



Australian Government
Great Barrier Reef
Marine Park Authority

SEAREAD

FROM CATCHMENT TO CORAL

No. 41
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World Heritage Supplement



**World Heritage 30th
anniversary bumper edition**

**Extra efforts to protect
dugong and turtles**

Reef HQ goes green



Cover: This reef scene shows why the Reef celebrates 30 years of World Heritage Listing in 2011

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Aboriginal and Torres Strait Islander readers are advised that this publication may contain names and images of deceased persons.

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Chairman's message



The Great Barrier Reef Marine Park Authority is celebrating a number of important milestones and activities, and we are delighted to share these with you.

Undoubtedly, the most significant of these is on 26 October when we celebrate the 30th anniversary of

the Great Barrier Reef's World Heritage listing. This edition of *SeaRead* dedicates a supplement to the anniversary.

The World Heritage listing in 1981 was globally significant and 30 years on the Great Barrier Reef remains one of the healthiest coral reef ecosystems in the world.

In that time we have implemented a range of management initiatives to help protect the health of the Reef and to ensure its outstanding universal value is preserved.

But the Reef does face some challenges particularly ongoing pressures from climate change, coastal development and declining water quality.

Recently, the World Heritage Committee raised concerns about the potential impact of the LNG developments on Curtis

Island, near Gladstone. The supplement includes further information about the Committee's concerns and our response.

In another important milestone for GBRMPA, I'm pleased to announce we've launched our new external website. It offers web users an improved ability to access

But the Reef does face some challenges particularly ongoing pressures from climate change, coastal development and declining water quality.

information on the Reef, its outlook and management.

It contains a range of modern features, including an interactive map on the home page to access information on various topics, such as the location of high standard

tourism operators and zoning areas.

The website also highlights the important role of people working together to protect this great Australian icon, and we're pleased to showcase these important partnerships.

Just as there are celebrations, there are some concerning trends occurring relating to animal standings and this is a focus for us at the moment.

We are stepping up efforts to promote activities out on the water to protect dugong and green turtles as record numbers of deaths are

predicted for these species.

Preliminary research suggests seagrass is being affected by the cumulative impact of years of floods and cyclones and these animals are struggling to find their main food source.

This is a great concern to us especially as it's likely we'll see more dugong and green turtles straying from their regular foraging areas in search of food, making them vulnerable to other impacts.

We are working with the Queensland Department of Environment and Resource Management (DERM), researchers and experts to develop broader management responses.

As always, we appreciate Reef users doing what they can to address these issues and urge people out on the water to report any strandings to 1300 ANIMAL (1300 264 625).

Russell Reichelt
Great Barrier Reef Marine Park Authority



A snorkeler gets a close up look at a dugong in clear, blue ocean waters

Efforts stepped up to protect dugong and turtles

Reef users are urged to take extra care out on the water as marine turtles and dugong struggle following the spate of extreme weather events that have hit Queensland over recent years.

Last summer was particularly devastating with severe flooding across the State and category five cyclone Yasi affecting the Queensland environment and its inhabitants.

The cyclonic winds and flood waters devastated seagrass, the main food source of turtles and dugong with experts predicting a record number of deaths for the species.

GBRMPA Chairman Dr Russell Reichelt said the agency was stepping up efforts to support the animals.

"Dugong and green turtles are doing it tough at the moment and we're asking all Reef users to take extra care," Russell said.

"We're going to see more dugong and green turtles straying from their regular foraging areas in search of food.

"This makes them more vulnerable to disease and injury or death from other threats that may exist in these unfamiliar territories."

In response to these concerns the GBRMPA has a number of initiatives underway as part of their Extreme Weather Response Program:

- Public dissemination of "Go slow – look out below" posters and information sheets to warn boaties to slow down or avoid shallow water and seagrass beds
- GBRMPA Sightings Network to report unusual animal movements
- Encouraging fishers to modify practices to minimise impacts on turtles and dugong and report interactions with threatened or protected species.

Russell said the GBRMPA and the Queensland Department of Environment and Resource Management (DERM) were working on projects to build the resilience of the Reef.

A healthy Reef is more able to withstand the impacts on

climate change, a key threat outlined in *The Great Barrier Reef Outlook Report 2009*.

Anyone who finds sick or dead turtles or dugong should call the stranding hotline on 1300 ANIMAL (1300 264 625).



A volunteer holds a green turtle hatchling on Raine Island



GBRMPA Field Operations Manager Malcolm Turner (left) and DERM Chief Scientist Col Limpus inspect a dugong carcass

Experts gather for dugong necropsy training

More than 20 veterinarians and field staff living along the Great Barrier Reef catchment are now equipped with the skills and equipment to examine the bodies of deceased dugong that wash ashore.

Great Barrier Reef Marine Park Authority (GBRMPA) Field Operations Manager Malcolm Turner, Department of Environmental Resource Management (DERM) Chief Scientist Col Limpus and University of Queensland Veterinary School researcher Dr Mark Flint were on hand to demonstrate how to take samples and perform dugong necropsies.

Necropsy examinations will provide researchers with vital information about the cause of death, the general health status of stranded animals and assist marine managers to understand what factors are affecting dugong.

Marine managers will be able to use this information to develop and implement a management response to assist the dugong population.

The training comes in the wake of the severe weather events that decimated seagrass beds, the feeding grounds of dugong and sea turtles.

GBRMPA species expert Dr Mark Read said building a comprehensive network of people equipped to perform examinations was part of the GBRMPA's broader approach to dugong monitoring.

"The dugong is a species of concern following the floods and cyclones experienced in Queensland last summer," Mark said.

"We are conducting a number of projects to assess their health and the status of their populations.



Malcolm Turner investigates a dugong flipper as he demonstrates how to perform a necropsy

"Seagrass meadows are critical foraging areas for dugong.

"Significant changes in dugong movements and health have been recorded following declines in seagrass associated with similar extreme weather events in the past."

At the end of the project more than 50 people from

Rockhampton, Airlie Beach, Cairns and Townsville will have the skills to perform necropsy examinations on dugong carcasses.

These marine experts will form an extensive network of managers who have the ability to gather information about the impacts on dugong and contribute to a coordinated management response.



A volunteer holds a turtle hatchling on Raine Island

Experts discuss turtle conservation

Veterinarians, turtle researchers, rangers, and wildlife carers converged on Townsville to share their learning and develop strategies for turtle conservation.

Turtle experts from the Northern Territory, New South Wales, Victoria and

Queensland gathered to discuss the plight of turtles after this year's extreme weather events.

Great Barrier Reef Marine Park Authority species expert Dr Mark Read said the workshop, planned several months ago, took on increased significance in the wake of

recent turtle strandings.

"We have seen a significant increase in turtle deaths and strandings over the past few months to the point where Reef HQ Aquarium's Turtle Hospital has been overwhelmed," Mark said.

"We are concerned the cumulative effects of extreme weather and degradation of seagrass habitats will lead to an increase in marine turtle strandings including animals that are injured or are in poor health.

"Rehabilitation is an important component of the overall response strategy to these strandings and the workshop provided the opportunity for experts to share information and discuss the latest research on turtle

health, injury and rehabilitation."

With over 87 professionals attending the turtle workshop it will now become an annual event as the experts work to combat the expected rise in turtle strandings.

The event, held at Townsville's Reef HQ Aquarium's new conference room, was the brainchild of the Sea Turtle Foundation, James Cook University and Reef HQ.

The Great Barrier Reef Marine Park Authority, World Wildlife Foundation and NQ Dry Tropics were co-sponsors.



A researcher checks a tag on a green turtle, returning to water after nesting, on Heron Island

Aquarium collectors receive Reef Guardian recognition

A Cairns-based operation that supplies marine life from the Great Barrier Reef for display in aquariums around the world recently pledged their support for the Reef.

Cairns Marine is the first participant in the Great Barrier Reef Marine Park Authority's (GBRMPA) marine aquarium fish and coral collection Reef Guardian Fisher pilot program.

GBRMPA Chairman Dr Russell Reichelt said Cairns Marine was a leader in their field and true champions for a sustainable Great Barrier Reef.

"Cairns Marine fish in a sustainable way, using a highly selective hand collection method and maintaining an extensive range of dive sites to spread fishing effort," he said.

"The Reef Guardian Fisher program is about showcasing the great work being done by the commercial fishing industry to help build the



GBRMPA Chairman Russell Reichelt congratulates Cairns Marine for their efforts in the inaugural Reef Guardian Fishers pilot program

resilience and health of the Reef."

Cairns Marine Director Lyle Squire Jnr said their business joined the program because it complemented his industry's Stewardship Action Plan and offered the community confidence in the industry's operations.

"We are conscious that we work in a World Heritage Area and that there is an expectation from the community that we work hard to minimise our environmental footprint," he said.

"The Reef Guardian program strengthens our existing initiatives and further

develops the collaborative arrangements we have with the GBRMPA."

The GBRMPA will be discussing the direction of the Reef Guardian program in this fishery with Cairns Marine, other fishers and Pro-Vision Reef, the peak body for this sector.

Cairns and Herbert River region farmers become Reef Guardians

The Reef Guardian Farmers program kicked off in earnest in the Cairns and Herbert River regions recently with four cane farmers joining the initiative.

Mark Savina is one of the Cairns cane farmers to join the Great Barrier Reef Marine Park Authority's (GBRMPA) stewardship program that promotes land practices that improve the health of the Reef.

Canegrowers Cairns Region District Manager Sarah Standen said Mark's cane operations were a great example of farming practices

achieving win-win outcomes for their business and the health of the Great Barrier Reef.

"Mark has a personal goal that his farming practices are the best available," she said.

"This includes using the absolute minimum amount of fertilisers and chemicals needed to get a rewarding cane crop each year.

"Through using cutting-edge technology he ensures that what goes on his farm stays on his farm.

"He is one of a number of cane growers along the

Great Barrier Reef coastline who are offering their time and insight into sustainable farming practices.

"These farmers are helping the GBRMPA build a program that suits growers' needs and aspirations and achieve positive environmental outcomes."

In the Herbert River region Jeff Cantamessa is amongst the first farmers to become part of the pilot program.

Jeff's interest in best-practice technology is delivering environmental and community benefits.

"Using GPS tracking in my planting and harvesting operations means I spend less time working the ground and I can devote more time to my family and industry activities such as hosting farm field days," he said.

Mark and Jeff, as Reef Guardian farmers, are part of the wider GBRMPA Reef Guardians program that encompasses councils, fishers and schools.

Reef Guardians are recognised for their voluntary efforts in their fields to build a healthier and more resilient Great Barrier Reef.



Australian Government
Great Barrier Reef
Marine Park Authority

WORLD Heritage

S U P P L E M E N T

Celebrating our World Heritage listed Great Barrier Reef

Celebrating 30 years of World Heritage listing this year presents an opportunity to reflect on the importance of the Great Barrier Reef, both as a natural wonder and an icon so many Australians are proud of.

Celebrating 30 years of World Heritage listing this year presents an opportunity to reflect on the importance of the Reef as a natural wonder and an icon of which so many Australians can be proud.

Australia's Great Barrier Reef is one of the richest and most diverse natural ecosystems on Earth and home to the world's largest system of coral reefs.

In 1975, the Australian Government established the Great Barrier Reef Marine Park and a statutory agency, the Great Barrier Reef Marine Park Authority (GBRMPA), to protect this natural treasure for future generations.

GBMRPA's authority is legislated through the *Great Barrier Reef Marine Park Act 1975*.

In 1981, the Great Barrier Reef World Heritage Area was inscribed on the World Heritage List in recognition of its outstanding universal value. It was "...so exceptional to transcend national boundaries...and of common importance for present and future generations."

The site was recognised for all four natural criteria for listing, which in 1981, related to outstanding examples of:

- major stages of earth's evolutionary history
- superlative natural phenomena or exceptional natural beauty
- significant ongoing geological processes, biological evolution and man's interaction with his natural environment

- habitats where populations of rare or endangered species still survive

Today, the Great Barrier Reef is widely recognised as one of the world's best managed natural wonders. It attracts more than 1.6 million visitors each year, brings billions of dollars into Australia's economy each year, and supports more than 50,000 jobs.

Effective management ensures sustainable use of the

Reef and helps to build its resilience in the face of threats from climate change, coastal development, declining water quality issues, illegal fishing and poaching, and some remaining impacts of fishing, although the Reef continues to face many challenges.

At the recent meeting of the World Heritage Committee, concerns were raised about the impact of Liquefied Natural Gas developments on Curtis Island, near Gladstone. This supplement provides further details about the Committee's interest.



The Hon. Barry Cohen, MP, Minister for Home Affairs and Environment and Chairman Australian Heritage Commission Dr Kenneth Wilshire watch on as GBRMPA Chairman Dr Graeme Kelleher speaks at the unveiling of the plaque.

Protecting a World Heritage Area



The outstanding universal value of a World Heritage listed property needs to be maintained through adequate protection and management systems.

Australia is committed to caring for the Great Barrier Reef World Heritage Area and both the Federal and Queensland Governments allocate substantial resources to supporting its health and long-term outlook.

Ensuring the sustainable use and effective management of such a vast area is complex and involves multiple legislation and involvement from Federal, State and Local Governments.

Federal agencies involved in management include:

- Great Barrier Reef Marine Park Authority
- Department of Sustainability, Environmental, Water, Population and Communities
- Customs
- Coastwatch
- Australian Federal Police
- Commonwealth Department of Public Prosecutions
- Australian Maritime Safety Authority

State agencies involved in management include:

- Queensland Parks and Wildlife Service
- Queensland Boating and Fishing Patrol
- Queensland Water Police
- Marine Safety Queensland

There are numerous pieces of Australian and Queensland Government legislation that apply to decision-making and management throughout the World Heritage Area.

The Australian Government legislation includes the Great Barrier Reef Marine Park Act and the Environment Protection and Biodiversity Conservation (EPBC) Act.

The Queensland Government legislation includes the Marine Parks Act, the Fisheries Act, the Coastal Protection and Management Act and the Sustainable Planning Act.

World Heritage Committee

The World Heritage Committee meets once a year and has the final say on whether a property is inscribed on the World Heritage List.

The Committee is responsible for the implementation of the World

Heritage Convention, and consists of 21 countries chosen from over 180 countries that have signed the Convention, including Australia.

The World Heritage Committee is supported by the World Heritage Centre, which provides a secretariat within UNESCO and coordinates matters related to World Heritage.

The Committee is also supported by advisory bodies, including the International Union for the Conservation of Nature (IUCN).

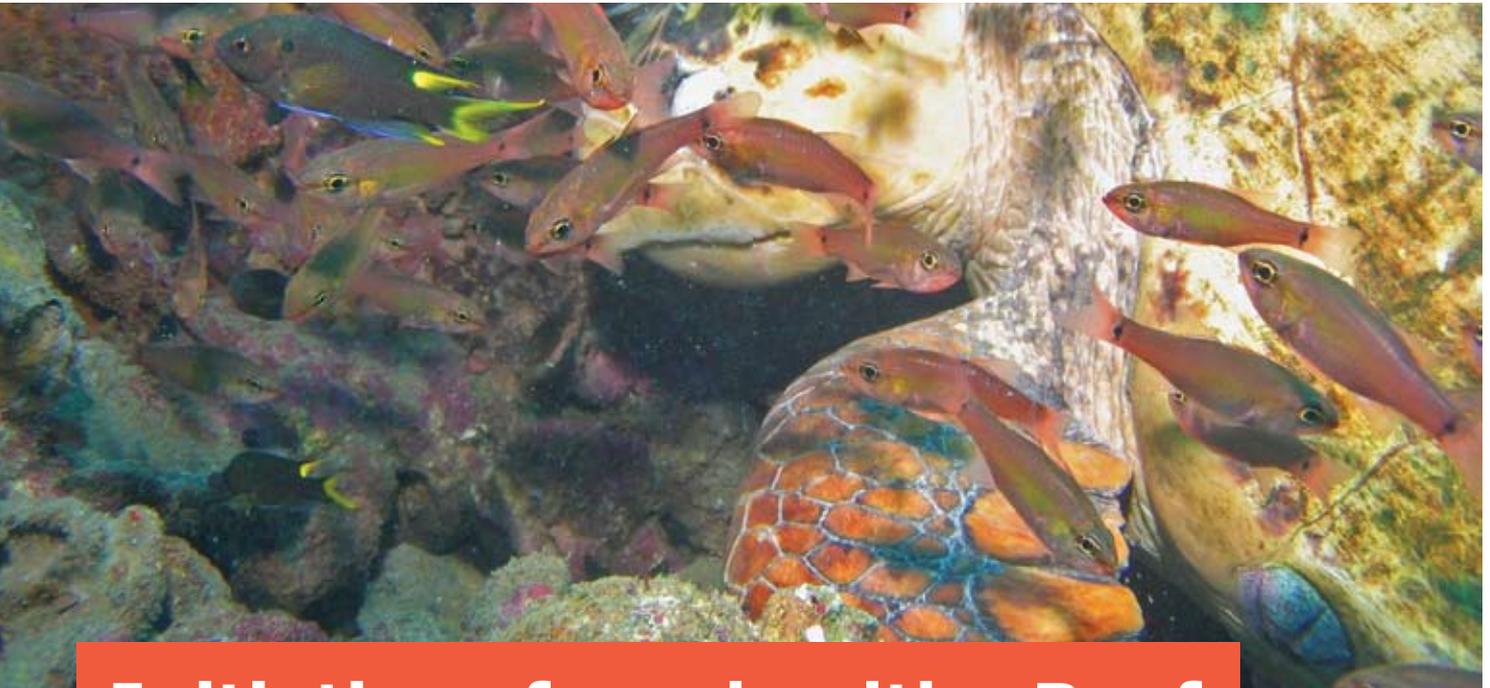
IUCN provides the Committee with technical evaluations of natural heritage properties and reports on the state of conservation of listed properties.

A vast natural wonder

The Great Barrier Reef World Heritage Area covers an area of 348,000km², stretching more than 2,300 kilometres from the top of Cape York to just north of Fraser Island. It is bigger than the United Kingdom, Holland and Switzerland combined.

The World Heritage Area includes the slightly smaller Great Barrier Reef Marine Park, which is the responsibility of the Australian Government, as well as the following areas:

- Queensland (State) Marine Parks (including the tidal waters around islands) which are managed as part of the Queensland Government's Great Barrier Reef Coast Marine Park.
- Internal Queensland waters such as Hinchinbrook Channel and 'The Narrows' near Gladstone.
- All 900 islands within the boundary (irrespective of whether they are a national park such as Hinchinbrook Island, Commonwealth land such as the Low Isles, urban areas like Magnetic Island or tourist areas like Hamilton Island).
- Ports' waters seaward of low water mark including Townsville, Cairns, Mackay, Lucinda, Gladstone and Abbott Point.



Initiatives for a healthy Reef

For the past 30 years, a range of management initiatives have been implemented to help keep the Great Barrier Reef healthy and to build its resilience so it is better able to withstand the impact of threats to its environment.

Substantial management efforts, including extending the highly protected areas of the Marine Park from less than 5% to over 33% under the 2003 Zoning Plan, has placed the Great Barrier Reef in a much stronger position than many other coral reef ecosystems throughout the world.

Key management activities include:

- Joint Australian and Queensland Governments' Field Management program to enforce the Marine Park Zoning Plan.
- Environmental assessment and other management tools, including legislation, policy, permits, education, partnerships and evaluation of the risks to the environment.
- Management of shipping by Australian and Queensland authorities.

Shipping rules are uniform nationally. In 1990, the International Maritime Organisation designated the Reef as a Particularly Sensitive Sea Area, and special protective measures are enforced.

- Reef research and monitoring to ensure the best available information for effective, scientifically-based decision-making and management.

Communities, industry and other stakeholders are also engaged and encouraged to take stewardship of the care of the Reef through a range of voluntary Reef protection activities. These include:

- Four Reef Advisory Committees (focusing on four key issues facing the GBR) and 11 Local Marine Advisory Committees.
- Great Barrier Reef Marine Park Authority's Reef Guardians Program, which highlights and rewards the environmental protection efforts of schools, councils, fishers, farmers, and graziers.



The World Heritage listing is acknowledged on Townsville's beautiful The Strand.

World Heritage Area strategic assessment

During the June 2011 meeting of the World Heritage Committee, concerns were raised about approval of the Liquefied Natural Gas developments on Curtis Island near Gladstone, within the Great Barrier Reef World Heritage Area.

As a result, the World Heritage Committee made a decision that Australia undertake a comprehensive strategic assessment of the World Heritage Area, identifying planned and potential developments that could impact on the outstanding universal value of the World Heritage Area.

It is intended that the strategic assessment will lead to consideration of a long-term plan for sustainable development that provides some certainty for industry and decision-making in the region.

Given the complexity of the World Heritage Area's management and legislative framework, responding effectively to the World Heritage Committee's request for a strategic assessment will involve all

levels of government and various agencies.

Discussions have commenced between the Great Barrier Reef Marine Park Authority (GBRMPA), the Department of Sustainability, Environment, Water, Population and Communications (SEWPaC) and the Queensland Government regarding the approach to the strategic assessment.

The assessment is expected to take at least a year. By February 2012, the Australian Government will report back to the World Heritage Committee about Australia's response to the decision and the progress of the strategic assessment process.

Great Barrier Reef communities, industries and interested stakeholders will be given an opportunity to comment on the strategic assessment process. Information will continue to be provided through Local Marine Advisory Committees, Reef Advisory Committees, the Reef Guardian network, in *SeaRead*, on GBRMPA's website and other avenues.



Monitoring Mission

In response to the World Heritage Committee's June 2011 decision, Australia has invited a World Heritage monitoring mission to visit the World Heritage Area.

The mission will visit a range of sites to consider the management of the World Heritage Area, and meet with a range of interested stakeholders.

Representatives from the World Heritage Centre and the IUCN will also consider ways in which they can contribute to the strategic assessment process while on the mission.

The World Heritage Centre and IUCN will jointly conduct the mission, and a State of Conservation report will be prepared for consideration by the World Heritage Committee at its next meeting in June 2012.

The date for the mission is yet to be confirmed.

Protected for the Future

The Australian Government and the GBRMPA are committed to the protection of the environmental and heritage values of the Great Barrier Reef World Heritage Area.

The strategic assessment presents an important opportunity to ensure the Reef's spectacular and special beauty remains for current and future generations to enjoy while also allowing for continued sustainable use.

The World Heritage Centre and Committee shares this commitment to ensuring the World Heritage Area is conserved as one of the most special natural wonders on Earth.

Growth and development

Queensland continues to grow and industry is developing rapidly, which increases the number of approvals sought for major developments in the Great Barrier Reef region. Most development occurs in a relatively small part of the total World Heritage Area, most of which is largely untouched by development or major uses.

Development applications that are either within or outside the World Heritage Area, but that are likely to have significant impacts on matters of 'national environmental significance' (including its world heritage value and the presence of migratory species, or national threatened species) must be referred under the EPBC Act for decision on whether they should be approved by the Federal Environment Minister.

For more information, visit the following webpages

- GBRMPA World Heritage: www.gbrmpa.gov.au/about-the-reef/heritage
- UNESCO World Heritage Centre: whc.unesco.org



Conference and Training Centre



The Reef HQ Aquarium has utilised green initiatives in its new state-of-the-art, environmentally friendly Conference Centre

Reef HQ Conference Centre goes green

Not only is the new Reef HQ Aquarium Conference and Training Centre a state-of-the-art venue to host a meeting or conference, it is environmentally friendly too.

Environmentally sustainable materials were used throughout the construction, as way for Reef HQ to reduce its carbon footprint and demonstrate its care for the environment.

The paint used is Australian made, Ecolour, and is certified carbon neutral.

Unlike other paints, Ecolour, doesn't contain volatile organic compounds which means there is no toxic out gassing of chemicals.

The lights used throughout the centre are energy efficient, long life LED bulbs that reduce power consumption.

The cool air being pumped through the conference room is sourced from the existing main building chilling system, resulting in the highest level of efficiency and a significant reduction in energy use.

The carpet in the centre is made from plastic bottles with each square containing 80 recycled bottles.

As well as being environmentally friendly, the centre has high speed internet access and videoconferencing capabilities that allow speakers to connect with each other all over the world.

Located within the world's largest living coral reef aquarium, the Reef HQ Aquarium Conference and Training Centre is the ideal place to host conferences, meetings and staff professional development workshops.

The Reef HQ Aquarium Conference and Training Centre is the ideal place to host conferences, work Christmas parties or even weddings and is now open for bookings.

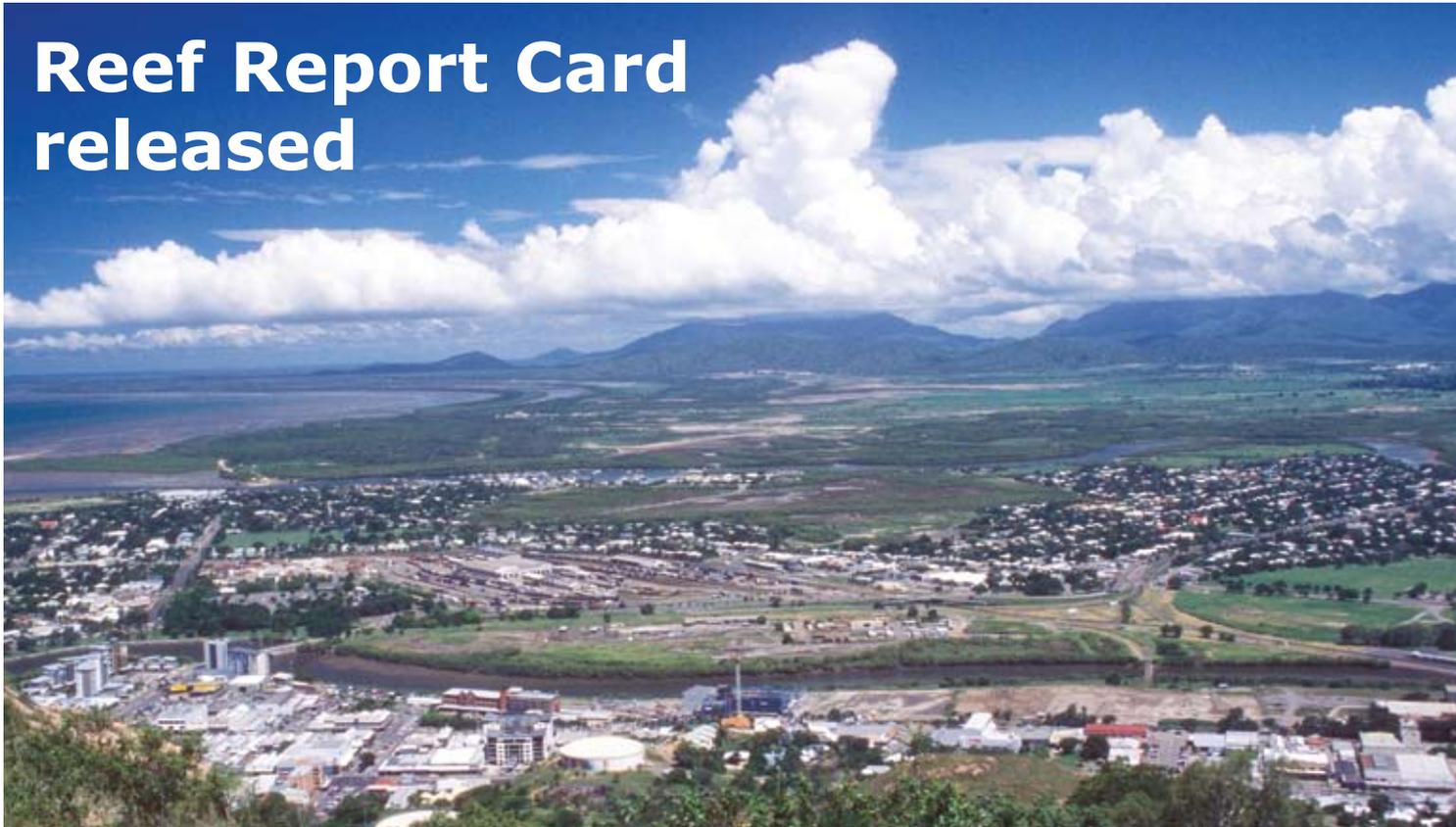
Conference packages start from \$36 per person while after hours function packages start from \$11 per person.

To book or make an inquiry please contact Reef HQ Aquarium sales on (07) 4750 0800 or email info@reefHQ.com.au.

Green initiatives

- carbon neutral Ecolour paint
- long life, energy efficient LED light bulbs
- source air conditioning from main building
- carpet squares contain 80 plastic bottles

Reef Report Card released



Ross Creek and Ross River are just two systems that feed into the Reef catchment in the Townsville area

The Reef Water Quality Protection Plan (Reef Plan) First Report Card, released in August, has shown the Great Barrier Reef to be in "moderate" condition.

The joint federal and state program, of which the Great Barrier Reef Marine Park Authority (GBRMPA) is a partner, aims to reduce runoff of sediment, fertilisers and pesticides from broad scale agriculture which is impacting on the health of the Reef.

The first Report Card is based on 2008-09 data and establishes the baseline for which future reports for water quality will be measured against.

The report's findings demonstrate the need for the GBRMPA to continue its management initiatives to halt and reverse the decline in the quality of water flowing into the Great Barrier Reef.

The GBRMPA has devised Water Quality Guidelines and manages the Reef Rescue Marine Monitoring Program and the voluntary community stewardship program Reef Guardians, all designed to

improve the quality of water entering the Reef catchment.

The Reef Water Quality Protection Plan (Reef Plan) First Report Card, released in August, has shown the Great Barrier Reef to be in "moderate" condition overall.

The joint federal and state initiative, of which the Great Barrier Reef Marine Park Authority (GBRMPA) is a partner, aims to reduce runoff of sediment, fertilisers and pesticides from broad scale agriculture which is impacting on the health of the Reef.

The First Report Card is based on data up to 2009 and establishes the baseline against which progress towards Reef Plan goals and targets will be measured.

The Report Card is a key output of the Paddock to Reef program, a collaboration involving governments, industry, regional natural resource management bodies and research organisations.

It is a world leading approach to integrate information on management practices, catchment indicators, catchment loads and the

health of the Great Barrier Reef.

The report's findings demonstrate the need for governments, and stakeholders to continue to work together to halt and reverse the decline in the quality of water flowing into the Great Barrier Reef.

The GBRMPA has devised Water Quality Guidelines and manages the Reef Rescue Marine Monitoring Program and the voluntary community stewardship program Reef Guardians, all designed to improve the quality of water entering the Reef catchment.

The key findings from the report include:

- Marine results vary across different regions, for example, the Mackay Whitsunday area has poor seagrass results while the inshore coral reefs in the Burdekin area are in poor condition
- High rainfall in the Great Barrier Reef catchment (particularly the Burdekin and Fitzroy regions) from 2007 to 2009 has seen large flood plumes reach marine waters
- Total catchment loads are five to nine times the natural levels for total suspended solids, nitrogen and phosphorus:
 - o 14 million tonnes of sediment washed into the Great Barrier Reef from human activity
 - o annual loads of dissolved nitrogen are 31,000 tonnes
 - o an estimated 28,000 kilograms of pesticides enter the Reef annually
- Vegetated freshwater swamps have been reduced by 25 per cent while all wetland types were reduced by 883 hectares between 2001 and 2005

The Report Card shows results up to 2009 and does not include the impact of the severe flooding experienced in Queensland over the 2010-2011 summer.

New website launched

Our new external website has been officially launched, providing a modern online gateway to access information about the Great Barrier Reef and its management.

The website has been significantly improved to provide online visitors with a better online experience and, importantly, the ability to find information easier and quicker.

Great Barrier Reef Marine Park Authority Chairman Russell Reichelt said the website was the most widely accessed of the agency's communication channels, with 50,000 hits per month.

"Our website is a vital communication tool, and the launch is an important first step to achieving our knowledge management goals," he said.

"This first stage of the website redevelopment offers

a range of new and exciting features that we will continue to enhance and build upon, including new interactive elements.

"It is important to us that information about the Reef and its management is easy to access and caters to the diverse range of people who are interested in this topic."

Some of the new features of the website include:

- Improved navigation
- Interactive mapping tool
- Online feedback and reporting forms
- Online employment application



- Polling and survey function
 - New imagery and photos.
- You can check out our new website at www.gbrmpa.gov.au and any feedback can be provided through the online contact form or by emailing feedback@gbrmpa.gov.au

Reef Rescue goes to air

The Great Barrier Reef Marine Park Authority (GBRMPA) launched its first episode of 'Reef Radio' last month with a sea country inspired show airing on radio station 4K1G.

GBRMPA Indigenous Partnerships Unit Director Liz Wren said 'Reef Radio' would communicate clearly the opportunities available to Traditional Owners and Indigenous community members under the GBRMPA's Reef Rescue Program.

The production, developed in conjunction with the GBRMPA and the 4K1G radio station, is the first episode of what is hoped to become a regular radio series that will air on community radio stations across Queensland.

The shows content will cover a range of topics that have a sea country theme, aiming to raise awareness among Traditional Owners and Indigenous community members about projects associated with the GBRMPA's Reef Rescue Land and Sea Country Indigenous Partnerships Program.

"Future episodes of the program will also feature interviews with Traditional Owners who are demonstrating strong leadership on projects with the aim of protecting and managing sea country," Liz said.

"Listeners of the program will also be treated to a number of other stories produced by the GBRMPA about species conservation,

Marine Park management, climate change and water quality.

"The programs will also feature some handy tips for keen individuals looking to do what they can to look after their sea country and the Great Barrier Reef."

The 'Reef Radio' program will also be featured on the new look Great Barrier Reef Marine Park Authority website as they go to air. To listen to the programs go to www.gbrmpa.gov.au.

The 'Reef Radio' series are being delivered by GBRMPA through the Australian Government's Caring for Our Country Reef Rescue Land and Sea Country Indigenous Partnership Program.

BRIEFS

Watson and Southall take on Reef conservation

Solo yachtswoman Jessica Watson and Best Expedition in the World representative Ben Southall teamed up to promote reef conservation and tourism in the Whitsundays.

Originally scheduled to race each other, mechanical issues saw the Young Australian of the Year and former Best Job in the World winner take on the challenge together.

Jessica, being a proud Queenslander, said it was important to highlight that the Reef was still as beautiful as ever despite this year's severe weather.

"I hope we can inspire more people to give it a go and encourage them to visit Queensland's beautiful Great Barrier Reef," she said.

Ben continues his journey north, eventually ending his expedition in Cooktown in September.

Kirwan State School students brush up on wetland care

Kirwan State School students are learning how to care for wetlands that are important in protecting the Great Barrier Reef Marine Park, as part of the GBRMPA's Reef Guardian Schools program.

This voluntary stewardship program develops partnerships between schools and their communities to work towards a sustainable future for the Great Barrier Reef.

The Townsville Region Bird Observers Club showed students how to conduct surveys and assess a local wetland, using the presence or absence of birds as indicators of the condition of the wetlands.

GBRMPA Reef Guardian Schools Project Officer Carolyn Luder said this was an important way to raise awareness of how wetlands help filter water from the land to the Reef.



Tablelands Council begin innovative trial

A Tablelands Council employee monitors the mulching process

Reef Guardian Tablelands Regional Council is taking steps to increase recycling and trial innovative composting to minimise waste.

Tablelands Regional Council Senior Advisor Environmental Planning Kirsty Lamperd said the council was committed to positive environmental action.

"We are undertaking the project in partnership with King Brown Compost and Northern Gulf Resource Management Group and it aims to make bio-vital compost over the next two years," she said.

"This initiative helps to address sustainable waste management, provide local farmers with quality compost, information on how to best use compost, reduce the need for expensive farm inputs and reduce agricultural run-off into the Great Barrier Reef.

"The project will also demonstrate multiple economic, environmental and social benefits.



The finished product will be used by local farmers as a high value soil conditioner

"The trial will initially use any suitable available waste such as green waste, bio-solids, cardboard, bagasse, mill-mud, and waste from feedlots, dairy, chicken sheds and so forth.

"In the future the trial may also include commercial and kerbside organic waste collection.

"The compost produced will be a high value soil conditioner prized by local farmers."

Kirsty said the trial took into consideration carbon inputs, water use and water run-off effects, ability to value add to the mulch, and expected savings of chemical inputs.

"Tablelands is proud to be a Reef Guardian Council and this initiative should see real benefits for farmers, the local community and the Great Barrier Reef."

Follow us on Facebook



www.facebook.com/GreatBarrierReefMarinePark

We invite you to follow us on Facebook and be part of our online community of people who care about the Great Barrier Reef Marine Park and its future.

Ways that you can get involved:

- Spread the word - let your friends and family know that this page has been created and encourage them to participate
- Join the conversation - contribute meaningful and constructive comments on our posts and those of our users
- Contribute content - post your Reef observations, photos and videos.

We look forward to your contribution.

COE coral genome

Australian scientists have made a major biotechnology breakthrough that will assist in the study of coral reefs.

Scientists at the ARC Centre of Excellence for Coral Reef Studies (CoECRS) and the Australian Genome Research Facility (AGRF) have cracked the genome of the staghorn coral *Acropora millepora*.

Staghorn coral is a major component of the Great Barrier Reef and coral reefs worldwide.

This significant discovery unlocks the genetic potential of the Reef and could also protect the Reef from the impacts of climate change, ocean acidification, pollution and disease.

Professor David Miller of CoECRS and James Cook University said the discovery would help scientists learn how corals build reefs and why they fail to do so when under duress.



Andrew family and crew of the 'Ankh Cross'

Reef Guardian Reef Line Fishers inaugural meeting

Data collection strategies and protocols were at the forefront of discussions at the inaugural Reef Guardian Reef Line Fishers meeting in Townsville.

With the Reef under pressure from climate change, water quality, coastal development and fisheries, commercial operators are doing their bit to build the Reef's resilience.

Great Barrier Reef Marine Park Authority Director of Regional Engagement and Reef Guardians Karen Vohland said the data, electronically gathered by fisherman, would be used to

improve operations, the safety of dorymen and fishery management.

"The nucleus of this initiative will surround collecting relevant data and ensuring it is done so in the appropriate manner," Karen said.

"The data collected will be carefully managed to ensure the security of each doryman's fishing spots.

"This is done in a few ways; names of fishers will not be linked to the data and catch rate information will only be collected on a daily basis not per fishing spot.

"Therefore the data cannot be linked to a specific doryman or a specific fishing spot."

Fishers, peak bodies and government departments will summarise the data and consider the usefulness of electronic data collection devices.

Reef Line Reef Guardian Fishers will also be working in partnership with the GBRMPA and Infofish Australia on a Coral Trout Tagging Program to understand the impacts of extreme weather on the fishery.

Calendar of events 2011

September

National Biodiversity Month

7	National Threatened Species Day
11	Sustainable House Day, Townsville
16 – 18	World Clean Up the World Weekend
18	World Water Monitoring Day

October

3	World Habitat Day
4	World Animal Day
7	Reef Guardian Schools Steering Committee Meeting
12	Reef Guardian Farmers Steering Committee Meeting

What can I do?

Turtles and dugong are two species of concern in the wake of extreme weather events in Queensland last summer. Seagrass meadows, the critical foraging areas for green turtles and dugong, can be damaged due the physical impacts of wave action and degraded due to poor water quality following floods and cyclones.

Populations of turtles and dugong take a long time to recover if they become depleted so it is up to all Reef users to help protect them and their Reef habitat.

When boating you can do your bit by:

- Keeping a good lookout on the water

- Avoiding travelling through shallow waters
- Reducing your speed to below 10 knots if you can't avoid seagrass meadows.

As a commercial netter you can do your bit by:

- Being aware of any wildlife in the area and avoiding netting if marine turtles, dugong, dolphins or whales are sighted nearby
- Using only the minimum amount of fishing apparatus necessary (e.g. shorter lengths of net or shorter drop)
- Always actively attending your nets
- Minimising set times for nets
- Releasing any incidentally caught animals or fish as

quickly and appropriately as possible

- Reporting any interactions with Species of Conservation Interest in SOCI logbooks.

Surface-breathing marine animals such as turtles and dugong are vulnerable to injury or death from boat strike when surfacing for air or foraging in shallow areas.

Report sick, injured or dead marine animals to 1300 ANIMAL (1300 264 625).

Creature feature

Rays

There are 125 ray species in Australian waters, the greatest biodiversity of any continental area.

They range from the blue spotted stingrays, one of the most commonly seen rays on the Great Barrier Reef, to spotted eagle rays, black-blotched stingrays and the largest the manta ray. The rays also include the shovel-nosed rays and sawfish.

Rays are essentially bottom-dwelling sharks that have a spiracle or hole located behind each eye that allows water to be pumped over their gills when stationary. Unlike sharks, their gill slits are located underneath their heads.

For the stingrays and stingarees their pectoral (lower front) fins are expanded and attached to the side of the head creating 'wing-like' appendages, which are usually called 'flaps'. The shovel-nosed rays and sawfish are more shark-like in shape but have a much flatter profile.

Stingrays have the ability to thrust their tail upwards and swing it sideways if they are

stepped on or threatened. This action allows them to use their venomous barb, which is located on the tail, as a defensive weapon to protect them or to drive predators away. When walking in lagoons, it is recommended that you should always shuffle your feet to scare rays away and prevent you stepping on one and getting injured.

Manta rays can grow to over seven metres across and can weigh over three tonnes. A few species of manta ray swim in midwater, feeding on small fish and plankton, the rest prefer to feed and rest on the ocean floor.

Sharks and rays have come under serious pressure on the Great Barrier Reef as a result of some fishing

activities, including targeted fishing, illegal fishing and as by-catch. This pressure is being addressed by some species being listed as protected and no-take species, such as sawfish, fisheries management arrangements



A stingray swims away from the camera, over a sandy sea bed at Lady Elliot Island



A Blue-spotted stingray takes shelter, on sand under a rocky ledge

which restrict recreational fishers to the taking of only one ray, spatial zoning to protect areas of high

conservation value and by targeted research to provide managers with better information on these species.