Lizard Island Polychaete Workshop: sampling sites and a checklist of polychaetes

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Abstract

In August 2013, a two week polychaete workshop was held at Lizard Island, Great Barrier Reef. Twenty-one sites representing 121 collection events were sampled for polychetes around Lizard and on the Outer Barrier. Workshop participants sorted polychaetes to family and each participant received on loan selected families to work up. This Zootaxa monograph describes 91 new species, 67 new records for Lizard Island, and 19 for Australia. Details regarding the habitats and locations are provided in Table 2 together with two maps (Figs 1, 2) showing sampling locations. In this paper we also list previously collected polychaete material from the region together with any published records for families which are not included in this volume.

Keywords: Great Barrier Reef, Queensland, polychaete families, museum collections

Introduction

The Australian Museum (AM) established the Lizard Island Research station at Lizard Island in 1974 and over the past 40 years has developed this research station into one of the major field research facilities on the Great Barrier Reef (GBR) and within the Indo-Pacific (http://australianmuseum.net.au/lizard-island-research-station). Lizard Island and the associated islands are high granitic and situated in the Northern GBR within the GBR lagoon (14°40'46"S, 145°26'49"E).

In 2012, the Lizard Island Reef Research Foundation (LIRRF) provided a grant to Hutchings and Kupriyanova to host a post conference polychaete workshop at Lizard Island to document the polychaete fauna of Lizard Island which was held in August 2013, immediately after the 11th International Polychaete Conference which was held in Sydney at the Australian Museum. This grant enabled 15 researchers from around the world (Table 1) to visit Lizard for two weeks and then over the following 18 months to work up the polychaetes. A photographer also participated in the workshop to provide photos of live worms and their habitats in recognition of the usefulness of such images in supplementing species descriptions. It is also hoped that workshops for other major groups will be held at Lizard Island to build up a comprehensive inventory of the fauna/flora of the region and complement the existing ones for fish and corals (http://lifg.australianmuseum.net.au/Hierarchy.html).

This monograph includes all the papers resulting from the workshop which are all available as open access. Other researchers were given access to the polychaetes collected during the workshop and these papers are also included.

Since the establishment of the research station in 1974, numerous field trips to Lizard have collected polychaetes and while some of these have been examined and described in taxonomic papers (Hutchings & Glasby 1986, 1987, 1988), in other cases they have been as part of ecological studies (Hutchings & Murray 1982; Jones 1984) and bioerosion studies (Hutchings et al. 1992). In many cases this material has been incorporated into the AM collections. Prior to the workshop we developed lists of all described polychaete species from Lizard Island as well as unsorted material by family which was made available to all participants. In many cases they have subsequently borrowed this material and incorporated it into their papers (this monograph).

As well as this polychaete workshop, during the CReefs project from 2009–2012 (http://www.aims.gov.au/creefs/field-program.html), three field trips were held at Lizard Island as one of the nodes of the project and with