

## Syllinae (Polychaeta: Syllidae) from Australia. Part 1. Genera *Branchiosyllis*, *Eurysyllis*, *Karroonsyllis*, *Parasphaerosyllis*, *Plakosyllis*, *Rhopalosyllis*, *Tetrapalpia* n.gen., and *Xenosyllis*

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**ABSTRACT.** Large collections of Syllidae (Polychaeta) from around Australia, housed at the Australian Museum (Sydney), have been examined and identified. Australian material from the Hamburgische Zoologische Museum der Universität, Hamburg, Germany was also examined, as well as some specimens lodged in other museums. All known Australian species of the subfamily Syllinae (Syllidae) belonging to the genera *Branchiosyllis* Ehlers, 1887 (9 species); *Eurysyllis* Ehlers, 1864 (1 species); *Karroonsyllis* San Martín & López, 2003 (1 species); *Parasphaerosyllis* Monro, 1937 (1 species); *Plakosyllis* Hartmann-Schröder, 1956 (1 species); *Rhopalosyllis* Augener, 1913 (1 species), *Tetrapalpia* n.gen. (1 species), and *Xenosyllis* Marion & Bobretzky, 1875 (2 species), are described and figured. Some were examined using the Scanning Electron Microscope to illustrate characters and methods of reproduction in this subfamily. Since there are numerous genera and species of Syllinae, the results will be presented in a series of several papers treating different genera. Keys to genera of Australian Syllinae will be provided in the final paper. Keys to species level are provided for genera having more than one Australian representative. Six new species are described: *Branchiosyllis baringabooreen*, *B. orbiniiformis*, *B. carmenroldanae*, *B. thylacine*, *Xenosyllis moloch*, and *X. scabroides*. A new genus, *Tetrapalpia* is described for the species *Opisthosyllis dorsoaciculata*. The genus *Xenosyllis* is described for the first time from Australia, as well as *Branchiosyllis oculata* Ehlers, 1887, and *B. maculata* (Imajima, 1966). A discussion of the reproduction and systematics of the subfamily is given.

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This is the third monograph contributing to our study of the Australian Syllidae, based on the large collections housed in the Australian Museum from all around Australia, but primarily from Western Australia and New South Wales, and

revision of material collected and described by Hartmann-Schröder in her series of papers on Australian polychaetes (1979–1991). This paper also summarizes published material of San Martín (2002, 2005), San Martín & López (2003), San

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