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Notes on Canadian *Ablabesmyia* Johannsen, with keys to known Nearctic immatures of the genus (Diptera: Chironomidae)

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Abstract

The immatures and males of *A.* (*Karelia*) *illinoensis* (Malloch), *A.* (*K.*) *philosphagnos* Beck *et* Beck, *A.* (*K.*) *pulchripennis* (Lundbeck), *A.* (*A.*) *mallochi* (Walley), *A.* (*A.*) *aspera* Roback, *A.* (*A.*) *basalis* (Walley) and *A.* (*Asayia*) *annulata* (Say) are redescribed and/or illustrated. *A.* (*A.*) *basalis* (Walley) is regarded as a valid species separate from Nearctic *A.* (*A.*) *monilis auct nec* (L.). Seven species of *Ablabesmyia* were found from Lake Winnipeg, Manitoba, 3 from Marion Lake, British Columbia while other samples from Alberta to Ontario contained no more than one species. Keys are given to Nearctic immatures of *Ablabesmyia*. The distribution of *Ablabesmyia* in Lake Winnipeg is mapped and discussed. The separation of larval instars is shown approximately to follow Dyar's rule.

Key words: Chironomidae, *Ablabesmyia*, keys to immatures, Lake Winnipeg

Introduction

The tanypod genus *Ablabesmyia* Johannsen contains 4 subgenera, *Ablabesmyia s. str.*, *Karelia* Roback, *Asayia* Roback (Nearctic and Neotropical) and *Sartayia* Roback (Neotropical). There are at least 18 Nearctic species, but apparently only 6 Palaearctic species (Sæther & Spies 2004, Kobayashi & Kubota 2002). The immatures are known of 16 Nearctic species. Roback (1985) gives a key to most species. However, he with some doubt synonymize *A.* (*A.*) *basalis* (Walley) with *A.* (*A.*). *monilis* auct. nec (L.) while the present material indicates differences in all stages. Also some of the present material does not fit exactly his descriptions. While he states that all larvae of the subgenus *Karelia* Roback have only two segments in the maxillary palp, a partly sclerotized basal segment is present at least in some *A. (Karelia) philosphagnos* Beck *et* Beck and some *A. (Karelia) illinoensis* (Malloch). Epler (2001) gives a key to the larvae of the southeastern United States and outline some of the problems in identification. Bolton (2007) gives a key to larvae of Ohio.

Larvae of *Ablabesmyia* live in a wide variety of lotic and lentic waters including bog pools, ponds, littoral of lakes and in rivers and streams. One species, *A. janta* (Roback), is known to live symbiotically in unionid mussels. The larvae are predators attacking chironomids, oligochaetes and to a lesser extent smaller swimming animals such as Cladocera. Dead prey, diatoms, filamentous algae and detritus may be eaten when animal prey is scarce. The larvae live mainly among plants and on sediments containing organic material and are nearly absent from fully mineral water bottoms (Vallenduuk & Moller Pillot 2007). According to Beck (1977) the different species are found in eutrophic to mesotrophic as well as dystrophic waters.

Methods

During the open water season of 1969 in June to late in October the benthos of Lake Winnipeg was sampled at up to 58 stations (Chang *et al*. 1993). Light trappings were conducted from the ship in 1969 and at the shore in 1971 to augment the benthic fauna collections (Chang *et al.* 1994). Samples were sieved through a 200 µm mesh sieve when possible but when sandy substrates were encountered a 400 µm sieve were used. All samples were conserved

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