



## New species of *Plesionika* Bate, 1888 (Crustacea, Decapoda, Pandalidae) from Southwestern Atlantic

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### Abstract

The pandalid genus *Plesionika* Bate, 1888 includes 92 species and has a widespread distribution. The new *Plesionika* species described herein was sampled by the oceanographic program REVIZEE Central (Fishery) at the Central Brazilian coast (from 11°S to 22°S) in depths ranging from 200 to 2000 m using ARROW and GOV nets. Additional material of the new species from the collection of Universidade Federal do Rio Grande (FURG), sampled at South Brazilian coast was also examined. *Plesionika revizeei* n. sp. is closely related to *P. willisi* (Pequegnat 1970), and the main feature that distinguishes these two species is the presence of epipods on pereopods 1–4 in the new species. This study provides a full description of the new species and an identification key to the Southwestern Atlantic species of *Plesionika*.

**Key words:** *Plesionika*, new species, Southwestern Atlantic, Brazil, deep sea, taxonomy

### Introduction

*Plesionika* Bate, 1888 is the most specious genus of Pandalidae, comprising 92 species with a very complicated taxonomy (Chan & Crosnier 1991; 1997; Chan & Yu 1991; Chan & Chuang 2002; Chan 2004; Fransen 2006; De Grave *et al.* 2009). It is widespread all over the world (except in high latitudinal areas) including benthic or nekto-benthic species that feed on pelagic and benthic resources (Vafidis *et al.* 2005). This benthic habit of *Plesionika* species often make their distribution more restricted than that of the pelagic shrimps, which contributes to speciation within the genus.

In Brazilian waters (tropical environment), the bathymetric distribution of *Plesionika* is restricted to the continental slope and abyssal plains. From this region nine *Plesionika* species have been recorded: *Plesionika acantho-notus* (Smith 1882); *P. edwardsii* (Brandt 1851); *P. ensis* (A. Milne Edwards 1881); *Plesionika gigliolii* (Senna 1903); *P. longicauda* (Rathbun 1901); *P. longipes* (A. Milne Edwards 1881); *P. macropoda* Chace, 1939; *P. martia* (A. Milne Edwards 1883) and *P. miles* (A. Milne Edwards 1883) (Cardoso 2009; 2011). Herein a new species from the Southwestern Atlantic, collected during the REVIZEE Central (Fishery) Program, is described, and a key to the Southwestern Atlantic species of *Plesionika* is provided.

### Material and methods

The samples analyzed herein were collected during the oceanographic program REVIZEE Central (Fishery) at the continental shelf and slope of the Central Brazilian coast (from 11°S - Real river estuary, Bahia to 22°S - Cabo de São Tom, Rio de Janeiro) in depths ranging from 200 to 2000 m, between June and July of 2000, using R.V. *Thalassa* (IFREMER). A total of 58 tows were done with two net types: ARROW (47.4 m X 26.8 m) and GOV (Great Opening Vertical). Sampled specimens were preserved in ethanol 70% and deposited in the Collection of Crustacea of Museu Nacional, Rio de Janeiro (MNRJ). In order to better distribute specimens of this new species one sample was deposited at Muséum National d'Histoire Naturelle, Paris (MNHN) and one was deposited at Museu de Zoologia, São Paulo (MZUSP).