



***Lacertopontonia chadi* gen. et sp. nov., a new oyster-associated *Pontonia*-like pontoniine shrimp (Crustacea, Decapoda, Palaemonidae) from the Great Barrier Reef of Australia**

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Abstract

A new genus and species of pontoniine shrimp, *Lacertopontonia chadi* **gen. et sp. nov.**, associated with cockscomb oyster *Lopha cristagalli* (Linnaeus, 1758) (Bivalvia, Ostreidae) is described from Lizard Island, the Great Barrier Reef, Queensland, Australia. The new genus is presently monotypic and can be distinguished from all known Indo-West Pacific bivalve-associated pontoniine shrimps by smooth body, the absence of antennal and hepatic teeth on carapace, the presence of three pairs of dorsal submarginal spines on telson and only two pairs of posterior telson spines, short and robust equal pereopods II, simple dactyli of ambulatory pereopods and short uropodal exopod without movable spine at its distolateral angle.

Key words: Decapoda, Caridea, Pontoniinae, new genus, new species, Bivalvia, Ostreidae, *Lopha*, Lizard Island, the Great Barrier Reef, Australia

Introduction

Presently twelve genera of pontoniine shrimps, including forty-one valid species (e.g. Bruce, 1975; Fransen, 2002; Marin & Paulay, 2010), are known in associations with bivalve shells. Among them only two Indo-West Pacific pontoniine genera, namely *Paranchistus* Holthuis, 1952 and *Platypontonia* Bruce, 1968, are known to be associated with bivalve clams of the family Ostreidae (e.g. Bruce, 1975; Li, 2000). Thus, *Paranchistus pycnodontae* Bruce, 1978 is known in association with bivalve *Hyotissa hyotis* (Linnaeus, 1758) from Queensland, Australia (Bruce, 1978) and *Ostrea* sp. from Indonesia (described as *Paranchistus serenei* Bruce, 1983 (Bruce, 1983). *Platypontonia brevirostris* (Miers, 1884) is known as an associate of *Lopha* sp. from the Indian Ocean and Heron Island, Australia (Miers, 1884; Bruce, 1973), and *P. hyotis* Hipeau-Jacquotte, 1971 (= *P. pterostrea* Suzuki, 1971) – in association with *Hyotissa hyotis*, *Ostrea* sp. and with *Pterostrea* sp. in the Indo-West Pacific region (Hipeau-Jacquotte, 1971; Suzuki, 1971; Bruce, 1983). Highly valuable as a food resource in many coastal tropical countries oysters have been extensively harvested and carefully studied during last century but published records on associated shrimps are rare. Thus, any symbiotic shrimp found inside ostreid clams is of special scientific interest potentially presenting a new record or even new undescribed taxa.

During a survey of pontoniine shrimp diversity in the framework of the CReef Lizard Island 2010 Expedition, three specimens of an unusual pontoniine shrimp were found inside cockscomb oysters *Lopha cristagalli* (Linnaeus, 1758) (Bivalvia, Ostreidae). Thorough examination of their morphology showed that these shrimps belong to an undescribed pontoniine shrimp species and moreover to an undescribed genus.

Postorbital carapace length (pcl., in mm), dorsal length from orbit to the proximal margin of carapace, and total body length (tl., in mm), dorsal length from the tip of rostrum to the end of telson, are used as standard measurements of size. The holotype of the new species is deposited in the Museum of tropical Queensland, Townsville, Australia (QM) and the paratypes are in the National Natuurhistorisch Museum, Leiden, the Netherlands (RMNH).