



Nyxis rostrocularis*, a new genus and species of Paranannopinae Por, 1986 (Copepoda, Harpacticoida) from the Southern Atlantic deep sea

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Abstract

The species diversity of Copepoda Harpacticoida at several sampling locations in the Southern Atlantic has been investigated. From the obtained multicorer samples, a new taxon of Paranannopinae Por, 1986, *Nyxis rostrocularis* gen. nov., sp. nov., has been collected, which is described in the present paper. Specimens of the taxon have been encountered in the Angola Basin (DIVA 1 stations 325 and 346), in the Weddell Sea (ANDEEP station 138) and the Cape Basin (DIVA II station 36). *Nyxis* gen. nov. belongs to the group of paranannopid taxa bearing mouthpart aesthetascs. It can be characterised by several autapomorphies discussed in this paper, but takes up a quite isolated position within the Paranannopinae bearing mouthpart aesthetascs.

Key words: Systematics, mouthpart aesthetascs, deep sea, Southern Atlantic, meiofauna

Introduction

The international deep-sea campaigns DIVA and ANDEEP are integrated into the global deep sea biodiversity programme “Census of the Diversity of Abyssal Marine Life” (CeDAMar). CeDAMar aims to produce reliable information on deep-sea diversity and the factors regulating it in the next decades (for more information please visit www.cedamar.org). The stations of the DIVA and ANDEEP expeditions provide a sampling transect of a latitudinal deep-sea gradient from the tropics to the polar waters in the Southern Atlantic. The first DIVA expedition in the Angola Basin took place in July 2000. A comprehensive replicative sampling design was performed for the meiofauna (Rose *et al.* 2005). The expedition ANDEEP II in 2002 surveyed various deep-sea locations in the Antarctic, including the Weddell Sea (station 138). One goal of the campaign was to investigate the influence of sea-floor habitat diversity on species and genetic diversity in the Antarctic deep sea. The DIVA 2 expedition in 2005 transacted from the Cape Basin in the Southern Atlantic up to the Guinea Basin in tropical regions.

Within this framework, the species diversity of Copepoda Harpacticoida in the deep sea of the Angola Basin (DIVA 1) and in the Weddell Sea (ANDEEP II) have been investigated. Among others, one ambition of the whole project is to obtain data on the presence and distribution of harpacticoid higher taxa and species.

Within the DIVA and ANDEEP samples the Pseudotachidiidae Lang, 1936 turned out to be one of the most significant Harpacticoida taxa in terms of species and individual numbers, together with the Ectinosomatidae Sars, 1903, Argestidae Por, 1986 and Ameiridae Monard, 1927. They represent a quite significant taxon within the Harpacticoida, concerning the number of species as well as a worldwide distribution range. Many species are known from the deep sea. Several monophyletic subgroups have already