

## Reef Briefs- No. 5 July 2002

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\*\*ACRS members – remember, the best way to keep in contact with ACRS business is to get your information updates through e-newsletters and the ACRS-List. To make sure you're on the ACRS-List, go to the ACRS website ([www.australiancoralreefsociety.org](http://www.australiancoralreefsociety.org)) and follow the prompts. Keep an eye on the website too.\*\*

### Editorial

Dear Members,

With July giving way to August we're racing through the year, and what a hectic time it's been. Some have been hard at work monitoring post-bleaching recovery while others have been investigating the occurrence of deep inter-reefal communities. The first public consultation phase of GBRMPA's Representative Areas Program (RAP) has been launched, the ACRS RAP submission is about to be completed, an important not-to-be-missed RAP forum is planned, and preparations for the annual ACRS Conference are well advanced. Take note also of other events and conference announcements included with this e-newsletter. Many thank to those who contributed to this e-newsletter. Articles are now being called for the published Annual ACRS Newsletter (closing date 15<sup>th</sup> November 2002), so get the thinking caps on. Cheers, Johnston.

### ACRS AGM May 10<sup>th</sup> 2002

Just to remind you of those elected to your Council at the ACRS AGM on May 10<sup>th</sup> this year, there follows a list with email contact addresses. More details on the ACRS website:  
<<http://www.australiancoralreefsociety.org>>.

#### **Executive President:**

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Australian Museum  
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Centre for Marine Studies  
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**ACRS Conference Update**

The preparations for this year's ACRS Conference (8-10<sup>th</sup> November, Moreton Bay Research Station, MBRS, on Stradbroke Island) are well advanced. The theme of the 2002 conference will be "The future of reefs". You are invited to submit an abstract on any coral reef related topic but some of the conference subthemes and plenary topics include:

- Dynamics of coral reef ecosystems
- Molecular and biochemical advances in coral reef sciences
- Reefs at extremes
- Source to sea
- Biodiversity and bioprospecting
- Designing the future

Please keep an eye on the ACRS website (<http://www.australiancoralreefsociety.org/conference/>) for further updates and registration form. Find there all the important stuff such as Conference outline, registration form and details of workshops and activities. There's just not enough space to include all the information in Reef Briefs but important notes are:

- Closing date for abstracts is 15 September 2002.
- Full registration is \$230, Student registration is \$150. This includes accommodation and meals for two days and two nights at the Moreton Bay Research Station
- Generous prizes are awarded to the best student papers presented and prize winners will be announced at the Conference.
- **NOTE : As there is only room for 72 at MBRS it is strongly recommended that you register early to secure your spot. Those who register too late to secure a place at MBRS will be accommodated at a nearby centre or can choose to find their own accommodation.**
- Two pre-conference workshops (6-8<sup>th</sup> November at MBRS) are planned; 'Corals of Moreton Bay' led by Carden Wallace, Museum of Tropical Queensland, Townsville and; 'An introduction to polychaetes, their identification and biodiversity', led by Pat Hutchings and Kate Attwood, Australian Museum, Sydney. See website for details and registration form.
- Post-conference activities on Monday 11<sup>th</sup> November. See website for details.

**\*\* STOP PRESS\*\*** Latest news on travel awards for ACRS 2002 Conference.

Council has decided to subsidise student travel to the meeting at Stradbroke Island in November 2002, as well as subsidising registration at the Conference.

In order to be considered for travel to the meeting, students must be giving either an oral or poster presentation and must be enrolled for either a MSc or a PhD at an Australian University and be a financial member of ACRS. The amount awarded will be a pro rata basis ie somebody from Perth would receive more funds than somebody coming from Sydney as the airfare is more expensive. ACRS has limited funds and students will be selected on the following criteria: Abstract, a brief paragraph explaining why they should be supported to attend the meeting, and in addition they should provide the cost of the cheapest return airfare to Brisbane from their home University as well details of what other support they have for attending the meeting. This information should be emailed to Dr Barry Russell who is co-ordinating these grants by Friday 30th August, (barry.russell@nt.gov.au) and details of those students who have been successful by early Sept in time for final registration of the meeting. Late applications will not be considered.

Cheques will be given to the successful student at the Conference on receipt of an invoice and a statement from their supervisor that they are enrolled in a MSc or PhD.--

### Call for 2003 ACRS Student Awards

ACRS supports the research of up to four students each year by the provision of Student Grants. Applications for these awards are available to all ACRS student members. The application form and instructions for 2003 ACRS Student Awards are found in the Appendices at the end of this Reef Briefs.

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### Lizard Island Doctoral Fellowships

Applications are invited for the 2003 Lizard Island Doctoral Fellowships from people who are enrolled, or are about to become enrolled, in a PhD program at any university. The PhD project must be in a scientific discipline relevant to coral reefs and it must make good use of the facilities at the Lizard Island Research Station (Great Barrier Reef, Australia).

The fellowships provide funding for field work at Lizard Island. They are valued at up to AU\$18,000 over three years for students at Australian universities and up to AU\$21,000 over three years for students at overseas universities.

The 2003 fellowships are funded jointly by the Lizard Island Reef Research Foundation and the Coral Reef and Marine Science Foundation. Thanks to generous donations to the CRMSF by Mr Kevin Kalkhoven and Mr Dan Petit, two new fellowships are offered in 2003.

### **Closing date for applications is 1 October 2002.**

Information and an application form are at:  
[http://www.amonline.net.au/lizard/research/doctoral\\_fellowships.htm](http://www.amonline.net.au/lizard/research/doctoral_fellowships.htm)

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### Representative Areas Program update – 3 items.

1.  
ACRS's Submission: The Society's submission is going well and is on it's final draft, to be submitted by the 7<sup>th</sup> August. A big thank you to all involved in this submission. Don't forget, individual submissions to

the RAP by ACRS members are welcome, especially if they address specific areas of RAP which individuals do or do not want included. All submissions to be in by 7<sup>th</sup> August.

2.

RAP forum - from Ameer Abdulla

Dear All,

As many of you know, the Great Barrier Reef Marine Park Authority (GBRMPA) has initiated the public consultation phase of the Representative Areas Program (RAP). RAP has been in design since 1998 with the objective of better protection of biodiversity by increasing no-take zones and providing examples of unique habitats, species, and communities.

Given the international and national significance of RAP, the Australian Coral Reef Society, in conjunction with the School of Tropical Environment Studies and Geography, James Cook University, the Australian Marine Science Association, the World Wide Fund for Nature, and the CRC Reef Research Centre would like to invite you to an evening where science meets politics. This evening will prove useful in communicating information and discussing potentially contentious issues associated with the project undertaken by GBRMPA. Some of the topics and questions for discussion will include:

-What are the benefits of the Representative Areas Program and how will it be implemented?

-What are the current points of contention?

-What is the scientific (ecological, social, biophysical) basis of RAP?

-What are the indigenous issues associated?

-What is the role of scientists in the RAP process?

The evening will be structured as a panel of speakers presenting to an audience. Among the participants included on the panel are Dr. Leanne Fernandes (Director, RAP: GBRMPA), Ms. Ann Ferguson (GBR Campaign Officer: WWF), Mr. James Innes (Social Assessment: GBRMPA), Ms. Melissa George (Indigenous Cultural Liaison Unit: GBRMPA), Dr. Terry Done (Project Leader, AIMS), Mr. Mick Bishop (Manager, Fisheries and Policy: GBRMPA) and Mr. Bob Thomas (Executive Director: Association of Marine Park Tourism Operators). Each speaker will present for 5-10 minutes followed by questions from the audience/panel. Hopefully the final product will be a well-informed debate elucidating key issues.

This evening will be held on Friday, August 23rd from 5:30 pm onwards. Presentations will begin at 6 pm. Please join us upstairs in the private function hall at Molly Malones (Irish Pub, 95 Flinders Street, Townsville, ph 4771- 3428). There will be free nibbles and drinks available if you are a member of ACRS, TESAG, AMSA, or CRC Reef.

Please forward this email to those that may be interested.

Cheers,

Ameer

3.

Yet more on RAP - From Russell Kelley

The Great Barrier Reef Marine Park Authority (GBRMPA) has reprinted 10 000 copies of the Australian Coral Reef Society poster entitled the 'Blue Highway' for distribution during the RAP public consultation program.

Battle-weary RAP campaigners are grateful to the ACRS for the educational poster. It has proven to be useful in making the RAP message tangible and a ream of them make a great shield when public meetings get out of hand.

Elsewhere on the horizon Townsville ACRS members should note that an invite will be forthcoming to a public screening of "Mystery of the Minkes" – a 50 minute television documentary about the dwarf minke

whales on the Great Barrier Reef. Details of this ACRS social are being finalised and members will be advised by list and on the website.

### Coral Bleaching Update – 2 items

1.

2002 mass coral bleaching beats 1998.

by

Professor Ove Hoegh-Guldberg

Centre for Marine Studies

University of Queensland

The Great Barrier Reef has had the most severe bleaching event yet. According to Dr Ray Berkelmans “the coral bleaching episode in 1998 was the worst on record, but the 2002 event was probably worse because more reef area was affected. The most severe bleaching occurred on reefs close to shore in both bleaching events, but the 2002 event has affected a greater area of reefs further offshore”.

The event began in late 2001 when waters in the Coral Sea were observed to be heating abnormally fast. This led to reports of mild coral bleaching from both the southern and central sectors of the Great Barrier Reef Marine Park (GBRMP). As the heating ensued, waters started to exceed long-term averages of sea temperature by as much as 2-3 degrees. By early March, sea surface temperatures were at their highest. A cyclone soon afterwards dissipated the warming, mixing it into the cooler layers of the ocean below. The event was over but the damage to corals still evident months after.

A broad scale survey of 640 reefs along the entire GBRMP revealed old patterns. Inshore reefs were more severely affected than offshore ones. It was also clear that mixing was important, with some inshore regions escaping severe mortalities while others did not. Visits to Great Keppel Island by several scientists revealed almost all coral colonies in a completely bleached state. The intertidal corals seemed to be worst off, with a pungent stench rising from the stressed and dying corals.

This event taught the scientific several things. The first is that mixing and local hydrography is critically important to understanding the patterns associated with the warming of Great Barrier Reef waters. Work being done by Dr William Skirving, at NOAA, has revealed that depth and water movement will give you a fairly tight explanation of why some areas heat up over others. It will be interesting to take this work and integrate it with long term projection of warming under the projections of future temperature in the rapidly warming world that we live in.

2.

GBR Bleaching - final summary

by

Dr Paul Marshall

Research & Monitoring Coordination

Great Barrier Reef Marine Park Authority

Dear colleagues

Most of you will be aware the Great Barrier reef experienced a mass coral bleaching event early this year. This event was more severe than the event of 1998. This makes the bleaching event of 2002 the worst ever recorded for the GBR.

In response to this event, the Great Barrier Reef Marine Park Authority implemented a comprehensive survey of coral bleaching in collaboration with AIMS, CRC Reef and NOAA. A summary of this program and an overview

of the bleaching event is now available on the GBRMPA web site (under "Hot Topics"):

<http://www.gbrmpa.gov.au/>

Below is a brief summary of the results of the program:

- Underwater surveys found that few reefs had completely escaped the effects of coral bleaching. However, the majority of reefs appear likely to survive the bleaching event with only minimal coral death. Extensive mortality was recorded on only a few of the inshore reefs surveyed, where up to 90% of corals were dead.

- The first signs of substantial bleaching were reported in January 2002. The worst of the bleaching event was over by April 2002.
- Aerial surveys found that coral bleaching was evident from the air at almost 60% of the 641 reefs surveyed. Inshore reefs were more severely affected by bleaching, as was the case in 1998. However, in 2002 many offshore reefs were also affected.
- The effects of bleaching were highly variable, varying from negligible to severe, even between reefs that were similar distances offshore. Bleaching was generally most severe in shallower water, and strong patterns of species susceptibilities were generally evident across the sites surveyed.
- Further surveys are planned for later in 2002 when the fate of corals that bleached during the Summer will be studied further.
- Should warm water events increase in severity, duration, or frequency in the future, coral bleaching is likely to become increasingly severe on the GBR.

We are continuing to analyse and interpret data collected from this event and will add additional information as it becomes available.

We would like to offer special thanks to our partners in this monitoring program, especially NOAA, AIMS and the CRC Reef, and to the many individuals who submitted bleaching reports to our Online Bleaching Reporting Program.

### Research Station News

Building underway at the UQ research stations.

Professor Ove Hoegh-Guldberg  
Centre for Marine Studies  
University of Queensland

The success in the Systemic Infrastructure Program of the Australian Federal government in 2001 is paving the way for a \$6.5 million refurbishment of the University of Queensland Research Stations. Planning for the three stations is underway and construction has begun at Heron Island Research Station. This is an exciting phase as the three stations on Stradbroke, Heron and the Low Isles have a chance to develop infrastructure and facilities that match the challenges of modern reef sciences.

The plans at Heron Island include renovating laboratories, a complete overhaul of the aquarium and seawater supply systems. Facilities such as those to support molecular research and broad scale ecology are planned. Moreton Bay research station, which is located on North Stradbroke, will expand to include aquaculture facilities and molecular facilities. Planning at the Low Isles is to include a greater base on the mainland, perhaps in partnership with various local councils and locally based scientific organisations. One ambition in this region is to integrate the marine station with various rainforest enterprises, emphasizing the land-to-sea linkages.

Any suggestions or comments should be directed to me at [oveh@uq.edu.au](mailto:oveh@uq.edu.au). While we have locked many details down in the granting phase, it would be good to hear from anyone about facilities or operations at the UQ stations that you would like improved.

### News, Events and Conferences Calendar

HOME on the Reef.

Dr. Eric Wolanski, FTSE, and colleagues at AIMS and in Belgium have developed the HOME model of the Great Barrier Reef (see <http://www.aims.gov.au/ibm/pages/news/ecohydrological-model.html>). The model links Hydrology, Oceanography, Meteorology and Ecology, and predicts reef health. The model

description was presented at the 2002 EESQ conference.

(E. Wolanski, R. Brinkman, S Spagnol, F. McAllister, K. Marshall, L. McCook, T. Done, J. Lough and E. Deleersnijder (2002). An ecohydrological model of the Great Barrier Reef. Proceedings 4th Queensland Environmental Conference, 30-31 May, 2002, Brisbane, Institution of Engineers (Australia), pp. 145-150).

Preliminary model output suggests a wide human impact plume on the Great Barrier Reef. The model predictions appear compatible with AIMS long-term reef monitoring data which were explored by Simon Spagnol using DX computer visualisation. For more information contact Dr Eric Wolanski (email: [e.wolanski@aims.gov.au](mailto:e.wolanski@aims.gov.au)).

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Plan For The Conservation Of Sharks.

(Note: this is a call for public comment on a draft management plan; closing 14<sup>th</sup> August)

The Fisheries and Aquaculture Branch has established a Shark Advisory Group (SAG) to assist in developing a *National Plan of Action for the Conservation and Management of Sharks (Shark-plan)*. The advisory group includes representatives from all key government and non-government stakeholder groups. The National Plan of Action for Sharks is now open for community comment.

Preparing a *Shark-plan* is a voluntary requirement under the Food and Agricultural Organisation of the United Nations (FAO) *International Plan of Action for the Conservation and Management of Sharks* (IPOA-Sharks), adopted by the 23<sup>rd</sup> session of the Committee on Fisheries (COFI), in Rome 1999. Australia took an active role in developing and supporting the IPOA-Sharks and will report to the COFI meeting in February 2001 on its national *Shark-plan*.

The IPOA-Sharks was developed in recognition of the expanding global catches of sharks and their potential negative impacts on shark populations. The IPOA-Sharks reflects the prevailing view that it is necessary to better manage directed shark catches and certain fisheries in which sharks constitute a significant bycatch. The objective of the IPOA-Sharks is to ensure the conservation and management of sharks and their long-term sustainable use. "Shark" is taken to include all species of sharks, skates, rays and chimeras, and "catch" includes directed, bycatch, commercial, recreational and other forms of taking sharks.

The task of the Shark Advisory Group is to examine data on the status of Australia's sharks and shark fisheries with a view to preparing a draft *Shark-plan* for COFI in February 2001. An assessment of the status of sharks stocks will be included as part of the *Shark-plan* which will be the basis for determining objectives and strategies for the conservation and management of sharks. The *Shark-Plan* is a major initiative of the Branch, with direct national application, as well as contributing to AFFA's international fisheries profile.

The NPOA will be a key document in the conservation of Australian elasmobranchs. See <http://www.affa.gov.au/content/publications.cfm?ObjectID=4914EFAD-E68A-4614-A2A8096C1E824C7A> for details. Comments are due in by Wednesday August 14th.

Comments can be sent via e-mail to:  
[sharksecretariat@affa.gov.au](mailto:sharksecretariat@affa.gov.au)

Or by post to:  
Shark Secretariat  
c/o Fisheries and Aquaculture  
Department of Agriculture, Fisheries and Forestry -  
Australia  
GPO Box 858  
Canberra ACT 2601

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ACRS 2001 Student Report – Mark Westera  
(Mark's report did not make it in time for the 2001 Annual ACRS Newsletter. His report is included in full in the appendices of this issue of Reef Briefs)

Comparisons are made between sanctuary and recreationally fished areas of the Ningaloo Marine Park. Population and dietary data are used to determine whether the removal of fishing pressure has affected trophic structure. A dietary link has been established between predatory fish, urchins and algal communities. Further quantification and analysis is continuing to provide more conclusive results.

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From Pat Hutchings.

Marine and Coastal Environments: Is Their Conservation a Case of Out of Sight Out of Mind?

Forum: Saturday 26 October 2002

While the Royal Zoological Society has often taken terrestrial themes for its forums, the RZS Council has decided this year to consider the marine and coastal environments, where some issues are the same as the terrestrial environment, but others are not. The forum will examine the unique features of marine and coastal environments and the policy needs to conserve their biodiversity.

For full details of the program and registration details please see the RZS web site-[www.rzsns.org.au](http://www.rzsns.org.au) for booking and program updates Venue: ANZ Conservation lecture theatre, Taronga Zoo, Mosman

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From the International desk

A range of notices from emails of potential interest to ACRS members. Most of these emails have been gathered from 'Coral List' – a professional coral discussion list. For directions on subscribing and unsubscribing to coral-list or the digests, please visit [www.coral.noaa.gov](http://www.coral.noaa.gov), click on Popular on the menu bar, then click on Coral-List Listserver.

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### **Coastal Zone '03 Coastal Zone Management Through Time**

The largest conference for the world's coastal resource management community will be held July 13 - 17, 2003 in Baltimore, Maryland.

Deadline for abstract submissions is September 16, 2002.

For more information, please visit  
[www.csc.noaa.gov/cz2003/](http://www.csc.noaa.gov/cz2003/)

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From: BioGems Info [biogemsinfo@nrdc.org](mailto:biogemsinfo@nrdc.org)

Costa Rican environmentalists celebrated a decisive victory last month when their country's outgoing government rejected plans to open the lush Caribbean coast to offshore oil drilling. The decision by former Environment Minister Elizabeth Odio ensures the preservation of Talamanca's fragile coral reefs and marine life -- including rare Tucuxi dolphins and endangered sea turtles -- as well as the region's growing ecotourism industry. The ruling, supported by recently elected President Abel Pacheco, capped a two-year anti-drilling campaign led by community leaders and activists, with strong support from BioGems Defenders who sent more than 27,000 letters opposing the oil exploration plans of U.S.-based Harken Energy and MKJ Xplorations.

More info: <http://www.savebiogems.org/talamanca/>

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From: Dr Clive Wilkinson [Clive Wilkinson <CWILKINS@aims.gov.au>](mailto:CWILKINS@aims.gov.au)  
To: [coral-list@coral.aoml.noaa.gov](mailto:coral-list@coral.aoml.noaa.gov)



ITMEMS 2 - November 2002.

Dear Coralisters,

There will be a session on 'Monitoring to Facilitate Successful Management' at ITMEMS 2 (International Marine Ecosystems Management Symposium) 25 to 29 November 2002 in Manila.

Do you have any good case studies to discuss during a full day workshop. We are planning to discuss 2 sub-themes and also need people to serve on 2 panels for:

1. Case studies of coastal resource monitoring aiding resource management (both positive and negative examples would be valuable); and
2. Information and data provided to resource managers by different methods and protocols for coral reef monitoring.

Do you have any examples of 1. How your monitoring program has assisted in management of an MPA (or been ignored by the managers with possible poor consequences); and for 2. What data the different methods of monitoring provide e.g. levels of reliability, accuracy, costs and benefits, amount of training required etc.

Please provide a brief description to aid in setting up the programs. We will be seeking funds to ensure that some people can attend.

Cheers

Clive

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 Clive Wilkinson, Coordinator  
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From: Charles Frew <cfrew@asiaticmarine.com>  
 To: [coral-list@coral.aoml.noaa.gov](mailto:coral-list@coral.aoml.noaa.gov)

Dear All,

I was very kindly given your contact details by Mike Ross (Cebu, Philippines) in hope that you might be able to assist me. I have recently returned from Shark Conference 2002: Sustainable Utilization and Conservation of Sharks which was held in Taipei during May. As expected shark fin traders were there in numbers listening to what we had to say. One or two were concerned about diminishing shark populations. At the end of the conference, one of the traders told me that they were now going to target the shark stocks of East Timor, especially the prized fins of Hammerheads. You might also like to know that Indonesia is the highest exporter (globally) of shark fins, with India coming 2nd.

Therefore I would be grateful if this email could be forwarded to (a) the dive shops, FreeFlow -Luke Jones, Dive Timor Lorasae and any other establishments with a vested marine interest within East Timor, and to (b) an official linked to fisheries in East Timor.

I hope that something can be done, but I fear that 'finning' will be too much of an economic incentive for both local and 'other' archipelago fishermen.

Please keep me informed if you have or hear any news.

Regards, Charles Frew

\*\*\*\*\*

Charles Frew, MSc

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## **Appendices to Reef Briefs No 5 - July 2002**

**ACRS 2001 Student Grant Report**  
**Mark Westera**  
**Edith Cowan University**  
**School of Natural Sciences**  
**Joondalup, Western Australia**

### **Introduction**

Marine park sanctuary zones that have been established in commercially or artisanally fished areas, have proven to be effective in enhancing predatory fish size and abundance (Russ and Alcala 1996; Wantiez et al. 1997; Babcock et al. 1999). These changes in predator populations may lead to shifts in the population structure of their prey, including herbivorous fish and macroinvertebrates (McClanahan and Shafir 1990). Changes in herbivory or corallivory may then affect benthic community structure. Some studies have examined trophic shifts resulting from allocation of sanctuary zones on tropical (Carpenter 1990; McClanahan 1995; McClanahan et al. 1996) and temperate (Cole et al. 1990; Babcock et al. 1999) reef communities compared with commercially fished areas. However, studies in recreationally fished areas are sparse, despite the popularity of recreational fishing in developed countries. In this study comparisons are being made between sanctuary and recreationally fished areas of the Ningaloo Marine Park. Population and dietary data are then being used to determine whether the removal of fishing pressure has affected trophic structure.

### **Methods**

The Mandu, Osprey and Maud regions, of the Ningaloo Marine Park were sampled three times, over a one-year period. Fish populations were assessed using underwater visual census and baited remote underwater videography. Coral and algal cover were measured using underwater videography and algal collections were made for biomass estimates. Benthic macroinvertebrates were sampled along the fish transects.

The current component of the project, funded by ACRS, included the collection of fish guts to determine feeding preferences. Fish were captured using net, spear and line and urchins were collected by hand. Captures were made following known diurnal feeding times (Polunin and Klumpp 1989; Connell 1998; Mills et al. 2000) to ensure gut fullness. Fish and urchins were weighed and measured. The gut was removed whole and stored on ethanol. Gut contents were sorted and are currently being identified and quantified. Dietary data were supplemented by in situ feeding observations.

### **Preliminary results and conclusions**

Analysis of fish census data revealed significantly greater size and abundance of Lethrinidae in sanctuary zones. Lethrinids are the most targeted and common predatory fish in the region. There were also differences between zones in the abundance of non-cryptic fish (of which 125 species were recorded) driven primarily by the families Scaridae, Acanthuridae and Pomacentridae. Coral, algal and hard substrate cover differed significantly between zones but were not consistent between regions. These results demonstrate that recreational fishing pressure may be sufficient to deplete lethrinid populations below that of adjacent protected areas. Differences in herbivore abundances are being investigated further.

Gut contents of predatory fish (Lethrinidae, Labridae, Tetraodontidae, Balistidae) included holothurians, urchins, bivalves, gastropods and crustaceans. Acanthuridae, Scaridae and Pomacentridae guts contained turfing algal species. Urchin guts contained a range of algal species including *Dictyota*, *Hypnea*, *Giraudia*, *Sphacelaria* and *Centrocerus*. Feeding observations revealed *Acanthurus* and *Scarus* spp. feeding in large numbers on fine turfing algae including *Hypnea*, *Sphacelaria*, and *Cladophora* spp.

A dietary link has been established between predatory fish, urchins and algal communities. Further quantification and analysis is continuing to provide more conclusive results.

### **Acknowledgments**

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### ACRS Student Awards

#### **ACRS STUDENT AWARDS FOR 2003**

ACRS normally supports the research of up to four students by the provision of Student Grants. The best proposals received will be awarded the Terry Walker Prize of \$2500 and the Danielle Simmons Prize of \$2500.

Given Terry Walker's commitment to field studies on Australian coral reefs and cays, this award is to be spent primarily on field studies on Australian coral reefs.

Given Danielle Simmons commitment to field work at Heron Island, successful applicants for this award will need to spend some time at Heron Island working in the field.

The remaining two research grants of \$2000, are to be used for laboratory and/or field studies relevant to Australian coral reefs.

Any student who is currently enrolled at an Australian university and working towards a PhD or MSc on a topic involving research on Australian coral reefs is eligible to apply. Awards may not be used to fund conference attendance, or travel not related to field studies. Recipients must be a financial member of the society before applying for these awards.

Applications of no more than four pages, must include the following information:

1. Name, address, date of birth and tertiary qualifications.
2. Project title and degree for which enrolled.
3. Brief description of the project, stating: aims and justification, methods, including project design, progress made to date, and expected year of completion.
4. An indication of how the award would be spent.
5. Details of all other sources of funding for the project.
6. Name of department and supervisor.
7. A signed statement by the supervisor and a representative of the university, verifying that the project has been represented accurately and that the Institution is prepared to administer the award.
8. Students should indicate whether they wish to be considered for the Terry Walker and or the Danielle Simmons award, bearing in mind the requirements for these awards, extensive field work and working at Heron Island at least for part of the project respectively.

Proposals will be judged on:

- Scientific merit of proposed research
- Relevance of topic to current Australian coral reef research
- Design of project
- Project scope, given the degree to be awarded and applicable resources
- Proposal presentation
- Track and research record of the student (e.g. publications, talks, prizes)

Applications by single authors only must be submitted through the supervisor to the administration of the University.

Successful applicants are required to prepare a one-page report for publication in the Society's newsletter at the end of the one-year grant period, and provide a summary of how the research grant was spent.

Please send 4 copies to : Dr Pat Hutchings  
The Australian Museum  
6, College Street  
Sydney, NSW 2000

**CLOSING DATE IS FRIDAY 6th DECEMBER 2002.** The successful applicant will be notified by late January 2003

## What is the Australian Coral Reef Society

ACRS is the oldest coral reef society in the world. Its role is to preserve Australia's coral reefs and those of the rest of the world. We have approximately 300 members and are led by an enthusiastic council of 15.