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Nephtyidae (Annelida, Polychaeta) from southern Europe

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Abstract

Eighteen nephtyid species belonging to four different genera are known from southern Europe. In this study we revise the nephtyids from this area and provide descriptions of all the known species. Geographical and bathymetrical distributions are given, together with ecological notes. *Inermonephtys foretmontardoi*, new species, is described, *Micronephtys maryae* is newly synonymized with *M. stammeri* and *Aglaophamus rubellus* with *A. agilis*. New diagnoses are provided for southern European genera and a key to all species from the region is included.

Key words: Polychaeta, *Aglaophamus*, *Inermonephtys*, *Micronephtys*, *Nephtys*, taxonomy, South Europe, new species

Introduction

Nephtyidae is a common family of polychaetes comprising five genera and over 100 described species (Ravara *et al.* 2010). The first species described were *Nephtys ciliata* (O. F. Müller, 1776) and *N. caeca* (Fabricius, 1780), both from the North Atlantic. The majority of northern European nephtyid species were described between 1842 and 1908 by Örsted (1842, 1843a), Malmgren (1865), Ehlers (1868), Malm (1874), Théel (1879), Michaelsen (1896) and McIntosh (1900b, 1908). Major revisions of the northern European nephtyids include Fauchald (1963), Rainer (1984, 1989, 1990, 1991) and Dnestrovskaya and Jirkov (2001), with descriptions of three more species. Apart from one study from the region of Marseille, southern France (Foret-Montardo 1969), and a study of the Iberian fauna (Laborda 2004), up to date no major studies have been carried out on the Nephtyidae from southern European waters, although many of the species occurring in northern Europe extend their distribution further south, often into the Mediterranean Sea. Nineteen nephtyid species are known from South European waters (from the English Channel to the Mediterranean Sea), ten of which belong to the genus *Nephtys*, five to *Aglaophamus*, three to *Micronephtys*, and one to *Inermonephtys*. In this study we provide diagnoses of the four genera and redescriptions of the nineteen southern European species based on examined specimens, with comprehensive lists of synonyms and remarks on geographical and bathymetric distributions. A new species of *Inermonephtys*, *I. foretmontardoi*, previously misidentified as *I. inermis*, is described from northwestern Spain. *Micronephtys maryae* is newly synonymised with *M. stammeri* and *Aglaophamus rubellus* with *A. agilis*. A key for southern European species is also included.

Material and methods

Part of the nephtyid material examined in this study was collected by the first author in intertidal and shallow waters along the Portuguese coast, and specimens from Gulf of Cadiz and Portuguese submarine canyons were collected by the second author. A large number of specimens were collected by the third author in several places around the world. Most specimens were fixed and preserved in 90–95% ethanol and deposited in the Biological Research Collection of the Department of Biology of the University of Aveiro (DBUA) and the Museu Nacional de História Natural (Museu Bocage) in Lisbon (MNHN MB). Additional examined material came from collections of the University of Aveiro (DBUA), the Museu Municipal do Funchal, Madeira (MMF) the Natural History Museum of London (NHM), the National Museum of Wales (NMWZ), the Museo Nacional de Ciencias Naturales, Madrid (MNCN), the California Academy of Sciences, Invertebrate Zoology (CASIZ), Zoologisches Museum, Hamburg (ZMH), Göteborgs naturhistoriska museum (GNHM), Naturhistoriska riksmuseet, Stockholm (SMNH), Zoologisk Museum, Copenhagen (ZMUC), the United States National Museum of Natural History (USNM), the Museum of Comparative Zoology, Harvard University (MCZ) and the Muséum national d'Histoire naturelle (MNHN).

All drawings were prepared from preserved animals with a camera lucida. Measurements of body width were recorded from the widest part of the body, and include parapodia, but exclude chaetae. Body length excludes anal cirrus. Incomplete animals were excluded from the diagrams that relate body length, number of chaetigers and other variables.