



2013 ANNUAL REPORT





2012-2013 **ANNUAL REPORT**

REEF LIFE SURVEY FOUNDATION INCORPORATED

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Photos by: Rick Stuart-Smith, Graham Edgar, Ian Shaw and Sam Griffiths

The Reef Life Survey Foundation is a non-profit environmental organisation. Donations to the RLSF are tax-deductible and support ongoing monitoring of the marine environment around Australia.

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A vibrant underwater photograph of a coral reef. In the foreground, there are large, brown, brain-like corals and several tall, yellow, branching corals. Pink and purple sponges are interspersed among the corals. Small, dark fish are swimming in the clear blue water. The background shows more of the reef structure and the surface of the water with sunlight filtering through.

OUR VISION

The Reef Life Survey Foundation (RLSF) aims to improve biodiversity conservation and the sustainable management of marine resources by coordinating surveys of rocky and coral reefs using scientific methods.

A full-page background image of a scuba diver underwater. The diver is wearing a black wetsuit, a headlamp, and a BCD. They are holding a clipboard with a white sheet of paper and a pen. The water is clear blue, and there are some bubbles and a rocky reef visible in the background.

OUR MISSION

To undertake and demonstrate the value of robust, long-term biodiversity monitoring of the marine environment; and bridge communication and activity gaps between scientific researchers, managers, recreational SCUBA divers, fishers, and the wider public.

An underwater photograph showing a diver in silhouette on the left, swimming towards the right. On the right, the side of a large boat is visible, with sunlight filtering through the water, creating a shimmering effect. The word 'CONTENTS' is overlaid in large white letters.

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RLSF BOARD MEMBERS

Prof Graham Edgar

President



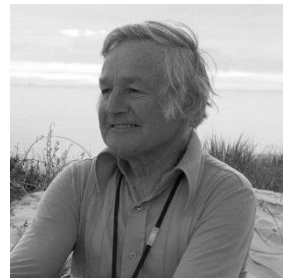
Dr Rick Stuart-Smith

Executive Officer



Scoresby Shepherd

Scientific Representative



Peter Mooney

Management Representative



Margo Smith

Community Diver Representative



ADVISORY COMMITTEE

RLSF activities are directed by a committed and active Advisory Committee. Committee members participate on a voluntary basis and enable RLSF to contribute information on marine biodiversity where it is most needed.

RLSF Advisory Committee members

Neville Barrett Institute for Marine & Antarctic Studies, Tasmania

Graham Edgar Institute for Marine & Antarctic Studies, Tasmania

Andrew Green Nature Coast Marine Group, New South Wales

Tom Holmes Department of Parks and Wildlife (formerly DEC), Western Australia

Steffan Howe Parks Victoria, Victoria

Alan Jordan Department of Primary Industries, New South Wales

Bryan McDonald Department of Primary Industry and Fisheries, Northern Territory

Peter Mooney Parks and Wildlife Service, Tasmania

Robyn Morcom Department of Environment, Water & Natural Resources, South Australia

Ian Shaw Solitary Islands Underwater Research Group, New South Wales

Scoresby Shepherd South Australian Research & Development Institute, South Australia

Margo Smith Combined Hunter Underwater Group, New South Wales

Rick Stuart-Smith Institute for Marine & Antarctic Studies, Tasmania

PRESIDENT'S REPORT

Our second full year as an NGO has again been marked by a long list of achievements. Notable amongst these are:

- The large number of transects surveyed by RLS divers (1378) - more surveys than in any previous year,
- An expanded Advisory Committee with new management representatives from SA, WA and NT,
- Establishment of a marine baseline of reef biodiversity for northern New Zealand, a process involving collaboration with the New Zealand Department of Conservation,
- Completion of annual surveys associated with marine parks at Rottne Island, Port Stephens, Port Phillip Heads, Beware Reef, Jervis Bay, Batemans Bay, Solitary Islands, Sydney, Kangaroo Island, Port Davey and the Kent Group,
- Establishment of a marine baseline of reef biodiversity for the new Commonwealth Coral Sea Marine Reserve network, including surveys at almost all reefs in the Coral Sea region, most with no prior biological information,
- Collaboration with leading marine scientists worldwide in analysis of RLS data from 40 countries,
- Acceptance of a paper based on RLS data that describes global patterns of reef biodiversity in the journal *Nature* – the highest scientific approval for the quality and novelty of RLS outputs

These achievements reflect the efforts of RLSF divers and associates through the past year, many contributing much more than anyone could reasonably expect. Unfortunately, our funding base still has much room for improvement if it is to match our



Professor Graham Edgar
President

achievements and thereby allows activities to continue in a sustainable manner. Most of all, we need funding to train new divers and to cover costs of annual surveys at key locations.

Our financial outlook nevertheless looks brighter for 2013/14 than 2012/13, with a grant received from the Ian Potter Foundation for surveys off north-western Australia in late 2013, and two other proposals in review. The year 2014 has much to look forward to, including a smartphone species ID app that will make RLS marine species information accessible for many parts of the world, a revamped website, completion of the Reef Dragon circumnavigation of Australia, and field trips to old and new locations.

Thanks again to all associated with RLSF, your enthusiasm remains the foundation of our success and provides the best motivation for pushing on. Hopefully, I will see you blowing bubbles over the next year!

Graham Edgar

President RLSF

EXECUTIVE OFFICER'S REPORT



Dr Rick Stuart-Smith
Executive Officer

The 2012-2013 financial year saw continued support and commitment from what is now a very strong network of RLS volunteer divers. The experience of the core team of RLS divers is now substantial, with this year a number of RLS divers reaching and passing **five years** of active service in the RLS program (the earliest of these in January 2013). These divers, who deserve formal recognition, are: Bill Barker, Danny Brock, Marls Davey, Antonia Cooper, Paul Day, Nicola Davis, Tom Davis, Andrew Green, Don Love, Peter Mooney, Sue Newson, Liz Oh, Ashley Smith, Kevin Smith, Margo Smith, Jemina Stuart-Smith, Mike Sugden, Alan Wilkins, Keith Saunders, Terina Saunders, Danny Brock, Ian Shaw, Neville Barrett, Renate Velzeboer, Jen Hoskin, Sue Baker and Scoresby Shepherd. Given the amount of effort and skill required to contribute data to RLS, continued involvement for 5+ years is a truly monumental level of commitment.

With 57 divers who contributed data in 2012-2013 (not including 14 in the RLS team in Spain), RLS more than doubles the entire Australian scientific workforce with respect to people with the skills and experience to monitor our marine life in such detail. The volunteer contributions this year included

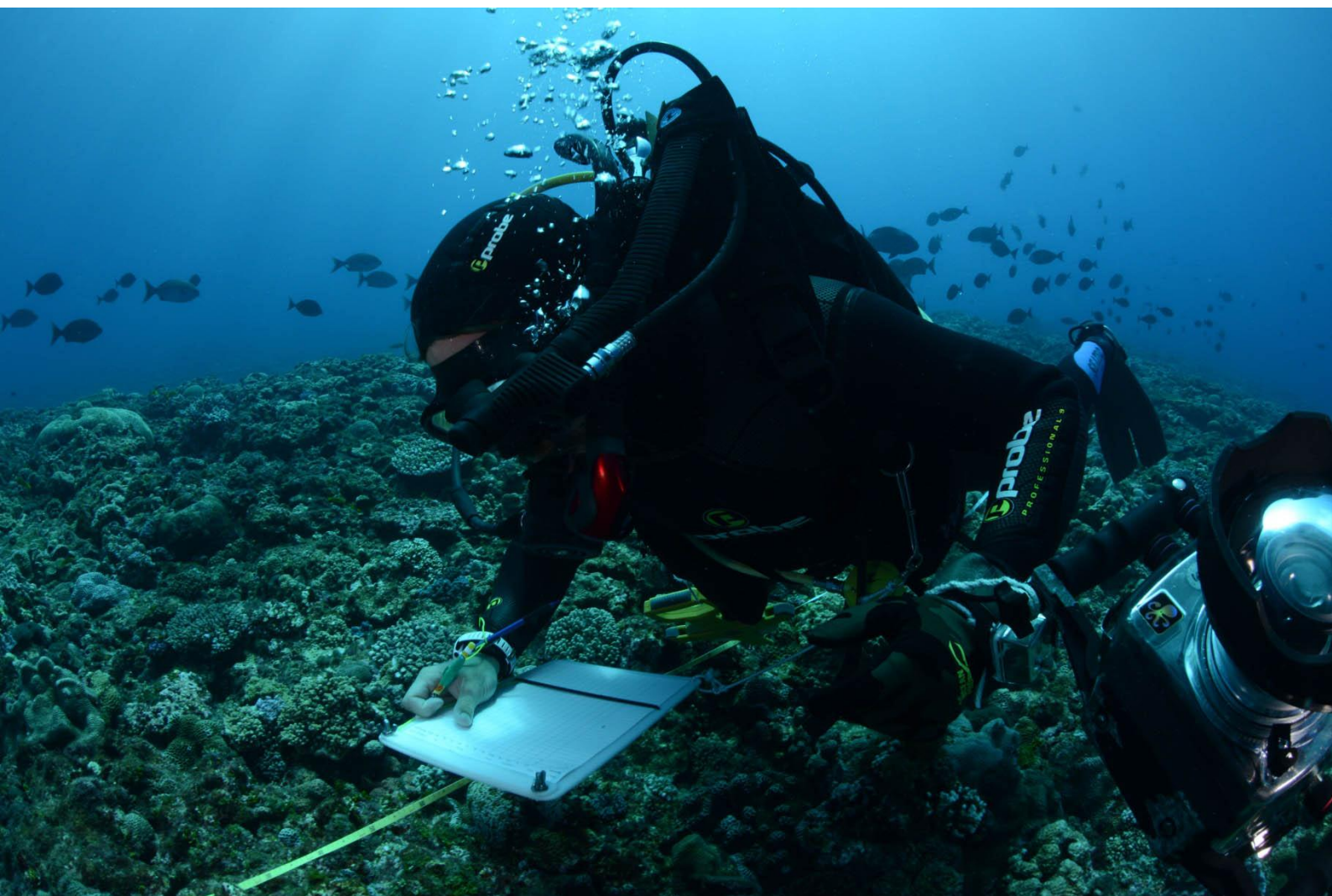
in excess of 690 days of volunteer effort.

Thirteen new volunteer divers were trained in the 2012-2013 year, taking the total number of divers who have contributed data to RLS since formation to 212.

Unfortunately our financial situation was not as rosy as that of personnel and voluntary contributions. The only income came in the form of final payments on previous contracts from the Atlas of Living Australia and the University of Tasmania, and a consultancy associated with data reported to the New Zealand Government. These were for logistics, organisation, and provision of data and images and some field expenses. The total spending of \$107,352.68 was largely associated with activities for the Coastwest grant in Western Australia (including production and distribution of 1,600 USB memory sticks loaded with presentations on Rottnest Island and Ningaloo Reef) and for the Coral Sea, with initial costs for the Australian survey circumnavigation starting to increase towards the end of the financial year.

We are endeavouring to secure more funding, as the sustainability and continued expansion of the RLS program into the future requires more income than we have had in the last two years. However, when we reflect on what has been a long year for all involved, the cost-effectiveness of the program is clearly evident: 1,378 surveys, 13 divers trained, production and distribution of 1,600 USB sticks for public education, and the production of four reports (for Ningaloo Reef, Rottnest Island, New Zealand marine reserves and the Coral Sea).

This is entirely due to the voluntary efforts of all involved, from divers who collect data to the Advisory Committee and Board members, and those who have helped with administration, reporting and production of the USB presentations. Many thanks to you all for these contributions.



2012-2013 ACTIVITIES

We are fortunate to have an impressive group of members who volunteer their time and expertise regularly, but the following people and groups have also kindly made financial contributions to RLSF over the last year. RLSF would like to thank in particular:

The Ian Potter Foundation

S & A Shepherd

Combined Hunter Underwater Group



The activities for the 2012/13 financial year mostly comprised surveys conducted as part of the Australian circumnavigation from the sailing catamaran *Reef Dragon*. The vessel has been loaned to RLSF as a diving platform by Graham Edgar since February 2013, enabling **45** divers to collect **1,081** surveys from **499** remote sites from the SW Pacific, New Zealand and Australia during this year. RLSF acknowledges this generous contribution which has created incredible opportunities for data collection in remote offshore locations this financial year and into 2013-2014.

Reef Dragon arrived from New Zealand in January 2013, after doing RLS surveys across the South Pacific on its way. The Australian survey circumnavigation began in Port Davey, Tasmania on 16 February 2013.

As *Reef Dragon* made its way up the east coast, small teams of RLS divers jumped on board for 2-4 week survey legs. These focussed on surveying more remote offshore regions of interest to the Australian Government, including most coral reef systems in the recently declared Coral Sea Commonwealth Marine Reserve.

It also stopped at Port Stephens in April, when a larger land-based RLS team gathered for a survey weekend. Day trips to reefs outside the bay on *Reef Dragon* were mixed with surveys of the local shore-based monitoring sites. A similar survey weekend was organised at the Solitary Islands in April.

From the start of the circumnavigation in SW Tasmania in February to the end of the financial year, 23 RLS divers climbed aboard *Reef Dragon*, completing 518 surveys at 193 sites on the Australian east coast. The *Dragon* has continued its journey around Australia into the 2013/2014 financial year; updates are regularly posted on the RLS website.

Additional survey expeditions, independent of the *Reef Dragon* circumnavigation, also occurred throughout the year. These included the 6th consecutive annual Rottnest Island extended survey weekend (WA), and others at Port Phillip Heads Marine National Park (Vic), Ningaloo Reef (WA), Beware Reef (Vic) and Kangaroo Island (SA).



Port Stephens survey trip 2013 (from Left): Jen Hoskin, Barb Barker, Bill Barker, Anna Barthelsson, Nicola Davis, Ian Donaldson, Tom Davis, Sam Griffiths, Margo Smith, Rick Stuart-Smith, John Turnbull, Andrew Green, Ash Smith, Kate Tinson.

"SAMMY" & "DONNO"

We would like to extend a special acknowledgement this year to the contributions of two people who have greatly assisted in the survey circumnavigation activities. Having a private boat circling the coast, dedicated to supporting RLS surveys during its travels, would not be possible without voluntary assistance from an experienced skipper and first mate. Ian Donaldson has given more than half of his year to skipper the sailing catamaran *Reef Dragon*, and Sam Griffiths has been a highly

competent and enthusiastic first mate, stand-in skipper and RLS survey diver for an entire year. They have not only provided the necessary skills and experience to make it a safe and effective activity, but their easy going and friendly personalities have also made it an enjoyable one for all the RLS divers that jumped on board and participated.

We hope they have enjoyed the experience as much as we have enjoyed having them as integral members of the RLS team!



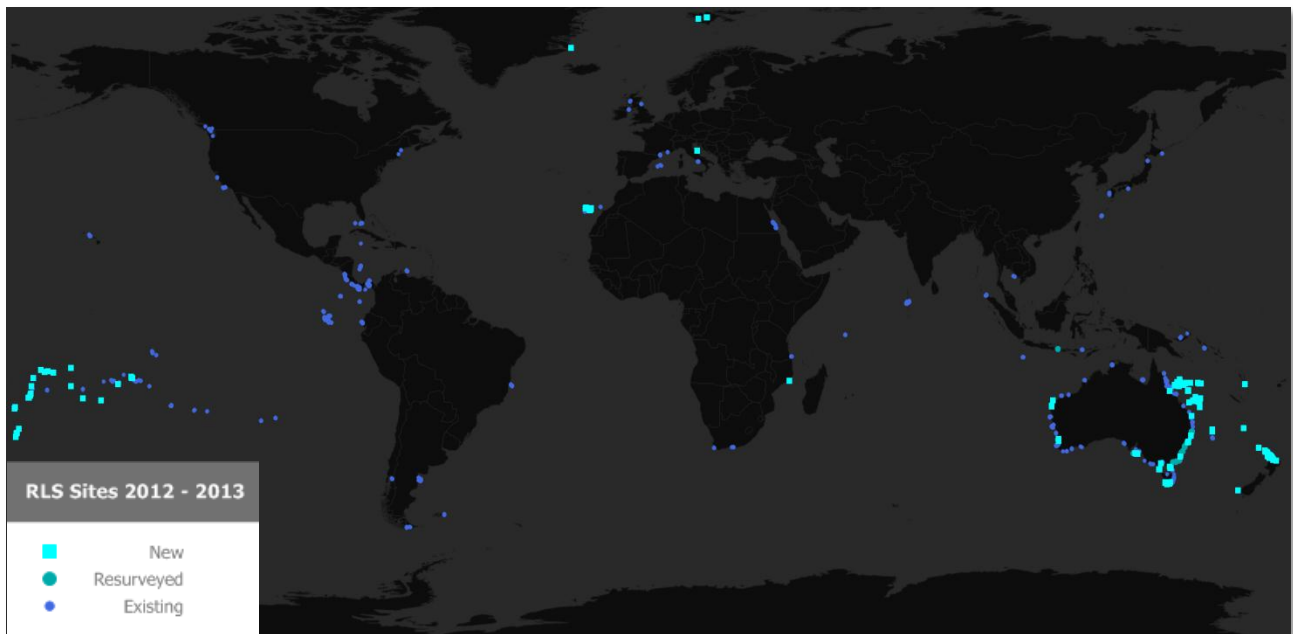


Figure 1. Global distribution of RLS survey locations, indicating new sites surveyed in the 2012/13 financial year (light blue) and those which were part of ongoing monitoring of existing sites (resurveys). Sites only surveyed in previous financial years are shown as small dark blue dots.

Over the last year, 1,378 RLS biodiversity surveys were undertaken across 14 countries. Figures 1 and 2 show the spread of new and re-surveyed sites in the 2012-13 financial year. These were predominately from the SW Pacific Ocean and up the east coast of Australia (as part of the Australian survey circumnavigation).

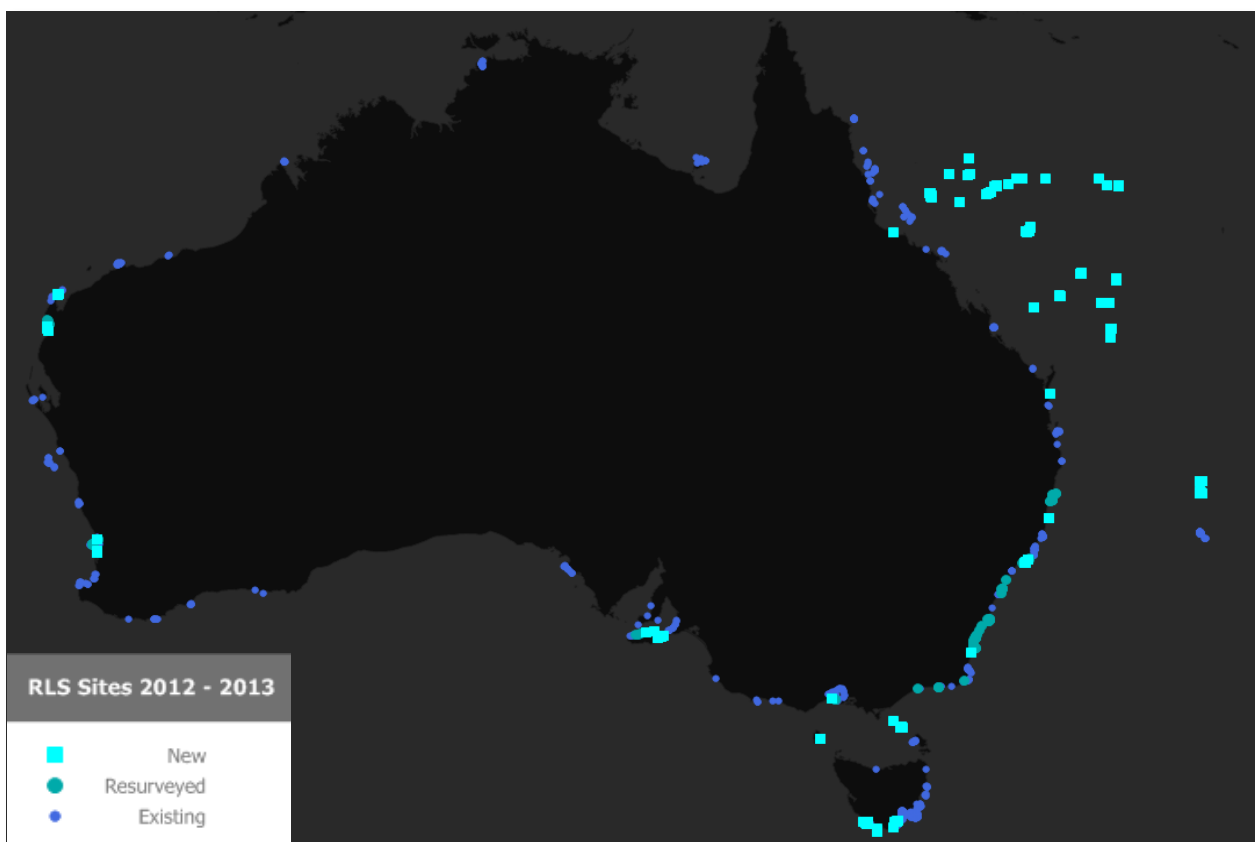


Figure 2. Australian distribution of RLS surveyed sites indicating new and re-surveyed sites for the 2012/13 financial year in aqua.

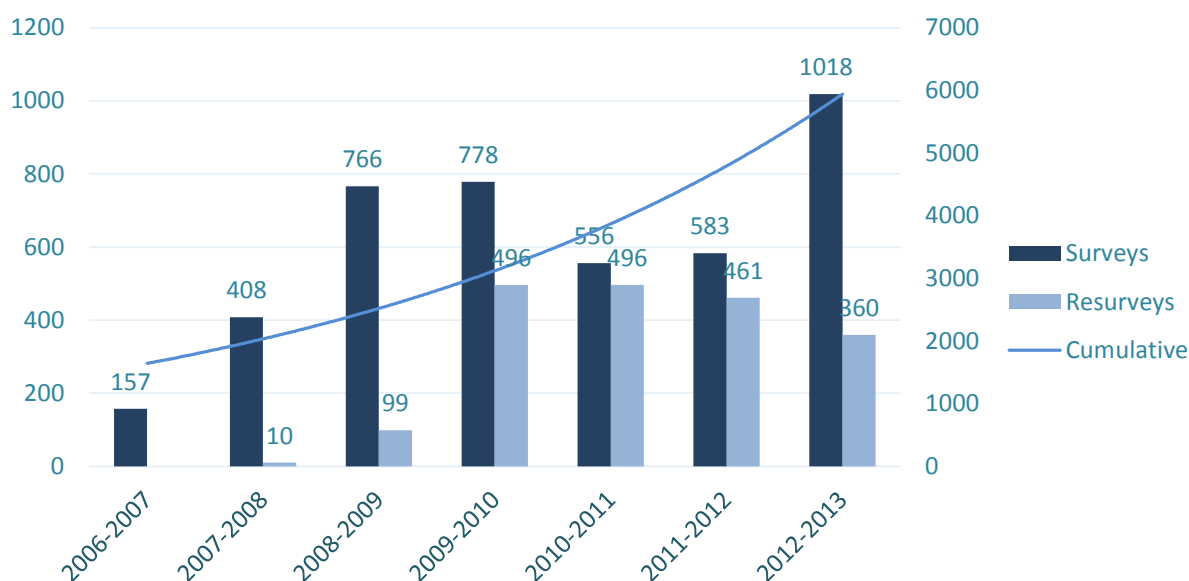


Figure 3. Survey numbers over each financial year showing the number of surveys completed at new sites, the number of surveys completed at existing sites, and the cumulative total of surveys completed up to 30/06/13.

The survey tally continued to rise steadily in 2012-2013, with the 6,000th RLS survey completed on the 4th June 2013 at Kenn Reef, Coral Sea. The total number of surveys was up this financial year, with many new sites added in an effort to fill gaps in the growing global dataset and due to the initiation of the Australian survey circumnavigation (Fig. 3). The latter included the first reef surveys ever at numerous offshore reef systems in the newly established Coral Sea Commonwealth Marine Reserve. Resurveys of existing sites, which represent the monitoring of key locations around Australia, were slightly down – mostly as a result of the increased focus on offshore reefs, but also resulting from inadequate funds to cover all key Australian monitoring activities. The trend in surveys over time (Fig. 3) clearly shows where RLS has embarked on new exploratory surveys to create the most extensive Australian continental baseline of reef biodiversity by 2010, followed by the even more impressive global baseline by 2013. Monitoring activities (resurveys) have remained relatively stable since 2010, but were lower than hoped for and remain an important priority for future years.

Table 1. Statistics associated with RLS survey activities during the 2012/13 financial year.

Activity	Month	#Divers	#Sites	#Transects (surveys)
New Zealand	Oct-Dec	14	116	247
Port Phillip Bay	Feb	5	15	54
Port Davey*	March	4	23	96
Kent Group*	March	4	9	68
Batemans Bay	Mach	4	19	38
Jervis Bay*	April	5	12	53
Sydney*	April	5	8	24
Port Stephens*	April	11	10	33
Solitary Islands*	April	11	14	37
Rottneest Island	May	5	8	24
Coral Sea*	Oct 12 - July 13	8	132	258
Misc. International*	July 12 - Jun 13	18	127	210
Misc. Australia	July 12 - Jun 13	35	99	236
TOTAL		55⁺	592	1378

* Includes surveys completed as part of the Australian Circumnavigation yacht trip
⁺ Total individual divers who collected data in the 2012-13 financial year. Does not include 8 new trainees

FINANCIAL REPORT



has generously supported RLSF since the organisation's incorporation in 2010. RLSF sincerely thanks Michael for his valuable pro-bono accountancy advice and quality auditing services.



Colleen Morris has provided enormous voluntary support and much appreciated expertise to the financial recordkeeping of the RLSF.

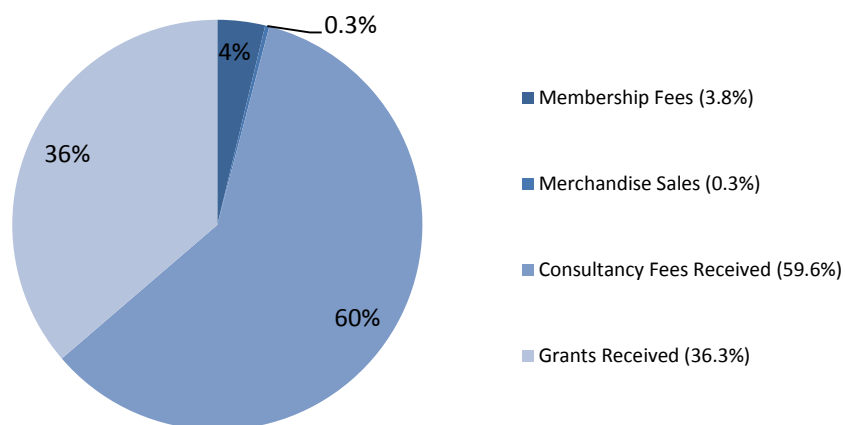
RLSF had 71 financial members as at 30th June 2013, with 46 of these being Life Members. The audited financial reports for RLSF are included here, as derived from the full financial report for the 2012/2013 financial year. We recorded a technical loss of **\$74,050.18** this year, a loss that was anticipated due to receiving a large grant from Coastwest late in 2011/12 but with the majority of project costs incurred during the 2012/13 period. An official audit was completed by Michael Muller who has generously donated his time and expertise to RLSF at no cost. Separate financials are presented for the Marine Public Fund, in which the component of RLSF funds associated with donations is managed (see table 4), according to requirements for Australian charities.

Table 2. RLSF Incorporated profit and loss for the 2012/13 financial year.

Budget category	Sub-category	Amount
Income	Merchandise sales	\$110.00
	Grants received	\$12,176.50
	Consultancy received	\$20,000.00
	Membership Fees	\$1260.00
		\$33,546.50
Expenses	Accounting & Audit	\$500.00
	Field Trip Expenses	\$41,333.20
	Materials & Supplies	\$5,483.11
	Repairs & Maintenance	\$2,078.10
	Insurance	\$450.00
	Safety Equipment	\$1,091.77
	Professional Services	\$28,630.00
	Memberships	\$1,079.20
	USB Production	\$19,200.00
		\$107,596.68
Balance		-\$74,050.18

Members and friends are reminded that donations to the Marine Public Fund are tax-deductible, and by substantially increasing it over time we can greatly extend the capabilities of RLSF, and expand its ambitious programs.

RLSF Inc. Income 2012/13



RLSF Inc. Expenses 2012/13

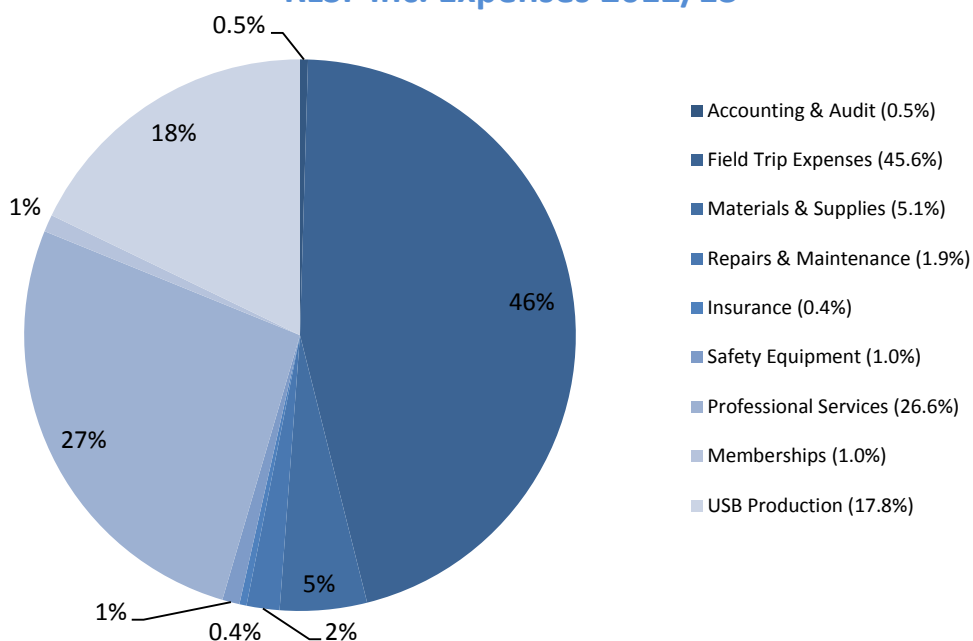


Figure 4. Income and Expenses for the RLSF Incorporated Account for the 2012/13 financial year.

Table 3 RLSF balance sheet as at 30 June 2013

Balance sheet category	Amount
Foundation Account	\$18,203.11
Petty Cash	\$29.25
Total Assets	\$18,232.36
Net Assets	\$18,232.36
Retained Earnings	\$92,282.54
Current Earnings	-\$74,050.18
TOTAL AVAILABLE FUNDS	\$18,232.36

Table 4 Marine Public Fund balance sheet as at 30 June 2013

Balance sheet category	Amount
Marine Public Fund Account	\$2,625.00
Un-deposited Donation	\$2,000.00
Total Assets	\$4,625.00
Net Assets	\$4,625.00
Retained Earnings	\$2,625.00
Current Earnings	\$2,000.00
TOTAL AVAILABLE FUNDS	\$4,625.00

RLS VOLUNTEER DIVERS

RLSF has 71 members who, as experienced scuba divers, regularly participate in underwater surveys in the local area, in addition to joining organised expeditions in temperate and tropical waters. Each trained diver brings to the program their local knowledge, life skills, diving experience, enthusiasm and willingness to go the extra distance to record the quality marine data required for RLS database.

RLS DIVER PROFILE *PAUL DAY (WA)*



How did you hear about RLS?

Like many other RLS members, I saw an article in Dive Log magazine in late 2007 asking for divers interested in joining a volunteer marine survey program. By pure chance it coincided with me making a career change and commencing a marine science degree. It was a great opportunity to gain experience; and continues to be so.

How long have you been involved in diving and RLS?

I learnt to dive in 1997 in Fiji, then continued on to dive in New Zealand, Australia and

Indonesia. I had a few years off after I returned to the UK (the water temperature dulled my enthusiasm), before emigrating to Perth in 2005. I've been involved in RLS since April 2008 when I was trained by the RLS team in the Abrolhos Islands, off Geraldton. A couple of divers from that trip have remained as the core WA group.

What have you gained from being part of RLS?

Apart from taking the diving experience to another realm, involvement in RLS has given me an increased awareness and knowledge of the marine environment and provided me with practical skills relevant to my studies. In particular, being able to recognize changes in habitat types and anticipate the related change in species composition during a dive. Since joining the program I've become more observant underwater, seeing and recognizing many more species - I'm not simply swimming through an area. I have definitely gained insight into a career in marine science and had numerous opportunities to interact with scientists and researchers.

What skills have you brought to the program?

My level of enthusiasm for the amazing diversity of the marine environment, and scuba diving in general! I like to inspire others and have a strong work ethic - I am committed to carrying out surveys to a high standard and set the bar high.

What have been your highlights since joining the RLS team?

My initial training in the Abrolhos Islands, and an 'off duty' night dive during the trip have been my main highlights, as well as meeting new people along the way. One definite stand out was a trip to Eaglehawk Neck (Tas) in 2009. There were a large number of trainees, a fantastic group, a great learning experience and an opportunity to build my skills and meet new people. The scenery, particularly the sheer cliffs, and perfect conditions were memorable. More recently RLSF received a Coastwest grant (2012) and I was given the opportunity to assist coordinating the field work and complete progress reporting. This provided insight and experience in the grant process: writing

reports, financial reporting and preparing presentations, all useful skills for the future.

What are you looking forward to being involved in with RLSF in the future?

Definitely the 2014 Rottnest Island trip as I have been on every one since 2008. I am also looking at opportunities to publish a journal article based on data collected at Rottnest Island as part of an independent research project for my BSc. Marine Science and hopefully something more in depth in the future.

The Coastwest grant experience has given me the impetus, and confidence, to facilitate forming an incorporated underwater volunteer research group in WA. RLS has a great network and it will be fantastic to link interested divers and potential stakeholders, including RLSF, to identify project opportunities and apply for grants in the west, as groups have done on the eastern seaboard.

Interview by RLSF Community Dive Representative Margo Smith



Rottnest Island survey trip 2012, RLS divers (from left): Kevin Smith, Chris Cunbold, Paul Day, Harri Davies, Jen Hoskin, Liz Oh, Tom Davis, Don Love, Nicola Davis, Wendy Hutchison



SUPPORTERS & PARTNERS

A large number of supporting individuals, organisations and community groups contributed to the successes of the Reef Life Survey program through varied mechanisms, with major partners:

- Institute for Marine and Antarctic Studies, University of Tasmania
- WinWeb
- Aquenal Pty Ltd
- Atlas of Living Australia

Additional key support to RLSF in 2012-2013 was provided by:

- Antonia Cooper, RLS/IMAS
- Colleen Morris, Aquenal
- Coastwest, West Australian Planning Commission
- Debbie Freeman, Department of Conservation
- Department of Parks and Wildlife (DPaW), Western Australia
- Department of Environment, Water and Natural Resources, South Australia
- Department of Primary Industry and Fisheries, Northern Territory

- Environment Protection Authority, South Australia
- Friends of Beware Reef
- Ian Potter Foundation
- Just Berkhout, RLS/IMAS
- Lord Howe Island Board
- Michael Muller, Accounting Services Hobart
- Mike Van Keulen, Murdoch University
- Nature Coast Marine Group
- National Geographic
- NSW Department of Primary Industries
- Parks and Wildlife Service, Tasmania
- Parks Victoria
- PBD Consulting Pty Ltd
- Perth Region NRM
- Prince of Wales Bay Marina
- Rangelands NRM
- Rottnest Island Authority
- Solitary Islands Underwater Research Group
- Dr Mikel Becerro, PNA-CSIC, Spain
- NatureServe
- Tasmanian Boat Charters





REEF LIFE SURVEY

ADDITIONAL THANKS

The Reef Life Survey Foundation acknowledges support from the 57 divers who have contributed their skills and expertise to the RLS program over the 2012/13 financial year.(please see list below)

Special thanks must also be given to:

Antonia Cooper, for help with annual report and financials, Just Berkhout for database support and help with annual report, Peter Southwood David Mason, Mike Sugden and Pieter Van der Woude for additional help skippering Reef Dragon, Paul Day for help with the Coastwest project, Kevin Smith and Jemina Stuart-Smith for help with USB presentations, Keith and Terina Saunders for logistical support, Sylvia Buchanan for database support, and Thierry Rakotoarivelo for help with phone application development.

Alan Wilkins
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Andrew Green
Anna Berthelson
Antonia Cooper
Ashley Smith
Beth Strain
Bill Barker
Bob Edgar
Carolina García
Caroline Mason
Cayne Layton
Charlie Bedford
Christine Kibele
Damien Stanford
Daniel Hernández Pérez
Don Love
Garrick Smith

Germán Soler
Graham Edgar
Harriet Davies
Ian Shaw
Jared Kibele
Jemina Stuart-Smith
Jennifer Hoskin
John Turnbull
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