NOTE ON THE FEEDING HABITS OF CLINOTANYPUS PINGUIS (LOEW) (DIPTERA: CHIRONOMIDAE : TANYPODINAE)¹

Selwyn S. Roback²

In my 1969 paper on the feeding of the Tanypodinae, it was presumed that the Coelotanypodini (*Coelotanypus*, *Clinotanypus*) fed primarily on naid and tubificid worms. This was on the basis of oligochaete crochet setae being found in the digestive tracts of mounted specimens. This presumption was recently confirmed when a mature larvae of *C. pinguis*, in the process of swallowing an oligochaete, was collected and preserved.

Figure 1. shows the *Clinotanypus* larva with the partially ingested worm. As can be seen in the illustration, the worm is considerably compressed to pass between the mouth parts and through the pharynx and foregut. The digestive tract (foregut) filled by the worm remains narrow into the first thoracic segment but in the oesophageal area in the second segment it widens (Fig. 2). The body of the worm can be followed internally to the beginning of the third abdominal segment where, probably due to the digestive processes of the midgut, it begins to disintegrate. In the caudal end of A. III and into A. IV only scattered oligo-chaete setae, some debris and a diatom could be observed. At the time the *Clinotanypus* larva was collected and preserved approximately 13 mm of worm remained to be swallowed.

Some interesting questions still to be answered are 1-whether the rate of intake is at all related to the rate of digestion and absorption in the midgut; 2- the time it takes a chironomid to swallow a worm of 18 + mm length; 3- The number of worms a fourth instar *Clinotanypus* eats before pupation. A mature *Procladius* larva may simultaneously have 4-5 small chironomid larvae, a few ostracods and cladocerans in its digestive tract.

LITERATURE

Roback, S.S. 1969. Notes on the food of Tanypodinae (Diptera: Chironomidae). Ent. News 80: 13-18

¹Accepted for publication: June 1, 1976

²Curator, Department of Limnology, Academy of Natural Sciences of Philadelphia

ENTOMOLOGICAL NEWS

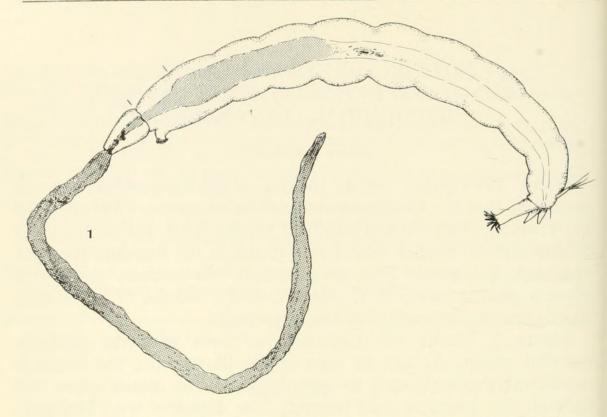


Fig. 1 – Lateral view of C. pinguis larva with partially swallowed oligochaete. Marks above thorax indicate area shown in Fig. 2.

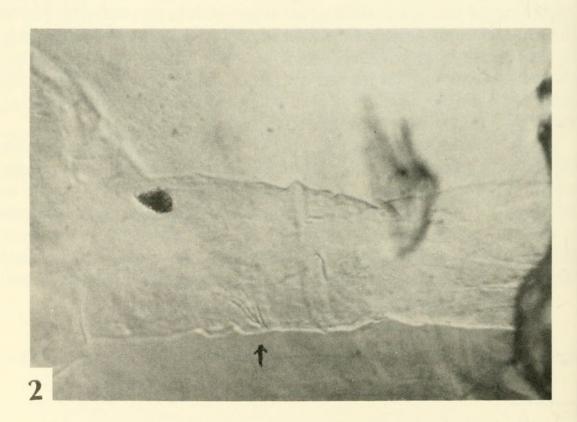


Fig. 2 – Portion of foregut of C. pinguis (78x). Arrow points to some visible oligochaete setae. The caudal margin of the head is visible at the right.



Roback, S S. 1976. "Note On The Feeding Habits Of Clinotanypus pinguis Diptera Chironomidae Tanypodinae." *Entomological news* 87, 243–244.

View This Item Online: https://www.biodiversitylibrary.org/partpdf/57277 Permalink: https://www.biodiversitylibrary.org/partpdf/57277

Holding Institution Smithsonian Libraries and Archives

Sponsored by Smithsonian

Copyright & Reuse

Copyright Status: In copyright. Digitized with the permission of the rights holder. Rights Holder: American Entomological Society License: <u>http://creativecommons.org/licenses/by-nc-sa/3.0/</u> Rights: <u>https://biodiversitylibrary.org/permissions</u>

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at https://www.biodiversitylibrary.org.