



## Notes on some tanypods from Lake Winnipeg, Manitoba, Canada (Diptera: Chironomidae)

OLE A. SÆTHER

The Natural History Museum, Bergen Museum, University of Bergen, N-5007 Bergen, Norway. E-mail: ole.sather@zmb.uib.no

### Abstract

The Tanypodinae from Lake Winnipeg, Manitoba, Canada are listed and taxonomic and ecological notes given. The males of *Paramerina fragilis* (Walley) and *Helopelopia pilicaudata* (Walley), and the immatures of *Telopelopia okoboji* (Walley) are redescribed. The larvae of cf. *Conchapelopia currani* (Walley) and cf. *Helopelopia pilicaudata* are described.

**Key words:** Chironomidae, Tanypodinae, Lake Winnipeg

### Introduction

A limnological baseline survey of Lake Winnipeg were conducted in 1969 by the staff of the Freshwater Institute, Fisheries Research Board of Canada, in order to study the chemical limnology, phytoplankton, primary production, zooplankton and zoobenthos. The lake which is a remnant of Glacial Lake Agassiz has a surface area of 23,750 km<sup>2</sup>, mean depth of 10.6 m, maximum depth of 32 m, Secchi disc visibility of 5–50 cm in the south basin and 1–3 m in the north basin, is essentially isothermal during the open water season and receives high nutrient loading from the rivers which enters it. Brunskill (1973) reported that 5,000 metric tons of phosphorous and 62,000 tons of nitrogen were being added annually to the lake over the period 1968–1970. At least in the south basin, however, primary production appeared to be limited by turbidity rather than nutrient supply. Three basins are delineated by the shape of the lake (Fig. 1). The South Basin is shallower, with a mean depth of 9.7 m, than the larger North Basin (mean depth 13.3 m) and the two basins are separated by a Narrows section (mean depth 7.2 m) subject to strong currents associated with seiches.

The results from the benthic studies of the chironomids is presented in Chang *et al.* (1993), while the results from light trap collections, emergence traps and rearings are given in Chang *et al.* (1994). The chironomid indicator communities in different areas of Lake Winnipeg are shown in Sæther (1979 fig. 3) (*Chironomus plumosus* f. *semireductus* Lenz has since been shown to be *Chironomus entis* Shobanov).

The chironomids of Lake Winnipeg have been included in several revisions and other papers with notes on the tanypod genera *Procladius* Skuse and *Ablabesmyia* Johannsen as the most recent ones (Sæther 2010, 2011). The only common tanypod larvae in the bottom samples were of *Procladius* (*Psilotanypus*) *bellus* (Loew), *P.* (*Holotanypus*) *culiciformis* (L.), *P.* (*H.*) *denticulatus* Sublette, *P.* (*H.*) *freemani* Sublette, *P.* (*H.*) *sublettei* Roback and *Ablabesmyia* (*Asayia*) *annulata* (Say). A few larvae belonging to other tanypod genera were found in low numbers (Fig. 1).

### 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). The light traps also attracted lotic species from nearby streams as well as terrestrial species.