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A new species of the hermit crab genus *Diogenes* (Crustacea: Decapoda: Anomura: Diogenidae) from southern India

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Abstract

A new species of the hermit crab genus *Diogenes* Dana, 1851 (Diogenidae), *D. canaliculatus*, is described and illustrated on the basis of material from off the Kerala State, southern India. It is referred to the *D. edwardsii* (De Haan, 1849) species group, and compared with *D. bicristimanus* Alcock, 1905, *D. fasciatus* Rahayu & Forest, 1995, *D. laevicarpus* Rahayu, 1996 and *D. moosai* Rahayu & Forest, 1995. The characteristically sculptured left chela and the unarmed dorsal margins of the propodi of the second and third pereopods distinguish the new species from these congeners.

Key words: *Diogenes canaliculatus*, Kerala State

Introduction

The diogenid hermit crab genus *Diogenes* Dana, 1851 is typically characterized by the possession of an intercalary rostriform process flanked by ocular acicles, representing a unique feature for Paguroidea, though several species exhibits a tendency for reduction of this process, i.e., “*Troglopagurus* group” (McLaughlin 2005). *Diogenes* is currently represented by 61 species (Asakura & Tachikawa 2010; McLaughlin *et al.* 2010; Komai *et al.* 2012), most of which are distributed in shallow waters in the Indo-West Pacific region. Thanks to recent studies, taxonomic ambiguities of previously described species have been substantially clarified (e.g., McLaughlin & Haig 1996; McLaughlin & Clark 1997; McLaughlin & Dworschak 2001; McLaughlin & Holthuis 2001; McLaughlin 2002; 2005; Siddiqui & McLaughlin 2003; Siddiqui *et al.* 2004; Korn *et al.* 2008; Komai *et al.* 2012), though reappraisal of several species still remains necessary. From India and its adjacent waters, the following 19 species of the genus have been recorded: *D. alias* McLaughlin & Holthuis, 2001, *D. avarus* Heller, 1865, *D. bicristimanus* Alcock, 1905, *D. costatus* Henderson, 1893, *D. custos* (Fabricius, 1798), *D. dubius* (Herbst, 1804), *D. fasciatus* Rahayu & Forest, 1995, *D. investigatoris* Alcock, 1905, *D. karwarensis* Nayak & Neelakantan, 1989, *D. klaasi* Rahayu & Forest, 1995, *D. lophochir* Morgan, 1987, *D. maclaughlinae* Nayak & Neelakantan, 1985, *D. manaarensis* (Henderson, 1893), *D. miles* (Fabricius, 1787), *D. persicus* (Nobili, 1905), *D. planimanus* Henderson, 1893, *D. rectimanus* Miers, 1884, *D. tirmiziae* Siddiqui & McLaughlin, 2003, *D. violaceus* Henderson, 1893 and *D. waltirensis* Kamalaveni, 1950 (Henderson 1893; Alcock 1905; Kamalaveni 1950; Nayak & Neelakantan 1985, 1989; Thomas 1989; Siddiqui & McLaughlin 2003; Siddiqui *et al.* 2004; McLaughlin 2005; Reshmi & Bijukumar 2011).

In this paper, we describe one new species of *Diogenes* based on the material collected during the faunal investigation along the coast of the Kerala State, southern India, carried out by the junior authors. *Diogenes canaliculatus* n. sp., is referred to the *D. edwardsii* De Haan, 1849 species group (Asakura & Tachikawa 2010). Affinities of the new species are discussed.

Material examined in this study is deposited in the Natural History Museum and Institute, Chiba (CBM), Japan, and the museum collections of the Department of Aquatic Biology and Fisheries, University of Kerala (DABFUK), India. General terminology follows McLaughlin *et al.* (2007), except for numbering of thoracic