Zootaxa 3994 (2): 265–274
www.mapress.com/zootaxa/

Article

ISSN 1175-5326 (print edition)
ZOOTAXA
ISSN 1175-5334 (online edition)

http://dx.doi.org/10.11646/zootaxa.3994.2.6
http://zoobank.org/urn:lsid:zoobank.org:pub:94AD80F3-6C7F-405B-BD89-72584114353F

Two new species of *Palapedia* Ng, 1993 (Crustacea, Decapoda, Brachyura, Xanthidae) from the Persian Gulf

REZA NADERLOO
School of Biology and Center of Excellence in Phylogeny of Living Organisms, College of Science, University of Tehran, 14155-6455 Tehran, Iran. E-mail: rnaderloo@ut.ac.ir

Abstract

Two new species of *Palapedia* Ng, 1993, are described based on material collected from Abu-Musa Island, Persian Gulf during the present study, from Bahrain by the 1937/38 Danish Expedition, and from the Saudi Arabian coast of the Persian Gulf by Michael Apel in 1992–1995. *Palapedia persica* **n. sp.** is distinguishable from its congeners by having distinctly large denticles on the upper margin of the palm and fingers of the chelae and anterior margin of the ambulatory dactyli, and by the markedly sickle-shaped dactylus of the ambulatory legs. *Palapedia apeli* **n. sp.** is similar to *P. valentini* Ng, 1993, and *P. nitida* (Stimpson, 1858), by having relatively smooth appendages.

Key words: Indian Ocean, Persian Gulf, taxonomy, new taxa, Xanthidae, Kraussiinae

Introduction

Ng (1993) revised the genus *Kraussia* Dana, 1852, and divided it into three genera: *Kraussia* Dana, 1852 [monotypic; type species *Kraussia rugulosa* (Krauss, 1843)], *Garthasia* Ng, 1993 (monotypic; type species *Garthasia americana* Ng, 1993), and *Palapedia* Ng, 1993 (currently with 15 species; type species *Palapedia valentini* Ng, 1993) (Serène 1972; Ng 1993; Ng et al. 2008). The distinctive characteristic of *Kraussia* is its spoon-shaped fingers, whereas the fingers in *Palapedia* and *Garthasia* are distinctly sharp and pointed (Ng 1993). *Garthasia* is an American genus with wide carapace and short third maxilliped. Ng (1993) defined the subfamily Kraussinae within the family Xanthidae for these three genera as being morphologically distinct from other xanthids. Kraussiine crabs occupy sandy subtidal habitats and show behaviors that are unusual for xanthid crabs (Serène 1972). The unique position of Kraussinae among Xanthidae was highlighted by Lai et al. (2011) by using four genetic markers accompanying with adult and larval morphology. In the phylogenetic tree constructed based on the genes (three mitochondrial and one nuclear gene), *Kraussia* was separated from *Palapedia* and is, instead, in the same clade as typical members of *Etisus* (subfamily Etisinae). The supraspecific classification of Kraussinae thus needs to be revised.

Brachyuran crabs of the Persian Gulf have been relatively well documented (e.g. Stephensen 1946; Apel 2001; Naderloo & Türkay 2012). The family Xanthidae is currently represented by 29 species (Apel 2001; Naderloo & Türkay 2012; Naderloo unpublished), of which there is only one putative undescribed species, "*Palapedia* n. sp." (see Apel 2001). Stephensen (1946) recorded "*Kraussia* (*nitida* Stimpson?)" based on one specimen collected by the Danish Expedition 1937/38 from Bahrain in the Persian Gulf. Apel (2001) collected more material from the Saudi Arabian coast and re-examined Stephensen's (1946) specimen and concluded that all belong to a new, undescribed species of *Palapedia*. Re-examination of Stephensen's (1946) and Apel's (2001) material revealed that there are two different species of *Palapedia,* both of which are herein described as new species.

Measurements are given in millimeters. Abbreviations used here are as follow: CL = carapace length, CB = carapace breadth, G1 = first male pleopod. The material examined in this study is deposited in the SMF (Forschungsinstitut Senckenberg, Frankfurt am Main, Germany), ZMUC (Universitets Zoologiske Museum, Copenhagen, Denmark).

Accepted by P. Castro: 29 Jun. 2015; published: 31 Jul. 2015