

# On the Nereididae (Polychaeta: Annelida) fauna of the Bay of İzmir

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**Abstract:** This study, dealing with the taxonomic features of Nereididae species, was conducted at 7 stations located in İzmir Bay and its adjacent areas. The benthic samples examined yielded 7 genera and 15 species; of these *Micronereis variegata* Claparède, 1863 is recorded for the first time in Turkish waters. The morphological characteristics of the specimens collected in various biotopes are discussed and a taxonomic key to the species is provided.

**Kurzfassung:** An 7 verschiedenen Stellen in der Bucht von Izmir und Umgebung wurden Aufsammlungen von Nereididae durchgeführt. Aus den benthischen Proben wurden 15 Arten in 7 Gattungen ermittelt, darunter *Micronereis variegata* Claparède, 1863 als für die Türkei neue Art. Die morphologischen Eigenschaften der Arten werden beschrieben und ein Bestimmungsschlüssel gegeben.

**Key words:** Nereididae, Polychaeta, taxonomy, morphology, Aegean Sea, Turkey.

## Introduction

The Nereididae Johnston, 1845, are characterized by bearing two frontal antennae (absent in *Micronereis*); four eyes (rarely absent); biarticulated palps (absent in *Micronereis*); two or four pairs of tentacular cirri; eversible pharynx with a pair of jaws and often accessory denticles (paragnaths) or papillae; biramous parapodia (uniramous in some, such as *Lycastopsis*), usually with complex flattened ligules and cirri; and different types of chaetae such as simple, composite, spinigerous and falcigerous (FAUCHALD 1977). At maturity some species undergo a kind of metamorphosis, subjected to profound structural modifications, referred to as the epitokous phase or heteronereis stage in which eyes become extremely enlarged and the median parapodia acquire thin, foliaceous lamellae; normal chaetae are replaced by swimming chaetae in which the blades are flat, paddle-like (PETTIBONE 1963, IMAJIMA 1972).

The Nereididae comprise almost 33 genera and 439 species worldwide, 14 genera and 44 species in the Mediterranean, and 9 genera and 18 species along the Turkish coasts. The first attempt to list the nereidid taxa of the Turkish shores was made by OSTROUMOFF (1896) who reported three species in the Sea of Marmara. Subsequently 4 species were recorded in the Black Sea (RULLIER 1963, PINAR 1973), 11 species in the Sea of Marmara (OSTROUMOFF 1896, LA GRECA 1949, DEMIR 1952, RULLIER 1963, CASPERS 1968, PINAR 1973), 14 species in the Aegean Sea (ERGEN 1976, 1980, ÇINAR & ERGEN 1998), and 7 species in the Mediterranean Sea (BEN-ELIAHU 1989, ERGEN & ÇINAR 1997).

Altogether only a few short notes have been published on the Turkish nereidid fauna. With this study, we wish to increase knowledge of the taxonomic features of the Nereididae species inhabiting İzmir Bay and its vicinity.