Zootaxa 3646 (2): 171–179
www.mapress.com/zootaxa/

Article

ISSN 1175-5326 (print edition)
ZOOTAXA
ISSN 1175-5334 (online edition)

http://dx.doi.org/10.11646/zootaxa.3646.2.5
http://zoobank.org/urn:lsid:zoobank.org:pub:A9D81B4F-8E7F-480A-8ED9-8D7B27BAE117

A new species of the hippolytid genus *Paralebbeus* Bruce & Chace, 1986 (Crustacea: Decapoda: Caridea) from the Coral Seamount, southwestern Indian Ocean

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Abstract

The hippolytid genus *Paralebbeus* Bruce & Chace, 1986, is only known from two species, *P. zotheculatus* Bruce & Chace, 1986 (type species) and *P. zygius* Chace, 1997. Both are known from the western Pacific, though *P. zotheculatus* was originally described from the Australian Northwest Shelf in the Indian Ocean. In this paper, a new species, *P. mollis*, is described and illustrated on the basis of a single ovigerous female from the Coral Seamount, southwestern Indian Ocean, at a depth of 952 m as the third representative of the genus. The new species is readily distinguished from its congeners by the rostrum being armed with one tooth on both the dorsal and ventral margin and the conspicuous pterygostomial tooth on the carapace. Because of these characteristics of the new species, the diagnosis of *Paralebbeus* is slightly emended. The holotype of *P. mollis* **n. sp.** was associated with an unidentified hexactinellid sponge, like the other two known species.

Key words: *Paralebbeus mollis*, *Paralebbeus zotheculatus*, *Paralebbeus zygius*, hexactinellid sponge

Introduction

Bruce & Chace (1986) established a new hippolytid genus *Paralebbeus* to accommodate a new species, *P. zotheculatus*, associated with a deep-water hexactinellid sponge, collected from the Australian Northwest Shelf. *Paralebbeus* was differentiated from its closest relative, *Lebbeus* White, 1847, by some morphological characters, including the reduced, toothless rostrum, the minute pterygostomial tooth of the carapace, and the unarmed meri of the last three pairs of pereopods (Bruce & Chace 1986). Subsequently, Chace (1997) described a new species from Indonesia, *P. zygius*, as the second representative of the genus. Literature records suggest that these two species are rather widely distributed in the western Pacific (Chace 1997; Hayashi & Mitsuhashi 2003), with *L. zotheculatus* extending to the Indian Ocean side of Australia.

Research efforts describing the biological community and biodiversity of seamounts have been increasing in recent years (e.g., Clark *et al.* 2010), because there is a growing interest in the existence of unexploited fishery resources. Nevertheless, documentation of the fauna of seamounts is far from satisfactory in spite of high biodiversity and possible endemism. The present paper serves to describe a new species assigned to *Paralebbeus*, *P. mollis*, on the basis of a single ovigerous female collected from the Coral Seamount in the southwestern Indian Ocean during the 66th voyage of the RRS 'James Cook' in November 2011. The new species was also found to be associated with an unidentified hexactinellid sponge, like the previous species. A brief note on the taxonomic status of *Paralebbeus* is given.

Information on the outline of the 2011 cruise of the RRS 'James Cook' is available at http://www.iucn.org/about/work/programmes/marine/marine_our_work/marine_governance/ seamounts/cruises/2011/. The holotype of the new species is deposited in the Oxford University Museum of Natural History, UK (OUMNH). Carapace length (cl) represents specimen size, measured from the posterior margin of the orbit to the midpoint of the posterodorsal margin of the carapace.

Accepted by J. Goy: 4 Apr. 2013; published: 2 May 2013