



NOTE

New provincial records of Tabanidae (Diptera) from Atlantic Canada, with a first regional record of *Chrysops macquarti* from New Brunswick

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The composition and distributions of tabanids occurring in Maritime Canada are relatively well-known (see Teskey 1990; Marshall 2007; Thomas and Marshall 2009; Thomas 2011). However, some species have remained undetected until very recently. From New Brunswick in particular, field studies by several surveyors have yielded significant and new records of tabanids (Thomas 2018). Here we further add to the regional knowledge of this charismatic group and include a new record for the Maritimes and two additional provincial records.

***Chrysops macquarti* Philip, 1961**

NEW BRUNSWICK: Sunbury County: 5 CDSB Gagetown, near Geary, 6.7 km south of junction of Broad St. and NB Route 7 (45.6833°N, 66.4856°W), 15 July 2015, J.H. Lewis, collected by aerial net along with *Chrysops excitans* Walker, 1850, *Chrysops lateralis* Wiedemann, 1828, *Chrysops shermani* Hine, 1907, *Chrysops univittatus* Macquart, 1855, *Chrysops vittatus* Wiedemann, 1821 in disturbed, mixed forest habitat with artificial ponds on military training grounds (1 female, NBM-068274, Figure 1).

In Canada, *Chrysops macquarti* has been recorded from southern Ontario (Teskey 1990; Thomas and Marshall 2009). The species ranges over most of eastern USA (Teskey 1990), and has been taken from several localities in central and southern Maine where it is locally distributed (Pechuman and Dearborn 1996). The local nature of *Chrysops macquarti* was noted by Teskey (1990), who writes: "Adults seem to be locally abundant. In one such site, near Erin, Ont., a spring-fed seepage slope where larvae had been found, flies were abundant and ferocious; a few hundred metres away there were none". The collection site is within a 1100 square kilometer restricted access military training area (5th Canadian Division Support Base Gagetown); a fact which, coupled with the species' local distribution, may explain why it went undetected by previous surveyors. Further field studies at or near the 5 CDSB Gagetown locality may turn up further specimens of this species.

***Chrysops aberrans* Philip, 1941**

NOVA SCOTIA: Queens County: Cameron Lake, northwest arm (44.3294°N, 64.95428°W), 26 July 2013 – 8 August 2013, M. Brison-Brown, malaise trap (1 female, JK06624, NSM).

Chrysops aberrans has been recorded from southern Quebec and Ontario and south-western to south-central parts of New Brunswick (Teskey 1990; Thomas and Marshall 2009). We have encountered this species commonly where it occurs in New Brunswick.

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Figure 1. Dorsal view of *Chrysops macquarti* (NBM-068274) collected 15 July 2015 at 5 CDSB Gagetown, near Geary, 6.7 km south of junction of Broad St. and NB Route 7 (45.6833°N, 66.4856°W).



Hybomitra illota (Osten Sacken, 1876)

NOVA SCOTIA: Annapolis County: 1 km east of Thomas Cove (44.539174°N, 65.227067°W), 30 May 2006, 31 May 2006, 2 June 2006, K.E. Marshall, modified Manitoba trap; 0.7 km northeast of Allison Lake (44.57488°N, 65.267688°W), 31 May 2006, 2 June 2006, K.E. Marshall, modified Manitoba trap; 0.8 km southwest of Upper Hoyt Lake (44.616319°N, 65.243968°W), 22 June 2006, 23 June 2006, 28 June 2006, K.E. Marshall, modified Manitoba trap; **Cumberland County:** Goose Lake, 5 km east of Jolicure (45.9509°N, 64.143°W), 6 July 2011, J.D. Klymko, Malaise trap (2 females, JKO1918 and JKO1931, NSM); **Queens County:** 0.5 km south of bridge over Peskowsk Brook (44.279026°N, 65.190132°W), 12 June 2006, 13 June 2006, K.E. Marshall, modified Manitoba trap; large bog 0.8 km northeast of Brophy Lake (44.18694°N, 65.245962°W), 16 June 2006, 18 June 2006, K.E. Marshall, modified Manitoba trap; Cameron Lake, northwest arm (44.3294°N, 64.95428°W), 5 June 2013 – 12 June 2013, M. Brunel, Malaise trap (1 female, JKO6760, NSM).

A wide-ranging species, *Hybomitra illota* has been recorded from every Canadian province and territory except for Nova Scotia and Newfoundland and Labrador (Teskey 1990; Thomas 2011). The 30+ collection records of *Hybomitra illota* presented here span several years and counties, suggesting that this species is similarly established and widespread in Nova Scotia as it is in neighboring provinces.

Compared with most other insect families, the composition and distribution of Tabanidae in Atlantic Canada is fairly well known. Nevertheless, it is clear from recent field studies that some species, often those that are uncommonly collected or local in distribution, have remained undetected. Future collecting efforts, particularly those centered around the 5 CDSB Gagetown locality and other poorly sampled areas and habitats, should prove lucrative in enhancing the knowledge of the tabanid fauna of the Maritime provinces.

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