



Nereididae (Annelida: Polychaeta) from intertidal habitats in the Gulf of Oman, Iran

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Abstract

The species composition and distribution patterns of Nereididae (Annelida: Polychaeta) from the north coast of Gulf of Oman were investigated. Specimens were collected from ten intertidal sites along the Iranian coast, including mangrove, muddy, boulder and rocky, coral and sandy-rocky shore habitats. Eight species of Nereididae were identified: *Leonnates decipiens* Fauvel, *Nereis coutieri* Gravier, *Neanthes deplanata* Mohammad, *Perinereis nuntia* (Savigny), *Perinereis heterodonta* Gravier, *Perinereis cultrifera* (Grube), *Perinereis horsti* Gravier and *Pseudonereis trimaculata* Horst. The eight species are redescribed and two *Perinereis* species, *P. heterodonta* and *P. horsti*, currently junior synonyms of *P. nuntia* and *P. vancaurica* (Ehlers) respectively, are raised from synonymy. All reported species are new records for the Gulf of Oman, bringing the known total number of species in the family to twelve; *P. trimaculata* is also a new record for the Arabian Sea–Arabian Gulf region. Nereidid diversity within the region is comparable to other Indo-Pacific coastal regions, and higher than other parts of the world.

Key words: polychaete, nereidid, Iranian Gulf, Persian Gulf, Arabian Sea, taxonomy

Introduction

Nereididae is a group of polychaete worms that is relatively well known having been first mentioned in pre-Linnaean writing (Ashworth, 1912; Fauchald & Rouse, 1997; Pleijel, 2000). This family is one of the most diverse polychaete families in the world (Hutchings *et al.*, 2000) and the most diverse in the Indian Ocean region (Hartman, 1974b). Nereidids are most common in shallow marine habitats, but they occur in a wide range of environments from the deep sea to estuaries, freshwater streams and even temporary rainwater puddles in moist terrestrial environments (Wilson, 2000). The Nereididae is also of great economic significance (Wu *et al.*, 1985). There are no comprehensive taxonomic studies on nereidid polychaetes of the Gulf of Oman, although there are a few unpublished ecological studies and reports, which include nereidids from the area (e.g., Valavi, 1997; Shakoori, 1997; O'Dannel, 1981). During 1937 and 1938, Danish biologists carried out investigations on animals collected off the Iranian Gulf. Of the 114 species of polychaetes 11 were Nereididae (Wesenberg-Lund, 1949). Other studies of polychaetes from the region reporting Nereididae are those of Fauvel (1911, 1918, 1919, 1932), Monro (1937), Hartman (1974a, b) and Mohammad (1980). Only four nereidid species are currently known from the Gulf of Oman – *Alitta succinea* (Frey & Leukart), *Ceratonereis mirabilis* Kinberg, *Leonnates indicus* Kinberg and *Pseudonereis anomala* Gravier.

The goal of this paper is to document the intertidal nereidid diversity of the Gulf of Oman, to redescribe poorly known forms, and to identify any additional intraspecific variation. The present survey is the first taxonomic account of Nereididae from the intertidal habitats of the Gulf of Oman.