

A LIST OF THE CRANE-FLIES OF QUEBEC (DIPTERA.) I\*

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The basic list of the Tipulidae of Quebec is that of Winn and Beaulieu<sup>1</sup>, in which a total of two Ptychopteridae, two Trichoceridae and eighty-seven Tipulidae are recorded from the Province. Certain of the records in this list are erroneous, a few others are synonyms, while still additional species are placed in incorrect genera. In the present preliminary list, I have endeavoured to

\*—Contribution from the Entomological Laboratory, Massachusetts Agricultural College.  
1.—Winn, Albert, and Beaulieu, Germain. A preliminary list of the insects of the province of Quebec. Part II. Diptera. 7th Rept. Quebec Society for the Protection of Plants, Suppl., 108-159; 1915.

collect and correct the various published records and to add the data that have become available as a result of the identification of collections in recent years. The two largest sources of the latter are the series of Tipulidae taken in the Gaspé Peninsula by Dr. G. C. Crampton (south shore, Matapédia to Gaspé, June 26-July 1, 1928; north shore, Gaspé to Métis-sur-mer, July 1-5, 1928) and the extensive collections of the Canadian National Museum, kindly submitted for identification by Dr. James McDunnough and Mr. C. Howard Curran.

Collectors of material or authorities for records are indicated by their initials, as follows:

AA=A. Arcaud	FPI=F. P. Ide
ADB=A. D. Baker	HFL=H. F. Lewis
GB=Germain Beaulieu	JM=J. McDunnough
JIB=J. I. Beaulne	RO=R. Ozburn
GC=George Chagnon	CEP=C. E. Petch
GCC=G. Chester Crampton	WAR=W. A. Ross
CHC=C. Howard Curran	WSR=W. S. Ryan
RNC=R. N. Chrystal	OS=C. R. Osten Sacken
TWF=T. W. Fyles	GSW=G. S. Walley
AG=Arthur Gibson	AFW=A. F. Winn
GHH=G. H. Hammond	FWW=F. W. Waugh
CBH=C. B. Hutchings	VDW=F. Van der Wulp

## TANYDERIDAE

*Protoplasa fitchii* (O.S.) River Pabos, south shore of Gaspé, June 26-July 1, 28 (GCC). The very unusual occurrence of this rare fly has been discussed by Crampton (Can. Ent., 61: 70; 1929).

## PTYCHOPTERIDAE

*Ptychoptera rufocincta* O.S. Montreal (GB); Rigaud, June 26, 06 (GB).  
*Bittacomorpha clavipes* (Fabr.) Montreal (GB); St. Hilaire, July; Levis, July (TWF); Cap a l'Aigle, July (AFW).

## TRICHO CERIDAE

*Trichocera maculipennis* (Fabr.) Montreal, Aug. (GB); Johnson det.  
*Trichocera regelationis* (Linn.) Montreal, Sept. (GB); Johnson det.

## TIPULIDAE

## SUB-FAMILY TIPULINAE

(*Tanyptera atrata* Linn. Identity entirely problematical) Quebec (vdW); St. Rose, July (GB).

*Tanyptera fumipennis* (O.S.) Bergerville (TWF); Montreal, June (GB).

(*Tanyptera dorsalis* Walk. Identity problematical). St. Johns Co., Aug. (GC).

*Tanyptera frontalis* (O.S.). Wakefield, June 14, 26 (FPI).

*Tanyptera topazina* (O.S.). Montreal, (GC); Wakefield, June 14, 26 (FPI).

*Ctenophora apicata* O.S. Montreal, June (GB & GC).

*Prionocera fuscipennis* (Lw.) (includes also *Tipula illustris* Doane of the W. B. List). Montreal, July 5, 02 (GB); Rigaud, June (GC).

*Tipula abdominalis* (Say). Gatineau, July (GB); Hull, June (JIB); Lac Masson, July 15, 09 (AA).

- Tipula angulata* Lw. Aylmer, June (JIB); Montreal, June (GB); Hemmingford, June 2, 23 (ADB); Rouville.
- Tipula angustipennis* Lw. Montreal, June (GC); Rigaud, June (GB); Chelsea, May, June (TWF); Hull, June (JIB); Lachine, June 11, 26 (FPI); Aylmer, May 23-24, 19 (CBH); Hemmingford, May 27, 25 (GHH), June 2, 23 (ADB).
- Tipula apicalis* Lw. Chelsea, July 2, 12 (AG).
- Tipula bella* Lw. Montreal, (GC); St. Johns Co., July, Aug., (GC); Rougemont, Aug. 12, 25 (GHH); Kirks Ferry, Aug. 22, 24 (FPI); Aylmer, June 3, 24 (CHC).
- Tipula bicornis* Forbes. Montreal, June (GB); Rigaud, June (GB); Newaygo, June (AFW); Sherbrooke, July 2, 16; Megantic, July 6, 16.
- Tipula caloptera* Lw. Wakefield, July 27, 26 (FPI).
- Tipula cincticornis* Doane (includes *mingwe* Alex.). Montreal, Aug. (GB); Aylmer, Aug. 14, 19 (CBH); Kingsmere, July 23, 19 (RNC).
- Tipula collaris* Say (as *Pachyrhina* in the W. B. List). Montreal, June (GB).
- Tipula cunctans* Say. Aylmer, Sept. 21-28, 24 (CHC).
- Tipula decora* Doane. Montreal (GC).
- Tipula dejecta* Walk. Montreal, Aug. (GB), a doubtful record; Broadview May 15, 25 (GSW); May 27, 25 (FPI); Hemmingford, May 26, 25 (GHH); Chelsea, May 30, 23 (RO); Aylmer, May 25, 24, May 10, 25 (CHC); Hull, May 23, 25 (CHC).
- Tipula eluta* Lw. Gatineau, July (GB); Aylmer, June (JIB); Hull, July 28, 20 (JM); Gaspé, north shore, July 1-5, 28 (GCC).
- Tipula fragilis* Lw. Aylmer, Sept. 28, 24 (CHC).

#### ***Tipula gaspensis* sp. n.**

Belongs to the *hebes* group; size unusually small (wing, under 12 mm.); antennae ( $\delta$ ) of moderate length, approximately equal to the combined head and thorax; flagellum dark brown; wings with the dark pattern much reduced; male hypopygium with the eighth sternite broad, its caudal margin not conspicuously emarginate, the surface with erect yellow setae.

*Male*.—Length, about 9-10 mm.; wing, 10.5-11.5 mm.; antennae, about 4-4.5 mm.

*Female*.—Length, about 13-13.5 mm.; wing, 11.5 mm.

Described from alcoholic specimens.

Frontal prolongation of head yellow, the nasus conspicuous, dark brown; palpi chiefly pale, the basal three segments ringed with brown. Antennae (male) of moderate length, if bent backward extending about to the base of the abdomen; scape yellow, the flagellum brownish black, the basal enlargements of the segments a little darker than the remainder. Head brownish gray, the frons and lower surface more yellowish.

Pronotum yellow, variegated with dark brown. Mesonotal praescutum pale with confluent dark stripes, the scutal lobes extensively darkened; scutellum pale, the median segment with a narrow dusky median line; postnotum pale, variegated with brown. Pleura pale, with longitudinal dark brown stripes on the

propleura, anepisternum and ventral sternopleurite. Halteres pale, the base of the knobs darker. Legs with the coxae and trochanters pale; femora yellow, the tips narrowly dark brown; tibiae obscure yellow, the tips passing into brown; tarsi brownish black. Wings with the dark pattern very reduced, the ground-color suffused and only vaguely variegated with paler, including ante- and post-stigmal spots, oblitative areas along the cord, a spot before the outer end of cell *M*, adjoining vein *Cu* and a similar area at near one-third the length of cell *Cu*; stigma dark brown.

Abdomen obscure yellow, both sternites and tergites with a narrow brownish black median stripe, the lateral tergal stripe indicated only on the subterminal segments; outer segments and most of hypopygium black. In the female, the abdominal tergites beyond the second are distinctly trivittate; subgenital segment and sternal valves of ovipositor blackened. Male hypopygium with the eighth sternite broad, the caudal margin truncate to slightly convex; surface laterally with conspicuous grooves that converge anteriorly, these fringed with erect yellow setae; each caudo-lateral angle of sternite with a small yellowish lobule. Lateral appendage with three processes, the lower one very long and slender, pale, pendulous; middle process blackened, claw-like; dorsal process expanded, the margin obtuse and blackened.

*Habitat*.—Quebec (Gaspé).

*Holotype*, male, south shore, June 26—July 1, 1928 (G. C. Crampton).

*Allotopotype*, female.

*Paratopotypes*, several of both sexes; 1 ♂, north shore, July 1-5, 1928 (G. C. Crampton). Types in author's collection.

By Dietz's key to the species of the *hebes* group (Trans. American Ent. Soc., 40: 346-347; 1914), the present species runs to couplet 14, disagreeing with both included species in the small size, length of the antennae, and in genitalic characters.

*Tipula grata* Lw. Aylmer, June, July (JIB).

*Tipula hebes* Lw. Montreal, June (GB); Ottawa Golf Club, Aug. 14, 24 (FPI); Rigaud, June (GB); Hull, June (JIB); Hemmingford, Aug. 14, 25 (GHH); Aylmer, June 27, 24 (CHC).

*Tipula hermannia* Alex. Wakefield, July 27, 26 (FPI); Covey Hill, June 23, 24 (GSW); Megantic, July 6, 16.

*Tipula hinei* Alex. Gaspé, north shore, July 1-5, 28 (GCC).

*Tipula inermis* Doane (see also *T. umbrosa*). Montreal, June (GC); Gatineau, July (GB).

*Tipula iroquois* Alex. (*cincta* Lw., of the W. B. List). Levis (TWF).

*Tipula labradorica* Alex. Abitibi region, northern Quebec, July 16 (Dr. Cook); Piashte Bai, June 16, 21 (HFL).

*Tipula latipennis* Lw. (*ottawaensis* Dietz, of the W. B. List). Aylmer, (JIB); Hemmingford, July 2-Aug. 2, 25 (GHH); Gaspé, north shore, July 1-5, 28 (GCC).

*Tipula megaura* Doane. Aylmer, June (JIB).

*Tipula monticola* Alex. Aylmer, June 13, 26 (CHC); Cascade, June 12, 23 (RO).



- Tipula nobilis* Lw. Gaspé, south shore, June 26-July 1, 28 (GCC).
- Tipula parshleyi* Alex. Aylmer, June 3, 25 (CBH); Gaspé, north shore, July 1-5, 28 (GCC).
- Tipula penobscot* Alex. Gaspé, both shores, June 26-July 5, 28 (GCC).
- (*Tipula retorta* Wulp. Recorded from the Province of Quebec by van der Wulp; identity problematical).
- Tipula sayi* Alex. (*costalis* Say, of the W. B. List). Montreal (GC); Gatineau, July (GB); Hull, July (GB), July 28, 20 (JM); Rougemont, Aug. 12, 25 (GHH); Kirk's Ferry, Aug. 5, 25 (GSW).
- Tipula senega* Alex. (*pallida* Lw., of the W. B. List). Newaygo, June (AFW); Wakefield, June 14, 26 (FPI); Megantic, June 20, 23 (CHC); Sherbrooke, July 2, 16.
- Tipula sertis* Lw. Montreal (GC); Rouville Co., (GC); Rigaud, June (GB); Aylmer, May 26, 19-June 5, 20 (CBH); Chelsea, June 17, 16 (AG); Bradore, July 15, 21 (HFL).
- Tipula sulphurea* Doane. Montreal, July (GB), May 26, 01 (GC); Gaspé, north shore, July 1-5, 28 (GCC).
- Tipula tephrocephala* Lw. Aylmer, June (JIB); Hull, May 21, 04; Gaspé, south shore, June 26-July 1, 28 (GCC).
- Tipula trivittata* Say. Quebec (TWF); Montreal, June (GB); Ste. Anne, June 24, 25 (FPI); Gatineau, July (GB); Lachine, June 11, 26 (FPI); Aylmer, June 12, 22 (CBH), June 22, 24 (CHC).
- Tipula ultima* Alex. (*flavicans* Fabr., of the W. B. List). Montreal, Sept. (GC); St. Johns Co., Sept. (GB); Hull, Sept. 25, 23 (CHC); Aylmer, Sept. 18, 23 (CBH); Jordan, Sept. 16, 14 (WAR).
- Tipula umbrosa* Lw. (probably includes *inermis* Doane of the W. B. List). Kingsmere, Aug. 3, 19 (RNC); Kirk's Ferry, Aug. 22, 24 (FPI); Abitibi Region, northern Quebec, July 1916 (Dr. Cook).
- Tipula unimaculata* (Lw.) Fort Coulonge, Aug. 20, 17 (JIB).
- Tipula valida* Lw. (includes also *calva* Doane of the W. B. List). Rigaud, June (GB); Hull, June 20, 03; Aylmer, June (JIB), June 15, 25 (CHC).
- (*Tipula vitrea* Wulp. Recorded from the Province of Quebec by van der Wulp; identity problematical).
- Tipula youngi* Alex. (*macrolabis* Lw., of the W. B. List). Aylmer, June (JIB); Seven Islands, Aug. 9, 24 (FWW).
- Nephrotoma eucera* (Lw.) Montreal, June (GB); Hull, June. (JIB); Laurentian Mts., June (JIB).
- Nephrotoma ferruginea* (Fabr.) Quebec, July (TWF); Montreal, Aug. (GC); Gatineau, July (GB); Hull, July (JIB); Rougemont, Aug. 12, 25 (GHH); Hemmingford, July 29, 23 (CEP); Gaspé, north shore, July 1-5, 28 (GCC).
- Nephrotoma incurva* (Lw.) Montreal, June (GB); Aylmer, June, July (JIB); Hull, June 10, 23 (CHC).
- (*Nephrotoma lineata* (Scopoli). All American records erroneous).
- Nephrotoma lugens* (Lw.) Quebec (TWF); Montreal, June (AFW), July

5, 26 (WSR); Hemmingford, July 2, 25 (GHH); Covey Hill, June 28, 24 (GSW); Stoke Center, June 26, 12; Gaspé, south shore, June 26-July 1, 28 (GCC).

*Nephrotoma macrocera* (Say). Ft. Coulonge, July 9, 17 (JIB).

*Nephrotoma occipitalis* (Lw.) Coaticook, Sept. (JIB).

*Nephrotoma sodalis* (Lw.) Montreal, Aug. (GB); Hull, July (JIB).

*Nephrotoma tenuis* (Lw.) St. Johns Co., Aug. (GC); Chambly Co., (GB).

*Nephrotoma xanthostigma* (Lw.) Montreal, Aug. (GB).

*Dolichopeza americana* Ndm. Gaspé, north shore, July 1-5, 28 (GCC).

*Oropeza albipes* Johns. Montreal, June (GB).

*Oropeza obscura* Johns. Rigaud, June (GB).

*Oropeza venosa* Johns. Gaspé, north shore, July 1-5, 28 (GCC).

#### Subfamily CYLINDROTOMINAE

*Liogma nodicornis* (O.S.) Montreal, June (GC) St. Johns Co., June, July 20, 01 (GB); Stoke Center, June (AFW); Megantic, July 6, 16; Meach Lake, June 21, 16; Gaspé, both shores, June 26-July 5, 28 (GCC).

*Phalacrocerca neoxena* Alex. Hemmingford, June 27, 23 (ADB).

#### Subfamily LIMONIINAE

##### Limoniini

*Limonia (Limonia) cinctipes* (Say). Montreal, May (GB); Hemmingford, July 30, 25 (GHH); Aylmer, Aug. 10, 24 (CHC); Gaspé, north shore, July 1-5, 28 (GCC).

*Limonia (Limonia) hudsonica* (O.S.) Gaspé, north shore, July 1-5, 28 (GCC).

*Limonia (Limonia) indigena* (O.S.) Sherbrooke Co., May, June (GB); Vaudreuil Co., Apr. 30, 02 (GB).

*Limonia (Limonia) solitaria* (O.S.) Ottawa Golf Club, Aug. 14, 24 (GSW); St. Hilaire, July (GC); Gatineau, July (GB); Hull, July (JIB); Rouville; Kirk's Ferry, Aug. 5, 25 (GSW), Aug. 22, 24 (FPI); Aylmer, Aug. 28, 24 (FPI); Gaspé, north shore, July 1-5, 28 (GCC).

*Limonia (Limonia) tristigma* (O.S.) Kirk's Ferry, Aug. 5, 25 (GSW).

*Limonia (Dicranomyia) brevivena* (O.S.) Aylmer, Sept. 21, 24 (CHC).

*(Limonia (Dicranomyia) distans* O.S. of the W. B. List erroneous).

*Limonia (Dicranomyia) immodesta* (O.S.) Montreal, Sept. (GB); Rigaud, June (GB); Sherbrooke, July 2, 16; Megantic, July 6-7, 16.

*Limonia (Dicranomyia) gladiator* (O.S.) Aylmer, Sept. 14, 24 (CHC).

*Limonia (Dicranomyia) humidicola* (O.S.) (*badia* of authors, *nec* Walk.) Gaspé, both shores, June 26-July 5, 28 (GCC).

*Limonia (Dicranomyia) longipennis* (Schumm.) Province of Quebec (O.S.).

*Limonia (Dicranomyia) liberta* (O.S.) Montreal, June (GC); Rigaud, June