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A new hermit crab species of the genus *Catapagurus* (Crustacea: Decapoda: Anomura: Paguridae) from the Ryukyu Islands, southern Japan

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Abstract

A new species of the pagurid hermit crab genus *Catapagurus* A. Milne-Edwards, 1880, *C. insolitus*, is described and illustrated based on specimens from shallow waters in Okinawa Island, the Ryukyus. It belongs to an informal species group characterized by the possession of blade-shaped ambulatory dactyli, and is morphologically most similar to *C. kosugei* (Asakura, 2001). However, the new species is unique within the genus in having a multispinose antennal acicle, rarely seen in species of the family Paguridae.

Key words:

Introduction

The pagurid genus *Catapagurus* A. Milne-Edwards, 1880 is composed of hermit crab species usually inhabiting soft or fine bottom of shallow subtidal to upper bathyal zone. Asakura (2001) revised the genus and restricted *Catapagurus* to its type species *C. sharreri* A. Milne-Edwards, 1880 and *C. tuberculosus* (Asakura, 1999) reassigned from *Icelopagurus* McLaughlin, 1997. He reinstated *Hemipagurus* Smith, 1882, which had been considered a junior synonym of *Catapagurus*; transferred other eight species known at that time, except for *C. doederleini* Doflein, 1902, and further described eight new species. Later, McLaughlin (2004) reassessed the merit of the reinstatement of *Hemipagurus*. She found that there was overlap of presumably diagnostic characters among species attributed to both genera and that a few characters were rather species specific. In conclusion, *Hemipagurus* was again relegated to the status of a junior synonym of *Catapagurus*. McLaughlin (2004) listed 23 species of *Catapagurus*, including eight described in *Hemipagurus* by Asakura (2001) and two species not considered in Asakura's revision. More recently, Komai & Takeda (2006) reexamined the status of *C. misakiensis* Terao, 1914 and *C. japonicus* Yokoya, 1933, of which the taxonomic status of the former had long been problematical (cf. Asakura 2001). The authors designated a neotype for *C. misakiensis*, and synonymized *C. japonicus* with *C. misakiensis*. Consequently, *Catapagurus* is now represented by 22 species, including two western Atlantic and 20 Indo-West Pacific species.

The present authors had occasion to examine interesting collections of decapod crustaceans collected by skillful scuba divers from various localities in the Ryukyu Islands, southern Japan. Amongst them was an undescribed species of *Catapagurus*, described in this study as *C. insolitus* **n. sp.**, the 23rd member of the genus. Affinities of the new species with *C. kosugei* (Asakura, 2001) are discussed.

Specimens examined in this study are deposited in the Natural History Museum and Institute, Chiba (CBM), and the National Museum of Nature and Science, Tokyo (NSMT). The shield length, abbreviated as sl, is measured from the tip of the rostral lobe to the midpoint of posterior margin of the shield. For detailed observation of the surface structure of the integument, the specimens (including removed appendages) were

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