



A new hermit crab species of the *Pagurixus anceps* group (Crustacea: Decapoda: Anomura: Paguridae) from southern Japan, and supplemental notes on *P. patiae* Komai, 2006

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Abstract

The pagurid hermit crab genus *Pagurixus* Melin, 1939, currently includes 24 species in the Indo-West Pacific, and recent studies have revealed the richness of this genus in southern Japan, particularly in coral reefs. In this paper, we deal with two species of the genus, *P. dissimilis* n. sp. described from southern Japan, and the recently described *P. patiae* Komai, 2006. The new species appears closest to *P. nanus* Komai & Takada, 2006 in both morphology and coloration in life, but is distinguished from the latter by having a clearly delimited dorsomesial margin of the dactylus of the right cheliped in males and females, a blunt but distinct median crest and a mesial row of small spines on the dorsal surface of the carpus of the male right cheliped, and paired gonopores in females. The newly obtained specimens of *P. patiae* from Okinawa Island enable us to describe the coloration in life of the species for the first time and to examine morphological variation. Brief notes on the distribution of the Japanese *Pagurixus* species are also provided.

Key words: Crustacea, Decapoda, Paguridae, *Pagurixus*, new species, Japan, distribution

Introduction

Pagurixus Melin, 1939 is the richest hermit crab genus of the family Paguridae in shallow reefs of tropical and subtropical Indo-West Pacific waters (e.g., Komai & Myorin 2005; Komai & Osawa 2006). Species of the genus are small-sized and cryptic, occurring in crevices or holes of coral rocks, hiding under stones or rocks, or living in submarine caves. Therefore, careful collection is required for full documentation of the fauna of this genus (Komai & Takada 2006). Fifteen species have been reported from Japanese waters, and most are very recently described. They include *P. anceps* (Forest, 1954), *P. boninensis* (Melin, 1939), *P. carinimanus* Komai & Osawa, 2006, *P. concolor* Komai & Osawa, 2006, *P. fasciatus* Komai & Myorin, 2005, *P. haigae* Komai & Osawa, 2007, *P. longipes* Osawa, Fujita & Okuno, 2006, *P. maorus* (Nobili, 1906), *P. nanus* Komai & Takada, 2006, *P. nomurai* Komai & Asakura, 1995, *P. patiae* Komai, 2006, *P. pseliophorus* Komai & Osawa, 2006, *P. pulcher* Osawa, Fujita & Okuno, 2006, *P. ruber* Komai & Osawa, 2006, and *P. tweediei* (Forest, 1956) (Komai & Myorin 2005; Komai & Osawa 2006, 2007). Although *P. laevimanus* (Ortmann, 1892) was recorded from the Ryukyu Islands (Minei 1973, Komai & Asakura 1995), Komai & Osawa (2006) has shown that most records of the species since the original description were results of misidentifications. *Pagurixus laevimanus* is so far represented only by the holotype from Tahiti, French Polynesia (Komai & Osawa 2006).

During faunal studies of shallow-water hermit crabs in southern Japan by the authors, an undescribed species of *Pagurixus* was discovered from Okinawa Island in the Ryukyus and Kashiwa-jima Islet in Shikoku,