



REEF LIFE SURVEY

Annual Report 2011-2012



1. Reef Life Survey Foundation (RLSF)

RLSF was established with the vision to improve biodiversity conservation and the sustainable management of marine resources. We do this through the collection of high-quality biodiversity information over greater scales than otherwise possible, and help apply this information for improved understanding and management of our seas.

The Foundation's key aims are to:

- Undertake and demonstrate the value of robust, long-term biodiversity monitoring of the marine environment, which is otherwise out-of-sight;
- Promote and contribute to broader and more informed ecosystem management of marine biodiversity;
- Promote the participation of the community in marine biodiversity monitoring and marine research;
- Ensure a better informed public and community on marine biodiversity matters; and
- Bridge communication and activity gaps between scientific researchers, managers, recreational SCUBA divers, fishers and the wider public.

The activities of RLSF are focussed on monitoring and publically reporting the condition of rocky and coral reefs. Through the many partnerships which resulted in the formation of RLSF and continue to make it work, the information collected through RLSF feeds directly into management and policy as well as globally significant scientific studies. The RLSF Advisory Committee continues to play a key role in ensuring activities continue to contribute to these broader outcomes.

2. RLSF Board



President: Graham Edgar



*Executive Officer/Treasurer
Rick Stuart-Smith*



*Scientific Representative
Scoresby Shepherd*



*Management Representative
Peter Mooney*



*Community Diver Representative
Margo Smith*

3. 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
Steffan Howe	Parks Victoria, Victoria
Alan Jordan	Department of Primary Industries, New South Wales
Peter Mooney	Parks & Wildlife Service, Tasmania
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
Andrew Zacharek	Australian Government, Department of Sustainability, Environment, Water, Population and Communities

4. President’s Report

On its first anniversary, Reef Life Survey Foundation has already proved its worth as a highly adaptable organisation with a global conservation reach. This outcome has been achieved thanks to efforts beyond the call of duty by a core team of enthusiastic divers and University of Tasmania staff. Our Advisory Committee members, volunteer divers, Rick, Toni, Just and Marlene all deserve unqualified praise and my thanks. We have much to be proud of, given that we are well underway towards completing the first global census of numbers of reef fishes, invertebrates and plants. I don’t doubt that this biodiversity baseline will increase in importance with each passing year, providing the most valuable asset for managers when directing marine conservation efforts.



The long list of achievements over the past year includes bedding in the organisational structure and administration of the new Foundation (although the RLS program has been operating for 5 years, the RLSF was only formed in 2011), ongoing surveys at core monitoring sites, and expansion of surveys on the global front. RLSF has been added to the Register of Environmental Organisations by the Australian Government and been given Tax Deductible Gift Recipient Status (and other taxation concessions), so donations can be offset against tax. This not only helps with personal donations, but allows us to apply to other charitable foundations for project funding.

It has not all been smooth sailing, however, as the only financial support we have received for field surveys, our core reason for existence, has been for locations in Western Australia. Government agencies recognise the great value of our program and are prepared to pay for staff time, data analysis, reporting, and educational outreach, but rarely cover the diving costs to collect the information on which these activities rely. We certainly need to broaden our funding base with enough discretionary funds to cover as much survey time as trained RLS volunteers would like.

Regardless of the shortage of direct funds, surveys continued apace through the year, in part due to ongoing local assistance from key partners, including the New South Wales Marine Parks Authority at Lord Howe Island (now Department of Primary Industries), the Rottnest Island Authority, Parks Victoria, Parks and Wildlife Service Tasmania, the South Australian Environmental Protection Agency, the University of Tasmania, the South Australian Environmental Protection Agency, the University of Tasmania, and the support of our many volunteers

Another encouraging feature of the past year has been great expansion on the international front. Although RLSF has received no funding for international activities, through the efforts of divers and staff during holidays and help from collaborating researchers, RLS divers have now completed surveys in 34 different countries, from Ireland to Japan, Canada, Brazil, South Africa, and to the southern tip of Chile, with many places in between. I think it fair to say that our RLS dataset is now the most comprehensive baseline available for scientists to understand threats to inshore marine biodiversity worldwide, largely because it is the only one based on counts over fixed distances that covers so many countries and includes such a wide range (>4,000) of fishes and invertebrates. We also have good underwater photos of most of the species recorded, with plans to disseminate them with associated information online and through smart phone and tablet apps (with a donations page!). Partnerships with Stefan Töpfer of Winweb, and the Atlas of Living Australia, have proved enormously helpful in these developments.

The majority of the international surveys have been collaborative trips with scientific partners who see the value of a global dataset based on standardised methods, and who are keen to assist rollout of surveys using RLS methods. Particularly notable in this respect is the Canary Islands RLS group, a team of 14 divers trained by Rick and led by Michel Beccero and Rodrigo Reira, who have now surveyed 44 sites in the North Atlantic. Other volunteer divers who have played key roles in overseas surveys during the past year include David Eynon in the Falkland Islands and Peter Southwood in South Africa.

The next year should be as big as the past one, with many tangible outcomes resulting from the extensive ground work now completed. I am looking forward to new developments on our website, including the species identification pages, and an innovative rollout of surveys while circumnavigating Australia using a sailing catamaran as a mother ship for dives. This should work particularly well for accessing isolated reefs.

Thanks again for your efforts through the past year. This year I will hopefully catch up with more of you on the water.

Graham Edgar
President RLSF

5. Executive Officer's Report



Although I could be accused of having a biased opinion, I would argue that 'successful' is a very conservative word to describe the achievements of the RLS program since it was initiated at the end of 2007 as a three-year pilot project, funded by the Australian Government. Solid foundations were built over the initial years, in which a national network of super-committed volunteers was trained and a continental baseline of reef data was established through a large number of training and survey expeditions, culminating in the 2010 road trip around Australia.

In 2011, the Reef Life Survey Foundation was established to be the dedicated long-term home for the award-winning RLS program, in which funding and donations could be most effectively directed to building and maintaining program activities. As Graham mentions in the *President's Report*, we

are now excited to be reporting on the first year of activity of this new organisation – no doubt the first of many!

The volunteer contributions to RLSF continued to provide the principal currency on which 2011-2012 RLS activities were funded. While only 26 new volunteer divers were trained in the 2011-2012 financial year due to the lack of grant funding to build in this area, there was still an unbelievable amount of support from RLSF diving members, with an estimated 720 days of volunteer effort contributed to survey activities, not including substantial travel time incurred in many cases. In dollar value we are talking well in excess of \$150,000 of skilled time. I honestly believe that the uniqueness of RLS on a global scale is not just in terms of the level of detail and quantity of data collected, but also in terms of the volunteer skills and effort that make it work. The commitment of RLS divers is clearly evident every time a group of RLS divers gathers for surveys.

Data collection activity during the 2011-2012 financial year included 837 new surveys undertaken at sites around Australia and overseas, by 35 RLS members with assistance from divers trained in RLS methods overseas. Annual monitoring data were collected for existing RLS sites right around Australia, including at Rottnest Island (WA), the proposed Encounter Marine Park (SA), Port Phillip Heads Marine National Park, Beware Reef Marine Sanctuary (VIC), Batemans Bay Marine Park, Sydney, Port Stephens-Great Lakes Marine Park, and Lord Howe Island (NSW), as well as data from new sites in the Great Barrier Reef Marine Protected Area (QLD). A massive number of surveys were also undertaken across the globe, as mentioned in the *President's report*. More details of the surveys and RLS dataset are provided in the *Summary of Activities* on page in Section 6 of this report.

The main funding income to the RLSF in 2011-2012 was through a *Coastwest* grant from the Western Australian Planning Commission (joint funding with Caring for our Country). There was also a small amount of income from the Atlas of Living Australia to support the development of species pages using images and data from the RLS program. The activities for the *Coastwest* project 'Community-assisted scientific assessment and management of Western Australian marine Protected Areas', for which the WA Department of Environment and Conservation is a key partner, are still continuing, but include Rottnest Island and Ningaloo Reef surveys. The Rottnest Island survey trip in May 2011 was run as part of this, and was once again an enormous success with incredibly valuable contributions made by the Rottnest Island Authority, a much appreciated long-term supporter of RLS. The highlights of the Rottnest Island survey trip are also posted on the RLS website.

Further activities funded under the *Coastwest* grant to look out for in the near future include the production of some more USB stick presentations, similar to those made under a previous RLS *Community Coastcare* grant for Sydney, Melbourne and Hobart, but this time for Ningaloo Marine Park and Rottnest Island. Loaded onto USB thumb drives in the shape of the RLS logo, the presentations will be visually appealing and educational, containing information about the special values and threats to the biodiversity in these amazing areas.

Major expenditure by RLSF in 2011-2012 has been associated with organised surveys by RLS volunteer teams. In most cases this has involved the direct payment of boat charters and accommodation costs. More details of the budget can be seen in the *Financial Report* in Section 7.

The Institute for Marine and Antarctic Studies (IMAS) at the University of Tasmania is a key partner of RLSF, and its contributions in 2011-2012 have been critical. The ongoing management of RLS data is an enormous task, and there have been some massive advances in RLS data management made at IMAS during 2011-2012. The skills of Just Berkhout and assistance from Toni Cooper have been instrumental in this, and the enormous voluntary contribution of RLS diver Sylvia Buchanan in helping us get to the point where such progress could be made is gratefully acknowledged.

The partnership with IMAS has also resulted in a collaborative study of Coral Sea reefs, including support from a Winifred Violet Scott grant for RLS to collect data from some isolated Coral Sea reefs managed by the Australian Government (and to be included in the new Commonwealth Coral Sea Marine Reserve). While activity for this largely rolls into the 2012-2013 financial year, this project has great value for RLSF in maintaining a strong relationship with the Australian Government.

To me, the next year holds great opportunities to significantly raise the profile of RLS, both nationally and internationally. An amazing new website currently in development and associated information serving opportunities, the plans for the inaugural RLSF sailing circumnavigation, and the USB presentations associated with the *Coastwest* project will each contribute to this (among many other things). New opportunities of no doubt unanticipated proportions are certain to follow in coming years and I am supremely confident that it will be a good time to be involved!

Rick Stuart-Smith
Executive Officer RLSF

6. Summary of Activities

Table 1. Statistics associated with organised RLS survey activities at annual monitoring sites during 2011/2012 financial year and also statistics for miscellaneous dives at other locations.

*represent only data added to RLS database; i.e. does not include data from divers being trained.

Activity	Month	# Divers	# Sites*	# transects ('surveys')*
Orford (TAS)	January	4	3	12
Encounter Bay (SA)	January	5	8	26
Port Philip Heads (VIC)	February	5	12	39
Lord Howe Island (NSW)	February	10	50	111
Sydney (NSW)	March	9	15	33
Great Barrier Reef (QLD)	April	3	13	26
Rottneest Is (WA)	April	9	17	44
Port Stephens (NSW)	May	7	6	22
Canary Islands (training)	December	4	5	14
Misc. Australia		20	74	195
Misc. International		17	204	315
Total			407	837

Figure 1. Global map of sites surveyed by RLS divers in 2011-12 (red), overlaid on sites surveyed in previous years (blue).

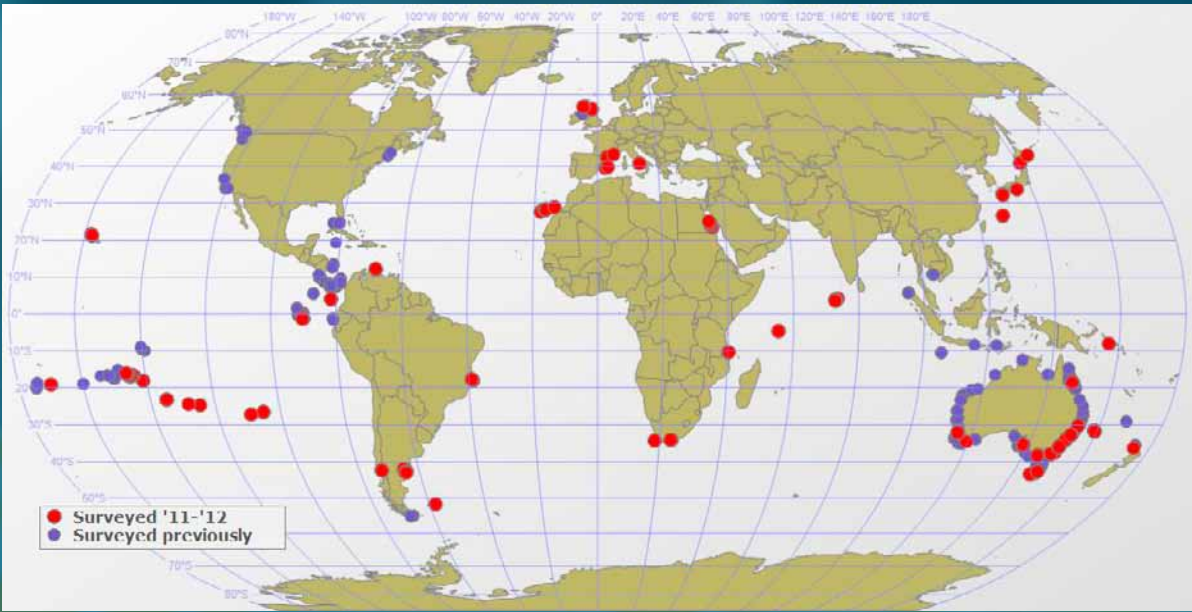


Figure 2. Map of Australian sites surveyed by RLS divers in 2011-12 (red), overlaid on sites surveyed in previous years (blue).



7. Financial Report

RLSF had 66 financial members as at 30th June 2012, with 27 of these life members. The unaudited financial reports for RLSF are included here, as derived from the full financial report from commencement of RLSF in April 2011 to the end of the financial year at 30 June 2012. An official audit will be undertaken and completed by an approved company auditor by 30 November; after that date, a copy of the auditor's report will be sent to any member upon request. 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 profit and loss for the 2011/2012 financial year

Budget category	Sub-category	Amount
Income	Merchandise	\$907.00
	Grants	\$131,864.00
	Memberships	\$1,725.00
	Other	\$325.55
Expenses	Bank fees	\$10.33
	Grant-associated subcontracts ¹	\$28,160.00
	Insurance ²	\$866.45
	Materials and supplies	\$1,001.87
	Postage	\$190.00
	Salaries/Employment	\$0
	Survey expedition expenses	\$12,310.36
Balance		\$92,282.54

¹Once off subcontracts for services associated with particular grant activities

²Represents two insurance premiums processed in one financial year

Table 3. RLSF balance sheet as at 30 June 2012.

Balance sheet category	Amount
Foundation Account	\$92,219.29
Petty Cash	\$63.25
Total Assets	\$92,282.54
Net Assets	\$92,282.54
Retained Earnings	\$59,156.80
Current Earnings	\$33,125.74
Balance	\$92,282.54

Members and friends are reminded that donations to the 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. Remember many drops make a good rain.

8. Reef Life Survey Volunteer Divers

RLSF has 52 scuba divers who regularly participate in underwater surveys in their local area, in addition to joining organised short (4 day) and long (5-10 day) 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 the RLS database.

RLS Diver Profile - Tom Davis (NSW)

How did you hear about RLS?

I saw an article in Dive Log magazine in October 2007 asking for divers interested in joining a volunteer marine survey program to contact Rick. I think this is how many of us first heard of the program.

How long have you been involved in diving and RLS?

I originally learnt to dive in 2001 and have been involved in RLS since February 2008. I was trained by the RLS team in South Australia while I was living in Perth. Since then I've logged over 300 RLS dives.

What have you gained from being part of RLS?

An increased awareness of marine life and meeting other divers interested in marine conservation and the environment. It has also stimulated an interest in marine species, tropical fish in particular; my background is mechanical engineering and I'm starting a Masters in Marine Science in 2013.

What skills have you brought to the program?

My local knowledge, enthusiasm as a volunteer and my ability to organise local divers and a RLS midi grant. My partner and I organised a survey in Port Stephens area in May 2012.

What have been your highlights since joining the RLS team?

Being invited to participate in the Lord Howe Island survey in February 2012 is definitely top of the list to date. There were only a very small number of divers invited as tropical species knowledge was vital and sustained involvement in the program was also a determining factor. Lord Howe Island has a vast variety of marine life and the pristine environment was amazing. Second would be the success of the Port Stephens survey weekend in May 2012 - coordinating 7 divers, over 3 days, to complete 22 surveys documenting 146 species: a huge team effort. It was great to have a number of grey nurse sharks included on transects.

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

I would love to repeat some of the Queensland surveys carried out in July 2010, especially Great Keppel and South Stradbroke Islands. Also continuing the links between RLSF and other agencies at Federal and State level. In my local area we have strong links with Port Stephens-Great Lakes Marine Park staff. It's good to see the data contributing to the management of the marine environment.

Interview by RLSF Community Dive Representative Margo Smith



Tom recording a spotted wobbegong on an RLS survey.

9. Our Supporters and 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 2011-2012 was provided in Australia by:

- Colleen Morris
- Department of Environment and Conservation, Western Australia
- Department of Environment, Water and Natural Resources, South Australia
- Environment Protection Authority, South Australia
- Friends of Beware Reef
- Lord Howe Island Board
- Michael Muller, Accounting Services Hobart
- Nature Coast Marine Group
- NSW Department of Primary Industries
- Parks and Wildlife Service, Tasmania
- Parks Victoria
- PBD Consulting Pty Ltd
- Perth Region NRM
- Rangelands NRM
- Rottnest Island Authority
- Solitary Islands Underwater Research Group
- Western Australian Planning Commission's Coastwest initiative
- Winston Churchill Memorial Trust

Substantial overseas support was provided by:

- Akkeshi Marine Laboratory, University of Hokkaido
- Dr Alan Friedlander, University of Hawaii
- Amakusa Marine Laboratory, University of Kyushu
- Asamushi Marine Laboratory, University of Tohoku
- Assemble Marine (EU)
- Centro Nacional Patagónico, Argentina
- Charles Darwin Foundation, Galapagos
- David Eynon, SAMS, Falkland Islands
- Eco2, Tanzania
- Dr Mikel Becerro, PNA-CSIC, Spain
- MV Orion, Maldives
- NatureServe
- Observatoire Océanologique de Banyuls sur mer, France
- Dr Rodrigo Moura, Universidade Federal do Rio de Janeiro, Brazil
- San Ignacio del Huinay Foundation, Chile
- Scott Henderson, Conservation International, Galapagos
- Sea Serpent Fleet, Egypt
- Seto Marine Laboratory, Kyoto University
- Seychelles Underwater Centre
- South African Environmental Observation Network
- University of the Ryukyus



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