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Culexiregiloricus, a new genus of Nanaloricidae (Loricifera) from the deep sea of the Guinea Basin (Southeast Atlantic)*

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Abstract

A postlarva of Nanaloricidae (Loricifera) was found in the deep sea of the Guinea Basin. This postlarva belongs to a new species, *Culexiregiloricus trichiscalida*, which also represents a new genus. It inhabits clayish sediments with a high amount of calcitic multi-chambered shells of recent planktonic foraminiferans of 0.25 to 1.5 mm in size. This is the third report of a species of Nanaloricidae from a deep-sea habitat. The postlarva is characterized by a mouth cone divided in a short basal section and being drawn out terminally in to a long and slim mouth tube as second section. It also has distinct filiform and delicate clavo- and spinoscalis of the second and third rows all covered with minute trichoids, a lorica divided into eight plates (four broad and four narrow ones, some of which have two to eight transversal undulations) and eight wide intercalary plicae (six broad and two narrow ones, with distinct longitudinal folds), 14 lorica spikes of medium size along anterior rim of lorica. Other characters include eight dorsal papillated flosculi, of which six form clusters of three each on dorsolateral plates, and a caudal end with a broad ventral plate flanked longitudinally by massive elevated cuticular ridges. Together with the three species of the genus *Armorloricus* and one species of the genus *Phoeniciloricus*, the new species may form a specific species-group within Nanaloricidae, which is characterized by a long and slim mouth tube as the most obvious character.

Keywords: deep-sea meiofauna, southeast Atlantic deep-sea basins, Meteor Cruise M63/2, DIVA 2

Introduction

The DIVA 2 (Latitudinal Gradients of Deep-sea BioDIVersity in the Atlantic Ocean, Part 2) Expedition is the second in a series of expeditions dedicated to the study of benthic diversity in the deep-sea basins of the Atlantic Ocean. The material of the DIVA 1 Expedition hints at an unexpectedly diverse loriciferan fauna inhabiting the fine-grained clayish bottoms of the deep sea (Gad 2002; 2005a). These earlier observations have been confirmed so far by the results of examinations of the DIVA 2 material. Generally, the majority of all newly discovered loriciferans species found in deep-sea basins of the southeast Atlantic and elsewhere belongs to the Pliciloricidae (Kristensen & Shirayama 1988; Gad 2005 a, b). Nanaloricidae, however, are to be a regular part of the deep-sea meiofauna, because they are found sporadically and in extremely low densities even for Loricifera standards. However reports of deep-sea Nanaloricidae have increased with each expedition (Heiner & Neuhaus 2007). *Nanaloricus mysticus*, the first species discovered, and the first species described of *Armorloricus* Kristensen & Gad, 2004, inhabit the interstitial of shell-gravel (*Dentalium* sand) of sublittoral areas near the coast of Roscoff (France) (Kristensen 1983; Kristensen & Gad 2004). Other species of both genera have been described from similar shallow water habitats (Todaro & Kristensen 1998; Heiner 2004; Kristensen et al. 2007). Two additional species representing new taxa of Nanaloricidae have been

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