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# Syllinae (Polychaeta, Syllidae) from Australia. Part. 2. Genera *Inermosyllis*, *Megasyllis* n. gen., *Opisthosyllis,* and *Trypanosyllis*

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## Abstract

Large collections of Australian Syllidae (Polychaeta) from the Australian Museum (Sydney) have been examined and identified, together with material from the Hamburgische Zoologische Museum der Universität (Hamburg, Germany), as well as some specimens from other museums. All known Australian species of the subfamily Syllinae belonging to *Inermosyllis* San Martín, 2003 (1 species), *Megasyllis* n. gen. (3 species), *Opisthosyllis* Langerhans, 1879 (5 species), and *Trypanosyllis* Claparède, 1864 (2 species), are described and figured. The Scanning Electron Microscope was used to illustrate relevant taxonomic characters and reproduction methods in these genera. *Inermosyllis pseudohaploides* is described as a new species. *Megasyllis* is described as a new genus, including *M. corruscans* (Haswell, 1885) and *M. heterosetosa* (Hartmann-Schöder, 1991) from Australia, and *M. inflata* (Marenzeller, 1879) from Japan and Australia; the

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species *M. multiannulata* (Aguado, San Martín & Nishi, in press) from Japan is also referred to this genus. The genus *Inermosyllis* is reported for the first time from Australia, as well as the species *Opisthosyllis longicirrata* Monro, 1939 and *Trypanosyllis aeolis* Langerhans, 1879.

**Key words:** Taxonomy, new species, new records, Syllidae, Australia

## Introduction

This is the fourth paper documenting the Syllidae (Annelida, Polychaeta) from all around Australia (especially from Western Australia and New South Wales) based on the large collections from the Australian Museum. This paper also includes the revision of the material collected and described by Hartmann-Schröder in her series of papers on Australian polychaetes (1979–1991) and summarises the related information from previously published studies of San Martín (2002, 2005), San Martín & López (2003), San Martín & Hutchings (2006), and San Martín *et al.* (2007, 2008). A general introduction to the Australian Syllidae including the definition of terms used in this paper was provided by San Martín (2005), while San Martín *et al.* (2008) provides similar information focusing on the Syllinae. In the present paper, all species of *Inermosyllis*, *Megasyllis* n. gen., *Opisthosyllis*, and *Trypanosyllis*, belonging to the Syllinae, are described and figured, and keys to the Australian species are provided. In addition, *Inermosyliis pseudohaploides* is described as a new species, *Megasyllis* is proposed as a new genus to include *M. corruscans* (Haswell, 1885), *M. heterosetosa* (Hartmann-Schöder, 1991), and *M. inflata* (Marenzeller, 1879) as well as *M. multiannulata* (Aguado, San Martín & Nishi, in press) from Japan, and the genus *Inermosyllis* is reported for the first time from Australia, as well as the species *Opisthosyllis longicirrata* Monro, 1939 and *Trypanosyllis aeolis* Langerhans, 1879.

## Material and methods

Most of the examined belongs to the collections of the Australian Museum (AM), and was collected by N. Coleman, G. Wilson, J. K. Lowry, R. T. Springthorpe, H. E. Stoddart, P. A. Hutchings, A. Murray, T. J. Ward, P. C. Young, and A. Jones, among others. The Australian material from the Zoologisches Museum of Hamburg (HZM), collected and identified by Hartmann-Schröder, has been re-examined and compared with the collections at the Australian Museum as well as several specimens from other museums (see below). The specimens are preserved in 70% ethanol after fixation in formalin. All observations were made using a compound microscope with interference contrast optics (Nomarsky). Drawings were made using a camera lucida. Scanning Electron Microscope observations and photographs were made at the SIDI (Servicio Interdepartamental de Investigación) of the Universidad Autónoma de Madrid, Spain.

The width of specimens was measured at the proventricular level, excluding parapodia and chaetae. When available, the specimen length is indicated as follows: small (< 5 mm in length), medium (5–10 mm in length) and large (> 10 mm in length).

All genera and species are in alphabetical order, respectively.

The Material examined section lists material in an anticlockwise direction around Australia, beginning from Western Australia.

The following abbreviations are used in the Material examined:

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| AM | The Australian Museum, Sydney, NSW, Australia |
| HMZ | Zoologisches Museum of Hamburg, Germany |
| NMW | Naturhistorisches Museum of Wien, Austria |
| ZMB | Naturhistorisches Forschungsinstitut Museum für Naturkunde, Zentralinstitut der Humboldt– |