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The Amphitritinae (Polychaeta: Terebellidae) from Australia

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ABSTRACT. The amphitritine fauna of Australia comprises 17 genera and 37 species. These are described, and a key to the genera and Australian species is provided. Twenty one new species and one new genus are described: *Amphitrite pachyderma* n. sp., *Amphitritides harpa* n. sp., *A. ithya* n. sp., *Arranooba booromia* n. gen., n. sp., *Baffinia biseriata* n. sp., *Eupolymnia koorangia* n. sp., *Lanassa exelysis* n. sp., *L. ocellata* n. sp., *Lanicides fascia* n. sp., *L. lacuna* n. sp., *L. tribranchiata* n. sp., *Lanice bidewa* n. sp., *Loimia batilla* n. sp., *L. triloba* n. sp., *Neoleprea macrocercus* n. sp., *Phisidia echuca* n. sp., *Pista australis* n. sp., *P. sinusa* n. sp., *P. turawa,* n. sp., *Reteterebella aloba* n. sp. and *Terebella maculata* n. sp., and the following new combination *Longicarpus modestus.*

A full description of all Australian species of this subfamily is given except when a recent description is available.

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This paper describes the Australian Amphitritinae (F. Terebellidae) and concludes the description of the Australian terebellid fauna (Hutchings & Glasby, 1986a,b, 1987). To date, no species of the subfamily Artacaminae have been found in Australia. We have attempted to examine all the material that is available and have borrowed the complete holdings of terebellids from all museums in Australia. However, material from certain areas of Australia is lacking, especially from shelf or deeper waters, and we anticipate that the terebellid fauna will continue to expand.

In this paper we discuss several genera not previously described from Australia, including several of the abranchiate genera. Hessle (1917) placed these genera in the Amphitritinae rather than in the Polycirrinae because of the arrangement of uncini in double rows on at least some segments. The majority of these genera (*Baffinia, Lanassa, Laphania, Phisidia, Proclea, Spinosphaera* and *Stschapovella*), contain few species and these are often poorly described. Many are deep water species, which have not been recorded since their original description. Considerable problems exist within these genera but a generic revision is beyond the scope of this paper. We have therefore followed Fauchald's (1977) generic definitions of the abranchiate genera, for the description of several new species from shallow or intertidal areas in southern Australia. However we believe that the current definitions of species in these genera, which are largely based on the structure of the notosetae, pose many problems as most of these setae, when viewed under oil emersion, are denticulate to some degree.

Clarification of the setal structures in the abranchiate genera, using scanning electron microscope techniques, is urgently needed as is the defining of the presence or absence of lateral lobes. In some species examined, described in genera characterised as having lobes, these structures were mere ridges not comparable in structure to those found, for example, in *Pista* or *Loimia.* Any generic revision must consider these points. However, in all genera of terebellids, notosetae must be examined under oil emersion in order to elucidate their fine structure.

Prior to this study, several widely distributed or so called 'cosmopolitan species' had been reported from Australia (Day & Hutchings, 1979). Examination of type material or material from the type locality has