



<http://dx.doi.org/10.11646/zootaxa.3691.3.6>

<http://zoobank.org/urn:lsid:zoobank.org:pub:9D7059BF-CB1E-402D-94FD-EF54C1565845>

***Onycocaris maui* sp. nov., a new pontoniine sponge associate (Crustacea: Decapoda: Palaemonidae) from the Hawai'ian Islands**

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Abstract

A new species of pontoniine shrimp, *Onycocaris maui* sp. nov., from Maui Island, Hawai'i, is described and illustrated. A heterosexual pair were found in an intertidal *Haliclona* sponge. A member of the *O. quadratophthalma* species group, its relationships are discussed and a key provided for their identification.

Key words: *Onycocaris maui* sp. nov., Crustacea, Decapoda, Pontoniinae, sponge associate, Hawaii

Introduction

The evaluation of the species referred to the *Onycocaris quadratophthalma* (Balss, 1921) species group (Bruce, 2011; Komai & Itou, 2012) presents a number of problems. Most of these stem from the inadequate information available on *O. quadratophthalma* (Balss, 1921). The description of the holotype female of this species, the only specimen studied by Balss, from Cape Jaubert, Western Australia, is brief and lacks much of the details needed for comparison with more recently described species of the genus. Only a single illustration was provided, of the carapace and its appendages in dorsal view. This showed that the second pereopod chelae were asymmetrical but with no detail of the denticulation of the fingers or if the merus is ventrally tuberculate. The minor second pereopod is in dorsal view and it can not be determined whether or not the fixed finger is distally bifid or provided with a lateral flange. It is possible that the fixed finger may lack this feature, found in all other species of the group, as well as the bifid tip to the fixed finger, and was overlooked by Balss. The description confirms that the ambulatory dactyls are ventrally denticulate and the illustration suggests that the corpus has a large distal tooth and the ventral margin has some small denticulations but the details are obscure. Unfortunately the second pereopods are now missing (Fujino & Miyake, 1969). These authors have fortunately provided some further information concerning the holotype female and illustrate the anterior carapace, eyes, antennular peduncles in dorsal view, and the antennular peduncle, scaphocerite and telson. No details are available concerning the second pereopods or ambulatory dactyls. Bruce (1992) referred a single female specimen from Hong Kong to *O. quadratophthalma* (Balss, 1921) but this specimen was also incomplete, lacking the important minor second pereopod and all third and fourth pereopods. The fifth pereopod dactyl is biunguiculate, lacking denticles on the ventral corpus, could be abnormal or in the process of regeneration. The fifth pereopods are missing from the *O. quadratophthalma* holotype but the third and fourth pereopod dactyls are clearly with ventral denticles on the corpus. It cannot be assumed that it belongs to *O. quadratophthalma* (Balss, 1921) with certainty. There have been a number of other reports of *O. quadratophthalma*, from a variety of localities, but these have not been supported by descriptive or pictorial data and all need to be re-examined before regarded as confirmed. *Onycocaris maui* is closely related to *O. quadratophthalma* and related species but shows a number of characters that indicate that it is distinct and it is now described as a new species.

Abbreviations used: CL, post-orbital carapace length; QM, Queensland Museum, Brisbane.