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Rediscovery and range extension of *Ciliopagurus liui* Forest, 1995 and description of a new species of *Pagurus* Fabricius, 1775 (Crustacea: Decapoda: Anomura: Paguroidea) from the Kerala State, southwestern India

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Abstract

Two species of paguroid hermit crabs, *Ciliopagurus liui* Forest, 1995 (Diogenidae) and *Pagurus spinossior* **n. sp.** (Paguridae), are reported from the Kerala State, southwestern India. *Ciliopagurus liui*, is first recorded from the Indian Ocean. This species was originally described on the basis of a single male specimen from the Tonkin Gulf in the South China Sea, though its geographical range also included Japan, based on literature. Supplemental description and illustrations are provided for better understanding of the diagnostic features of this little known species. *Pagurus spinossior* **n. sp.**, described on the basis of a single male specimen, appears closest to *P. spinulentus* (Henderson, 1888), known only by the holotype from the Philippines, but the lack of spinules on the dorsal margins of the dactyli of the second pereopods, the different shape of the anterior lobe of the thoracic sternite 6, and the more numerous spines on the terminal to posterior margins of the telson distinguish the new species from *P. spinulentus*.

Key words: Supplemental description, *Pagurus spinossior* **n. sp.**

Introduction

Alcock's (1905) monograph on hermit crabs (Anomura: Paguroidea) in the collections of the Indian Museum, Calcutta, is the landmark for our knowledge on the Indian fauna of this group of Decapoda. Subsequently, several taxonomic works pertaining to the local fauna have been published (e.g., Kamalaveni 1950; Sankolli 1961; Tirmizi & Siddiqui 1982; Forest 1984, 1987, 1989, 1995; Khan & Natarajan 1984; Nayak & Neelakantan 1985, 1989; Thomas 1989; Lemaitre 1999, 2004; McLaughlin & Dworschak 2001; McLaughlin & Holthuis 2001; McLaughlin 2004, 2005; Reshmi & Bijukumar 2010, 2011; Komai *et al.* 2012, 2013). At present, approximately 90 species belonging to five families, viz. Coenobitidae, Diogenidae, Paguridae, Parapaguridae and Pylochelidae, are known from the area. Nevertheless, discovery of new species is still continuing (e.g., Komai *et al.* 2012, 2013), clearly indicating that the inventory of the local fauna is far from complete.

During investigations of the crustacean fauna in waters around the Kerala State, southwestern India, conducted by the second and third authors, six specimens of a colorful diogenid hermit crab species and one specimen of a pagurid species were collected from by-catch made by local commercial trawlers, and submitted for identification to the first author. Detailed examination revealed that the diogenid specimens are *C. liui*, representing the first record of the species from the Indian Ocean, and that the pagurid represents an undescribed species of *Pagurus* Fabricius, 1775. Forest's (1995) original description of *C. liui*, written in French, is detailed enough for species recognition, but omitted several diagnostic details and no detailed illustrations were given for some complex structures such as stridulating apparatus of the chelipeds and annulations on the chelipeds and ambulatory legs. Furthermore, the present specimens provide information on intraspecific variation in morphology and coloration in life of the species. Consequently, we provide a detailed description and illustrations based on our specimens for better understanding of the diagnostic features of the species. *Pagurus spinossior* **n. sp.** appears closest to *P. spinulentus* (Henderson, 1888), known only by the holotype from the Philippines. Differentiating characters between the new species and *P. spinulentus* are discussed.

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