



## Telothelepodidae, Thelepodidae and Trichobranchidae (Annelida, Terebelliformia) from Lizard Island, Great Barrier Reef, Australia

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### Abstract

In a survey of the polychaetes of the Lizard Island region, six species of polychaetes belonging to the families Telothelepodidae Nogueira, Fitzhugh & Hutchings, 2013, Thelepodidae Hessle, 1917 and Trichobranchidae Malmgren, 1866 were found, from material collected during the Lizard Island Polychaete Taxonomic Workshop, and material collected by previous projects undertaken by the Australian Museum. This material includes one new species of *Rhinothelepus* Hutchings, 1974 (Telothelepodidae); one new species of each of the genera, *Euthelepus* McIntosh, 1885, *Streblosoma* Sars, 1872, and *Thelepus* Leuckart, 1849 (Thelepodidae); and one new species of *Terebellides* Sars, 1835 and another of *Trichobranchus* Malmgren, 1866 (Trichobranchidae). Keys for identification of these species are provided, together with full descriptions for all species, as well as comparisons with the morphologically most similar congeners.

**Key words:** Polychaeta, taxonomy, morphology, new species, Queensland, Western Pacific Ocean

### Introduction

In August 2013 the Australian Museum hosted the 11<sup>th</sup> International Polychaete Conference and immediately after the meeting a group of researchers attended a polychaete workshop held at Lizard Island Research Station (a facility of the Australian Museum), Great Barrier Reef, funded by the Lizard Island Reef Research Foundation. The purpose of the workshop was to document the polychaete fauna of Lizard Island. This is one of a series of papers describing the polychaete fauna which is being published as a special issue of *Zootaxa*.

Prior to this study, Hutchings and Glasby (1987) described some species of Thelepodinae from Lizard Island, but in this paper we describe six new species belonging to six genera within the newly erected families Telothelepodidae Nogueira, Fitzhugh & Hutchings, 2013, Thelepodidae Hessle, 1917 and Trichobranchidae Malmgren, 1866 (Nogueira *et al.* 2013). Polychaetes are abundant around Lizard Island and on the Great Barrier Reef but they have been poorly documented and no comprehensive surveys have been carried out. They occur in all reefal habitats as well in the inter-reefal areas in soft sediments.

### Material and methods

During the workshop collections were made by snorkelling and SCUBA diving, from the intertidal zone to ~30 m depth covering a variety of habitats found in the Lizard Island and surrounding areas, including coral reefs, mangroves and sandy beaches, with sandy, muddy and coral rubble bottoms [see Ribas & Hutchings, (2015, this volume) for location of sampling sites (Fig. 1) and their co-ordinates (Table 1)]. Coral rubble and coral pieces were broken up by hand or using a hammer, polychaetes were sorted alive under a stereomicroscope, relaxed in magnesium chloride solution, and preserved in 4% formalin. Later, material was rinsed with fresh water and transferred to 70% ethanol solution.