



## Issue 8.2 - June 2005

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### **Introduction**

Things have been a little quieter at Reef Watch since the Marathon Dive and Graham Edgar seminar, but the weather has been kinder this year for clubs undertaking their Autumn monitoring dives. The main event for this quarter will be the Quiz Night.



Note: if you currently receive this newsletter in the post and would prefer to receive it by email then let us know at [info@reefwatch.asn.au](mailto:info@reefwatch.asn.au). If you do not have access to the internet and need help obtaining any on-line reports or other information we refer to in this newsletter, call us on 8223 5155 and we'll mail you a hard copy.

### **Forthcoming event – the Reef Watch Quiz Night**

As a sequel to the highly entertaining slide night of 2004, we will be running a quiz night with many of the same ingredients: pictures to look at, plenty of fun, things to learn and time to talk and catch up.

The evening will be an ideal night out with members of your club, or we can put you on a table if you are not with a club.

You don't need to be a marine biologist to win, there is a 90% chance that you'll come better than last, and everyone will learn something and have an enjoyable evening.



# Quiz Night

**An audio-visual extravaganza of fun,  
frivolity and fact finding**

**This is the show that Eddie Maguire *wanted* to have**

**Form a table or let us find  
you a seat**

**Friday 29<sup>th</sup> July, 7 for 7.30pm**

**Location:** Reedbeds Community Centre,  
Fitch Rd, Fulham

**Cost:** \$5 (\$2 unwaged)

**Catering:** BYO food and drinks

Further details are on-line: <http://www.reefwatch.asn.au/quiznight.html>  
To book a table or seat, email [info@reefwatch.asn.au](mailto:info@reefwatch.asn.au) or phone 8223 5155

## 2005 Marathon Dive Report

The 2005 Marathon Dive was held on Sunday March 13<sup>th</sup>, the final week of Seaweeek, and consisted of three dives between 8.30am and 4pm at six locations spread out across Noarlunga Reef.



More than 50 divers and 15 snorkellers participated in the event, with some divers completing three dives in a genuine “Marathon” effort. While most participants were involved in fish and/or benthic surveys, it was also an opportunity for newcomers to be introduced to the program and be trained up in the methods.

The Marathon Dive is an annual event of the Reef Watch Community Monitoring program, which is run by the Conservation Council of SA and funded by the Natural Heritage Trust through the Mt Lofty Ranges and Greater Adelaide Natural Resource Management Group.

The survey kits used for the Marathon Dive and regular Reef Watch surveys have been provided through a grant from the PADI Project AWARE Foundation. The support of up to ten dive professionals and three boat owners was the cornerstone of the day’s success. The dive industry was also very supportive with the shops listed below offering discounts to participants. Numerous other volunteers kept the divers informed and well fed.



The data collected was entered on-line on the day and is currently being analysed. The results will provide further insight to the health of the Noarlunga Reef which, on the basis of scientifically accepted indicators, has been in decline for several years.



There was significant media interest in the event, resulting in two radio interviews and a short article in the *Advertiser*. The day also ignited the interest of several members of the public, including experienced diver Bob Barnes, who provided Reef Watch with a video showing a still of the dense cover of *Ecklonia* (BLEATH) on the reef in the early 1960's, and tracking the decline since then.

Reef Watch divers found some detached *Ecklonia* plants lying on the sand near the reef, before the start of the Marathon Dive. Although there are a number of natural and human related reasons for the decline of brown algal cover over the years, some concern has been expressed about diver impact. When undertaking monitoring activities, as for any diving, good buoyancy control and careful finning near the reef will minimise this sort damage. Although our reefs are not made of coral, they are nevertheless vulnerable to diver impact!

### **Want to get involved in Reef Watch?**

For diving or snorkeling activities, visit our website and follow the quick link to "Next dive". For photos and stories, see "Recent dives".

If you want to get involved as a volunteer in our committee, administration or development work, contact Reef Watch at the Conservation Council, 8223 5155, [info@reefwatch.asn.au](mailto:info@reefwatch.asn.au).

Particular thanks this month to Kevin Smith and Sarah Bignell for their contributions to this newsletter and to Pamela Newland for her ongoing and invaluable assistance to the program.

### **Adopt a Reef – Club Notes**

Note: the next edition will include notes about BSAC, NARCD, Scuba Divers Club and of course SODS and the Port Vincent Marine Team, who together remain the longest serving participants in the Reef Watch program.

#### *Kangaroo Island*

More than 30 divers and snorklers have become involved in the Reef Watch activities being coordinated by Martine Kinloch and Heidi Bartram on Kangaroo Island, with the assistance of Reef Watch dive instructors. Monitoring days have been held at Emu Bay and Boxing Bay on the north coast, in the latter case thanks to the generous assistance of Andrew Neighbour of KI Marine Tours who made his large boat and extensive local knowledge available to the program.



### *Underwater Explorers*

Reef Watch sends its condolences to the family and friends of Pauline McGregor, who recently passed away while on holiday overseas. We remember Pauline mostly for her wonderfully cheerful nature and participation in several Marathon Dives. We will miss her.

### *Marine Life Society of SA*

The monitoring program led by Kevin Smith continues at Hallett Cove and more people are being recruited to the cause. Reef Watch is currently investigating ways to improve the access to the reef.

### *Adelaide Scuba*

Our thanks to the club formerly known as "Wet Spot" for their kind donation of \$48.70 to the Reef Watch program. Adelaide Scuba advise us that there will continue be social nights on the last Thursday evening of every month and ongoing involvement in Reef Watch.

### *Adelaide University Scuba Club*

It was with great pleasure that AUSC announced the appointment of Dr Olivier Fahy as their Chief Biologist for the 2005/2006 Dive season. The charismatic Frenchman is heading up the clubs Reef Watch activities as they become active in the *Adopt a Reef* programme once again. Olivier and Scott Townley recently completed their survey training and the club has identified and GPS tagged a section of Northern Outer Reef.

## **Graham Edgar Seminar Report**

More than seventy people attended the March seminar with Dr Graham Edgar, leading international marine ecologist, and author of *Australian Marine Life – the plants and animals of temperate waters*.

The general focus of the evening was the scientific monitoring of marine protected areas (MPAs). Graham spoke firstly on "Science and Management for the Galapagos Marine Reserve". As with Dr Hugh Kirkman's talk on SE Asia at the 2004 slide night, there was valuable insight into some of the practical difficulties for marine conservation programs in less developed countries.

After a break for refreshments, Graham discussed his work over twelve years monitoring the marine reserves in Tasmania. Populations can show marked increases or decreases over the years for a variety of reasons - so it is important to monitor both protected and non-protected areas and look for different trends. For example, there was more than a ten-fold increase in the number of hulafish inside the reserve in the late 1990s, but a similar increase also occurred outside the reserves.

Here are notes on some of the key findings reported by Graham:

- a steady increase in the number of large Blue-throated Wrasse inside one reserve while the numbers fluctuated at lower levels outside the reserve in an area subjected to line fishing;
- a 100-fold increase in the abundance of Bastard Trumpeter fish inside the reserve compared with areas outside subject to netting;
- since protection there had been a steady increase in the biomass of rock lobster (the same species as in SA) - up to 10 times the biomass in kg at sites inside compared to outside. The average carapace length of lobster increased as they got closer to the reserve (demonstrating some spillover), and steadily increased the further they went into the reserve. The largest reserve was 7km long, but the graph suggested that bigger reserves would lead to even bigger average lobster size. Inside the protected area the lobster were fairly evenly spread over all sizes up to 20cm carapace, but in the unprotected area there were very few above the legal size limit;
- after about six years the number of urchins inside the reserves started to decrease while in the outside, unprotected areas, the trend was to increase. This was considered to be due to lobster predation on lobsters inside the reserve. Therefore the protected areas have had an evident effect not only on targeted species but also on the food chain;
- larger but fewer abalone inside the reserve compared with outside (also possibly due to increased numbers of lobster);
- the abundance of brown branching and brown leathery algae varied a lot, but similar patterns were seen inside and outside the reserves.



Rock lobster carrying urchin

The third part of the evening saw discussion led by a panel of experts about the potential role of the community in monitoring. The panel consisted of:

- Dr Graham Edgar
- Professor Peter Fairweather, Marine Biology, Flinders University
- Dr Sean Connell, Southern Seas Laboratories, Adelaide University
- Dr David Turner, Reef Health Program, SARDI
- Dr Scoresby Shepherd, Senior Research Fellow, SARDI
- Dr Hugh Kirkman, Consultant marine ecologist
- Tony Flaherty, Marine and Coastal Community Network.

Reef Watch would like to elaborate on two issues arising from the fruitful discussion that occurred.

Firstly, the point was made that divers had looked to get involved from ten years ago, but it took some time to get the scientists to agree on appropriate methods before Reef Watch started up. On the other hand, the point was made that some divers were more interested in hunting and gathering than undertaking Reef Watch activities. Our view at Reef Watch is that most divers engage in a wide range of diving activities, and we are very encouraged by the number of clubs and divers that consider at least one Reef Watch dive every quarter to be an important part of their overall diving pursuits.

Secondly, a question was put as to whether there were ways, other than the standard Reef Watch survey methods, in which divers or snorkelers can gather information in the same way that bird watchers do, for example by focussing on and following one particular species. Scoresby Shepherd, in response, discussed the fish cleaning behaviour observations by a number of divers which would form the basis of a forthcoming paper.

Kevin Smith, by his own admission, wasn't quick enough to provide an answer from the floor – but has since put together the following:

*I have been actively involved with Reef Watch for a couple of years now in monitoring, leading dives and in organizing the monitoring activities of the Marine Life Society of South Australia, as well as being a member of Birds Australia for a number of years, and am aware of the fantastic work they are able to do on many fronts. The organizations are obviously quite different as are the range of activities that they are able to undertake.*

*Birds Australia has seven thousand members and the most common activities involve having eyes and ears and proximity to birds. Almost anyone can make any kind of observation from almost anywhere and the information can be useful to someone. Binoculars, reference book and notebook are all that are needed for most activities. On the other hand Reef Watch is a young organization strongly dependent on grants and sponsorship with a small number of part-time administrators. The most basic activities typically involve less than an hour in an environment which can be cold, physically challenging and requiring special skills and constant attention to safety. Scuba diving itself requires a significant financial investment. Given the targeted funding, Reef Watch needs to limit its brief to a small number of monitoring protocols capable of producing quality data. We all wish that more was possible!*

*So, is that it? What we have is something which is by definition more than nothing, an alternative that looms toward the end of each funding period. The good news is that more is possible but that at present inspiration and support may not be sufficient to generate much activity. There is a huge*

*potential for divers and snorkellers getting wet in all sorts of places far and wide to add to what is known of the marine environment. Given the small number of people currently involved in marine research and the highly targeted nature of their activities some work is just never going to happen. The questions become: what do you note? how do you record? where do you lodge your data? and who or what coordinates its filing, preservation and availability to others? I am in a position to give an example.*

*At the end of 2003 I helped Dr Robert Browne with some hand-netting in shallow water for pipefish - as part of a new study of inshore demersal fish which Robert had begun on his own initiative. I have added dive observations and photographs to the study as well as conducting systematic netting activities and have "recruited" others to the "cause". Information collected is being published on a website, since it can be quickly made available and easily edited and expanded as we learn more of the range, distribution, habitat, reproduction and behaviour of a growing list of species. We hope to extend the scope of the study and who knows how far it will go? As my network of contacts has expanded, I have been able to contribute time and information to other projects as well. The scope seems unlimited and in a short time I have more than enough worthwhile interests to keep myself entertained.*

*It is possible at any time to pick a project and pursue it. If you have an area of strong interest there is nothing to stop you from beginning observations which may become more focused with time and which may be valuable. Unless a species or a habitat has commercial significance, there is a good chance that little is known of it. Observations and records can be reported in newsletters, magazines or journals. If this sounds too daunting it is also possible to work as a volunteer on someone else's project. Making contacts by being a member of an interest group is a huge help in either case.*

*It could be that from little things big things grow. There are quite a few enthusiasts about and they gravitate to organizations such as Reef Watch because it provides a link between the scientific community and the general public. For the moment Reef Watch stands alone as both a vehicle for marine education and a means by which volunteers can make a significant, focused contribution to our knowledge of the marine environment.*

Reef Watch would like to thank Kevin for this article. The role of Reef Watch is continuing to expand and we are constantly looking at new ways for the community to become involved in monitoring, but at the same time always trying to improve on what we already have.

There is currently a 1.3 million dollar initiative being coordinated by SARDI Aquatic Sciences aimed at improving our understanding of reef environments. This program will also provide considerable benefits to Reef Watch by increasing the capacity of the broader community to become involved in reef monitoring and conservation.

## Introducing Sarah Bignell, Coast and Marine Facilitator

In a recent edition we introduced Paul Hastings, one of the Coast and Marine Facilitators for the Mount Lofty Ranges and Greater Adelaide Integrated Natural Resource Management Group. This group covers a coastline almost as long as its name, stretching from Middle Beach in the North, to Middleton-Goolwa on the Southern Fleurieu Peninsula. As we explained, the focus of Paul's work is to assist community participation in planning, policy and legislation issues. Paul is based at the Conservation Council of SA.

The other Coast and Marine Facilitator for this region is Sarah Bignell, based at Rural Solutions Division of the Department of Primary Industries. Sarah describes her work below:



*My role is quite varied, but an important part is to support Coastcare groups working in the region.*

*For those of you unfamiliar with Coastcare, the groups are made up of volunteers who are working in their local community to help protect and restore their local coast and marine environment.*

*Coastcare groups work in a variety of coastal habitats, including sand dunes, beaches, conservation parks, estuaries, mangroves, saltmarsh and samphire habitats, coastal cliffs and heathland areas. Coastcare groups are involved in a wide range of activities, including propagation, weeding and revegetation with native plants. They are also involved in protecting native vegetation by maintaining and controlling access through sand dunes and other areas, by constructing boardwalks, fencing off sand dunes, and track maintenance.*

*Coastcare groups get involved in creating and designing interpretive signage for coastal areas, and are involved in rubbish collection, litter surveys, and surveys of native flora and fauna. Some Coastcare groups are involved in seabird and other marine wildlife rescues.*

*I provide support to Coastcare groups by providing information and advice in a whole range of areas: I help groups plan and implement their on-ground works activities; provide information and assistance with insurance and funding; and I help to keep them informed with what is going on in the region in terms of coast and marine management. Through my email distribution list I let groups know when there are workshops, training opportunities or other activities in which they may be interested. I also provide information to members of the community, including schools and universities, and am able to help new volunteers link up to their local Coastcare group.*

*During February this year I was part of a steering committee who organised a very successful Community Coast and Marine Workshop. Over 100 people attended the workshop, held in Normanville at the Links Lady Bay Function Room. There is another community workshop planned for later this year, so I will keep you posted closer to the event!*

*For more information about Coastcare, or to join a Coastcare group, please contact me on 8226 1756 or email: [bignell.sarah@saugov.sa.gov.au](mailto:bignell.sarah@saugov.sa.gov.au).*



*Sea Wisdom*

*Anyone crazy enough  
to think they're going mad,  
has to be sane...*



### **Interview with Holly Green**

I recently interviewed 'Sunny' (*Echinaster glomeratus* to those who should know) – a delightfully warm and honest seastar of bright yellow. The interview took place at Sunny's reefside digs...

**Holly:** Sunny, welcome to Reefwatcher.

**Sunny:** Thank you Holly, it's good to have you here.

**Holly:** Sunny, I can't help but notice - that is a beautiful shade of yellow you're wearing – but being so colourful, does this present any problems, with camouflage and predators and so on?

**Sunny:** Sometimes – but if I'm swimming near brightly coloured discarded plastic, I fit in quite well. And I can create an Andy Warhol effect – you know, as reef art, which passersby seem to appreciate.

**Holly:** OK (Hmmm...). Well, on that fashion note, I guess it's inevitable that you have your own coat of arms – in fact, one might say your own coat of *many* arms (giggle, giggle).

**Sunny:** Oh – that is SO boring and SO typical of the human interviewer. It so happens that most of my kind *do* have cold-weather coats of many arms, because there's no point in wearing something which only serves half the purpose – and it is quite a skilful task to make these coats as you can imagine (muttering: if you'd thought that far ahead...).

**Holly:** Sorry. Couldn't help myself with that one... But tell me, what happens when – and I know this can happen – you meet with an accident and lose an arm?

**Sunny:** Well, the coats are designed with detachable sleeves –

**Holly:** Really?

**Sunny:** Yes – brilliant isn't it? It means that if one does lose an arm, it's not embarrassingly obvious to have a sleeve which just, well, hangs and

flops around and pulls you down into a crevice – which can be a REAL problem.

**Holly:** Well, yes – I’d never thought of that...

**Sunny:** Well – it’s not just you humans which have problems you know.

**Holly:** No...(thinking). But I do know someone who regularly gets legless on a Friday night (laughing).

**Sunny:** (looking bored) Next question?

**Holly:** Um, yes (hurriedly). Tell our readers some of the things you do for recreation.

**Sunny:** You mean in that small window of opportunity between survival in the wild and death?

**Holly:** Gosh – well, yes.

**Sunny:** Well – some of us do weights to keep in shape.

**Holly:** Do you use all arms at once? (incredulous tone)

**Sunny:** (aside) Journalists! (Out loud) Yes – you want to be fit all over – just like you work out.

**Holly:** That’s brilliant! What else?

**Sunny:** We regi;ar;uy [it pm ,isoca; sjpws – we dp fimmu ji, am tjomgs ;ole drawomg eue

{ We apologise for this interruption in the interview, caused by an interplanetary communication through Sunny – we will now return to the Earth version.}

**Sunny:** Sorry about that – now, where was I – oh yes, as I said, we regularly put on shows – we do funny human things like drawing eyes on our heads and tying tap shoes onto our feet and pretending to be Fred Astaire and Ginger Rogers and such.

**Holly:** (laughing in a nice way) That would look amazing. But what about emulating more modern tap dancers?

**Sunny:** (Raising herself up to slightly increase her top arms’ radius) I’m a purist – for me no-one else comes close (sigh)...

**Holly:** And I wanted to ask – what do you use for your tap shoes? Cause you’d want something which makes a good sound wouldn’t you?

**Sunny:** That’s right Holly. But that’s never a problem...we use the metal bottletops that humans throw into the water – they’re excellent.

**Holly:** Oh...gee...well... on that note. Thanks awfully, Sunny.

**Sunny:** Pleasure Holly.

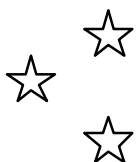
**Holly:** (humbly) And I think you’re a *real* star...

**Sunny:** Thanks Holly. I usually shrink when I hear that, but... I know you’re being sincere.

**Holly:** Yes. Well, goodbye for now...

**Sunny:** Goodbye.

(end of interview)  
\*\*\*\*\*



**Thought for the season**  
a definition of *optimism*: ‘...irrational thought bordering on the insane’

Reef Watch currently receives most of its funding from the Mt Lofty Ranges and Greater Adelaide Integrated Natural Resource Management Group through the Natural Heritage Trust



Mount Lofty Ranges & Greater Adelaide INRM Group



Natural Heritage Trust  
Wilyac Conservation  
Biodiversity Australia

A number of other organisations have provided some funding or in-kind support, including:

DEH



PADI Project Aware



PIRSA



PRIMARY INDUSTRIES AND RESOURCES SA

SARDI



City of Onkaparinga



The diving industry has also given support to Reef Watchers for the annual Marathon Dive and in some cases for dives throughout the year. Details are within this edition and listed on the website.

The Reef Watch website is [www.reefwatch.asn.au](http://www.reefwatch.asn.au)

If undeliverable return to:

Reef Watch

Conservation Council of SA Inc.

120 Wakefield St

Adelaide 5000



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