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Two new species and two new records of deep-water caridean shrimps from Brazil (Decapoda: Pandalidae, Palaemonidae, Crangonidae)

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Abstract

The present study deals with four species of benthic deep-water caridean shrimps collected on the continental slope off southeastern Brazil, between 360 m and 900 m. The deepwater pandalid *Bitias stocki* Fransen, 1990, previously known only from a few localities in the eastern Atlantic, is reported for the first time from the western Atlantic (Brazil). The Brazilian material of *B. stocki* also represents the first record of the genus *Bitias* Fransen, 1990 in the western Atlantic. The palaemonid *Periclimenes tenellus* (Smith, 1882), previously known only from South Carolina and New Jersey, USA, is reported for the first time from Brazil, representing a considerable range extension of this uncommon species into the southwestern Atlantic. Another deepwater palaemonid shrimp is described as new: *Periclimenes bathyalis* sp. nov. The new species is morphologically closest to the echinoid associates *Periclimenes milleri* Bruce, 1986 and *Periclimenes ingressicolumbi* Berggren & Svane, 1989. Finally, the bizarre deepwater crangonid genus *Prionocrangon* Wood-Mason in Wood-Mason & Alcock, 1891 is reported for the first time from Brazil and the southwestern Atlantic, where it is represented by a new species, *Prionocrangon brasiliensis* sp. nov.

Key words: Decapoda, Caridea, deepwater shrimp, new species, new record, *Bitias*, *Periclimenes*, *Prionocrangon*, Brazil, southwestern Atlantic

Introduction

Our knowledge of the Brazilian deep-water benthic fauna, although still rather fragmentary, has been gradually improving in recent years, mainly as a result of a proliferation of monitoring oceanographic cruises conducted by oil and gas exploration and production companies, but also of survey expeditions led by research institutions and deep-sea fishing activities. Among the major efforts undertaken to explore Brazilian deep-water habitats is the cruise of the R.V. "Marion Dufresne" in 1987, during which a large series of samples was obtained from depths down to 5155 m (Tavares 1999). The TAAF MD55 Brazil campaign of the R.V. "Marion Dufresne" yielded a wealth of decapod crustacean material, some of which is still being studied taxonomically.

The present report deals with four species of benthic deep-water caridean shrimps in the families Pandalidae, Palaemonidae and Crangonidae, with two species being new to science and two others representing new records for Brazil and the southwestern Atlantic. Most of the material used in this study was collected during the TAAF MD55 Brazil cruise, with additional material obtained by the REVIZEE (Living Resources in the Exclusive Economic Zone) campaigns in 2003.

All material used for this study is deposited in the crustacean collection of the Zoological Museum of University of São Paulo, São Paulo, Brazil (MZUSP). Other abbreviations used in the text: RMNH—Naturalis Biodiversity Center, Leiden, the Netherlands; USNM—National Museum of Natural History, Smithsonian Institution, Washington DC, USA; MCZ—Museum of Comparative Zoology, University of Cambridge, Massachusetts, USA. Standard measurements are post-orbital carapace length (pocl, in mm), rostrum length (rl, in mm), and total carapace length including rostral tooth (cl, in mm, for *Prionocrangon*).

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