



Periclimenaeus echinimanus sp. nov. (Crustacea: Decapoda: Pontoniinae), a new species from the Gulf of Aqaba, Red Sea

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Abstract

A new species of sponge-associated pontoniine shrimp from the northeastern Red Sea is described and illustrated. The new species is closely related to *Periclimenaeus rhodope*, but can be easily distinguished from the latter by the dense spinulation of the second pereopod chelae. The new species is placed in the *Periclimenaeus robustus* species group, on account of the presence of the anterodorsal median lobe on the first abdominal segment. The new species is the first representative of the genus reported from a discrete Red Sea locality.

Key words: Crustacea, Decapoda, Pontoniinae, *Periclimenaeus echinimanus* new species, Red Sea, sponge symbiont

Introduction

The majority of species of the genus *Periclimenaeus* are known as obligatory commensals of sponges or ascidians (Bruce, 2006a). Recent studies of sponges have revealed the presence of previously unreported small and inconspicuous, often highly cryptic, representatives of this genus (Bruce, 2006a,b; Marin, 2007; Ďuriš *et al.*, 2009a,b). *Periclimenaeus* is the second most species-rich genus in the palaemonid subfamily Pontoniinae (De Grave *et al.*, 2009), with almost 60 species occurring in the Indo–West Pacific Area (Ďuriš *et al.*, 2009b). However, the Red Sea remains almost unexplored for Pontoniinae, and there appears to be only one species recorded: *Periclimenaeus nobilii* Bruce, 1974, with ‘Red Sea’, as its type locality, without further specifics (Bruce, 1974). Some other species have been described from older collections from Djibouti: *P. arabicus* (Calman, 1939), *P. djiboutensis* Bruce, 1970, *P. hecate* (Nobili, 1904) and *P. rhodope* (Nobili, 1904), but it is not clear if they are part of the Red Sea fauna or occur in the Gulf of Aden. None of the above species except for *P. djiboutensis* are listed by Bruce & Svoboda (1983) as part of the Red Sea pontoniine shrimp fauna. The inclusion of *P. djiboutensis* is based on the record by Fishelson (1974: 188), who referred to this taxon as ‘recently described by Bruce (1969)’. However, this is a reference to a paper in which only *Periclimenes* species are described, and as Fishelson’s study is on the fauna inhabiting crinoids (which do not act as a host for *Periclimenaeus* species), this record is dubious. For the time being, there are no confirmed records and the inclusion of this record in Bruce & Svoboda (1983) and De Grave (2001) is considered an error.

A series of specimens of an unknown sponge-associated *Periclimenaeus* species were collected during a survey of pontoniine shrimps at Aqaba on the Jordanian coast of the Gulf of Aqaba, northeastern Red Sea. The new species is described and illustrated here.

The following abbreviations are used: # xx Aq09, collection number, Aqaba 2009; CL, postorbital carapace length; (i)–(iv), sample numbers in the material examined listing; MSS, Marine Science Station, Aqaba, Jordan; OUMNH-ZC, Oxford University Museum of Natural History, Oxford, England); RMNH, Nationaal Natuurhistorisch Museum – Naturalis (previously Rijksmuseum van Natuurlijke Historie), Leiden, the Netherlands; TL, total

