Several years ago Mr. Otto Heidemann determined several of the species listed, while Prof. E. P. Van Duzee has more recently named several others. A list of the species collected during 1916 follows:

Homaemus parvulus (Germ.)	VIII 18; IX 18, 30.
Amnestus pusillus Uhl.	IX 2.
Rhytidolomia viridicata (Walk.)	V 28.
Rhytidolomia faceta (Say)	V 19.
Chlorochroa ligata (Say)	V 22 IX 16.
Chlorochroa sayi Stal	Throughout season.
Carpocoris remotus Horv.	VII 14.
Aelia americana Dall.	V 25.
Thyanta custator (Fabr.)	Throughout season.
Thyanta rugulosa (Say)	V 18.
Murgantia histrionica (Hahn)	V 19.
Perillus bioculatus (Fabr.)	V 28.
Perillus virgatus Dist.	V 22; VI 14.
Apateticus marginiventris (Stal)	VII 21.
Podisus acutissimus Stal	VIII 7.

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

By Charles P. Alexander, Massachusetts Agricultural College, Amherst, Massachusetts.

In the present paper a few of the more interesting novelties that have recently come to hand are described. These were included in extensive collections submitted by Professor Rogers and Mr. Curran, and smaller lots received from Dr. Crampton, Mr. Lacroix and Mr. Shannon. The very interesting *Hexatoma* was included in the extensive collections of the Vienna Museum, kindly sent to me for study by Dr. Zerny in 1921. The fly was described at that time, but the diagnosis withheld from press in the hope that more material would be forthcoming in some one or another of the extensive collections of North American Tipulidae now being studied. No further material has come to hand, however, and it seems best to describe the species without further delay. My sincere thanks are extended to all of the gentlemen mentioned for their kind co-operation in making known this still insufficiently-known fauna. Where

not mentioned to the contrary, the types are preserved in the writer's collection.

Dicranomyia rogersiana sp. n.

General coloration shiny brown and yellow; antennae brownish black throughout; head gray, the center of the vertex black; mesonotal praescutum with three broad darker stripes; wings with a faint brownish tinge, stigma oval, darker brown; *Sc* long, Sc_1 and Sc_2 subequal; cell 1*st* M_2 closed; male hypopygium with a single dististyle that is narrowed at apex into a slender finger-like lobe.

♂ Length about 4 mm.; wing 4.8 mm. ♀ Length about 5 mm.; wing 5.4 mm.

Rostrum and palpi brownish black. Antennae brownish black throughout, the flagellar segments short-oval, becoming more elongate outwardly, the verticils longer than the segments. Head dark gray, the center of the vortex black.

Pronotum dark brown above, paler laterally. Mesonotal praescutum shiny yellow with three broad shiny brown stripes, the median one broad, more widened posteriorly; lateral stripes widely separated from the median one, occupying the lateral margin of the praescutum and not confluent with the scutal vittae; remainder of mesonotum shiny light brown. Pleura dark brown. In the type male, the colors are much paler and the specimen is presumably teneral. Halteres short, yellow, the knobs brown.

Legs with the coxae and trochanters brownish testaceous: femora dark brown, the bases paler; tibiae and tarsi brownish black.

Wings with a very faint brownish tinge, the oval stigma darker brown; veins dark brown. Macrotrichiae of veins relatively long and conspicuous. Venation: *Sc* long, ending opposite two-thirds the length of *Rs* (♀) to four-fifths this distance (♂) Sc_2 at tip of Sc_1, *Rs* arcuated to slightly angulated at origin; *r* at tip of R_1, provided with macrotrichiae, the tip of R_1 pale and subobsolete; cell 1*st* M_2 large, short-rectangular, about one-half longer than vein M_4 beyond it; *m-cu* close to fork of *M*. In the female, *m* is longer and arcuated.

Abdomen dark brown, the ninth segment of male more yellowish; hypopygium dark. Male hypopygium with the basistyles elongate, with a simple lobe near base of the ventro-mesal aspect. A single dististyle, this broad on basal two-thirds, the apical third suddenly prolonged into a slender, finger-like lobe; outer face of style with a few long powerful setae, the

lower or cephalic face with more abundant microscopic setulae. Ovipositor with the tergal valves slender, acute at tips, gently upcurved.

Habitat.—Georgia, Florida. *Holotype*: ♂, Gainesville, Alachua County, Florida, May 30, 1924 (*J. S. Rogers*); Collector's No. 156. *Allotype:* ♀, 2 miles north of Vienna, Dooley County, Georgia, June 1, 1923, at light (*J. S. Rogers*).

This interesting crane-fly is named in honor of my friend, Professor J. Speed Rogers. Of the described Nearctic species the fly may be confused only with *D. globithorax* Osten Sacken, from which it differs in the normal structure of the mesonotum, the venation, and structure of the male hypopygium. The type is preserved in the writer's collection, the allotype returned to Professor Rogers.

Dicranomyia lacroixi sp. n.

General coloration brownish ochreous, the praescutum with three conspicuous dark brown stripes; pleura uniformly ochreous; antennae black throughout; wings narrow, cell 1*st M*$_2$ closed; male hypopygium with a single dististyle, this produced into an elongate powerful rostrum bearing a single small spine near midlength.

♂ Length about 6 mm.; wing 6.9 mm.

Rostrum brownish yellow, the palpi black. Antennae black throughout, the flagellar segments oval with short verticils. Head dark gray, the anterior vertex more infuscated, the occiput paling into brownish ochreous; anterior vertex about one-half wider than the diameter of the basal scapal segment.

Pronotum brownish ochreous with a broad, dark brown, dorsal stripe. Mesonotum brownish ochreous the praescutum with three conspicuous dark brown stripes, the short lateral stripes crossing the suture and including the scutal lobes; remainder of mesonotum dark-colored, pruinose. Pleura uniformly brownish ochreous, this color likewise including the postnotal pleurotergite. Halteres relatively short, dark brown, the extreme base of stem yellowish.

Legs with the coxae and trochanters obscure yellow; remainder of legs elongate, dark brown, the femoral bases paler.

Wings long and narrow, tinged with yellowish; a vague dusky seam along vein Cu_1 and the anal angle strongly infuscated; veins of the costal region yellowish, the distal and posterior veins darker. Venation: Sc_1 ending about opposite

one-fifth the length of *Rs*, Sc_2 not evident; *Rs* gently arcuated, about one-half longer than the basal section of R_4+_5 which is almost in alignment; *r* faint, at extreme tip of R_1; cell 1*st* M_2 closed, rectangular, approximately equal in length to the veins beyond it; transverse elements closing cell 1*st* M_2 very pale; *m-cu* at fork of *M*.

Abdomen brown, the sternites paler. Male hypopygium with the ninth tergite deeply notched medially, each lateral lobe rounded and with about a dozen powerful elongate setae, with additional smaller ones. Basistyles relatively small, the mesal lobe slender, the setae on its cephalic face longer. A single developed dististyle, this a small fleshy lobe that is provided with long setae, the mesal face produced mesad into a long, gently curved rostrum with a single, gently curved spine near midlength of caudal margin; apex of rostrum with a few small setae. Gonapophyses with the mesal lobe long and slender, the tip subacute.

Habitat.—Massachusetts. *Holotype:* ♂, Rochester, Plymouth County, on cranberry bog, July 9, 1924 *(D. S. Lacroix)*.

Dicranomyia lacroixi is named in honor of the collector of the type-specimen, Mr. Donald Lacroix. The species is very isolated although bearing a superficial resemblance to *D. longipennis* (Schummel), to which species it would run by the author's key to the Eastern species of *Dicranomyia* (Cornell Univ. Agr. Expt. Sta., Mem. 25: 894-895; 1919). The fly is readily distinguished by the diagnostic characters indicated above.

Dicranomyia cramptoni sp. n.

General coloration dark brown, the pleura yellowish gray pruinose; antennae black throughout; rostrum dark; halteres short, the knobs infuscated; wings tinged with gray, the stigma brown; Sc_1 long, ending opposite or just beyond the origin of *Rs:* male hypopygium large and very complicated in structure.

♂. Length 5.5-5.8 mm.; wing 6-6.5 mm. ♀. Length about 6.5-7 mm.; wing about 6.2 mm.

Rostrum and palpi brownish black. Antennae black throughout, the flagellar segments oval. Head gray, the anterior vertex about twice as wide as the diameter of scape.

Pronotum dark brown. Mesonotum dark brown, the praescutum laterally with a sparse yellow pollen, the median stripe remaining shiny, scutellum dark brown with an obscure yellow basal median spot; postnotum dark brown, gray pruinose.

Pleura dark brown, heavily yellowish gray pruinose. Halteres relatively short, obscure yellow, the knobs dark brown.

Legs with the coxae and trochanters obscure yellow; femora light brown, the bases extensively more yellowish, the tips narrowly dark brown; tibiae brown, the tips somewhat darker, tarsi brownish black.

Wings with a faint grayish tinge; stigma small, circular, brown, veins dark brown. Venation: Sc_1 ending opposite or slightly beyond the origin of *Rs*, Sc_2 some distance from its tip, Sc_1 alone about equal to or longer than *m-cu;* vein R_1 curved toward R_2+_3 at the stigma, the tip pale and subobsolete; *Rs* arcuated, about twice the basal deflection of R_4+_5; cell 1*st* M_2 closed, rectangular, shorter than any of the veins beyond it; *m-cu* at or before the fork of *M*.

Abdominal tergites dark brown, the sternites obscure brownish yellow; hypopygium dark. Male hypopygium very large and complicated in structure. Ninth tergite with a stout lobe at each caudo-lateral angle, each of these provided with two tufts of stout yellow setae, the space between the lobes extensive, broadly U-shaped. Basistyle stout, the ventro-mesal lobe large and complicated, with a dusky, more basal, cylindrical lobule terminating in a brush of yellow setae; apex of lobe broadly expanded into a flattened pale blade that is further split into three conspicuous divisions, the margins of which are conspicuously fringed with setae. At the base of the ventral dististyle, on ventral side, a powerful, terete, boomerang-shaped structure, pale in color, directed ventrad and caudad. Ventral dististyle large and fleshy, the usual rostriform structure here greatly complicated by supernumerary outgrowths, including a long, pale tail-like blade near the usual two spines; apex of rostrum expanded into two flattened, divergent blades, the more basal of which is densely set with setae and short spinulae. Dorsal dististyle strongly curved, the tip suddenly narrowed to an acute point. Ovipositer with the tergal valves relatively small and slender, gently upcurved, projecting very slightly beyond the level of the stout, straight sternal valves.

Habitat.—Massachusetts. *Holotype:* ♂, Fish-hatchery, near Sunderland, Franklin County, altitude 200 feet, October 16, 1924 *(C. P. Alexander). Allotopotype,* ♀. *Paratopotypes,* 3 alcoholic ♂♂, October 15, 1924 *(G. C. Crampton);* 3 ♂♂, 3 ♀♀, with the type *(C. P. Alexander).*

Dicranomyia cramptoni is named in honor of Dr. G. C. Crampton, who collected the first-discovered specimens. The

flies were swept from small patches of *Juncus* in a single restricted locality. The fly is very different from any known to the writer. The structure of the male hypopygium is exceedingly complicated by outgrowths that involve not only the basistyles but even more strikingly the rostral region of the ventral dististyle. The hypopygium is more complicated in structure than in either of the Palaearctic species, *D. magnicauda* Lundström (Northern Europe) or *D. megacauda* Alexander (Northern Japan).

Hexatoma microcera sp. n.

General coloration gray pruinose; antennae of male short, if bent backward barely attaining the wing-root; praescutum with three blackish stripes; legs comparatively short and stout; wings subhyaline, faintly tinged with brown; *r* on R_2+_3 near the fork.

♂. Length 5.8-6.5 mm.; wing 7.1-8 mm.

Rostrum short, brown, pruinose; palpi dark brown. Antennae relatively short, if bent backward barely attaining the wing-root, dark brown; seven antennal segments, the terminal one microscopic; first flagellar segment about equal to the following two taken together; flagellar segments 2, 3 and 4 gradually shortened. Head dark brown, the orbits narrowly light gray pruinose, the low vertical tubercle likewise pruinose.

Mesonotum light gray, the praescutum with three blackish stripes; scutum gray, the centers of the lobes blackish; scutellum and postnotum gray pruinose. Pleura dark brown, pruinose, the dorsopleural membrane dark brown. Thorax clothed with moderately long erect white setae. Halteres pale, the knobs infuscated.

Legs comparatively short and stout; coxae gray pruinose; femora reddish brown, the tips passing into black; tibiae and basitarsi similar, their tips narrowly darkened; remainder of tarsi dark brown.

Wings subhyaline, faintly tinged with brown in cells *C* and *Sc*, along *Rs* and the radial veins and along the cord; veins dark brown. Venation: Sc_1 ending immediately before the fork of *Rs*, Sc_2 some distance from its tip, Sc_1 alone about equal to *r-m*; *r* on R_2+_3 a little more than its own length before the fork; cell R_2 larger than cell *2nd* R_1; veins M_1+_2, M_4 and Cu_1 subevanescent at tips; *m-cu* at or just before the fork of *M*.

Abdomen dark brown, provided with erect white setae.

Habitat.—North America, without exact data. *Holotype,* ♂, Labelled "Smiths, Amer. bor., 1867." *Paratopotypes,* 2 ♂♂.

Type in the collection of the Vienna Museum.

Compared with *Hexatoma megacera* (Osten Sacken), the present species is seen to be a large light gray fly with heavier body and stouter legs. The short antennae contrast strikingly with the condition found in *megacera* where the organ is longer than the entire body. The fly is more closely allied to the larger *H. burmeisteri* (Loew) of Europe but is distinct from any of the numerous European species. It is unfortunate that the exact locality is in doubt since the species is of more than ordinary interest. Dr. Zerny suggests that the "Smiths" of the locality label may refer to the collector (as Smithson) rather than to any locality.

Dicranota currani sp. n.

♂. Length about 5 mm.; wing 7-7.3 mm.

Closely related to *D. divaricata* Alexander, from which it differs as follows:

Mesonotal praescutum yellowish gray with three very conspicuous dark brown stripes, the broad median stripe entire except near the suture. Legs stouter, especially the middle legs, brownish black with the exception of the restricted femoral bases. Abdomen uniformly dark brown, including the hypopygium. Male hypopygium with the ventral interbase a long flattened blade, the apex subacute to acute, the mesal or inner edge nearly straight, the lateral or outer edge gently curved to the apex. Lateral arms of gonapophyses much broader and stouter than in *D. divaricata.*

Habitat.—Ontario, Quebec. *Holotype:* ♂, Ottawa, Ontario, May 9, 1923 *(C. H. Curran). Allotype,* ♀, Hull, Quebec, May 9, 1924 *(C. H. Curran). Paratopotypes,* 8 ♂♂; *paratypes,* 23 ♂♀, with the allotype.

Type in the Canadian National Collection.

This interesting *Dicranota* is named in honor of the collector, Mr. C. Howard Curran, to whom I am indebted for many favors in the past.

Rhaphidolabis (Rhaphidolabis) avis sp. n.

Very similar to *R. (R.) tenuipes* Osten Sacken, from which it differs strikingly in the structure of the male hypopygium.

Median lobe of ninth tergite slender, as in the *tenuipes* group. Dorsal interbase produced into a slender chitinized rod, at about two-thirds the length narrowed and bent at a right angle to the acute tip. Ventral interbase in its general contour suggesting the body of a bird, the flattened body portion with about eight delicate setae, the head produced mesad into a strong chitinized beak, the region of the frons with a smaller squat spine. Dististyle a long flattened blade that narrows gradually to the subacute apex.

Habitat.—Virginia. *Holotype:* ♂, Dead Run, Fairfax County, September 27, 1914 *(R. C. Shannon).*

A New Species of the Genus Condidea (Diptera, Syrphidae).

By Raymond C. Osburn, Ohio State University, Columbus, Ohio.

The genus *Condidea* was erected in 1907 by Coquillett (Canadian Entomologist, XXXIX, p. 75) to include only his new species *Condidea lata,* which thereby became the genotype. Although *Condidea* is related rather closely to *Sericomyia* Meigen, it has been generally accepted as a distinct genus. *C. lata* has been taken a number of times and shows a considerable range in distribution, from the New England states to Wisconsin, but it has nowhere been reported as common. Johnson (Fauna of New England, 15, Occasional Papers of the Boston Soc. Nat. Hist., VII, Feb., 1925) has placed the *Sericomyia sexfasciata* of Walker, also a rare species, in the genus *Condidea.* Both of these species are probably quite northern in their distribution. In consideration of these facts, it will be of interest to describe and record another species of *Condidea.* This is also northern, taken at Fargo, North Dakota, and thus far is known from a single female. The specimen has been in my hands for a number of years, but I have delayed describing it in the hope that more material might come to hand.

Condidea transversa n. sp.

General characters very similar to those selected by Coquillett in *C. lata* for defining the genus, but differing in a number of ways, especially in the character of the abdominal markings.