

Identification Key to Campbell Island Freshwater Chironomidae Larvae

McMurtrie, Sinton & Winterbourn (2014)



Chironomus subantarcticus Sublette & Wirth, 1980

INFORMATION SHEET

Classification

Class: Insecta
Order: Diptera
Family: Chironomidae
Subfamily: Chironominae
Tribe: Chironomini
Genus: *Chironomus*
Specific name: *subantarcticus*
Common name: midge; bloodworm (the red larva)

vertically striated; premandibles bifid; mandibles dark with basal striations (Fig. 3).

- Antennae 5-segmented (Fig. 4); Lauterborn organs on the distal end of antennal segment 2; blade extending beyond the base of segment 4 (Fig. 5); ring organ about one third from base of segment 1.
- Procercus with a short setal brush (Fig. 6).
- Posterior ventral tubules absent (Fig. 6).

Distinguishing Features

- Body red in life, whitish-grey in ethanol (Fig. 1); head grey-brown; two eyespots on each side spaced well apart vertically (Fig. 2); body length up to about 17 mm.
- Mentum broad with 15 teeth; ventromental plates fan-like,

Comments

This is the largest chironomid found on Campbell Island. The larva is typical of the genus and very similar to the larvae of New Zealand *Chironomus* species. *C. subantarcticus* also occurs on the Auckland Islands where a second species, *C. antipodensis* is also found. In contrast to *C. subantarcticus*, the larva of *C. antipodensis* has one small pair of ventral tubules.



FIGURE 1. *Chironomus subantarcticus* whole animal



FIGURE 2. *Chironomus subantarcticus* head

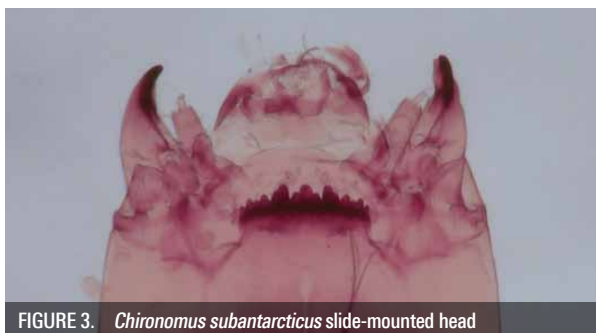


FIGURE 3. *Chironomus subantarcticus* slide-mounted head

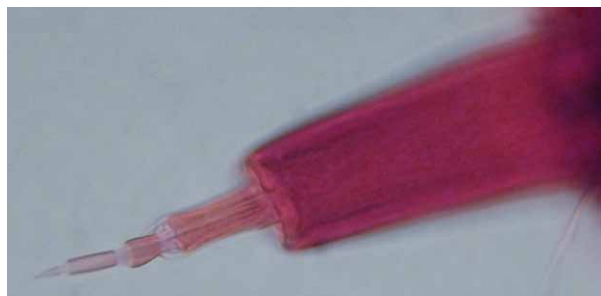


FIGURE 4. *Chironomus subantarcticus* antenna

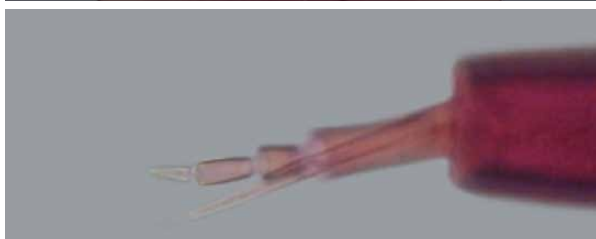


FIGURE 5. *Chironomus subantarcticus* antenna with blade

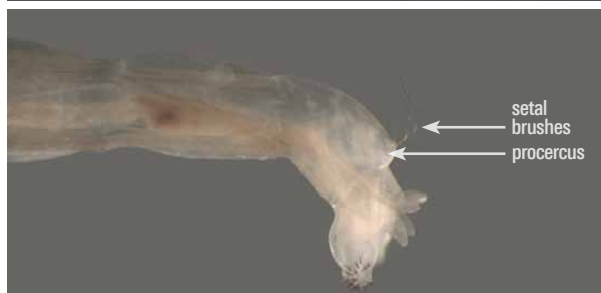
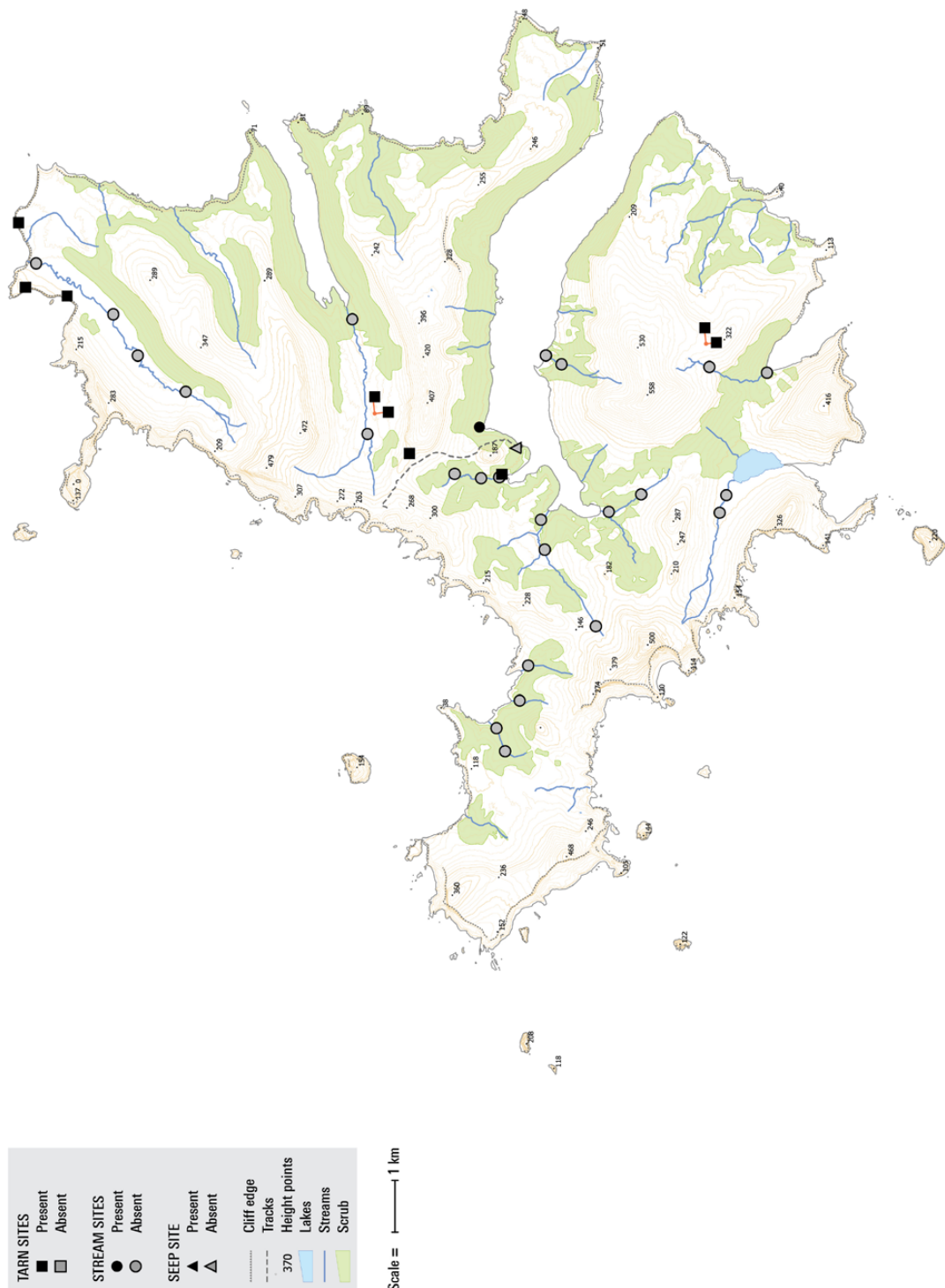


FIGURE 6. *Chironomus subantarcticus* posterior

Biogeographic Information

Presence/absence on streams, tarns, and a seepage sampled on Campbell Island.

Distribution map based on surveys undertaken by EOS Ecology during the 2010–11 Campbell Island Bicentennial Expedition (www.campbellisland.org.nz). Distribution data © EOS Ecology, 2013.



New Zealand Transverse Mercator
 New Zealand Geodetic 2000
 Created on: 3 December 2013
 Created by: Kirsty Brennan

Chironomus subantarcticus Distribution
CAMPBELL ISLAND
 December 2010–February 2011

Produced by: EOS Ecology
 Project name: Campbell Island Bicentennial Expedition
 Project no.: 06033-EOS01
 Project lead: Shelley McMurtrie
www.eosecology.co.nz



Original Description

The following is a direct excerpt of the larval stage of *C. subantarcticus* from Sublette & Wirth (1980), including figures:

Larva (provisionally associated). Fourth instar. Only weakly differentiated from *C. antipodensis*. Ventral head length 0.331-0.382 mm (3). Head and mouthparts indistinguishable from *C. antipodensis* [Head capsule yellowish brown except for dark mandible tips, labial plate, and occipital ring... Labial plate Fig. 36I... Mandible, Fig. 37D and 39B. Ventral labral structures, Fig. 37E. Maxilla, Fig. 37F; detail of structures, Fig. 38A-D. Hypopharynx, Fig. 38E]. Antenna (Fig. 39G) with 3rd and 4th segments in the proportion 7:11 (cf. 10:12 in *C. antipodensis*). Ventral tubuli not observable on the slide mounted material.

Third instar. Similar to 4th instar. Ventral head length 0.204-0.214 mm (2). Antenna, Fig. 39H. Ventral tubuli apparently lacking.

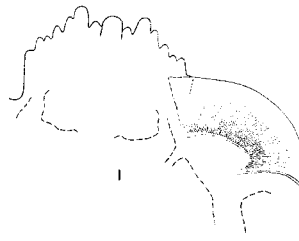


FIGURE 36I.

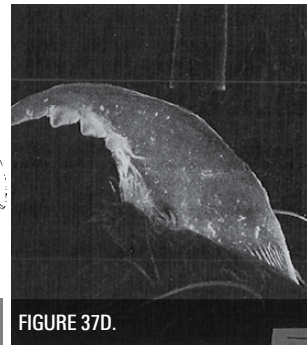


FIGURE 37D.

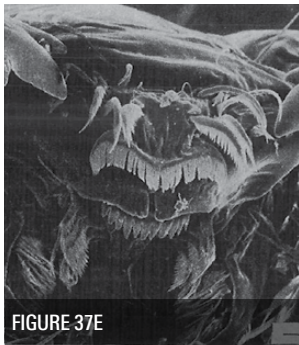


FIGURE 37E.



FIGURE 37F.



FIGURE 38A.

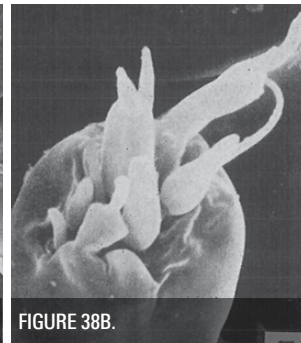


FIGURE 38B.

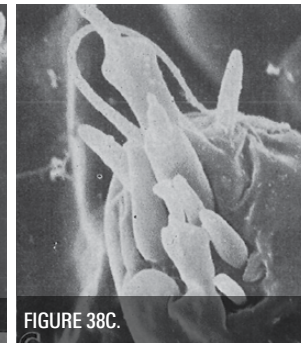


FIGURE 38C.

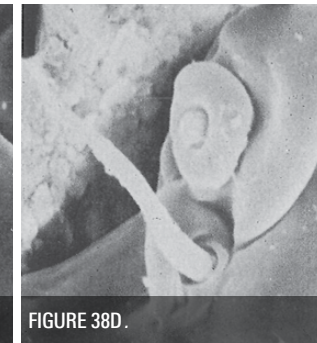


FIGURE 38D.

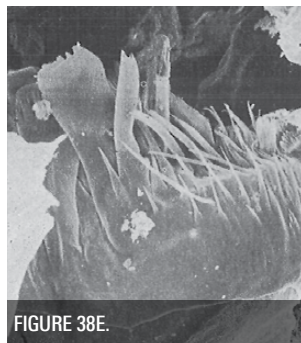


FIGURE 38E.

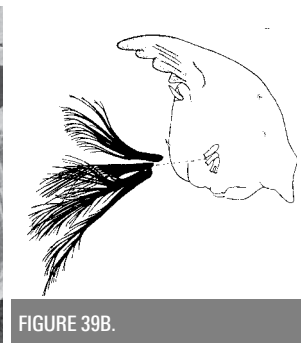


FIGURE 39B.

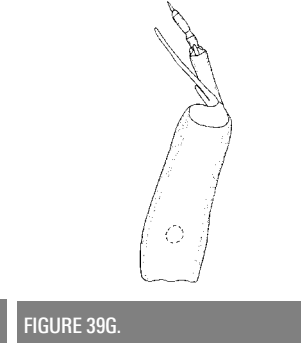


FIGURE 39G.

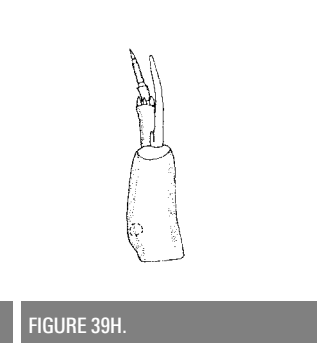


FIGURE 39H.

References & Further Reading

Sublette, J. E. & Wirth, W. W. 1980. The Chironomidae and Ceratopogonidae (Diptera) of New Zealand's subantarctic islands. *New Zealand Journal of Zoology* 7: 299–378.

How to Cite this Information Sheet

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