



Two new species of *Turleania* McLaughlin, 1997 (Crustacea: Decapoda: Anomura: Paguridae) from the Ryukyu Islands, southwestern Japan, and a redescription of *T. balli* (McLaughlin & Haig, 1996)

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Abstract

Two new hermit crab species of the family Paguridae, *Turleania saliens* n. sp. and *T. tenebrosa* n. sp., are described from coral reefs of the Ryukyu Islands, southwestern Japan. Reexamination of the holotype of *Turleania balli* (McLaughlin & Haig, 1996) has shown that it has only nine pairs of quadriserial gills. This feature is also found in the two new species but does not fit with the original diagnosis of *Turleania* McLaughlin, 1997. Simple emendation of the genus *Turleania* is made for the number of gills to accommodate these three species. The two new species are quite similar to *E. balli*, but distinguished by the armature of the carpus of the right cheliped and anterior lobe of the sixth thoracic sternite. *Turleania tenebrosa* differs from *T. saliens* in the right chela having distinct spines on the dorsolateral surface, and meri of the second pereopods unarmed on the distal 0.3 of the ventral surface.

Key words: Crustacea, Decapoda, Paguridae, *Turleania*, new species, Ryukyu Islands

Introduction

The availability of the materials gathered by recent extensive efforts has revealed that many hermit crabs of the family Paguridae exist in shallow and deep waters of the tropical and subtropical Indo-West Pacific region (e.g., McLaughlin & Haig 1989; McLaughlin 1997, 2004; Asakura 2005; Komai & Osawa 2006). The Ryukyu Archipelago is composed of approximately 160 subtropical islands located between Kyushu Island of Japan and Taiwan in the northwestern Pacific. The coasts of the islands provide a wide variety of environments including coral and rocky reefs, boulder regions, and sandy and muddy flats. Numerous crevices, holes, and submarine caves are found on the coral reefs, from which rare or unusual pagurids have been reported (e.g., Osawa & Takeda 2004; Komai & Osawa 2005, 2006; Osawa & Okuno 2007).

In the present paper, we describe two new species of *Turleania* McLaughlin, 1997, based on materials collected from coral reefs of the Ryukyus Islands. One of the new hermit crabs is conspecific with “*Enneopagurus* sp.” depicted by Kawamoto & Okuno (2003) in their guidebook on decapod crustaceans from Kume Island of the Ryukyus. The sole specimen of another new species was also obtained from Kume Island.

The holotype of *Turleania balli* (McLaughlin & Haig, 1996) was reexamined and is redescribed herein to supplement the original description. As in the two new species, the holotype of *T. balli* has only nine pairs of quadriserial gills, contradicting the diagnosis of *Turleania* McLaughlin, 1997. Therefore, the generic diagnosis is emended to accommodate the present observations. *Turleania balli* is quite similar to the two new spe-