

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

polychaetes targeted and while some of this polychaete material was deposited at the AM, the rest was deposited in the Museum of Victoria (MV) or Museum and Art Gallery of Northern Territory (MAGNT) and this is also included in this checklist. During CReefs and the polychaete workshop vouchers specimens were often collected and fixed in alcohol for subsequent molecular studies.

While this volume includes papers on selected families, many families remain to be studied in detail and below we have provided a summary of these other families which we hope will encourage polychaete workers to request this material or to visit the AM to study them. Only by this means can we realistically hope to build up a really comprehensive inventory of polychaetes from the Lizard Island region. No other inventory exists for a coral reef area anywhere in the world and yet this group are abundant and diverse and play an important role in the benthic ecosystem. We also know that some species are dependent on the presence of live coral (Stella *et al.* 2011) and we would predict that species composition and diversity will change as coral reefs become degraded (Przeslawski *et al.* 2008).

TABLE 1. List of participants at the Lizard Island 2013 Polychaete Workshop.

Participant	Affiliation
Maite Aguado	Universidad Autonoma de Madrid, Facultad de Ciencias (Biología), Spain
Tom Alvestad	Uni Research, Bergen, Norway
Nataliya Budaeva	Natural History Collections, University Museum of Bergen, Norway
Maria Capa	University Museum, Norwegian University of Science and Technology, Trondheim, Norway
Chris Glasby	Museum and Art Gallery Northern Territory, Australia
Pat Hutchings	Australian Museum Research Institute, Australian Museum, Sydney, Australia
Elena Kupriyanova	Australian Museum Research Institute, Australian Museum, Sydney, Australia
Karin Meißner	Forschungsinstitut Senckenberg, Deutsches Zentrum für Marine Biodiversitätsforschung, Biozentrum Grindel, Hamburg, Germany
Anna Murray	Australian Museum Research Institute, Australian Museum, Sydney, Australia
Joao Nogueira	Laboratório de Poliquetologia (LaPol), Departamento de Zoologia, Instituto de Biociências, Universidade de São Paulo, Brazil
Julio Parapar	Departamento de Biología Animal, Bioloxía Vexetal e Ecoloxía, Universidade da Coruña, Spain
Vasily Radashevsky	A.V. Zhirmunsky Institute of Marine Biology, Far East Branch of the Russian Academy of Sciences, Vladivostok, Russia
Alexander Semenov	White Sea Biological Station, Moscow State University, Russia
Yanan Sun	Australian Museum Research Institute, Australian Museum, Sydney, Australia
	Department of Biological Sciences, Macquarie University, Sydney, Australia
Joana Zanol Silva	Departamento de Genética, Universidade Federal do Rio Janeiro Instituto de Biologia, Brazil
Anna Zhadan	Department of Invertebrate Zoology, Moscow State University, Russia
Juan Gonzalez-Vallarino	
Quelis Parapar	
Peter Rodgers	

Material and methods

This paper collates all the previous polychaete records from the EMU database of the Australian Museum (AM), Museum of Victoria (MV) and Museum and Art Gallery of Northern Territory (MAGNT) databases with data arranged by family in alphabetical order. The data was extracted from the databases using the following coordinates 14°22'33.55"S, 144°51'13.43"E, and 15°7'25.73"S, 145°46' 7.14"E covering the area surrounding Lizard Island and extending eastwards to the Outer Barrier and to some of the islands to the north and south of the Island. Figures 1 and 2 show this area along with sites sampled during the workshop and listed in Table 2.

TABLE 2. Collection information for all Lizard Island 2013 Polychaete Workshop Collection Events, with Site Numbers corresponding to collection sites on Figs 1–2.

Site Number on Maps	Collection Event Code	Site description (Australia, Queensland, Lizard Island or nearby)	Date Collected (in 2013)	Depth From: (metres)	Depth To: (metres)	Collection Method	Substrate & comments	Collectors
5	MI QLD 2329	Off beach in front of Lizard Island Research Station (14°40'46"S, 145°26'49"E)	13 Aug	1	3	by hand on snorkel	substrate: dead coral lumps, tubes	K. Meißner, T. Alvestad, J. Zanol Silva, C.J. Glasby
7	MI QLD 2330	Big Vicki's reef (14°41'10"S, 145°26'32"E)	13 Aug	6	10	by hand on SCUBA	sand (elutriated)	V.I. Radashevsky
7	MI QLD 2331	Big Vicki's reef (14°41'10"S, 145°26'32"E)	13 Aug	6	9	by hand on SCUBA	dead coral rubble	M. Capa, M.T. Aguado
7	MI QLD 2332	Big Vicki's reef (14°41'10"S, 145°26'32"E)	13 Aug	7		by hand on SCUBA	coarse sand	A. Zhadan
7	MI QLD 2333	Big Vicki's reef (14°41'10"S, 145°26'32"E)	13 Aug	9		by hand on SCUBA	muddy sand, upper layers	A. Zhadan
7	MI QLD 2334	Big Vicki's reef (14°41'10"S, 145°26'32"E)	13 Aug	7		by hand on SCUBA	muddy sand, upper layers	A. Zhadan
7	MI QLD 2335	Big Vicki's reef (14°41'10"S, 145°26'32"E)	13 Aug	4		by hand on snorkel	coral rubble and crinoids	K. Meißner, T. Alvestad, C.J. Glasby
7	MI QLD 2336	Big Vicki's reef (14°41'10"S, 145°26'32"E)	13 Aug	9		by hand on SCUBA	dead coral rubble	P.A. Hutchings
7	MI QLD 2337	Big Vicki's reef (14°41'10"S, 145°26'32"E)	13 Aug	7	10	by hand on SCUBA	dead coral rubble	J. Zanol Silva, A. Murray
7	MI QLD 2338	Big Vicki's reef (14°41'10"S, 145°26'32"E)	13 Aug	5		by hand on SCUBA	red algae	J. Zanol Silva, A. Murray
7	MI QLD 2339	Big Vicki's reef (14°41'10"S, 145°26'32"E)	13 Aug	7	10	by hand on SCUBA	sponges	J. Zanol Silva, A. Murray
5	MI QLD 2340	Off Casuarina Beach, in front of Lizard Island Research Station (14°40'46"S, 145°26'49"E)	14 Aug	1		by hand on snorkel	fine sand; sampled using hand-held corer; sieved through 0.5 mm mesh	K. Meißner, T. Alvestad
15	MI QLD 2341	Front of reef between Bird and South Islands (14°41'43"S, 145°27'56"E)	14 Aug	16		by hand on SCUBA	coral rubble	M. Capa
15	MI QLD 2342	Front of reef between Bird and South Islands (14°41'43"S, 145°27'56"E)	14 Aug	6		by hand on SCUBA	coral rubble	M. Capa
15	MI QLD 2343	Front of reef between Bird and South Islands (14°41'43"S, 145°27'56"E)	14 Aug	6		by hand on SCUBA	coarse sand	M. Capa
15	MI QLD 2344	Lagoon entrance, reef near Bird Island (14°41'43"S, 145°27'56"E)	14 Aug	1	1.5	by hand on snorkel	coral rubble	J.M.M. Nogueira
15	MI QLD 2345	Front of reef between Bird and South Islands (14°41'43"S, 145°27'56"E)	14 Aug	21		by hand on SCUBA	sand	A. Zhadan
15	MI QLD 2346	Front of reef between Bird and South Islands (14°41'43"S, 145°27'56"E)	14 Aug	13		by hand on SCUBA	sand	A. Zhadan

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TABLE 2 (continued)

Site Number on Maps	Collection Event Code	Site description (Australia, Queensland, Lizard Island or nearby)	Date Collected (in 2013)	Depth From: (metres)	Depth To: (metres)	Collection Method	Substrate & comments	Collectors
15	MI QLD 2347	Front of reef between Bird and South Islands (14°41'43"S, 145°27'56"E)	14 Aug	10		by hand on SCUBA	sand	A. Zhadan
14	MI QLD 2348	Front of reef between Bird and South Islands (14°41'52"S, 145°27'50"E)	14 Aug	12		by hand on SCUBA	<i>Halimeda</i>	J. Zanol Silva
14	MI QLD 2349	Front of reef between Bird and South Islands (14°41'52"S, 145°27'50"E)	14 Aug	12	18	by hand on SCUBA	sediment	J. Zanol Silva
14	MI QLD 2350	Front of reef between Bird and South Islands (14°41'52"S, 145°27'50"E)	14 Aug	12	18	by hand on SCUBA	coral rubble	J. Zanol Silva
14	MI QLD 2351	Front of reef between Bird and South Islands (14°41'52"S, 145°27'50"E)	14 Aug	12	18	by hand on SCUBA	coral rubble & brown flat algae	J. Zanol Silva
14	MI QLD 2352	Lagoon entrance, reef near Bird Island (14°41'52"S, 145°27'50"E)	14 Aug	3	5	by hand on snorkel	coral rubble	K. Meißner, T. Alvestad, C.J. Glasby
14	MI QLD 2353	Front of reef between Bird and South Islands (14°41'52"S, 145°27'50"E)	14 Aug	18		by hand on SCUBA	coral rubble	P.A. Hutchings, J. Zanol Silva
14	MI QLD 2354	Front of reef between Bird and South Islands (14°41'52"S, 145°27'50"E)	14 Aug	12		by hand on SCUBA	coral rubble	P.A. Hutchings, J. Zanol Silva
14	MI QLD 2355	Front of reef between Bird and South Islands (14°41'52"S, 145°27'50"E)	14 Aug	12		by hand on SCUBA	sand	N. Budaeva
14	MI QLD 2356	Front of reef between Bird and South Islands (14°41'52"S, 145°27'50"E)	14 Aug	11		by hand on SCUBA	coral rubble	N. Budaeva, A. Murray
15	MI QLD 2357	Lagoon entrance, reef near Bird Island (14°41'43"S, 145°27'56"E)	14 Aug	2		by hand on snorkel	sand	J. Parapar
19	MI QLD 2358	South east of Lizard Island, reef on north west side of North Direction Island (14°44'36"S, 145°30'20"E)	15 Aug	3	5	by hand on snorkel	coral rubble	J.M.M. Nogueira
19	MI QLD 2359	South east of Lizard Island, reef on north west side of North Direction Island (14°44'36"S, 145°30'20"E)	15 Aug	6	12	by hand on SCUBA	coral rubble	M. Capa
19	MI QLD 2360	South east of Lizard Island, reef on north west side of North Direction Island (14°44'36"S, 145°30'20"E)	15 Aug	10		by hand on SCUBA	sand	M. Capa
19	MI QLD 2361	South east of Lizard Island, reef on north west side of North Direction Island (14°44'36"S, 145°30'20"E)	15 Aug	14		by hand on SCUBA	sponge	M. Capa
19	MI QLD 2362	South east of Lizard Island, reef on north west side of North Direction Island (14°44'36"S, 145°30'20"E)	15 Aug	3		by hand on snorkel	sand	J. Parapar

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TABLE 2 (continued)

Site Number on Maps	Collection Event Code	Site description (Australia, Queensland, Lizard Island or nearby)	Date Collected (in 2013)	Depth From: (metres)	Depth To: (metres)	Collection Method	Substrate & comments	Collectors
19	MI QLD 2363	South east of Lizard Island, reef on north west side of North Direction Island (14°44'36"S, 145°30'20"E)	15 Aug	16		by hand on SCUBA	sand	A. Zhadan
19	MI QLD 2364	South east of Lizard Island, reef on north west side of North Direction Island (14°44'36"S, 145°30'20"E)	15 Aug	9		by hand on SCUBA	sand	A. Zhadan
19	MI QLD 2365	South east of Lizard Island, reef on north west side of North Direction Island (14°44'36"S, 145°30'20"E)	15 Aug	6		by hand on SCUBA	sand	A. Zhadan
5	MI QLD 2366	Off Casuarina Beach, in front of Lizard Island Research Station (14°40'46"S, 145°26'49"E)	15 Aug	1.5		by hand	sand	K. Meißner, C.J. Glasby, J. Zanol Silva
8	MI QLD 2367	Horseshoe Reef, near Palfrey Island (14°41'12"S, 145°26'38"E)	16 Aug	2	3	by hand on snorkel	coral rubble	J.M.M. Nogueira
8	MI QLD 2368	Vicki's Reef (14°41'17"S, 145°26'35"E)	16 Aug	6	9	by hand on SCUBA	sponge	M. Capa, J. Zanol Silva
8	MI QLD 2369	Vicki's Reef (14°41'17"S, 145°26'35"E)	16 Aug	6		by hand on SCUBA	brown algae	M. Capa, J. Zanol Silva
8	MI QLD 2370	Vicki's Reef (14°41'17"S, 145°26'35"E)	16 Aug	9		by hand on SCUBA	calcareous algae	M. Capa, J. Zanol Silva
8	MI QLD 2371	Vicki's Reef (14°41'17"S, 145°26'35"E)	16 Aug	9		by hand on SCUBA	coral rubble	P.A. Hutchings, C. Sarda
10	MI QLD 2372	Sandpatch adjacent to Horseshoe Reef, near Palfrey Island (14°41'12"S, 145°26'38"E)	16 Aug	3	4	by hand on snorkel	sand	C.J. Glasby
8	MI QLD 2373	Vicki's Reef (14°41'17"S, 145°26'35"E)	16 Aug	5	7	by hand on SCUBA	muddy sand	N. Budaeva, A. Zhadan
9	MI QLD 2374	Horseshoe Reef, near Palfrey Island (14°41'12"S, 145°26'38"E)	16 Aug	3		by hand on snorkel	sand	J. Parapar
5	MI QLD 2375	Off Casuarina Beach (14°40'46"S, 145°26'49"E)	17 Aug	0.5		by hand on snorkel	coral rubble, at extremely low tide	Y. Sun
5	MI QLD 2376	Off Casuarina Beach (14°40'46"S, 145°26'49"E)	17 Aug	0.5		by hand on snorkel	sand, seagrass, at extremely low tide	K. Meißner, N. Budaeva, A. Murray
5	MI QLD 2377	Pipeline off Casuarina Beach (14°40'46"S, 145°26'49"E)	17 Aug	0.5		by hand	scrapings from pipe, at extremely low tide	A. Murray
5	MI QLD 2378	Off Casuarina Beach (14°40'46"S, 145°26'49"E)	17 Aug	0.5		by hand	fine sand at extremely low tide	M. Capa, J. Parapar, Q. Parapar, M.T. Aguado

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TABLE 2 (continued)

Site Number on Maps	Collection Event Code	Site description (Australia, Queensland, Lizard Island or nearby)	Date Collected (in 2013)	Depth From: (metres)	Depth To: (metres)	Collection Method	Substrate & comments	Collectors
21	MI QLD 2379	Great Barrier Reef, Yonge Reef (14°34'20"S, 145°36'54"E)	17 Aug	10		by hand on SCUBA	coral sand	V.I. Radashevsky
21	MI QLD 2380	Great Barrier Reef, Yonge Reef (14°34'20"S, 145°36'54"E)	17 Aug	4	12	by hand on SCUBA	<i>Halimeda</i>	J. Zanol Silva, C.J. Glasby
21	MI QLD 2381	Great Barrier Reef, Yonge Reef (14°34'20"S, 145°36'54"E)	17 Aug	4	8	by hand on SCUBA	dead coral	J. Zanol Silva, C.J. Glasby
21	MI QLD 2382	Great Barrier Reef, Yonge Reef (14°34'20"S, 145°36'54"E)	17 Aug	21		by hand on SCUBA	sand	A. Zhadan
21	MI QLD 2383	Great Barrier Reef, Yonge Reef (14°34'20"S, 145°36'54"E)	17 Aug	7		by hand on SCUBA	sand	A. Zhadan
21	MI QLD 2384	Great Barrier Reef, Yonge Reef (14°34'20"S, 145°36'54"E)	18 Aug	2	4	by hand on snorkel	coral rubble	K. Meißner, J.M.M. Nogueira
21	MI QLD 2385	Great Barrier Reef, Yonge Reef (14°34'20"S, 145°36'54"E)	18 Aug	3		by hand on snorkel	sand	J. Parapar, Q. Parapar
21	MI QLD 2386	Great Barrier Reef, Yonge Reef (14°34'20"S, 145°36'54"E)	18 Aug	1	2	by hand on snorkel	<i>Halimeda</i>	K. Meißner
21	MI QLD 2387	Great Barrier Reef, Yonge Reef (14°34'20"S, 145°36'54"E)	18 Aug	8	10	by hand on SCUBA	<i>Halimeda</i>	M. Capa, M.T. Aguado, A. Murray
21	MI QLD 2388	Great Barrier Reef, Yonge Reef (14°34'20"S, 145°36'54"E)	18 Aug	8	12	by hand on SCUBA	coral rubble	M. Capa, M.T. Aguado, A. Murray
21	MI QLD 2389	Great Barrier Reef, Yonge Reef (14°34'20"S, 145°36'54"E)	18 Aug	6	8	by hand on SCUBA	sponges	M. Capa
21	MI QLD 2390	Great Barrier Reef, Yonge Reef (14°34'20"S, 145°36'54"E)	18 Aug	12	15	by hand on SCUBA	coral rubble	P.A. Hutchings, E. Kupriyanova, A. Hoggett
5	MI QLD 2391	Off Casuarina Beach (14°40'46"S, 145°26'49"E)	18 Aug	0	5	by hand	sand	V.I. Radashevsky, A. Zhadan
16	MI QLD 2392	Coconut Beach, reef flat, extreme low tide (14°40'53"S, 145°28'12"E)	19 Aug	0		by hand	coral rubble	J. Zanol Silva, M.T. Aguado
16	MI QLD 2393	Coconut Beach, reef flat, extreme low tide (14°40'53"S, 145°28'12"E)	19 Aug	0		by hand	scraped algae from reef flat	J. Zanol Silva, M.T. Aguado
16	MI QLD 2394	Coconut Beach, reef flat, extreme low tide (14°40'53"S, 145°28'12"E)	19 Aug	0		by hand	tubes from sand between stones	N. Budaeva, T. Alvestad, A. Zhadan, V.I. Radashevsky

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TABLE 2 (continued)

Site Number on Maps	Collection Event Code	Site description (Australia, Queensland, Lizard Island or nearby)	Date Collected (in 2013)	Depth From: (metres)	Depth To: (metres)	Collection Method	Substrate & comments	Collectors
16	MI QLD 2395	Coconut Beach, reef flat, extreme low tide (14°40'53"S, 145°28'12"E)	19 Aug	0		by hand	fine sand fraction washed from stones	N. Budaeva, T. Alvestad
16	MI QLD 2396	Coconut Beach, reef flat, extreme low tide (14°40'53"S, 145°28'12"E)	19 Aug	0		by hand	tubes from underneath stones	N. Budaeva, T. Alvestad, J. Zanol Silva
16	MI QLD 2397	Coconut Beach, reef flat, extreme low tide (14°40'53"S, 145°28'12"E)	19 Aug	0		by hand	sand in between stones	K. Meißner
16	MI QLD 2398	Coconut Beach, reef flat, extreme low tide (14°40'53"S, 145°28'12"E)	19 Aug	0		by hand	coral rubble	K. Meißner
16	MI QLD 2399	Coconut Beach, reef flat, extreme low tide (14°40'53"S, 145°28'12"E)	19 Aug	0		by hand	algae scraped from stones and coral	A. Murray, J.M.M. Nogueira, C.J. Glasby
16	MI QLD 2400	Coconut Beach, reef flat, extreme low tide (14°40'53"S, 145°28'12"E)	19 Aug	0		by hand	from underneath stones and dead coral	A. Murray, P.A. Hutchings
17	MI QLD 2401	Coconut Beach, reef crest, extreme low tide (14°40'53"S, 145°28'12"E)	19 Aug	0		by hand	from underneath stones and dead coral	C.J. Glasby
17	MI QLD 2402	Coconut Beach, reef crest, extreme low tide (14°40'53"S, 145°28'12"E)	19 Aug	0		by hand	red algae	C.J. Glasby
17	MI QLD 2403	Coconut Beach, reef crest, extreme low tide (14°40'53"S, 145°28'12"E)	19 Aug	0		by hand	sand between corals	C.J. Glasby
17	MI QLD 2404	Coconut Beach, reef crest, extreme low tide (14°40'53"S, 145°28'12"E)	19 Aug	0		by hand	algae scraped from stones and coral	C.J. Glasby
16	MI QLD 2405	Coconut Beach, reef flat, extreme low tide (14°40'53"S, 145°28'12"E)	19 Aug	0		by hand	sand between stones	J. Parapar, Q. Parapar
16	MI QLD 2406	Coconut Beach, reef flat, extreme low tide (14°40'53"S, 145°28'12"E)	19 Aug	0		by hand	from underside of stones and corals	E. Kupriyanova, Y. Sun
16	MI QLD 2407	Coconut Beach, reef flat, extreme low tide (14°40'53"S, 145°28'12"E)	19 Aug	0		by hand	algae (<i>Halimeda</i>) scraped from reef	J. Parapar, Q. Parapar
18	MI QLD 2408	Coconut Beach, reef flat, extreme low tide (14°40'39"S, 145°28'17.4"E)	19 Aug	0		by hand	muddy sand from reef flat	A. Zhadan, V.I. Radashevsky
16	MI QLD 2409	Coconut Beach, reef flat, extreme low tide (14°40'53"S, 145°28'12"E)	19 Aug	0		by hand	sand under stones in upper intertidal	J. Parapar, Q. Parapar

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TABLE 2 (continued)

Site Number on Maps	Collection Event Code	Site description (Australia, Queensland, Lizard Island or nearby)	Date Collected (in 2013)	Depth From: (metres)	Depth To: (metres)	Collection Method	Substrate & comments	Collectors
2	MI QLD 2410	North Point, Mermaid Cove (14°38'46"S, 145°27'13"E)	20 Aug	8	12	by hand on SCUBA	coral rubble in sand	M. Capa, M.T. Aguado
2	MI QLD 2411	North Point, Mermaid Cove (14°38'46"S, 145°27'13"E)	20 Aug	8	12	by hand on SCUBA	sponges	M. Capa, M.T. Aguado
2	MI QLD 2412	North Point, Mermaid Cove (14°38'46"S, 145°27'13"E)	20 Aug	6		by hand on SCUBA	coarse sand	M. Capa
2	MI QLD 2413	North Point, Mermaid Cove (14°38'46"S, 145°27'13"E)	20 Aug	10		by hand on SCUBA	dead coral	J. Zanol Silva, P.A. Hutchings, E. Kupriyanova
2	MI QLD 2414	North Point, Mermaid Cove (14°38'46"S, 145°27'13"E)	20 Aug	11		by hand on SCUBA	sand	A. Zhadan, N. Budaeva
2	MI QLD 2415	North Point, Mermaid Cove (14°38'46"S, 145°27'13"E)	20 Aug	15		by hand on SCUBA	sand	A. Zhadan, N. Budaeva
2	MI QLD 2416	North Point, Mermaid Cove (14°38'46"S, 145°27'13"E)	20 Aug	10		by hand on SCUBA	tubes in dead <i>Acropora</i>	P.A. Hutchings
5	MI QLD 2417	Off Casuarina Beach, in front of Lizard Island Research Station (14°40'46"S, 145°26'49"E)	20 Aug	0		by hand	underneath stones and dead coral at very low tide	E. Kupriyanova, Y. Sun
5	MI QLD 2418	Off Casuarina Beach, in front of Lizard Island Research Station (14°40'46"S, 145°26'49"E)	20 Aug	0		by hand	scrapings from pipes, at extremely low tide	M. Capa, G. Capa Gonzales
5	MI QLD 2419	Off Casuarina Beach, in front of Lizard Island Research Station (14°40'46"S, 145°26'49"E)	20 Aug	0		by hand	green algae	M. Capa, G. Capa Gonzales
2	MI QLD 2420	North Point, Mermaid Cove (14°38'46"S, 145°27'13"E)	20 Aug	2		by hand on snorkel	coarse sand	J. Parapar, Q. Parapar
5	MI QLD 2421	Off Casuarina Beach, in front of Lizard Island Research Station (14°40'46"S, 145°26'49"E)	20 Aug	0		by hand	Chaetopterid tubes from sand	J. Parapar, Q. Parapar
5	MI QLD 2422	Off Casuarina Beach, in front of Lizard Island Research Station (14°40'46"S, 145°26'49"E)	20 Aug	0		by hand	sand	J. Parapar, Q. Parapar, P.A. Hutchings, P. Rodgers
13	MI QLD 2423	Reef on north eastern side of South Island (14°42'13"S, 145°27'37"E)	21 Aug	2	4	by hand on snorkel	coral rubble	J.M.M. Nogueira, K. Meißner, T. Alvestad
13	MI QLD 2424	Reef on north eastern side of South Island (14°42'13"S, 145°27'37"E)	21 Aug	5	12	by hand on SCUBA	coral rubble	J. Zanol Silva, A. Murray, P.A. Hutchings

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TABLE 2 (continued)

Site Number on Maps	Collection Event Code	Site description (Australia, Queensland, Lizard Island or nearby)	Date Collected (in 2013)	Depth From: (metres)	Depth To: (metres)	Collection Method	Substrate & comments	Collectors
13	MI QLD 2425	Reef on north eastern side of South Island (14°42'13"S, 145°27'37"E)	21 Aug	8		by hand on SCUBA	ascidians and sponges	J. Zanol Silva
13	MI QLD 2426	Reef on north eastern side of South Island (14°42'13"S, 145°27'37"E)	21 Aug	8		by hand on SCUBA	coral rubble	M.T. Aguado, V.I. Radashevsky
13	MI QLD 2427	Reef on north eastern side of South Island (14°42'13"S, 145°27'37"E)	21 Aug	8		by hand on SCUBA	Aleyonacea	M.T. Aguado
13	MI QLD 2428	Reef on north eastern side of South Island (14°42'13"S, 145°27'37"E)	21 Aug	8		by hand on SCUBA	sponges	M.T. Aguado
5	MI QLD 2429	Casuarina Beach (14°40'46"S, 145°26'49"E)	21 Aug	0		by hand	sand sievings, intertidal on very low tide	P.A. Hutchings, P. Rodgers, J. Zanol Silva, N. Budaeva
5	MI QLD 2430	Casuarina Beach (14°40'46"S, 145°26'49"E)	21 Aug	0	0.5	by hand	sand and seagrass, intertidal on very low tide	T. Alvestad, N. Budaeva
13	MI QLD 2431	Reef on north eastern side of South Island (14°42'13"S, 145°27'37"E)	21 Aug	16		by hand on SCUBA	sand	A. Zhadan
6	MI QLD 2432	Off Casuarina Beach, near Big Vicki's reef (14°40'53"S, 145°26'31"E)	21 Aug	10		van Veen grab	sand	N. Budaeva, T. Alvestad, A. Zhadan
5	MI QLD 2433	Casuarina Beach (14°40'46"S, 145°26'49"E)	21 Aug	0	0.5	by hand	sand and seagrass, intertidal on very low tide	V.I. Radashevsky, A. Zhadan
7	MI QLD 2434	Big Vicki's Reef (14°41'10"S, 145°26'32"E)	21 Aug	8		by hand on SCUBA	water column; night dive	J. Zanol Silva
20	MI QLD 2435	MacGillivray Reef (14°39'24"S, 145°29'34"E)	22 Aug	14	18	by hand on SCUBA	sponges, coral rubble	P.A. Hutchings, V.I. Radashevsky, E. Kupriyanova, A. Zhadan
5	MI QLD 2436	Casuarina Beach, near water intake pipes (14°40'46"S, 145°26'49"E)	22 Aug	0	0.5	by hand	coral rubble; intertidal	J. Zanol Silva
5	MI QLD 2437	Casuarina Beach, near water intake pipes (14°40'46"S, 145°26'49"E)	22 Aug	0	0.5	by hand	green calcareous algae; intertidal	M. Capa
12	MI QLD 2438	Mangrove Beach, close to mangroves (14°40'48"S, 145°27'46"E)	22 Aug	0	0.5	by hand	muddy sand	N. Budaeva, T. Alvestad
11	MI QLD 2439	Mangrove Beach, 100 m away from mangroves (14°40'47"S, 145°27'44"E)	22 Aug	0	0.5	by hand	sand	N. Budaeva, T. Alvestad

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TABLE 2 (continued)

Site Number on Maps	Collection Event Code	Site description (Australia, Queensland, Lizard Island or nearby)	Date Collected (in 2013)	Depth From: (metres)	Depth To: (metres)	Collection Method	Substrate & comments	Collectors
4	MI QLD 2440	Off Watson's Bay (14°39'41"S,145°26'27"E)	23 Aug	14		by hand on SCUBA	sandy mud	A. Zhadan, V.I. Radashevsky, M. Capa, M.T. Aguado
4	MI QLD 2441	Off Watson's Bay (14°39'41"S,145°26'27"E)	23 Aug	15		cores on SCUBA	sandy mud with filamentous algae;	M.T. Aguado, M. Capa, P.A. Hutchings, A. Murray
4	MI QLD 2442	Off Watson's Bay (14°39'41"S,145°26'27"E)	23 Aug	14		by hand on SCUBA	<i>Halimeda</i>	M. Capa, M.T. Aguado
4	MI QLD 2443	Off Watson's Bay (14°39'41"S,145°26'27"E)	23 Aug	14		by hand on SCUBA	calcareous algae & brown epiphytic algae	M. Capa
1	MI QLD 2444	North of North Point (14°38'36"S,145°27' 09"E)	24 Aug	24		by hand on SCUBA	sand & <i>Halophila</i> seagrass	P.A. Hutchings, M. Capa
1	MI QLD 2445	North of North Point (14°38'36"S,145°27' 09"E)	24 Aug	25		by hand on SCUBA	<i>Halimeda</i>	P.A. Hutchings, M. Capa
3	MI QLD 2446	Turtle Beach (14°39' 07"S,145°27' 02"E)	24 Aug	10		by hand on SCUBA	coral rubble	M. Capa
3	MI QLD 2447	Turtle Beach (14°39' 07"S,145°27' 02"E)	24 Aug	12	14	by hand on SCUBA	coral rubble	V.I. Radashevsky, E. Kupriyanova
3	MI QLD 2448	Turtle Beach (14°39' 07"S,145°27' 02"E)	24 Aug	10		by hand on SCUBA	under coral rubble	J. Zanol Silva
3	MI QLD 2449	Turtle Beach (14°39' 07"S,145°27' 02"E)	24 Aug	21		by hand on SCUBA	muddy sand	A. Zhadan

All polychaete material in the databases of the AM, MV and MAGNT was sorted into polychaete families and these lists were made available to the polychaete workers at the workshop. This material was available for study if requested to complement the material which they collected during the workshop. All the material is deposited in the AM unless otherwise stated. While weather conditions were unusually benign during the workshop there were sites we were unable to visit due to weather or time constraints so this extra material in many cases provides additional records or species. During the workshop we undertook 121 collections events and 1640 polychaete lots were registered.

Polychaete families described in this monograph, which included this additional material are not included in this checklist.

Description of Lizard Island

Located on the northern Great Barrier Reef (GBR) (270 km north of Cairns, Queensland)—<http://australianmuseum.net.au/lizard-island-research-station>, Lizard Island is a high granitic island about 10 km² square kilometres in size, with three smaller islands nearby (Palfrey, South and Bird) (Fig. 1). Together these islands form the Lizard Island Group and their well-developed fringing reef encircles the 10 m deep blue lagoon. Lizard is 12 km from the outer barrier, the nearest outer barrier is Yonge Reef one of the Ribbon reefs. The entire area is within the Great Barrier Marine Park and World Heritage Area and all the islands are a Queensland National Park and all collecting takes place under specifically approved collecting permits. During the workshop all collecting was carried out under the Permit no G12/35718.1.



FIGURE 1. Lizard Island, aerial view showing collection sites 1–18, listed in Table 2.

Lizard Island is within the Northern Great Barrier Reef and experiences a tropical climate with SE prevailing trade winds for 6–9 months of the year and tropical storms during the summer. An abundance of habitats for polychaetes exist from intertidal, mangroves, seagrass beds, coral reefs and subtidal sediments to about 40 m, with well defined windward and leeward sites and a well developed lagoon within the Great Barrier Reef lagoon. All these habitats except subtidal sediments were well sampled during the workshop as gear failure limited the sampling of subtidal sediments.

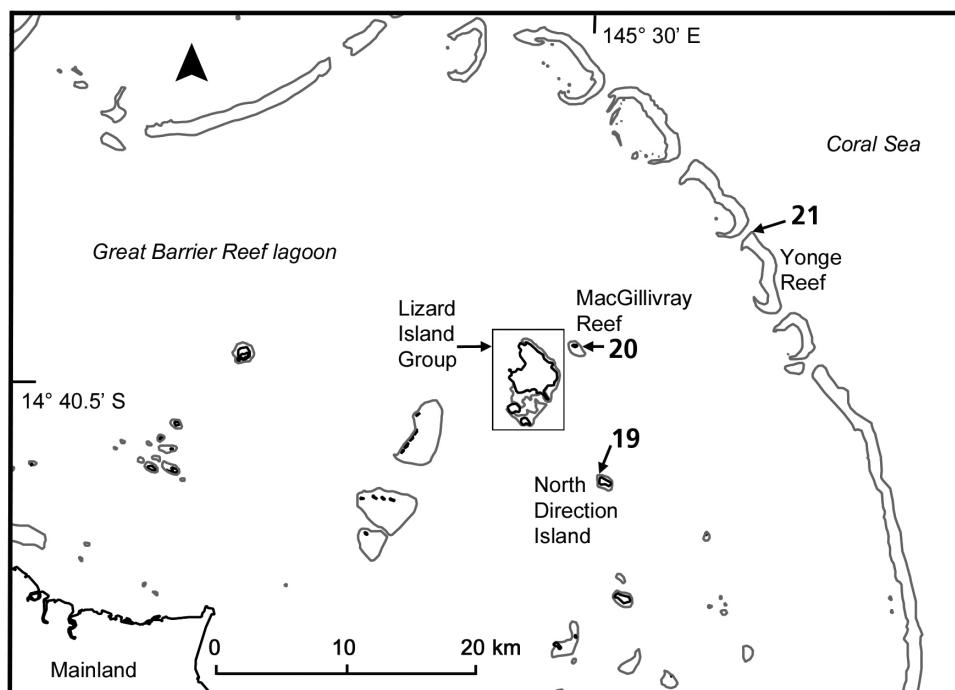


FIGURE 2. Outer GBR and Lizard Island collection sites 19–21, listed in Table 2.

Objectives

- To provide information on polychaete families which were not subjected to a detailed study during the workshop and included in this monograph.
- To highlight other polychaete families which we know to occur in the region but have not been formally published or described in this issue.
- To facilitate this material being worked up in the near future, all of which is available for study on request from the Australian Museum.
- While we have not indicated how this material was fixed, most of the material collected before 1990 would have been fixed in formalin, more recently collected material includes material fixed in alcohol and is suitable for molecular studies. Such information is available on request.
- To develop an inventory of Lizard Island polychaetes and to populate the Lizard Island digital faunal guide (<http://australianmuseum.net.au/Lizard-Island-Field-Guide>). Such an inventory would be complimentary to one already produced for Lizard Island Amphipods (Lowry & Myers 2009).
- This inventory of reefal polychaetes will be unique for the GBR, no comparable database exists anywhere else on the GBR and probably worldwide.
- To highlight the diversity of polychaetes at Lizard Island and to comment on our knowledge of this group elsewhere on the GBR.

While we have commented on the records from Lizard Island region, in many cases these may represent the first record for the entire GBR, a reflection of the paucity of polychaete records from the region yet we know this group is common throughout the area. We have not attempted to collate polychaete records from other regions of the GBR.

For each family not subsequently worked on during the workshop, we have also included species previously published together with the appropriate references.

Taxonomic account

A total of 45 families are listed below of which 22 were the subject of detailed studies and are included in this volume.

Family Acrocirridae Banse, 1969

Records. Lizard Island: fringing reef between Bird Islet and South Island (14°41'S 145°27'E) AM W.35390; 200 m SW of Freshwater Beach (14°40'S 145°27'E) AM W.35391.

Comments. No published records of this family occurring in the Lizard region exist to date or for the entire GBR, although AM records indicate the family is present in the area.

Family Alciopidae Ehlers, 1864

Records. Lizard Island: Coconut Beach (14°40'S 145°27'E) AM W.16036.

Comments. Currently there are no published records of this family occurring in the Lizard region. It is likely that additional unregistered AM lots may exist as part of extensive larval fish collections made at Lizard Island by Leis and co workers (personal comment Pat Hutchings).

Family Ampharetidae Malmgren, 1866

Prior to this workshop no material of this family has been registered in the AM database. See Alvisted & Budaeva, this volume, and the family had not previously been recorded from the GBR, in part a reflection of the lack of sampling of lagoonal and interreefal sediments.

Family Amphinomidae Savigny in Lamarck, 1818

This family is well represented in tropical waters and currently includes many so called “cosmopolitan species” including *Eurythoe complanata* (Pallas, 1766) which has recently been shown to represent at least three cryptic species (Barroso *et al.* 2010). Borda *et al.* (2012) discuss the taxonomic problems of the family.

The AM collections of amphinomids from Lizard Island includes representatives of many of these so called “cosmopolitan species” and detailed morphological and molecular studies are needed to resolve these suites.

Below are the species recorded from the Lizard Island region based on museum databases, but there are no published taxonomic papers. However there are many texts on the GBR which illustrate these often large and conspicuous species and provide names (eg. Hutchings *et al.* 2008). While their family affiliation is not in doubt, their correct identification is questionable as material is often identified only from photographs which rarely illustrate the diagnostic characters.

Some of the material collected during the recent CReefs expedition was fixed in alcohol and is suitable for molecular studies which are often needed together with morphological studies to resolve the taxonomy of this group.

Genus *Amphinome* Brugiere, 1789

Amphinome rostrata (Pallas, 1766)

Type locality. Indian Ocean.

Records. Outer Barrier: Yonge Reef (14°35'S 145°37'E) AM W.8675.

Comments. It is suggested that this species identification which has not been formally published needs careful checking given the taxonomic problems of the family especially this supposedly widespread tropical species (Borda *et al.* 2012).

Genus *Chloeia* Savigny in Lamarck, 1818

Chloeia sp.

Records. Lizard Island: Lagoon (14°40'S 145°27'E) AM W.8673.

Comments. It is suggested that while this genus identification is probably correct, splitting to species will require a detailed morphological and molecular study of this genus which is common along the GBR.

Genus *Eurythoe* Kinberg, 1857

Eurythoe complanata (Pallas, 1766)

For list of synonyms see Barroso *et al.* (2010).

Type locality. Caribbean.

Records. Lizard Island: Chinamans Point (14°40' S 145°28' E) several records; Bird Islet (14°40'S 145°27'E) AM W.40404; off Station Beach (14°41'S 145°27'E) AM W.40424; Crystal Beach (14°40'S 145°28'E) AM W.40419; fringing reef between Bird Islet and South Island (14°40'S 145°28'E) AM W.40388, AM W.40413, AM W.40420; Coconut Beach (14°39'S 145°28'E) AM W.40422; (14°40'S 145°27'E) AM W.40425. **Surrounding areas:** Eagle Island (14°41'S 145°37'E) AM W.422. **Outer Barrier:** Yonge Reef (14°36'S 145°38'39"E), several records.

Comments. This species has been widely recorded from the region in ecological and in popular articles but recent studies by Barroso *et al.* (2010) and Borda *et al.* (2012) would suggest that the species actually represent a suites of species and it is probable that *E. complanata* is restricted to the Caribbean and not the widespread “cosmopolitan” species as has previously been reported.

Eurythoe sp.

Records. Lizard Island: Chinamans Head (14°40'S 145°28'E) AM W.40302. **Outer Barrier:** Yonge Reef (14°36'S 145°38'E) AM W.40301.

Comments. See comments above for *E. complanata*.

Genus *Pherecardia* Horst, 1886

Pherecardia striata (Kinberg, 1857)

Type locality. Eimeo, Society Islands.

Records. Outer Barrier: Yonge Reef, outer slope (14°36'S 145°38'E) several records.

Comments. While the generic classification is probably correct the species needs to be compared with material from the type locality as this another example of a supposedly widespread “cosmopolitan species”.

Family Aphroditidae Malmgren, 1867

Genus *Laetmonice* Kinberg, 1856

See Hutchings & McRae 1993: 316, for a list of synonymies.

***Laetmonice dolichoceras* (Haswell, 1883)**

Records. Lizard Island: Lagoon (14°40'S 145°27'E) AM W.20234.

Comments. Hutchings & McRae (1993) examined the type material and provide a comprehensive description of this species and extended the known range of this species from the type locality of Port Molle, Queensland to Lizard Island.

Genus *Pontogenia* Clarapède, 1868

***Pontogenia araeoceras* (Haswell, 1883)**

Records. Outer Barrier: Yonge Reef (14°36'S 145°38'E) AM W.20756, AM W.20757, AM W.20759.

Comments. Hutchings & McRae (1993) extended the range of this species originally described from Port Molle, Queensland to Yonge Reef on the Outer Barrier.

***Pontogenia mcintoshii* Monro, 1924**

Type locality. Macclesfield Bank, China Sea in 55 to 82 m.

Records. Lizard Island: Macs Reef (14°39'29"S 145°29'29"E) MAGNT W.0231079.

Comments. Given the type locality this record should be checked and there are no published records of this species from Australia.

Family Capitellidae Grube, 1862

This family occurs in soft sediments which have been poorly sampled around Lizard and there are no published records of the family from the region. Below are the genera present in the AM collections.

Genus *Capitella* Blainville, 1828

Records. Lizard Island: Crystal Beach, from Mangrove Creek (14°40'S 145°28'E) AM W.40839.

Genus *Dasybranchus* Grube, 1850

Records. Lizard Island: Coconut Beach (14°41'S 145°28'27"E) AM W.22341.

Family Chaetopteridae Audouin & Milne Edwards 1833

While the family occurs in the AM collections there are no published records of this family from the area.

Genus *Chaetopterus* Cuvier, 1830

Records. Lizard Island: Lagoon (14°40'S 145°27'E) AM W.40731; Chinamans Head (14°36'S 145°38'E) AM W.40734; (14°40'S 145°27'E) AM W.40730, AM W.40732; (14°40'S 145°28'E) AM W.40733; Crystal Beach (14°40'S 145°28'E) AM W.40297; between Bird Islet and South Island (14°40'S 145°28'E) AM W.40728, AM W.40729. **Outer Barrier:** Yonge Reef (14°36' S 145°37' E) several records.

Comments. Obtaining complete specimens of this group is always problematical.

Genus *Mesochaetopterus* Potts, 1914

Records. Lizard Island: Chinamans Head (14°40'S 145°27'E) AM W.40780, AM W.40782 (14°36'S 145°38'E) AM W.40779; Lagoon drop off (14°42'S 145°28'E) AM W.40305; between Bird Islet and South Island (14°40'S 145°28'E) AM W.40781. **Outer Barrier:** Yonge Reef (14°36'S 145°37'E) AM W.40306 (14°36'S 145°38'E) AM W.40307.

Comments. Commonly seen in lagoonal sediments (Hutchings, personal observation).

Genus *Phyllochaetopterus* Grube, 1863

Phyllochaetopterus herdmani Willey, 1905

Type locality. Galle shore, Sri Lanka.

Records. Lizard Island: Coconut Beach (14°40'S 145°28'E) AM W.40250; Chinamans Head (14°40'S 145°27'E) AM W.40251.

Comments. This unpublished record needs careful checking given its type locality.

Phyllochaetopterus socialis Claparède, 1870

Type locality. Gulf of Naples, Italy.

Records. Lizard Island: Chinamans Head (14°40'S 145°27'E) AM W.40253; Lagoon drop off (14°42'S 145°28'E) AM W.40255.

Comments. This unpublished record needs careful checking given its type locality.

Phyllochaetopterus sp.

Records. Lizard Island: (14°40'S 145°27'E) AM W.40846.

Comments. Commonly seen in lagoonal sediments (Hutchings, personal observation).

Family Chrysopetalidae Ehlers, 1864

See Watson (2015, Zootaxa 4019) for *Paleanotus* Schmarda, 1861

Genus *Bhawania* Schmarda, 1861

Bhawania amboinensis Horst, 1917

Type locality. Amboin Anchorage, Indonesia.

Records. Lizard Island: Reef off north of Coconut Beach (14°41'S 145°28'E) AM W.23255, AM W.23526; Chinamans Head (14°36'S 145°38'E) AM W.23258 (14°40'S 145°27'E) AM W.23257; Mermaid Cove (14°39'S 145°27'E) AM W.33593; Granite Bluff (14°39'S 145°27'E) AM W.36186.

Comments. No published records from Lizard region.

Bhawania riveti (Gravier, 1908)

Type locality. Peru.

Records. Outer Barrier: Yonge Reef (14°36'S 145°28'E) AM W.23345.

Comments. This unpublished record needs careful checking given its type locality.

***Bhawania* sp.**

Records. Lizard Island: Lagoon (14°40'S 145°27'E) AM W.40773; (14°40'S 145°27'E) AM W.40777; Near Bird Islet (14°42'S 145°28'E) AM W.40774; between Bird Islet and South Island (14°40'S 145°28'E) AM W.40775; Chinamans Head (14°40'S 145°28'E) AM W.40776.

Comments. No published records from Lizard.

Genus *Chrysopetalum* Ehlers, 1964

***Chrysopetalum debile* (Grube, 1855)**

Type locality. Mediterranean Sea.

Records. Lizard Island: Between Bird Islet and South Island (14°40'S 145°28'E) AM W.40768, AM W.40770, AM W.40771; Lagoon (14°40'S 145°27'E) AM W.40769; Chinamans Point (14°40'S 145°28'E) AM W.40772.

Comments. Given the type locality these records should be carefully checked.

***Chrysopetalum* sp.**

Records. Lizard Island: Granite Bluff (14°39'S 145°27'E) AM W.36195; between bommies, inside Lagoon entrance (14°40'S 145°28'E) AM W.36208.

Comments. Currently no published records of this genus from Lizard region.

Genus *Dysponetus* Levinsen, 1879

Records. Lizard Island: Chinamans Head (14°40'S 145°27'E) AM W.40323. **Outer Barrier:** Yonge Reef (14°36'S 145°37'E) AM W.40234.

Comments. No published records of this genus from the region.

Genus *Treptopale* Perkins, 1985

***Treptopale homolos* Watson, 2010**

Comments. Occurs widely around Lizard and Outer Barrier (Watson 2010; Wei *et al.* 2013).

Family Cirratulidae Carus, 1863

Genus *Cauilleriella* Chamberlin, 1919

Records. Lizard Island: Bird Islet (14°40'S 145°27'E) AM W.40808.

Comments. No published records from Lizard Island.

***Cauilleriella bioculata* (Keferstein, 1862)**

Type locality. France.

Records. Lizard Island: Lagoon (14°40'S 145°27'E) AM W.26884.

Comments. Listed as *Cauilleriella cf bioculata*, and given the type locality of species it needs careful checking. No published records from Lizard Island.

Genus *Cirratulus* Lamarck, 1801

Records. Lizard Island: between Bird Islet and South Islet (14°40'S 145°28'E) AM W.40447, AM W.40448; Chinamans Head (14°36'S 145°38'E) AM W.40449.

Comments. No published records from Lizard Island.

Genus *Cirriformia* Hartman, 1936

Records. Lizard Island: Chinamans Head (14°40'S 145°28'E) AM W.40723 (14°36'S 145°38'E) AM W.40727; between Bird Islet and South Island (14°40'S 145°28'E) several records.

Comments. No published records from Lizard Island.

Genus *Dodecaceria* Ørsted, 1843

Records. Lizard Island: (14°40'1"S 145°27'36"E) AM W.35058, AM W.35059; Mermaid Cove (14°38'46"S 145°27'16"E) AM W.34870; Lagoon (14°40'S 145°27'E) AM W.40264, AM W.40266, AM W.40848. **Outer Barrier:** Yonge Reef, back reef (14°36'S 145°37'E) AM W.40265.

Comments. This genus is well represented in experimental studies of bioerosion (Hutchings *et al.* 1992) but the species was not determined.

Family Dorvilleidae Chamberlin, 1919

Genus *Dorvillea* Parfitt, 1866

Dorvillea similis (Crossland, 1924)

Type locality. Suez.

Records. Lizard Island: Crystal Beach (14°40'S 145°28'E) AM W.197840; Coconut Beach (14°40'S 145°28'E) AM W.197841; Lagoon (14°40'S 145°27'E) several records; Chinamans Head (14°40'S 145°27'E) several records; Bird Islet (14°40'S 145°27'E) AM W.40328, AM W.40380; (14°42'S 145°28'E) AM W.40354, AM W.40362; between Bird Islet and South Island (14°40'S 145°28'E) several records. **Outer Barrier:** Yonge Reef (14°36'S 145°37'E) AM W.40327.

Comments. This species was previously recorded from Lizard Island by Glasby (1984).

Dorvillea sp.

Records. Lizard Island: fringing reef between Bird Islet and South Island (14°40'S 145°28'E) AM W.40783, AM W.40785; Chinamans Head (14°40'S 145°28'E) AM W.40784; (14°36'S 145°38'E) AM W.40786; (14°40'S 145°27'E) AM W.40787.

Comments. Only published record of this genus is *D. similis* from Lizard Island, see above.

Genus *Schistomeringos* Jumars, 1974

Schistomeringos loveni (Kinberg, 1865)

Type locality. Port Jackson, NSW, Australia.

Records. Lizard Island: Lagoon (14°40'S 145°27'E) several records; between Bird Islet and South Island (14°40'S 145°28'E) AM W.40312, AM W.40313, AM W.40314.

Comments. Glasby (1984) published records of this species from Lizard Island.

Family Eunicidae Berthold, 1827

Fauchald *et al.* (in review) reviews Australian species of *Eunice*, *Leodice* and *Nicidion* which includes some material from Lizard Island.

Genus *Euniphysa* Wesenberg-Lund, 1949

***Euniphysa* sp.**

Records. Lizard Island: Coconut Beach (14°40'S 145°28' E) AM W.197128.

Comments. No published records of the genus from Lizard Island.

Genus *Lysidice* Savigny in Lamarck, 1818

***Lysidice collaris* Grube, 1870**

Type locality. Isles of Chansey, France.

Records. Lizard Island: Lagoon (14°40'S 145°27'E) several records.

Comments. No published records from Lizard Island and given the type locality this material should be carefully checked.

***Lysidice unicornis* (Grube, 1840)**

Type locality. Atlantic.

Records. Lizard Island: Lagoon (14°40'S 145°27'E) AM W.197817, AM W.40844.

Comments. Members of this genus were commonly collected during bioerosion studies by Hutchings (1981) and Hutchings *et al.* (1992).

***Lysidice* sp.**

Records. Lizard Island: (14°40'S 145°27'E) AM W.40231; (14°40'S 145°28'E) AM W.40249; Crystal Beach (14°40'S 145°28'E) AM W.40232, AM W.40796, AM W.40247; Coconut Beach (14°41'S 145°28'E) AM W.40243; Station Beach (14°41'S 145°27'E) AM W.40246; Casuarina Beach (14°40'S 145°28'E) AM W.40248; Lagoon (14°40'S 145°27'E) MV F.197823 and several records. **Outer Barrier:** Yonge Reef (14°35'S 145°37'E) several records, (14°36'S 145°38'E) several records.

Comments. Members of this genus were commonly collected during bioerosion studies by Hutchings (1981) and Hutchings *et al.* (1992).

Genus *Marphysa* Quatrefages, 1865

Records. Lizard Island: Lagoon (14°40'S 145°27'E) AM W.197823, AM W.197824, AM W.40258; Crystal Beach (14°40'S 145°28'E) AM W.40259; Station Beach (14°41'S 145°27'E) AM W.40260, AM W.40261; (14°40'S 145°28'E) AM W.40262; Between Bird Islet and South Island (14°40'S 145°28'E) AM W.40300. **Outer Barrier:** Yonge Reef (14°36'S 145°37'E) AM W.40263.

Comments. No published records of this genus from Lizard Island.

Genus *Palola* Gray, 1847

For a discussion of the diversity of this genus see Schulze (2015, *Zootaxa* 4019).

Family Oenonidae

See Zanol & Ruta (2015, *Zootaxa* 4019).

Family Euphrasinidae Williams, 1851

Records. **Lizard Island:** North Point (14°38'40"S 145°27'17"E) AM W.41214; Mermaid Cove-buoy (14°38'45"S 145°27'13"E) AM W.41215; Channel boomies (14°41'18"S 145°27'50"E) AM W.41216. **Surroundings:** North Direction Island (14°44'43"S 145°30'18"E) AM W.41213.

Comments. No published records of this family from Lizard Island region.

Family Glyceridae Grube, 1850

See Böggemann (2015, *Zootaxa* 4019).

Family Goniadidae Kinberg, 1865

See Böggemann (2015, *Zootaxa* 4019).

Family Hesionidae Grube, 1850

Genus Hesione Savigny in Lamarck, 1818

***Hesione splendida* Savigny in Lamarck, 1818**

Type locality. Red Sea.

Records. **Lizard Island:** (14°40'S 145°27'E) AM W.2938.

Comments. No published records from Lizard Island although given its distance from the type locality this material needs careful checking.

Genus Leocrates Kinberg, 1866

***Leocrates chinensis* Kinberg, 1866**

Type locality. Hong Kong.

Records. **Lizard Island:** Palfrey Island (14°40'S 145°30'E) AM W.29575. **Surrounding Areas:** North Direction Island (14°44'S 145°30'E) AM W.2947.

Comments. No published records from Lizard Island.

Family Lumbrineridae Schmarda, 1861

Genus *Lumbrineris* Blainville, 1828

Records. **Lizard Island:** near Bird Islet (14°40'S 145°27'E) AM W 40742; between Bird Islet and South Island (14°40'S 145°28'E) several records; Lagoon (14°40'S 145°27'E) AM W.40849, AM W.40850, AM W.40851; off Chinamans Head (14°40'S 145°27'E) AM W.4074.

Comments. No published records from Lizard Island.

Family Maldanidae Malmgren, 1867

Records. **Lizard Island Surrounding Areas:** North Direction Island (14°44'43"S 145°30'18"E) AM W.38623.
Outer Barrier: Yonge Reef (14°34'22"S 145°37'38"E) AM W.41197.

Comments. No published records from Lizard Island, although common in soft sediments (Hutchings, personal comment).

Family Magelonidae

Some material of this family is lodged in the Australian Museum spirit collection but they have not been databased. No published records of the family from Lizard or GBR.

Family Nephtyidae Grube, 1850

See Murray *et al.* (2015, *Zootaxa* 4019).

Family Nereididae Blainville, 1818

See Glasby (2015, *Zootaxa* 4019).

Family Onuphidae Kinberg, 1865

See Paxton & Budaeva (2015, *Zootaxa* 4019) for a new subgenus of *Rhamphobrachium*.

Currently no other published records of this family from Lizard Island.

Family Opheliidae Malmgren, 1867

See Parapar & Moreira (2015, *Zootaxa* 4019, a) for the genus *Armandia*.

Genus *Polyopthalmus* Quatrefages, 1850

Records. **Lizard Island:** Coconut Beach (14°41'S 145°28'E) AM W.40812; Crystal Beach (14°40'S 145°28'E) AM W.40815. **Outer Barrier:** Yonge Reef, outer slope (14°36'S 145°38' E) AM W.40813, AM W.40814.

Comments. Currently no published records of this genus from Lizard Island.

Family Orbiniidae Hartman, 1942

See Zhadan *et al.* (2015, *Zootaxa* 4019).

Family Oweniidae Rioja, 1917

See Parapar & Moreira (2015, *Zootaxa* 4019, b) for the genus *Owenia*.

No records of other genera within this family from Lizard or the GBR.

Family Paraonidae Cerruti, 1909

Genus *Paraonis* Grube, 1873

Records. Outer Barrier: Yonge Reef (14°36'S 145°37'E) AM W.40315.

Comments. Currently no published records of this genus or family from Lizard Island.

Family Pectinariidae Quatrefages, 1866

See Wong & Hutchings (2015, *Zootaxa* 4019).

Family Phyllodocidae Örsted, 1843

Genus *Phyllodoce* Savigny in Lamarck, 1818

Records. Lizard Island: (14°7'S 145°5'E) MV F135146; Watson's Bay (14°40'S 145°27'E) MV F94362; Palfrey Island (14°40'S 145°27'E) MV F94365.

Comments. Currently no published records of this genus from Lizard Island.

Genus *Sige* Malmgren, 1865

Records. Lizard Island: Watson's Bay (14°40'S 145°27'E) AM W.201090.

Comments. Currently no published records of this genus from Lizard Island.

Family Pilargidae de Saint-Joseph, 1899

Genus *Cabira* Webster, 1879

Records. Lizard Island: Watson's Bay (14°40'S 145°27'E) AM W.35106; Mangrove Beach (14°40'S 145°28'E) AM W.35086, AM W.35087, AM W.35105.

Comments. Currently no published records of this genus or family from Lizard Island.

Family Poecilochaetidae Hannerz, 1956

Genus *Poecilochaetus* Clarapède in Ehlers, 1875

Records. Lizard Island: Lagoon (14°40'S 145°28'E) AM W.32467, AM W.32468; Lagoon (14°40'S 145°28'E) AM W.32469.

Comments. Currently no published records of this family or genus from Lizard Island.

Family Polygordiidae Czerniavsky, 1881

Records. Lizard Island: (14°41'1"S 145°27'1"E) AM W.37164; Turtle Beach (14°39'9"S 145°27'3"E) AM W.36845. **Surrounding Areas:** North Direction Island (14°44'43"S 145°30'18"E) AM W.36828.

Comments. Currently no published records of this family from Lizard Island.

Family Polynoidae Malmgren, 1867

This family is widely present at Lizard Island but no detailed studies on the family from the Lizard Island region have been completed, much of this material has not been sorted to genus.

Genus *Adyte* Saint-Joseph, 1899

Records. Lizard Island: Watson's Bay (14°40'S 145°27'E) AM W.19474.

Comments. Currently no published records of this genus from Lizard Island.

Genus *Gastrolepidia* Schmarda, 1861

***Gastrolepidia clavigera* Schmarda, 1861**

Type locality. Sri Lanka.

Records. Surrounding Areas: Great Barrier Reef (14°40'S 145°40'E) MAGNT W.006003.

Comments. Currently no published records of this species from Lizard Island.

***Gastrolepidia* sp.**

Records. Lizard Island: between Bird Islet and South Island (14°40'S 145°28'E) AM W.513, AM W.5144, AM W.5498; Granite Bluff (14°40'S 145°28'E) AM W.5143.

Comments. Currently no published records of this genus from Lizard Island.

Genus *Harmothoe* Kinberg, 1855

***Harmothoe praecincta* (Haswell, 1883)**

Type locality. Port Jackson, NSW. Australia.

Records. Lizard Island: North Point (14°40'S 145°28' E) AM W.19763.

Comments. No published records of this species from Lizard.

***Harmothoe* sp.**

Records. Lizard Island: South Island (14°42'S 145°27'E) AM W.19406; North Point Reef (14°35' S 145°35' E).

Surrounding Areas: Two Isles (15°1'S 145°27'E) AM W.203940, AM W.203119.

Comments. No published records of this genus from Lizard.

Genus *Hololepidella* Willey, 1905

Records. Lizard Island: (14°40'S 145°40'E) MAGNT W.005255.

Comments. No published records of this genus from Lizard.

Genus *Iphione* Kinberg, 1855

***Iphione ovata* Kinberg, 1856**

Type locality. Oahu, Hawaii.

Records. Lizard Island: (14°40'S 145°27'E) AM W.2935. **Surrounding Areas:** North Direction Island (14°44'S 145°30'E) AM W.2934.

Comments. No published records of this species from Lizard.

Genus *Lepidonotus* Leach, 1816

Records. Lizard Island: Palfrey Island (14°40'S 145°27'E) AM W.194961.

Comments. No published records of this genus from Lizard.

Genus *Verrucapelma* Hanley & Burke, 1991

Records. Lizard Island: Lagoon (14°40'S 145°27'E) AM W.21809, AM W.203118.

Comments. No published records of this genus from Lizard.

Family Questidae Hartman, 1966

Records. Outer Barrier: Yonge Reef (14°36'S 145°28'E) AM W.23620.

Comments. No published records of this family from Lizard.

Family Sabellariidae Johnston, 1865

See Capa *et al.* (2015, *Zootaxa* 4019).

Family Sabellidae Latreille, 1825

See Capa & Murray (2015, *Zootaxa* 4019).

Family Scalibregmatidae Malmgren, 1867

Records. Lizard Island: Crystal Beach (14°40'S 145°28'E) AM W.40304; Lagoon (14°42'S 145°28'E) AM W.40303.

Comments. No published record of this family from Lizard Island.

Family Serpulidae Rafinesque, 1815

See Kupriyanova *et al.* (2015, *Zootaxa* 4019).

Family Sphaerodoridae Malmgren, 1867

See Capa & Rouse (2015, *Zootaxa* 4019).

Family Spionidae Grube, 1850

See Meißner & Götting (2015, *Zootaxa* 4019) and Radashevsky (2015, *Zootaxa* 4019).

Family Syllidae Grube, 1850

See Aguado *et al.* (2015, *Zootaxa* 4019) and they also list previously published species from Lizard but not collected in August 2013. Below listed are additional records of unpublished species.

Genus *Euryssyllis* Ehlers, 1864

***Euryssyllis japonicum* Imajima, 2003**

Type locality. 5 km off SW of Jogashima Islet. Japan.

Records. Outer Barrier: Day Reef (14°28'59"S 145°32'47"E) MAGNT W.022996; Yonge Reef, QLD (14°36'24"S 145°37'51"E) MAGNT W.022997.

Comments. No published records from Lizard Island.

Genus *Megasyllis* San Martin, Hutchings & Aguado, 2008

***Megasyllis tigrina* San Martin, Aguado & Alvarez-Campos, 2014**

Type locality. Jervis Bay (35°07.49' S 150°45.77' E), Bowen Island, NSW, Australia.

Records. Lizard Island: (14.41'24" S 145.26'35" E) MAGNT W.023887.

Comments. Listed as *Megasyllis cf tigrina* on MAGNT database.

Genus *Syllis* Savigny in Lamarck, 1818

Records. Lizard Island: (14°40'S 145°28'E) AM W.40754; (14°39'S 145°28'E) AM W.40753; MacGillivray Reef (14°39'23"S 145°29'31"E) AM W.40923; Coconut Beach (14°41'S 145°28'E) several records; Lagoon (14°40'S 145°27'E) AM W.40319, AM W.40435, AM W.40751; off Station Beach (14°40'S 145°28'E) AM W.40318; (14°41'S 145°27'E) AM W.40316; Crystal Beach (14°40'S 145°28'E) AM W.40434, AM W.40436, AM W.40752.

Outer Barrier: Yonge Reef (14°36'S 145°37'E) AM W.40317, AM W.40439, AM W.40756.

Comments. No published records from Lizard Island but work in progress by San Martin *et al.*

Family Terebellidae Johnston, 1846

See Nogueira *et al.* (2015, Zootaxa 4019, a).

Family Telothepodinae

See Hutchings *et al.* (2015, Zootaxa 4019).

Family Thelepodinae

See Hutchings *et al.* (2015, Zootaxa 4019).

Family Polycirridae

See Nogueira *et al.* (2015, Zootaxa 4019, b).

Family Trichobranchidae Malmgren, 1866

See Hutchings *et al.* (2015, Zootaxa 4019).

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