

The Aphroditidae (Polychaeta) from Australia, together with a Redescription of the Aphroditidae collected during the Siboga Expedition

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ABSTRACT. The family Aphroditidae is represented in Australian waters and the Indonesian Archipelago by 34 species in five genera, of which seven are new species. Previously described species from Australia are redescribed. The Aphroditidae collected during the Siboga expedition and described by Horst (1916a,b, 1917) are also redescribed and the relationship of this fauna to the Australian fauna discussed. In addition, the characters used to distinguish genera and species within the family and the variations exhibited by these characters are discussed, to facilitate a subsequent phylogenetic study of the group. A key to the genera and species represented in the Indo-Pacific is given.

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The family Aphroditidae is poorly known from Australian waters. Day & Hutchings (1979) recorded 12 species in four genera, some of them are known only from their original descriptions, and for one of these species *Aphrodita terraereginae* no additional material has been found during this study. However, this family is well represented in Museum collections in Australia, especially those from deeper waters.

We have therefore undertaken a comprehensive study of the Australian aphroditids. We have examined all the aphroditid material available in Australian state museums and the extensive collections of aphroditids made during the Siboga Expedition and described by Horst (1916a,b, 1917). In this paper we describe 34 species in five genera, of which seven are new species. For species previously

described we have provided comprehensive descriptions as the original descriptions are typically very brief.

Apart from the material collected during the Siboga Expedition few other aphroditids have been described from the Indo-Pacific. It is surprising that there is little overlap between the aphroditid fauna of Australian waters, and those recorded from Indonesian waters, as aphroditids are typically deep water species. However it should be stressed that relatively little material was available from northern Australia, where little deep water collecting has been undertaken.

A recent revision of the genus *Palmyra* by Watson Russell (1989) has placed this genus in the family Aphroditidae. It was considered to be a member of the family Chrysopetalidae by Day (1967) and subsequently