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Apseudomorph tanaidaceans (Crustacea: Peracarida) from mud-volcanoes in the Gulf of Cadiz (North-east Atlantic)

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Abstract

Faunal collections from mud-volcano sites in the Gulf of Cadiz, at depths between 355 and 3061 m, have revealed a high diversity (and in some cases high density) of tanaidaceans. A previous paper has described some of the tanaidomorph species found. Records of apseudomorph species from deep-sea chemosynthetic habitats are almost non-existent. The present study reports on seven apseudomorph species from five different genera from this material; two of the species, one in each of the genera *Sphyrapus* and *Pseudosphyrapus* are new to science, although there was insufficient material available to describe fully the *Pseudosphyrapus* species. Two of the other species are reported herein for only the second time. A neotype is erected for *Apseudes setiferus* Băcescu, and a lectotype for *Sphyrapus malleolus* Norman & Stebbing; these two, plus *Atlantapseudes nigrifrons* Băcescu and *Fageapseudes retusifrons* Richardson are redescribed. The habitus of *Apseudes grossimanus* is figured. None of the taxa appear to show any morphological features specifically adapted to the peculiar habitat around mud-volcanoes. The genus *Collossella* is relegated to the synonymy of *Fageapseudes*. The non-chemosynthetic-habitat-associated species *Apseudes coriolis* is moved to *Taraxapseudes*.

Key words: mud volcanoes, Gulf of Cadiz, deep-sea, *Apseudes*, *Atlantapseudes*, *Fageapseudes*, *Pseudosphyrapus*, *Sphyrapus*

Introduction

There are a number of chemically-reducing environments on the seabed, associated with, for example, hydrothermal vents, methane seeps and mud volcanoes. Particularly in the deep sea, these habitats generally support communities based on chemosynthetic energy-input, which include unusual, specialized and often endemic benthic invertebrate taxa (e.g. Gage & Tyler 1991).

Studies of Tanaidacea from these habitats have only occurred in the last two decades, and were reviewed by Błażewicz-Paszkowycz *et al*. (2011). These authors described a number of species of tanaidomorph tanaidacean from mud volcanoes in the Gulf of Cadiz, collected at depths between 355 and 3061 m during the TTR Cruises in 2001 to 2005 on board the R/V *Prof. Logachev.* The material had revealed a high diversity (and in some cases high density) of tanaidaceans. The present paper describes some of the apseudomorphan tanaidacean species from those cruises.

Records of apseudomorph species from deep-sea chemosynthetic habitats are almost non-existent. The present study reports on seven apseudomorph species from five different genera from this material; two of the species, one in each of the genera *Sphyrapus* and *Pseudosphyrapus* are new to science, although there is insufficient material available to describe fully the *Pseudosphyrapus* species. Two of the other species are reported herein for only the second time. New type-material (neotype and lectotype) of two of the previously-described species are erected. Redescriptions of these taxa are presented.

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