



## Colomastigidae\*

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### Abstract

The family Colomastigidae is represented on the Great Barrier Reef by a total of six species, all members of the genus *Colomastix*, three of which are new to science. Ranges of the three known species, *C. japonica* Bulycheva, 1955, *C. lunalilo* J.L. Barnard, 1970 and *C. plumosa* Ledoyer, 1979, are extended to include the Great Barrier Reef. Of the three new species, two are found only on the Reef and the third also occurs near Port Jackson, New South Wales. All six species are fully described and illustrated.

**Key words:** Crustacea, Amphipoda, Colomastigidae, Great Barrier Reef, Australia, taxonomy, new species, commensal, *Colomastix dentipalma*, *Colomastix japonica*, *Colomastix lunalilo*, *Colomastix plumosa*, *Colomastix processa*, *Colomastix thomasi*

### Introduction

The Colomastigidae is a small family, comprising only two genera worldwide. The smaller of these genera, *Yulumara*, contains only five species, three of which occur in shallow, temperate and subtropical Australian waters and tend to be associated with marine algae or seagrasses (Lowry & Stoddart 2003). These include *Y. armadillicta* Moore, 1982 from Tasmania (Moore 1982), *Y. wallangar* J.L. Barnard, 1972 from South Australia (J.L. Barnard 1972) and *Y. tricuspis* Moore, 1988 from Western Australia (Moore 1988). None have been reported from the tropical waters of the Great Barrier Reef to date.

The second colomastigid genus, *Colomastix*, is much more widespread, occurring in all oceans with the exception of the Arctic. Members of this genus are typically commensals of marine sponges, although they are also reported from coral rubble, algae and grass-bed habitats. Some species are known to be host specific, whereas others occur in a wide variety of host taxa (LeCroy 1995, 2004). The genus is currently represented by 41 species worldwide; however, only one of these species is currently known from Australia and that one, *C. brazieri* Haswell, 1879 from Port Jackson, New South Wales (Haswell 1879, Lowry & Stoddart 2003), is poorly known. Although they are often quite common in tropical waters because of the high diversity of sponges in these regions, prior to this study, no species of *Colomastix* had been reported from the Great Barrier Reef. However, a number of regional works include descriptions of *Colomastix* species potentially occurring in these waters (J.L. Barnard 1970, Hirayama & Kikuchi 1980, Myers 1985, Kim & Kim 1987, Hirayama 1990, Myers 1990, Kim & Kim 1991, Müller 1992, Ariyama 2005, Ren 2006).

As a result of this study, a total of six species of *Colomastix*, three of them new, are now known to occur on the Great Barrier Reef.