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Mecynocera clausi I.C. Thompson, 1888 (Copepoda: Calanoida) is a paracalanid

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Abstract

Mecynocera clausi I.C. Thompson, 1888 is the type genus and species of the monotypic family Mecynoceridae Andronov, 1973. Based on the first description of male mouthparts of *Mecynocera clausi* Thompson, 1888 (Copepoda: Calanoida), evidence is presented for the transfer of this genus and species to the Paracalanidae Giesbrecht, 1893. Thus, Mecynoceridae Andronov, 1973 becomes a junior synonym of Paracalanidae.

Key words: Paracalanidae, Mecynoceridae, male, mouthparts, epipelagic

Introduction

The small, common, apparently widespread, tropical-subtropical epipelagic calanoid copepod species, *Mecynocera clausi* Thompson, 1888, has had an unstable classification history. A monotypic genus, it was placed in the Eucalanina by Giesbrecht (1893) (Holthuis & Vervoort (2006) show that the publication date was 1893, rather than the widely quoted 1892). The status of this taxon was elevated to the family Eucalanidae by Sars (1901). Then, by implication, it was removed to the Calocalanidae by Bernard (1958) (specimens of *Mecynocera* were erroneously ascribed to Farran's (1926) *Calocalanus tenuis* and a new genus name (*Dolichocera*) was given by Bernard to copepodites presented as adults). Subsequently, Bernard's (1958, 1963) error was recognised by Andronov (1970) and *Mecynocera* was explicitly transferred, with all genera in the Calocalanidae Giesbrecht 1893, into the Paracalanidae. Andronov (1973) then placed *Mecynocera* in its own family, the Mecynoceridae. This decision to create a new family was based on a comparison of 14 characters in *Mecynocera* with those of genera in the Eucalanidae and Paracalanidae: the number of free segments in female and male antennules, whether or not ancestral segments X and XI (free segments 8 and 9) of the antennule are fused, the type of rostrum in the male and female, the number of free female urosomites, presence of a dorsal cephalic hump in the male, position of the genital opening in the male, presence of inner seta on the basis of leg 1, the presence of teeth on the outer border of exopod segment 3 of legs 2–4, the number of spines on the outer border of the exopod segment 3 of legs 2–4, the number of setae on the inner border of endopod segment 2 of legs 2–4, the number of setae on endopod segment 3 of legs 2–4, and the segmentation of the left and right leg 5 of both males and females. This decision to create a new family was made without knowledge of male mouthparts of *Mecynocera*.

In order to fill gaps in data for an analysis of relationships between the Eucalanidae, Mecynoceridae, Paracalanidae and Calanidae, males of *Mecynocera clausi* were obtained from the tropical Atlantic ocean, kindly provided by Professor Sigrid Schiel (Alfred Wegener Institute for Marine and Polar Research), from which mouthparts were dissected and described for the first time. In addition, a habitus drawing is given and illustrations of legs 1, 2 and 5 (many of the swimming legs were not entire on all specimens) to demonstrate that the specimens examined are indeed *Mecynocera.*

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