



Catalogue of non-marine Polychaeta (Annelida) of the World

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Abstract

An annotated checklist and bibliography of 197 species (representing 78 genera and 26 families) of non-marine polychaetes of the world is presented, including synonymies, information on ecology, distribution, habitat, and references to the taxonomic and biological literature. Over half (57%) of the checklist species are represented by just three families as follows: Nereididae (61 species including *Namanereis*, *Namalycastis*, *Neanthes* and *Hediste*), Aeolosomatidae (27 species, mostly *Aeolosoma*) and Sabellidae (24 species including *Caobangia* and *Manayunkia*). Other well-represented taxa are the epizoic histriobdellid *Stratiodrilus* (11 species), the inland-sea-specialist ampharetid *Hypania* and related genera (5 species), and the freshwater-tolerant spionid *Marenzelleria* (5 species). One new combination is proposed for the nereidid *Nereis tenuipalpa* Pflugfelder, 1933, viz. *Paraleonnates tenuipalpa* n. comb.

Key words: Annelids, polychaetes, checklist, species list, freshwater, brackish water

Introduction

Polychaeta is an ancient, non-monophyletic group of Annelida that are common inhabitants in virtually all marine environments. Despite their 500+ million year history on Earth relatively few of the estimated 9000–12 000 or more species (depending on author) worldwide have colonised freshwater. Non-marine polychaetes comprise a largely unrelated and poorly-known group that occur in a diverse range of habitats including freshwater rivers and lakes and the associated riparian vegetation, inland seas of varying salinities, supratidal areas of freshwater seepage, and enclosed or semi-enclosed coastal lagoons. Some polychaetes can even be found far from the sea living like earthworms or in pools of water deep underground. Considering the restricted and sensitive nature of most of these habitats, many species or groups are likely to be vulnerable to human impacts. A significant number of non-marine forms are host-specific commensals or parasites of other invertebrates—these include all of the Histriobdellidae, which are found in the branchial lamellae of crabs and crayfish, and the sabellids *Brandtika* and *Caobangia*, which are commensals of molluscs.

The only previous global review of non-marine polychaetes reported 43 species, comprising 31 purely freshwater species and 12 species found in both fresh and saline waters (Wesenberg-Lund 1958). Wesenberg-Lund also included many species classified as ‘brackish’ or ‘brackish (marine)’ that have subsequently been reported from freshwater, and are therefore included in the present list. Regional and taxon-specific reviews of non-marine polychaetes include Annenkova (1930) from the former USSR, Orensanz (1977, 1981, 1982) from Central and South America, Hartman (1959a) on Nereididae, Hartman (1959b) and Foster (1972) from North America, Pinder (2004) and Rouse (2004) from South-east Asia, and Day & Day (2002) from southern Africa. The present review is supplementary to Glasby & Timm’s (2008) overview of freshwater polychaetes, but differs slightly in scope in that it includes also species occurring in terrestrial soil, and several additional taxa found in the aquatic habitat categories. Following Glasby & Timm (2008) the enigmatic Aphanoneura (Aeolosomatidae and Potamodrilidae) are included among the Polychaeta. Unlike most other Polychaeta, the Aphanoneura are all freshwater specialists, except for *Aeolosoma maritimum* Westheide & Bunke, 1970 and *A. maritimum dubiosum* Westheide & Schmidt, 1974 which are marine littoral species and therefore excluded. Most literature records indicate that Aphanoneura live in lakes and rivers, but records of *A. tenebrarum* Vejdovský, 1882 from wells in Prague, Czech Republic by the species author, and those of unidentified specimens in the groundwater of north-western Australia (A. Pinder, Department of Environment and Conservation, Western Australia) suggest that the group has wider habitat preferences.