Intertidal caprellids (Crustacea: Amphipoda) of the Persian Gulf and the Gulf of Oman, with description of three new species

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Abstract

In the present contribution, intertidal caprellids of the Persian Gulf and the Gulf of Oman were studied. Materials were collected, from 40 localities, with a variety of habitats, along the Iranian coasts. Three new species are described including: Metaprotella macoranicus sp. nov, Monoliropus kazemii sp. nov, Pseudaeginella hormozensis sp. nov and Pseudocaprellina pambanensis is reported from studied area. Metaprotella macoranicus sp. nov., is characterized with clear suture between head and pereonite 1, second peduncle article larger than third ones in first antenna, tuft and three long setae in abdominal appendages and reduced mid-dorsal projections in pereonite 3. Monoliropus kazemii sp. nov., possesses biarticulate abdominal appendage, straight second male gnathopod and setal formula with two apical and two medial setae. The main diagnostic character of Pseudaeginella hormozensis sp. nov., is reduced dorsal projection, bearing mid-lateral projection on pereonite 2–5 and robust pereopod 5 with grasping spines on propodus.

Key words: Metaprotella macoranicus, Monoliropus kazemii, Pseudaeginella hormozensis, Pseudocaprellina pambanensis, Iranian Southern coasts

Introduction

Caprellid amphipods are small marine crustaceans which usually live in various habitats. These organisms play an important role in the food web and can be used as an indicator of marine pollution (Guerra-García & García-Gomez 2001; Takeuchi et al. 2004; Thiel et al. 2003; Woods 2009). In recent decades, numerous studies have been carried out on the caprellid fauna of the Indo-Pacific region. The most relevant studies were in Thailand (Takeuchi & Guerra-García 2002), Indonesia (Krapp-Schickel & Guerra-García 2005), Philippines (Guerra-García 2002a), Hong Kong (Guerra-García & Takeuchi 2003), Papua New Guinea (Guerra-García 2003b), Western and Northern territory Australia (Guerra-García 2004a), Tanzania (Guerra-García 2001; Guerra-García 2002b,c), and Mauritius (Guerra-García 2003a). In the recent study by Guerra-García et al. (2009), three of the 39 stations were located on the west coast of Indian Ocean. Of these, four specimens of Paracaprella pusilla were recorded from one location.

There is no knowledge on the caprellid fauna of the southern coasts of Iran, as part of the West Indo-Pacific region. But there are studies in the adjacent regions including: Arimoto, (1970) from the Arabian Sea and a collection of material from “John Murray expedition” in Indo-West Pacific region studied by Barnard (1937).

The present contribution aims to study intertidal caprellids of the Persian Gulf and the Gulf of Oman to extend the current state of knowledge on intertidal caprellid taxonomy of the Indian Ocean. Here, three new species belong to family Caprellidae are described and the presence of Pseudocaprellina pambanensis is reported.

Material and methods

Specimens were collected from 40 localities along the coasts of Persian Gulf and Gulf of Oman (Table 1 and Fig. 1). The area between locations 2 and 3 was mostly inaccessible and therefore not visited during this study.