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The First Zoeal Stage of *Campylonotus rathbunae* Schmitt and Its Bearing on the Systematic Position of the Campylonotidae (Decapoda, Caridea)

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*Abstract*

THE larva of *Campylonotus rathbunae*, which was hatched in captivity, bears a general resemblance to some larvae of the Pandalidae and also shows a number of primitive features. Affinities with the Oplophoridae in the form of the maxillule and maxilla and in the number of thoracic exopods support the inclusion of the Campylonotidae in the Oplophoroida rather than in the Palaemonoida.

AUTHORITIES are divided on the systematic position of the family Campylonotidae, and in recent classifications it has been included in the Palaemonoida by Holthuis (1955) and in the Hoplophoroida (= Oplophoroida) by Balss (1957). Information on larvae of the family was not previously available, but, as pointed out by Gurney (1942), "the adult anatomy is already fully known, and the larva alone can provide new evidence of relationship". The single zoeal stage described in the present contribution permits the first assessment of the larval affinities of the Campylonotidae.

**Campylonotus rathbunae** Schmitt

*Campylonotus rathbunae* Schmitt; Yaldwyn, 1960: 20-27, figs. 2, 3.

ADULT. Three ovigerous females were trawled from a depth of about 730m, 17.5km east of White Island, Bay of Plenty, New Zealand, on 30 September 1962. Larvae hatched from one of these females almost immediately after capture; most of these died incompletely emerged from the pre-zoeal cuticle, but five specimens apparently representing the normal stage I zoea were obtained. None of the larvae or adults lived for more than one hour after capture.

STAGE I ZOEAL (Fig. 1).

Colour, bright orange-red; cornea of eye, black.

Length, 7.0-7.8mm.

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