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**A review of the *Pagurixus boninensis* species group,
with descriptions of six new species
(Crustacea: Decapoda: Anomura: Paguridae)**

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Abstract

McLaughlin & Haig (1984) divided the genus *Pagurixus* Melin, 1939 in two informal species groups on the basis of the presence or absence of setal row(s) on the ventral surface of the ultimate segment of the antennular peduncle. The first group, characterized by the presence of the setal rows, is herein named the *P. boninensis* species group, and the second, characterized by the absence of setal rows, is named the *P. anceps* group. In this paper, species of the *P. boninensis* group are reviewed. Thirteen species are recognized in this species group, of which six are new: *Pagurixus laevimanus* (Ortmann, 1892), *P. maorus* (Nobili, 1906), *P. boninensis* (Melin, 1939), *P. tweediei* (Forest, 1956), *P. festinus* McLaughlin & Haig, 1984, *P. nomurai* Komai & Asakura, 1995, *P. pulcher* Osawa, Fujita & Okuno, 2006, *P. brachydactylus* n. sp., *P. carinimanus* n. sp., *P. concolor* n. sp., *P. paulayi* n. sp., *P. pseliophorus* n. sp. and *P. ruber* n. sp. These species are further arranged into two subgroups based on the presence or absence of a lateral ridge on the carpus of the left cheliped. The new species are fully described and illustrated. Redescriptions or updated descriptions and illustrations are given for each previously described species in order to facilitate comparisons. The affinities and important morphological variations of the species are discussed and their overall distributions are updated. Because of the sexual dimorphism exhibited by species of this genus, separate identification keys to males and females are presented.

Key words: Crustacea, Decapoda, Anomura, Paguridae, *Pagurixus boninensis* group, new species, Indo-West Pacific

Introduction

The hermit crab genus *Pagurixus* was originally established as a subgenus of *Pagurus* Fabricius, 1775 (as *Eupagurus* Brandt, 1851) by Melin (1939) with the type species *Eupagurus (Pagurixus) boninensis* Melin, 1939. McLaughlin & Haig (1984) elevated *Pagurixus* to full generic rank, and recognized eight species in the genus: *Pagurixus hectori* (Filhol, 1883); *P. laevimanus* (Ortmann, 1892); *P. maorus* (Nobili, 1906); *P. boninensis*; *P. anceps* (Forest, 1954); *P. tweediei* (Forest, 1956); *P. festinus* McLaughlin & Haig, 1984; and *P. jerviensis* McLaughlin & Haig, 1984. Subsequently, nine new species have been described: *P. handrecki* Gunn & Morgan, 1992; *P. amsa* Morgan, 1993; *P. granulimanus* Morgan, 1993; *P. stenops* Morgan, 1993; *P. nomurai* Komai & Asakura, 1995; *P. kermadecensis* de Saint Laurent & McLaughlin, 2000; *P. fasciatus* Komai & Myorin, 2005; *P. longipes* Osawa, Fujita & Okuno, 2006; and *P. pulcher* Osawa, Fujita & Okuno, 2006. The genus is characterized by the possession of a prominent tuft of stiff setae directed to the left on the coxa of the right fifth pereopod in male. Other characters useful for recognizing the genus include: the well-developed, triangular rostrum; the sexually dimorphic right cheliped, showing a tendency toward elongation or enlargement and toward a reduction of armament with increasing body size, particularly in males; and the rounded, contiguous lobes of the eighth thoracic sternite. Species of the genus are distributed in the tropical or subtropical Indo-West Pacific (including Hawaii) and