



***Labuanium vitatum* (Crustacea: Decapoda: Brachyura: Sesarmidae), a new Indo-West Pacific species of arboreal crab**

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Abstract

A new species of *Labuanium* Serène & Soh, 1970, *L. vitatum* is described from northeastern Indian Ocean. It belongs to the *L. rotundatum* species-group, but is most closely related to *L. scandens* Ng & Liu, 2003, and *L. papuomalesiacum* (Nobili, 1899), the latter being here formally removed from synonymy with *L. rotundatum* (Hess, 1865) and raised to full species status. The new species differs from congeners by numerous characters including the structure of the male first pleopod, carapace and third maxillipeds, and by differences in proportions of the male abdominal somites.

Key words: Brachyura, Sesarmidae, *Labuanium vitatum* new species, Indian Ocean

Introduction

Tree-climbing sesarmid crabs of the genus *Labuanium* Serène & Soh, 1970, are generally poorly known, and until recent years, most of the 10 described species have been represented by very few specimens (see Ng & Liu 2003; Ng *et al.* 2008). Most species have been recorded from the West Pacific, with only four known from the Indian Ocean: *L. finni* (Alcock, 1900), *L. gracilipes* (H. Milne Edwards, 1853), *L. rotundatum* (Hess, 1865) and *L. trapezoideum* (H. Milne Edwards, 1837) (see Alcock 1900; Crosnier 1965; Cumberlidge *et al.* 2005; Jeng *et al.* 2003; Nobili 1899, 1900; Tesch 1917; Ng & Liu 2003).

The taxonomy of *L. rotundatum* sensu lato was discussed at length by Ng & Liu (2003) when they described a new species, *L. scandens*, from Taiwan, but they concluded that it was necessary to examine a larger range of material in order to clarify the precise identity of *L. rotundatum*, especially since the type is almost certainly lost. While they followed Tesch (1917) in recognizing *Sesarma dentifrons* A. Milne-Edwards, 1869, *Sesarma oceanica* De Man, 1889, *Sesarma gardineri* Borradaile, 1900, *Sesarma* (*Episesarma*) *rotundata papuomalesiaca* Nobili, 1899, and *Sarmatium faxoni* Rathbun, 1906, as junior synonyms of *L. rotundatum*, they nevertheless commented that it “is quite possible that there is more than one species belonging to what is here identified as *L. rotundatum*, and some of the synonyms may be shown to be valid in the future” (Ng & Liu 2003: 613). The present paper clarifies the taxonomic position of Indian Ocean material that has been previously included under the synonymy of “*L. rotundatum*” sensu lato. This material is here regarded as a new species, and closely allied to *Sesarma* (*Episesarma*) *rotundata papuomalesiaca* Nobili, 1899, which is shown to be a good species on the basis of topotypic material from New Guinea.

Material examined is deposited in the The Naturalis (formerly Rijksmuseum van Natuurlijke Historie, RMNH), Leiden; Senckenberg Museum (SMF), Frankfurt; Western Australian Museum (WAM), Perth; U.S. National Museum of Natural History (USNM), Smithsonian Institution, Washington D.C.; and Zoological Reference Collection (ZRC) of the Raffles Museum, National University of Singapore. The abbreviations G1 and G2 are used for the male first and second pleopods, respectively. The measurements provided are of the carapace width and length, respectively.