIPTERA). PART XIII.

BY CHARLES P. ALEXANDER,

Massachusetts Agricultural College, Amherst, Massachusetts.

The preceding part under this general title was published in 1927 (Can. Ent., 59: 184-193). In the present instalment, I wish to describe a few novelties that have come to hand in recent years and to add records of certain rare species of Tipulidae. As is the case with numerous recent papers that I have published on the Nearctic crane-fly fauna, the present report is based chiefly on certain very interesting species that were collected in Michigan, Indiana, Tennessee and Florida by Professor J. Speed Rogers. One interesting species of *Erioptera* was included in material sent to me for determination by Professor Painter. The new species of *Dicranomyia* was collected in Nova Scotia by Mr. Gibson and in Massachusetts by Mr. Johnson. The very interesting new *Tipula* from Alaska was secured by Dr. Aldrich. I wish to thank all of these gentlemen for their kind and appreciated co-operation in making known the involved crane-fly fauna of North America.

RECORDS OF DISTRIBUTION:

Tipula margarita Alexander. 1 ♂, Columbus, Ohio, May 28, 1925 (R. H. Painter). Known hitherto only from New York.

Dicranoptycha septentrionis Alexander. River Raisin, Jackson Co., Michigan, August 9, 1922 (F. M. Gaige), through Professor Rogers. Known only from New York and New England. The outer dististyle of the male hypopygium is somewhat longer and more slender than in the type though approached by paratypical material from Niagara Falls, New York.

Dicranoptycha pallida Alexander. Jefferson Co., Indiana, July 1917, August 1, 1919 (J. S. Rogers). Known hitherto only from Kansas.

Teucholabis myersi Alexander. Dade Co., Florida, December 18, 1927 (J. S. Rogers); Coll. No. 2. Known hitherto only from western Cuba.

- Ormosia adirondacensis* Alexander. Fentress Co., Tennessee, Clear Fork at Crooked Creek, altitude 1200 feet, June 20, 1924 (*J. S. Rogers*); Coll. No. 44. Allardt, Buffalo Cove, altitude 1500 feet, June 11, 1924 (*J. S. Rogers*); Coll. No. 14.
- Ormosia frisoni* Alexander. Ann Arbor, Michigan, May 14, 1917 (*J. S. Rogers*). Known hitherto only from Illinois.
- Ormosia nigripila* (Osten Sacken). Leon Co., Florida, April 23, 1924 (*J. S. Rogers*). In the male, the outer arm of the outer dististyle is somewhat longer and more slender than in specimens from New England.
- Ormosia rubella* (Osten Sacken). Bibb Co., Georgia, November 30, 1923 (*J. S. Rogers*).

DESCRIPTIONS OF NEW SPECIES.

***Tipula aldrichiana* n. sp.**

Belongs to the *arctica* group; general coloration grey, the thoracic stripes ill-defined; antennae relatively short; wings greyish brown, variegated with whitish subhyaline; abdomen reddish orange, the tergites narrowly trivittate with dark brown; hypopygium dark; ninth tergite an elevated flattened thin plate, entirely chitinized, the margin four-toothed.

Male.—Length about 12 mm.; wing 11.8 mm.

Frontal prolongation of head relatively elongate, dark grey; nasus short and stout; palpi dark brown. Antennae relatively short, if bent backward not extending far beyond the wing-root; scapal segments brownish yellow; first flagellar segments relatively short and only moderately incised. Head grey, with a vague capillary median brown line; eyes relatively small, the distance between the eyes considerably greater than the diameter of one.

Mesonotal praescutum yellowish grey, the usual stripes concolorous, their presence indicated only by remnants of narrow brown margins, the most conspicuous being the mesal and cephalic borders of the lateral stripes forming a crook around the anterior end of the stripe; median stripe with a vague darker line on cephalic half of sclerite; remainder of mesonotum grey with a vague capillary brown line. Pleura grey, the dorso-pleural region brownish yellow. Halteres brownish yellow, the base of the stem clearer yellow, the knobs dark brown. Legs with the coxae grey; trochanters dark brown, sparsely pruinose; femora brownish yellow, clearer basally, the tips passing into dark brown; tibiae brownish yellow, the tips infuscated; basitarsi brown, the tips and remainder of tarsi dark brown. Wings with a greyish brown tinge, cell *Sc* yellow; stigma small, brown; small brown clouds at origin of *Rs* and on anterior cord; membrane variegated with whitish subhyaline areas, as in the group, distributed as follows: Beyond the cord, extending into the base of cell M_3 ; obliterative areas before the cord, including the veins; large pale areas, including about all of cell *R*, the basal third and at near two-thirds the length of cell *M*, near the bases of cells *Cu* and 1st *A*, the latter area continuing to the margin along vein 2nd *A*; veins dark brown. Venation: R_{1+2} entire; petiole of cell M_1 about one-third to one-fourth the cell and about one-half longer than *m*; M_{3+4} a little longer than the petiole of cell M_1 .

Abdomen strongly reddish orange, the tergites trivittate with dark brown, the median stripe broader, very narrowly interrupted at the posterior margins

of the segments; sublateral stripes narrower; lateral margins of tergites buffy grey, the caudal margins more narrowly so; sternites reddish orange, the outer segments darkened; hypopygium dark, pruinose. Male hypopygium small, the ninth tergite an elevated flat thin plate, heavily blackened throughout; extreme caudal margin notched, these indentations including a very low U-shaped median notch, the lateral angles produced into acute, slightly decurved teeth, these appearing as dorsal teeth when viewed laterally; at the ventral margin of the plate, a second subequal acute tooth, this likewise visible laterally. Outer dististyle a small flattened elongate-oval dusky lobe. Ninth sternite with a very deep V-shaped notch. Eighth sternite unarmed.

Habitat.—Alaska.

Holotype, ♂, Healy, June 26, 1921 (J. M. Aldrich). Type in the United States National Museum.

Named in honor of the collector, Dr. John M. Aldrich. Superficially the species bears a marked resemblance to *T. bergrothiana* Alexander but the structure of the ninth tergite is very different. In *bergrothiana*, this is a flat, concave saucer, whereas in the present species, it is an arched hood-like, very thin plate. *Tipula septentrionalis* Loew and *T. perretti* Alexander have a somewhat similar arched tergal plate but are very different in other characters.

Dicranomyia gibsoni n. sp.

Related to *D. haeretica*; general coloration dark brown, the thorax with a sparse golden-yellow pollen; male hypopygium with the rostral prolongation of the ventral dististyle long and slender.

Male.—Length 7-9 mm.; wing 7-8 mm.

Female.—Length about 7 mm.; wing about 8 mm.

Rostrum and palpi dark brown throughout. Antennae dark brown. Head dark, passing into yellow beneath.

Pronotum dark brown, with a sparse yellow pollen. Mesonotal praescutum brown, darker medially, the surface with a sparse golden-yellow pollen, the median region of the scutum to postnotum more pruinose. Pleura dark, yellowish grey pruinose. Halteres short, yellow, the knobs dark brown. Legs with the coxae and trochanters brownish yellow; remainder of legs brown, the femoral bases more yellowish. Wings with a faint brownish tinge, the stigma only faintly indicated; veins dark brown. Venation: Sc_1 ending opposite the origin of Rs , Sc_2 shorter, removed from this tip, Sc_1 alone being about two-thirds *m-cu*; cell 1st M_2 relatively small, subquadrate to rectangular; *m-cu* close to the fork of M .

Abdomen unusually long for a member of this group, tergites dark brown; basal sternites more obscure yellow, the outer sternites and hypopygium dark. Male hypopygium of the same general structure as *haeretica* but the rostral prolongation of the ventral dististyle prolonged into a slender, gently curved rod, the two spines placed at near one-third the length.

Habitat.—Coastal Northeastern North America.

Holotype, ♂, Smith's Cove, Nova Scotia, August 6, 1925 (A. Gibson).

Allotopotype, ♀.

Paratopotypes, 5 ♂ ♀, 2 fragments; paratypes, several ♂ ♀, Nantucket Is., Massachusetts, in salt marsh, August 21, 1926 (C. W. Johnson).

Type No. 2572 in the Canadian National Collection. Paratypes in Boston Society of Natural History and collection of the author.

Dicranomyia gibsoni is very distinct from the crane-fly that I have determined as *haeretica* Osten Sacken. There is a slight possibility of a mis-determination of the latter, since the type has not been critically examined. It is virtually certain that the Nantucket paratype of *D. moniliformis* Doane (but not the type from Colorado) pertains to the present species. I take pleasure in dedicating this species to the collector of the type, Mr. Arthur Gibson, Dominion Entomologist.

***Dicranota notabilis* n. sp.**

Size very large (wing, ♀, over 9 mm.); general coloration pale yellow; wings pale yellow, the costal margin a little infumed; vein R_4 arising at or beyond the end of Rs , cell R_4 thus being sessile or subsessile; cell 1st M_2 closed.

Female.—Length about 10 mm.; wing 9.5 mm.

Rostrum obscure yellow, the palpi a trifle darker. Antennae pale throughout, 15-segmented; basal flagellar segments crowded, short-cylindrical, the outer segments passing into oval, the outermost segments again short-oval and more crowded; the right antenna of the unique type is broken beyond the scape and this latter is discolored, apparently by burning at trap-lantern. Head brownish, obscure yellow behind; vertical tubercle low but conspicuous; eyes hairy.

Thorax pale reddish yellow, the pleura somewhat clearer yellow. Halteres yellow. Legs yellow, the tips of the femora and tibiae narrowly and weakly infumed; terminal tarsal segments slightly infuscated. Wings with a pale yellow tinge, the base and costal margin a little infumed; restricted slightly darker seams on the supernumerary crossvein and R_2 ; veins yellow, a little darker on the anterior half of the wing, the cord brown. Venation: Sc_2 some distance before the origin of Rs , first section of Sc_2 R_1 about two-thirds Rs ; cell R_4 sessile to short-petiolate, with $r-m$ at near midlength of this abbreviated R_{4+5} or in transverse alignment with R_{2+3} ; R_{2+3} subperpendicular at origin, thence subangularly bent; cell 1st M_2 closed; m connecting with M_2 just beyond origin and M_3 at near two-fifths its length beyond the fork of M .

Abdomen obscure yellow, the tergites a very little darker. Ovipositor with the tergal valves highly compressed, gently upcurved, the tips subacute.

Habitat.—Tennessee.

Holotype, ♀, Allardt, Fentress Co., altitude 1500 feet, June 21, 1924 (J. S. Rogers); Coll. No. 45.

Type returned to Professor Rogers.

Dicranota notabilis is the largest species of the genus known to me. In the Nearctic fauna, it is closely related only to *D. pallida* Alexander (New Hampshire), agreeing in the yellowish color and closed cell 1st M_2 , differing most evidently in the larger size and venation of the radial field. In *D. pallida*, vein R_4 has been captured by R_{2+3} to form a long R_{2+3+4} .

***Polymera (Polymera) rogersiana* n. sp.**

General coloration black or brownish black, discolored in the types; antennae longer than the body in the male sex; femora brownish black; tibiae brown, the tips narrowly blackened; basitarsi infuscated, the remainder of the tarsi dirty white; wings with a strong brownish suffusion, with clearly defined dark brown spots; R_{2+3+4} longer than R_{2+3} .

Male.—Length 4.2-4.6 mm.; wing 5-5.3 mm.; antennae about 6.5 mm.

Rostrum and palpi black. Antennae (δ) much longer than the body, as shown by the measurements, black, the ends of the flagellar segments pale yellow to produce an annulated appearance. Head black, discolored.

Thorax black, discolored in all the available specimens. Halteres dusky. Legs with the femora brownish black; tibiae brown, the tips narrowly blackened; basitarsi infuscated; outer tarsal segments dirty white, clearer white on the posterior tarsi where it includes the distal end of the basitarsus, segments two and three and the base of four; outer tarsal segments infuscated. Wings with a strong brownish suffusion, the center of the disk clearer, subhyaline; clearly delimited dark brown spots arranged as follows: Origin of R_s ; along cord; fork of R_{2+3+4} ; R_2 and fork of M_{3+4} ; veins and macrotrichiae dark brown. Venation: R_{2+3+4} long, subequal to or longer than R_s and longer than R_{2+3} ; $m-cu$ subtransverse.

Abdomen dark brown, the basal segments still darker; hypopygium dark brown.

Habitat.—Florida.

Holotype, δ , Gainesville, Alachua Co., June 24, 1927 (J. S. Rogers).

Paratopotypes, δ δ , with the type.

Type returned to Professor Rogers.

I take great pleasure in dedicating this very distinct species to Professor Rogers. *Polymera rogersiana* is allied to *P. obscura* Macquart, differing especially in the uniformly darkened femora, the distinct, clearly-defined wing-spots and the details of venation.

***Erioptera painteri* n. sp.**

Female.—Length about 5.5 mm.; wing 5 mm.

Most closely allied to *E. cinctipennis* Alexander, differing especially in the wing-pattern and venation.

Rostrum, palpi and antennae black, the latter short. Head clear grey pruinose. Mesonotal praescutum dull brownish grey with three brown stripes, the median stripe broad, paler medially to form ill-defined lateral margins, the stripe better indicated behind; scutum brownish grey; scutellum and postnotum clear grey. Pleura grey pruinose. Halteres yellow, the base of the stem darker. Legs with the coxae grey; trochanters dark brown; remainder of legs brownish black throughout. Wings much broader than in *cinctipennis*, tinged with yellow, the base and costal margin clearer yellow; stigma elongate-oval, darker brown; sparse brown seams on certain of the veins, more conspicuously so on the basal half of R_s , along the cord, extreme apex of wing and as seams along Cu , 2nd A and on the axilla; veins brown, Sc and R more yellowish. Venation: R_{2+3+4} long, nearly twice $r-m$; R_2 subequal to R_{2+3} ; R_3 and R_4 gently divergent; $m-cu$ shortly beyond the fork of M ; base of 1st A very faint, atrophied in the type.

Abdomen brownish black, with conspicuous yellowish setae; genital segment paler brown. Ovipositor with the tergal valves elongate, acutely pointed at tips.

Habitat.—Ohio.

Holotype, ♀, Columbus, May 9, 1925 (R. H. Painter). Type in the collection of the writer. Named in honor of the collector.

Erioptera (*Erioptera*) *viridula* n. sp.

Belongs to the *chlorophylla* group; male hypopygium with both dististyles bent laterad near tips; inner dististyle with a small black spine at bend; lateral gonapophyses with the apices set with microscopic spiculae.

Male.—Length, 4.5-5 mm.; wing, 5.5-6 mm.

Female.—Length, 5-6 mm.; wing, 6-7 mm.

General coloration of the entire body pale chlorophyll green. Eyes of male contiguous beneath. Wings greenish subhyaline; veins green. Male hypopygium with the outer dististyle stout, the apex more expanded into a blade that is produced laterad, forming a boomerang-shaped structure, the apex blackened but smooth. Inner dististyle with the stem subequal to that of the outer style but more slender, the apex similarly bent strongly laterad although only a little wider than the stem; at bend on outer margin darkened and produced into a small blackened tuberculate spine that is surrounded by microscopic setulae. Lateral gonapophyses pale nearly, straight, narrowed to the subacute tips, the distal fourth darkened, the surface set with microscopic erect spiculae; inner gonapophyses long and slender, sinuous, decussate. Ovipositor with the valves long and slender, concolorous with the remainder of the body, the margins smooth.

Habitat.—Vermont.

Holotype, ♂, Woodcrest Farm, near foot of Mt. Mansfield, Green Mts., altitude 1000 feet, in a boggy meadow, June 27, 1927 (C. P. Alexander).

Allotopotype, ♀.

Paratopotypes, 15 ♂ ♀, June 22-27, 1927. Type in the collection of the writer.

***Ormosia huronis* n. sp.**

Allied to *O. bilineata* Dietz; male hypopygium with the outer dististyle a simple black spine; inner dististyle with the base a flattened blade, near apex with a single powerful black spine.

Male.—Wing, 4.6 mm.

Legs light brown. Wings with a bright brownish suffusion, the base more yellowish; stigmal region a little darker but the color diffuse; veins pale brown. Venation: Sc_1 ending about opposite R_2 , the latter nearly twice R_{3+4} ; cell M_2 open by the atrophy of the outer deflection of M_3 ; vein 2nd A nearly straight, feebly sinuous on distal third, cell 1st A widened to the margin.

Abdomen dark brown, the hypopygium a little brighter. Male hypopygium (Fig. 1) with the ninth tergite (9t) conspicuous, narrowed at base, expanded outwardly, before the apex nearly three times as wide as at base, the apical margin gently convex with a vague shallow median incision. Outer dististyle (od) a straight black spine from an enlarged base. Inner dististyle (id) stouter, the base a flattened blade that is extended caudad into an acute point, the surface of the blade-like portion with setigerous punctures; apex of the style narrowed into a beak that bears close to its apex a single long powerful, gently curved spine that is virtually as long as the style itself. Gonapophyses (g) with a long, slender, feebly clavate inner arm and a shorter, gently curved, basal outer spine.

Habitat.—Michigan.

Holotype, ♂, Washtenaw Co., May 29, 1927 (J. S. Rogers); Collector's No. 823. Type returned to Professor Rogers.

The peculiar structure of the male hypopygium readily distinguishes the present species. It is somewhat similar to *O. bilineata* Dietz (Fig. 2), especially in the structure of the gonapophyses but differs in the simple outer dististyle and entirely differently formed inner dististyle.

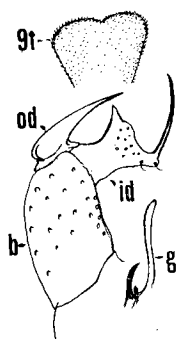


Fig. 1

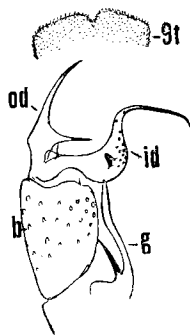


Fig. 2

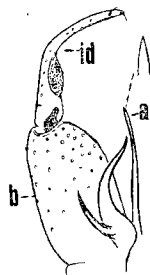


Fig. 3

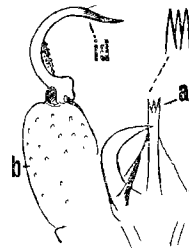


Fig. 4

Fig. 1. *Ormosia huronis* n. sp.; male hypopygium. 2. *O. bilineata* Dietz; male hypopygium. 3. *O. ingloria* n. sp.; male hypopygium. 4. *O. nimbipennis* Alexander; male hypopygium. Symbols: a—aedeagus; b—basistyle; g—gonapophysis; id—inner dististyle; od—outer dististyle; t—tergite.

Ormosia ingloria n. sp.

Allied to *O. nimbipennis* Alexander; general coloration black, the praescutum and scutal lobes with more reddish brown markings; wings with a dusky tinge, sparsely variegated with whitish areas; male hypopygium with the outer dististyle not terminating in a spine; aedeagus simple at apex.

Male.—Length, about 4 mm.; wing, 4.8-5 mm.

Female.—Length, about 4.8 mm.; wings, 5.2 mm.

Rostrum and palpi dark. Antennae dark brown, the basal flagellar segments bicolorous, both ends of the individual segments being pale; outer segments more slender and more uniformly darkened; antennae (♂) of moderate length, if bent backward extending about to the wing-root. Head dark brown.

Pronotum dark brown. Mesonotum dark brownish grey, the praescutum with three slightly more reddish brown stripes, the interspaces defined by black setiferous punctures; posterior sclerites of notum and the pleura blackened. Halteres obscure yellow. Legs with the coxae dark; trochanters brownish testaceous; femora brown, darker before the tips, the color obscured by dark setae; tibiae and tarsi passing into brown, with yellowish setae. Wings with a dusky tinge, the costal region more intensely so; stigma darker brown; conspicuous whitish areas distributed as follows: In prearcular region; before and beyond the stigma and before the cord, chiefly in the outer end of cell *R*; veins and macrotrichiae dark, the former paler in the whitish areas. Venation: *R*₂ close to the fork of *R*₂₊₃₊₄; cell *M*₂ open by the atrophy of the outer deflection of *M*₃; *m-cu*

more or less arcuated or angulated, placed close to or before the fork of *M*; vein 2nd *A* strong sinuous, the distal half strongly bent, cell 1st *A* being markedly widened at near midlength.

Abdomen brownish black, with yellow setae; hypopygium dark. Male hypopygium (Fig. 3) with the inner dististyle (i.d.) a strongly curved, boomerang-shaped rod that is pale in color throughout, not narrowed into an apical spine, the obtuse apex with a long curved seta. Outer dististyle very reduced or lacking. Gonapophyses appearing as gently curved black horns, the tips acute, at base with a slender spine that is nearly one-third the length of the entire apophysis. Aedeagus (a) with the apex simple.

Habitat.—Indiana.

Holotype, ♂, Hanover, Jefferson Co., August 26, 1927 (J. S. Rogers); Collector's No. 100.

Allotopotype, ♀; Collector's No. 102.

Paratopotypes, 2 ♀ ♀, with the allotype. Type returned to Professor Rogers.

Ormosia ingloria is allied to *O. nimbiipennis* Alexander, in the great reduction of the outer dististyle of the male hypopygium and the elongation of the inner style. In *nimbiipennis* (Fig. 4) the male hypopygium has the inner dististyle (id) strongly curved, terminating in an acute blackened spine; gonapophyses powerful, curved, the tips and the basal spine heavily blackened, and the aedeagus trifid at apex.
