

SeaRead

Marine Park news from catchment to coral



Australian Government
Great Barrier Reef
Marine Park Authority

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www.gbrmpa.gov.au

Great Barrier Reef Marine Park tourism scoops top international accolade

An innovative sustainable tourism partnership helping protect the Great Barrier Reef Marine Park scored the top accolade at international tourism awards in Portugal.

The Great Barrier Reef Marine Park Authority's (GBRMPA) sustainable tourism initiative won the Destination Award in the World Travel and Tourism Council's Tourism for Tomorrow Awards.

Environment and Water Resources Minister Malcolm Turnbull and Small Business and Tourism Minister Fran Bailey praised the agency's partnership with the tourism industry.

Mr Turnbull said the award recognised the value of working with the tourism industry to manage and protect one of the most internationally recognised natural icons.

"Winning the Tourism for Tomorrow Award is something all Australians can be proud of – it shows we're taking care of our natural treasure, the Great Barrier Reef," Mr Turnbull said.

"We can, first and foremost, keep the Reef safe for many more generations to enjoy in the future and also provide for a vibrant tourism industry.

"It's part of continued recognition of the Great Barrier Reef Marine Park Authority and our community partners in helping to keep the Reef a great place."

GBRMPA Tourism and Recreation Director Lisha Mulqueeny said the Destination Award recognised how the tourism industry was helping protect the Reef.

"We are all working together to care for the Great Barrier Reef so future generations can continue to enjoy this precious natural icon," she said.

"The support and cooperation of tourism operators has been exceptional.

"They are some of our greatest ambassadors on behalf of the Great Barrier Reef because their business depends on it."

Tourism based around the Great Barrier Reef generates 54 000 full-time jobs and contributes \$5.1 billion to the Australian economy each year.

The icon attracts nearly two million tourists and 4.9 million recreational visitors each year.

Lisha said the agency and tourism industry had secured a well-managed, sustainable industry over the last five years.

"By working together we have significantly improved environmental, cultural and business outcomes," she said.



The sustainable tourism partnership was praised at the Tourism for Tomorrow Awards

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Message from the Chairman



the Hon Virginia Chadwick AO

There has been fantastic national and international recognition of the Great Barrier Reef Marine Park Authority's projects, policies and partnerships recently.

World Environment Day was an extra cause of celebration, with the agency winning the Coastal and Marine Management Award from the United Nations World Environment Day Awards.

The award recognises how education, planning and environmental impact management can help ensure the Marine Park is used sustainably and protected for the future.

Central to the award was the role of the highly successful Reef Guardian Schools programme in engaging more than 52 000 students and enabling environmental messages to reach an even broader network of their peers, families and communities.

We value this community involvement for its key role in underpinning and supporting other management activities like Plans of Management, zoning and planning. Working together is essential for the future of this precious natural asset.

The value of working together to protect the Marine Park was further cemented with the Destination Award in the World Travel and Tourism Council's Tourism for Tomorrow Awards.

We are extremely proud of our robust and consultative partnership with the tourism industry that encourages and rewards high standards.

Our tourism industry partners continue to be strong supporters and participants in Marine Park management, which was further enhanced through the expanded Eye on the Reef Monitoring Programme.

Launched by the Minister for the Environment and Water Resources in Cairns, this monitoring programme is the first of its kind in the world.

It utilises the expertise of forty tourism operators who are regularly out on the water to provide regular updates on the health of the Reef.

The high level of participation in our monitoring programmes is invaluable. It also demonstrates the community's keen interest in helping look after our Great Barrier Reef.

Regards

Virginia Chadwick
Chairman
Great Barrier Reef
Marine Park Authority

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"Tourism operators actively participate in monitoring and reporting on the health of the Reef - this helps build their understanding and appreciation of the Reef.

"We also reward high standard tourism operations and work hard to increase visitor understanding of the Marine Park by improving the quality of information presented to them."

The Tourism for Tomorrow Awards were set up in 1989 by the Federation of Tour Operators to encourage action from all sectors of the industry to protect the environment.

This year there were 130 applications from more than 40 countries in four categories.

For more information on the Great Barrier Reef Marine Park Authority tourism industry partnership visit www.gbrmpa.gov.au.

Marine agency **praised** for Reef protection and education

Protecting and educating students about the Great Barrier Reef proved a recipe for success when the Great Barrier Reef Marine Park Authority (GBRMPA) scooped a prestigious environmental award.

The GBRMPA won the Excellence in Marine and Coastal Management Award at the United Nations Association of Australia World Environment Day Awards 2007.

GBRMPA Chairman Virginia Chadwick said the national award recognised the agency's high standard in environment impact management, planning and education.

"Winning this award is fantastic in acknowledging how marine and coastal management is helping ensure the future of the Great Barrier Reef," she said.

"Our Planning and Environmental Impact Management team play a key role in managing Reef activity, assessing environmental impacts, issuing permits and developing Plans of Management that provide

protection for high-use areas.

"Our highly-successful Reef Guardian Schools programme is also helping build a new generation of environmental stewards passionately committed to protecting the Reef.

"Community involvement is central to spreading the environmental message and building support for marine and coastal management.

"Our close partnership with industry and local government is also proving invaluable in helping ensure the Marine Park is used and managed sustainably."

On World Environment Day (5 June) the United Nations Association of Australia focuses attention on the environment and positive programmes that work towards protecting or restoring natural heritage.

The awards recognise the environmental effort of businesses, local governments, schools, community groups, individuals and the media and focus on the time-honoured theme: 'think global, act local.'

Court verdict timely reminder to take care around whales

Take care around whales and abide by approach distances – that’s the message from the Great Barrier Reef Marine Park Authority (GBRMPA).

The call comes after a yachtsman was found guilty in the Proserpine Magistrates Court for striking a whale in the Whitsundays in 2006.

Sarah Salmon from the GBRMPA Species Conservation Unit said it was vital to keep a safe distance from whales now making their annual migration north.

"This is a timely reminder there are significant safety and legal consequences for ignoring whale approach distances," she said.

"It is important vessels stay at least 100 metres away from whales in the Marine Park and 300 metres away in the Whitsunday Whale Protection Area.

"Jet skis must stay at least 300 metres away from whales throughout the Marine Park.

"Whale watching regulations are in place to safeguard whales, which are a protected species in Australian



Boaties are reminded to watch out for whales

waters, from potential boat strikes and other hazards.

"It also gives onlookers the opportunity to catch a glimpse of the animals from a safe distance.

"While whales can be social animals and may approach boats or

people in the water, it is important not to approach them for both the safety of the whales and people watching them.

"An adult humpback whale is between 12 to 15 metres long and can weigh up to 40 tonnes."

There are also a range of other simple practices people should follow when boating in the Marine Park during whale season:

- Keep a lookout and avoid disturbance to mother whales and their calves, especially from May to September
- Reduce your vessel speed to minimise the risk of collision in areas where whales have been sighted
- Abide by approach restrictions - vessels must stay at least 100 metres away from the animal and 300 metres away in the Whitsunday Whale Protection Area, and jet skis must stay at least 300 metres away from the animal throughout the Marine Park
- Do not get in the water if you see a whale - if you are already in the water do not disturb, chase or block the path of a whale and if possible, return to your vessel
- If there is a sudden change in whale behaviour, move away immediately
- Report sick, injured, stranded or dead whales to the **EPA Hotline 1300 130 372**.

Tourism operators keep eye on the Reef

Forty tourism operators in the Cairns, Port Douglas and Whitsundays regions will keep an eye on the health of the Great Barrier Reef under an expanded monitoring programme.

The Eye on the Reef programme was officially launched by the Minister for the Environment and Water Resources Malcolm Turnbull in Cairns.

"The Great Barrier Reef Marine Park Authority's (GBRMPA) Eye on the Reef initiative will be expanded to operate in the most popular reef tourist locations," he said.

"It will be one of the largest marine monitoring programmes undertaken by the tourism industry in the world.

"Tourism operators are our best allies for monitoring the health of the Great Barrier Reef Marine Park.

"They're out on the Reef regularly, in many cases daily, and know their sites well. They can collect long-term

data that's invaluable for research and management."

Eye on the Reef has been run as a successful pilot project involving 10 tourism operators in the Cairns and Port Douglas region.

It will now include 23 operators in the Cairns and Port Douglas areas and 17 operators in the Whitsundays.

The programme is a three-way partnership involving the tourism operators, research scientists and the GBRMPA, with operators regularly collecting information about the Reef.

The information is collated by the GBRMPA and used by Marine Park managers and scientists from the Australian Institute of Marine Science, James Cook University and the University of Queensland.

The findings are also returned to tourism operators who can use the data for interpretation and staff training.

Some of the locations monitored now in the Cairns and Port Douglas

region include Agincourt Reefs, Ribbon Reefs, Moore Reef, Frankland Islands and Michaelmas Cay.

The programme will now cover sites in the Cairns area such as Opal, Briggs, Milln and Flynn Reefs and in the Whitsundays' Hardy, Bait and Knuckle Reefs and Hamilton Island.

Most tourism operators involved in the programme are eco-certified or are in the process of seeking eco-certification, and were selected for their locations or because they have requested to be involved.

Staff were trained in June with the full programme rolling out from July.



Tourism operators participating in Eye on the Reef in the Whitsundays take part in training

Environmentally friendly farming given the thumbs up

Tully banana farmers Patrick and Ellen Leahy are reaping the rewards of taking up environmentally friendly farming practices.

Over the last five years they have reduced their use of nitrogen, a popular fertiliser, by 57 per cent in favour of maintaining ground cover.

Reducing fertiliser helps improve the quality of water in the Great Barrier Reef.

Fertiliser can wash into waterways that connect the land to the ocean and contribute to poor water quality that affects plants, animals and habitats.

Patrick said the step was proving positive, both economically and environmentally.

"We have been able to reduce the amount of nitrogen applied while keeping productivity high and yielding 1100 cartons per acre," he said.

"We encourage other landholders to consider the environment when they're changing farming practices – being environmentally friendly is definitely a way of the future.

"We now use permanent beds and maintain ground cover to slow the speed of water moving across soil surface and reduce rain washing away the soil.

"It also provides root channels to assist with movement of air and water into soil, increases organic matter in the soil and increases biological diversity in the soil."

Patrick said any nitrogen still used was done so in small amounts and applied fortnightly through the irrigation system.

"This makes the fertiliser more effective - it is delivered to the plant roots and reduces the amount in the soil that might leach from each application," he said.

"Regular diagnostic testing helps monitor how the plants are performing and helps us adjust fertiliser application accordingly."

Overall, the banana industry is reducing nitrogen use through the whole Tully-Murray catchment region.

A survey showed industry average use in 2005 is down 42 per cent to 308 kg per hectare per year from an average of 525 kg per hectare per year in 1995.

Help the Reef by starting at home

You can take some simple steps at home to reduce greenhouse gas emissions, helping reduce the impact of climate change on the Great Barrier Reef.

Water heating accounts for 16 per cent of household greenhouse gas emissions:

Using gas for heating water generates less than half the greenhouse gas per year than an electric system - equivalent to reducing your car usage by half. Reduce greenhouse gas emissions and save money by taking shorter showers and only using hot water

when necessary. If installing a new hot water system think about a solar system.

Source: Australian Greenhouse Office and the Cooperative Research Centre for Greenhouse Accounting.



Solar panels have been installed at Low Isles, a Commonwealth island

Landholders embracing good environmental practice

An increasing number of landholders along the Queensland coast are choosing environmentally responsible practices on their properties.

Great Barrier Reef Marine Park Authority (GBRMPA) Water Quality and Coastal Development Director Hugh Yorkston said this was a positive step forward.

"Good water quality is vital for the health of plants, animals and habitats in the Great Barrier Reef," he said.

"Improved land practices have a positive effect on the marine environment as rivers, drains and other waterways connect land-based activities to the ocean.

"We've been talking with landholders in various sections of the Great Barrier Reef catchment who are doing some fantastic things.

"Many are embracing the economic and environmental benefits of changing land use practices and inspiring others in their community to do the same."

Hugh said this included everything from improved irrigation and careful fertiliser

application to revegetating riparian areas.

"Simple things like avoiding plastic bags, reducing run-off and using fertiliser carefully can make a difference to plants, animals and habitats in the Reef," he said.

"Highlighting this positive behaviour is part of our commitment to educating people about water quality and promoting activities that contribute to a healthy Reef."

Some of this good environmental work will be showcased through Reef Watch.

Reef Watch segments will air on WIN Television, in between the sport and weather sections of the news, on Friday nights over eight weeks.

The segments feature community groups and farmers and were shot on location in regional centres like Ingham, Tully, Eacham and Gordonvale.

This will complement the Reef House campaign, which encourages people to be mindful that what goes down drains, creeks and rivers may end up in the Reef.



Green trash blanketing helps the environment – it stops erosion and lets organic matter back into the soil

New database **shares** Aboriginal and Torres Strait Islander maritime history

Australia's first online database solely on Aboriginal and Torres Strait Islander connections to the Great Barrier Reef has been officially launched.

Story Place contains around 1000 annotated references on books, reports and electronic resources that have been produced on topics relevant to Traditional Owner groups over the last 100 years.

The nationally-significant online resource was developed by the Great Barrier Reef Marine Park Authority (GBRMPA) as a comprehensive reference on the connection Traditional Owner groups have to the Great Barrier Reef.

GBRMPA Chairman Virginia Chadwick said the resource celebrated how Traditional Owners used their sea country and its significance to people's lives.

"This is the first time all this information about traditional connections to the Great Barrier Reef has been housed in one location," she said.

"The aim is to share information and knowledge about Traditional Owners and their relationships with land and sea country in the Great Barrier Reef Marine Park.

"We've worked closely with Traditional Owners to develop

something that is both useful, meaningful and provides a well-rounded understanding of Aboriginal and Torres Strait Islander marine-related issues."

Virginia said Traditional Owners were encouraged to use the database to search for information relevant to their group and issues such as sea rights and cooperative management.

"For Traditional Owners it is an opportunity to access information that has been written about their group in a variety of mediums over the last 100 years," she said.

The database contains published information on topics ranging from international treaties and dreaming stories to Indigenous tourism and media representation.

The earliest entry is a book from 1907 about traditional burials and funerary arrangements, with the database also housing a range of recent newspaper articles.

The database was developed in collaboration with the Australian Institute of Aboriginal and Torres Strait Islander Studies in Canberra, the National Native Title Tribunal, the National Library of Australia and James Cook University.

The database is free to use and able to be searched online at www.gbrmpa.gov.au.

Mackay farmer recognised for **environmental** contribution

A third generation cane farmer in Mackay has been recognised for innovative work on water conservation and environmental protection.

Lawrence Bugeja scooped the Rural Sustainability Award at the Environmental Protection Agency Sustainable Industries Awards.

The award recognises sustainability initiatives, including best-practice farm management systems, implemented at his farms near the Pioneer River.

Mackay Canegrowers Limited nominated Lawrence for being a leader in sugar industry sustainability initiatives.

On his family farms, Lawrence has substantially improved crop productivity, water conservation and environmental protection.

This has been achieved through tailwater dams capturing runoff, using green manure crops and fallow break crops to improve soil health, riparian management and trialling controlled traffic farming systems.

Lawrence has also established an artificial wetland and wildlife corridors to preserve the natural environment.

The farms have become learning centres, with school children and interest groups conducting experiments and monitoring water quality.

Now in its second year, the Awards recognise Queensland business leaders, companies and technologies for setting best practice benchmarks in environmental performance and strategies for business sustainability.

Protected Species

Sharks

The Great Barrier Reef has 134 species of sharks and rays. Sharks are top-order predators that help to control populations of prey species and maintain ecosystem balance. These animals are also a significant part of the culture of Indigenous Australians. Research shows sharks are one of the main attractions visitors hope to see when snorkelling or diving on the Great Barrier Reef.

Threats

Sharks face increasing threat from a combination of commercial and recreational fishing (both purposeful and incidental bycatch), poor water quality and habitat loss and destruction.

What's being done?

Various species of shark are protected at international, national and state (Queensland) levels. The Australian Government developed a National Plan for the Conservation and Management of Sharks, as well as recovery plans for those species that are listed as threatened. In the Great Barrier Reef Marine Park, bycatch reduction devices are now mandatory for all trawlers. Other initiatives to help conserve sharks - managing coastal development, adopting an ecosystem-based approach to fisheries management and educating people about the cultural and ecological values of sharks.

What can I do?

Avoid purposefully catching and taking sharks and rays; any sharks and rays caught in fishing lines should be released carefully. Everyone can do their bit to help maintain water and habitat quality in the Marine Park, avoid purchasing shark products or souvenirs and learn more about the fascinating world of sharks by visiting Reef HQ Aquarium.

Useful information

www.info-fish.net/releasefish/
www.gbrmpa.gov.au/corp_site/info_services/publications





Traditional island names formally recognised

The strong links Woppaburra Traditional Owners have with the Keppel Islands were further recognised during a Land Transfer Ceremony recently.

The Queensland Department of Natural Resources and Water accepted an application by the group to have nine traditional island names formally recognised.

Mapmakers now have the option of showing the traditional names together with the primary name on all new maps.

Recognition does not replace existing names, but complements them by enabling additional traditional information to appear on new maps.

The nine islands carrying traditional names are:

- Great Keppel Island (traditional name *Wop-pa*)
- North Keppel Island (traditional name *Ko-no-mie*)
- Corroboree Island (traditional name *Te-ri-mul*)
- Outer Rocks (traditional name *O-nun*)
- Man And Wife Rocks (traditional name *Ban-ka-boo-la-re*)
- Barren Island (traditional name *A-rum-mi*)
- Miall Island (traditional name *Ma-ma-lon-bi*)
- Middle Island (traditional name *Bal-la-ba*)
- Humpy Island (traditional name *Bur-ye-Bur-ye*).

For the Woppaburra people, this significant and historic recognition by the Queensland and Australian Government supports and complements the revival of their language.

The Department of Natural Resources and Water works with the Great Barrier Reef Marine Park Authority and the Australian Hydrographic Office for naming many offshore features in the Great Barrier Reef World Heritage Area.

Sea country partnership in spotlight at Laura Festival

Hundreds of people descended on the small town of Laura for the 17th Laura Aboriginal Dance and Cultural Festival.

Among those people attending were staff from the Great Barrier Reef Marine Park Authority (GBRMPA) talking about sea country partnerships.

GBRMPA Indigenous Partnerships Liaison Unit Manager Chicka Turner said there was a high level of interest in marine management at the event.

"The Laura Festival was a fantastic opportunity to showcase how we work with Traditional Owners on sea country management," he said.

"We were able to talk face-to-face with Traditional Owners about how they can help address issues affecting the Reef like traditional use of marine resources and climate change.

"It was also a great cross-cultural experience for our staff who attended."

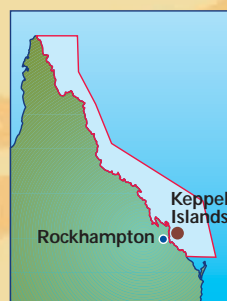
Sea Country Snippets

Introducing Traditional Owner groups along the Great Barrier Reef coast



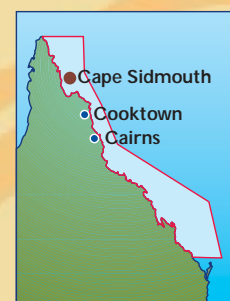
Woppaburra (Pronounced: Woppa-burra)

- Woppaburra are the Traditional Owners of the Keppel Islands region and are a tribal island clan of the larger Dharumbal Language Nation.
- The whale, *Mugga Mugga*, is the Woppaburra clan totem that connects them to their ancestral land and sea country and their ancestors.
- The Woppaburra look forward to continuing their life-long customary role looking after sea country as they develop and implement their Traditional Use of Marine Resources Agreement.



Umpila (Pronounced Oom-pill-a)

- Umpila is the name given to the language of the Cape Sidmouth region, and is also known as the "Sandbeach" language.
- Umpila Traditional Owners continue to rely on traditional use of marine resources for custom, tradition, and as a reliable food source for their people.
- Umpila Traditional Owners provide advice to the Great Barrier Reef Marine Park Authority through partnership arrangements and participation on the Cape York Local Marine Advisory Committee.



Keppel Islands still in great shape

Recent underwater surveys in the Keppel Islands region confirmed reefs affected by coral bleaching in 2006 are showing signs of recovery.

The bleaching followed several weeks of above average temperature last summer and caused around 85 per cent of corals to bleach.

Great Barrier Reef Marine Park Authority (GBRMPA) Climate Change Response Unit Manager Dr Paul Marshall said the surveys monitored the effect of bleaching and tracked coral recovery.

"The good news is the Keppel Island reefs remain some of the most accessible and vibrant reefs in the Marine Park," he said.

"You can still see evidence of dead coral in shallow water but the main tourism sites still have an abundance of fast growing branching coral.

"While these sensitive corals readily bleach, they can also recover quickly and this helps keep the reefs looking healthy."

While most corals survived the bleaching event, about 40 per cent died.

Heavy rainfall during an extreme low tide in November caused further stress, resulting in the death of additional coral in very shallow water.

Paul said early concerns about seaweed smothering coral had been alleviated by the time of recent surveys, which found most of the algae had died.

Coral bleaching occurs when there is a breakdown of the relationship between corals and their zooxanthellae, microscopic plants that live within coral tissue.

Zooxanthellae assist the coral by providing them with food for growth and their normal healthy colour. When corals are stressed, they expel their zooxanthellae.

As a result, their ability to gain energy is reduced and they lose colour, resulting in their white coral skeleton becoming visible through clear tissue.

Scientists predict coral bleaching will become increasingly frequent in the future.



The underwater surveys helped shed light on coral health

The GBRMPA is working to build the resilience of the Reef to climate change by improving the quality of water entering the area and providing refuges for plants and animals through no-take zones.

The agency is also encouraging householders to do their bit to reduce greenhouse gas emissions and thereby support efforts to reduce the impact of climate change on the Reef.

Simple things like turning off unessential lights and choosing energy efficient appliances all make a difference.

For more information on coral bleaching visit www.gbrmpa.gov.au.

Traditional Owners celebrate marine agreement



Celebrating the agreement are (left to right) Malcolm Mann, Glenice Croft, Bob Muir, Chris Doherty, Frances Gala, Fay Barker, Virginia Chadwick, Ross Rolfe, Vincent Singleton, Terry Wall, Bill Mann and Warren Malone

The Woppaburra, one of five Dharumbal Nation tribal groups, are the second Traditional Owner group to establish an accredited Traditional Use of Marine Resources Agreement.

The agreement aims to ensure traditional use is ecologically sustainable and cultural practices continue to coexist with the conservation and management of the Great Barrier Reef.

It is in place until 2010 and applies to the Dharumbal sea county around the Keppel group of islands near Yeppoon.

Great Barrier Reef Marine Park

Authority Chairman Virginia Chadwick said the agreement was supported by the Marine Park Authority Board and the Queensland Government.

"The agency is looking forward to continuing this collaborative working relationship to implement the agreement," she said.

"This will benefit Woppaburra sea country and management of the Keppel region."

Bob Muir, representing the Woppaburra Traditional Owners, said this was an historic day.

"Having the agreement accredited by government acknowledges

Traditional Owners and their aspirations to be involved in sea country management," he said.

"It is a powerful tool for the Woppaburra to work with government and the community."

With the support of Dharumbal Elders, the agreement was developed over the past 10 months.

This saw the Woppaburra working collaboratively with staff at the Authority, especially Leon Jackson, and the Queensland Government.

The agreement will be officially marked with a community function in the coming months.



Youth awards praise excellent environmental work



By Portia Large, a member of the Eco Kids Club (founded by the PCYC Airlie Beach)

I've grown up living and enjoying the Whitsunday region.

I am now 13-years-old and have had the opportunity to marvel at the beauty of our coastal reefs and natural rainforests.

This is a safe environment to grow up in and I feel at one with nature and all its creatures.

I was able to make a real contribution to the awareness of just how precious our environment is in November 2006.

I joined the Whitsunday Police Citizens Youth Club in Airlie Beach and was introduced to Dan Van Blarcom, Branch Support Officer - Youth Coordinator.

A group of PCYC members formed the Eco Kids Club and decided to run the PCYC Youth Environment Awards (YEA).

The Eco Kids worked as a team holding many meetings discussing our strategies to stage the awards night.

We asked our local schools for their support knowing they were already a major contributor of education programmes spear-headed by the Great Barrier Reef Marine Park Authority and the Natural Heritage Trust.

The Youth Environment Awards were a great success - it was fantastic

to reward local people for their good environmental work.

I was amazed to see the passion and dedication of our local community and the commitment they have towards our environment.

One of our major award recipients Tropix Photography had an abundance of 35mm film containers and decided to print a label stating "keep your butts off our Reef."

Now people can properly dispose of cigarette butts when they're out on the water.

The Eco Kids are extremely proud of their success of the Youth Environment Awards and hope to run a similar event next year.

I would like to extend my thanks on behalf of a very happy environment and on behalf of our future generations who will enjoy its natural beauty.

Portia Large is in year eight at Proserpine State High School. She enjoys sailing, drama, art and loves all living things.

Gympie schools take up the challenge

Tackling the global challenge of climate change may seem a tall order for world leaders, let alone local youth.

But that is exactly what Gympie school students did at the Reef Guardian Schools Future Leaders Eco Challenge held in Gympie recently.

The Great Barrier Reef Marine Park Authority (GBRMPA), in conjunction with Burnett Mary Regional Group and Gympie Landcare, gathered students to discuss the theme: In an ever-changing world, what does climate change mean to you?

GBRMPA Reef Guardian Schools Programme Manager Megan Sperring said the Eco Challenge was designed to give students an interactive learning experience.

"This was the first of many Future Leaders Eco Challenges taking place

in Queensland coastal communities in the coming months," she said.

"The challenges give students the chance to network and share experiences and stories about what their school is doing to better understand climate change and what it means to them.

"The events definitely stimulate a deeper appreciation amongst students of the potential impact of climate change on local, regional and global scales."

Megan said the students would deliver presentations on a range of close-to-home issues.

This includes how they think climate change will affect the Great Barrier Reef and what plans their school or community may have to prepare for climate change.

Upcoming Future Leaders Eco Challenges:

Mackay: 29 August 2007

Rockhampton: 3 September 2007

Gladstone: 5 September 2007

Bundaberg: 7 September 2007

Cairns: 18 October 2007

To register your interest contact Megan Sperring on (07) 4750 0850 or email m.sperring@gbbrmpa.gov.au.



Reef HQ celebrates in spectacular style

It's been one big party for Reef HQ, with the month of June peppered with fantastic events to mark the aquarium's twentieth anniversary.

A corporate function on 23 June marked the official anniversary of the centre that was opened on 24 June 1987 by then Prime Minister Bob Hawke.

The previous day saw more than 200 past and present staff members celebrate the milestone with a reunion.

Reef HQ Director Karen Vohland said the events were a tribute to both the aquarium itself and everyone who had been involved with its development and operation.

"Over the last twenty years Reef HQ has built a reputation as a world-class aquarium that educates and inspires people to care about the Great Barrier Reef," she said.

"We're proud of our achievements and it was great to celebrate with many of the people who helped make Reef HQ such a fantastic place.

"It was particularly good to be able to thank original supporters and sponsors – their support was instrumental to getting the concept off the ground.

"More than two million people, from Australia and around the world, have visited the Aquarium since its doors opened.

"Reef HQ Aquarium has developed a reputation as the premier tourist attraction in north Queensland showcasing all that the Great Barrier Reef has to offer.

"With over 10 000 members across Townsville and Thuringowa and a dedicated team of 150 talented volunteers, Reef HQ has become an integral part of the local community.

"It's the staff and volunteers – as much as the exhibits themselves – that make this such a special place."

The events included tours of the Aquarium, presentations and a photographic tribute to the last twenty years.

The Great Barrier Reef Wonderland (as it was originally known) was the brainchild of Dr Graeme Kelleher, former Chairman of the Great Barrier Reef Marine Park Authority.



The underwater tunnel is a major drawcard at Reef HQ

It was originally opened to create an example of the Great Barrier Reef on land so the Reef was accessible to everybody and to garner support for protecting the real thing.

And constructing the aquarium was not without its challenges especially for the centre's signature attraction, the coral reef exhibit.

Making of the coral reef exhibit began with constructing a 38-metre long, 17-metre wide and five-metre deep concrete basin that was specified to withstand corrosion for at least 50 years.

Around 200 tonnes of sand, 700 tonnes of coral substrate and 2.5 million litres of seawater were needed for the coral reef exhibit, with permits issued to allow collection.

The exhibit, with its unique underwater tunnel, continues to be one the most popular parts of the Aquarium.



Constructing the coral reef exhibit



Experiencing the Reef up close



Then Prime Minister Bob Hawke looks at plans



Andrew and Hilary Skeat at the anniversary corporate function



Peter and Wendy Smyth, Virginia Chadwick, and Zilla and John Lyons celebrate Reef HQ's milestone

Show season in full swing

Great Barrier Reef Marine Park Authority (GBRMPA) staff are getting out into the community as part of the annual regional and boating show season.

This face-to-face community engagement is essential in promoting our work, getting feedback, and encouraging people to get involved in protecting the Reef.

One of the most recent events was the Pine Beach Hotel Boating, Fishing and Outdoor Expo held in Emu Park near Rockhampton.

GBRMPA Regional Liaison Officer Kalair Conaghan said the two-day event was well attended by fishermen and boaties from the region.

"The show was an excellent opportunity to showcase how we are working to protect the Reef and encourage people to get involved," she said.

"We spent a lot of time promoting community monitoring programmes, the Local Marine Advisory Committees and best environmental practices.

"There are many simple things people can do at home, work and school to protect the Marine Park like recycling, washing their car on the lawn and being energy efficient.

"We got excellent feedback from the community as well - this helps us gauge community understanding as well as highlighting what topics they are interested in."

The agency was joined by volunteers and staff from CapReef and the Queensland Parks and Wildlife Service.

Zoning Maps and Marine Park information were provided, along with information from CapReef, Queensland Parks and Wildlife Service, the Department of Primary Industries and Fisheries and Maritime Safety Queensland.



Cap Reef volunteer Dell Wust and GBRMPA's Kalair Conaghan at the show

Nemo does come home

Coral reef scientists achieved a world breakthrough in tracking fish that could revolutionise the sustainable management of coral reefs and help restore threatened fisheries.

The Australian, French and American team pioneered a new way to study fish populations by 'tagging' adult fish with a minute trace of a harmless isotope, which they then pass on to their offspring.

In the process they found Nemo – the lovable orange, black and white clownfish of movie fame – really does come home.

Around 60 per cent complete the astonishing journey back to their tiny home reef after being swept into the open ocean as babies.

Dr Glenn Almany from the ARC Centre of Excellence for Coral Reef Studies (CoECRS) said tagging helped understand the extent young fish return to their home area or go off to interbreed with more distant populations.

"If we can understand how fish larvae disperse, it will enable better design of marine protected areas and this will help in the rebuilding of threatened fish populations," he said.

"This [research] shows how marine protected areas can contribute to maintaining fish populations outside no-fishing zones."



About 60 per cent of clownfish return to their home reef after being washed away

This research helps build a picture of the extent to which fish populations are connected or isolated from one another - currently a vital missing link in the sustainable management of fish stocks.

The figures follow trials at Kimbe Bay in Papua New Guinea where researchers tagged over 300 female clownfish and vagabond butterflyfish with a barium isotope.

Returning to the site, researchers found juvenile fish returned to the home reef - a tiny dot in the ocean only 300 metres across - after being carried out to sea as babies.

Forty per cent of the juveniles came from other reefs that are at least 10 km away, which indicates significant exchange between populations separated by open sea.

Their latest research, at an aquaculture facility in Bali, is exploring the possibility of applying the tag to coral trout. If this proves successful, the team hopes to conduct trials with coral trout off Great Keppel Island on the Great Barrier Reef.

Librarian awarded for helping improve information exchange

Great Barrier Reef Marine Park Authority (GBRMPA) librarian Suzie Davies recently received a top industry accolade.

The Australian Library and Information Association named Suzie as Queensland's Library Achiever of the Year.

The award recognises her work with the United Nations Educational, Scientific and Cultural Organisation.

She is involved in working on a project to improve information exchange in the scientific community about the world's oceans.

Suzie said libraries played a key in ensuring the most up-to-date scientific information was available and this information was archived for the future.

"Oceans are vital to understanding climate change," she said.

"Librarians gather the data contained in scientific journals, papers and books from around the world and make them accessible.

"Marine libraries provide information to policy makers, educate future generations about environmental stewardship and teach people to care for the world's oceans."

Marine Park Partnerships

Profile of Regional Liaison Manager – Cape York Peninsula



Dan Murphy

The newest recruit to the Great Barrier Reef Marine Park Authority's Community Partnerships team is no stranger to the Cape York region.

During Dan Murphy's ten-year stint with the Queensland Parks and Wildlife Service he worked extensively in the northern tip of Australia.

For six years he worked with community natural resource management groups and landholders as part of the Community Nature Conservation programme.

During the last four years he was part of the Cape York Tenure Resolution Programme.

The programme aims to resolve the tenure of unallocated state lands on Cape York through negotiation, respect, partnerships and not litigation.

"Cape York Peninsula is a very special place, with a unique mix of people, communities, environmental values and issues," he said.

"A very beautiful, challenging but also potentially very rewarding work environment."

This background, coupled with a passion for the ocean and "all things marine", make Dan well placed for his community liaison role.

"I saw this role as a great opportunity to continue working with communities to achieve sustainable natural resource

management and conservation outcomes," he said.

"I believe strongly in the concept of community and government partnerships.

"The community must be meaningfully engaged, involved and empowered to achieve long-term ecologically sustainable outcomes."

Dan has lived in the far north, based in Atherton, for the last ten years – the opportunity to work with the agency enticed him "down the hill" to the somewhat more humid Cairns.

Dan's love of the outdoors extends into his spare time, with sailing and boating among his favourite pastimes.

Creature Feature

Cuttlefish

- Cuttlefish have eight arms and two tentacles.
- Spectacular colour and skin texture changes can indicate their mood.
- They have a short lifespan of 18 months. Their unusual circulatory system includes three hearts and copper, rather than iron, based green blood. The system requires so much energy the cuttlefish literally wears out.
- The cuttlebone is a porous internal structure used by the cuttlefish to control its buoyancy.



Doing your bit to look after it!

There are spectacular islands in the Great Barrier Reef Marine Park, many of which are carefully managed National Parks. You can help preserve their natural beauty, plants and animals.

➔ Check all gear for seeds, insects or vermin before landing

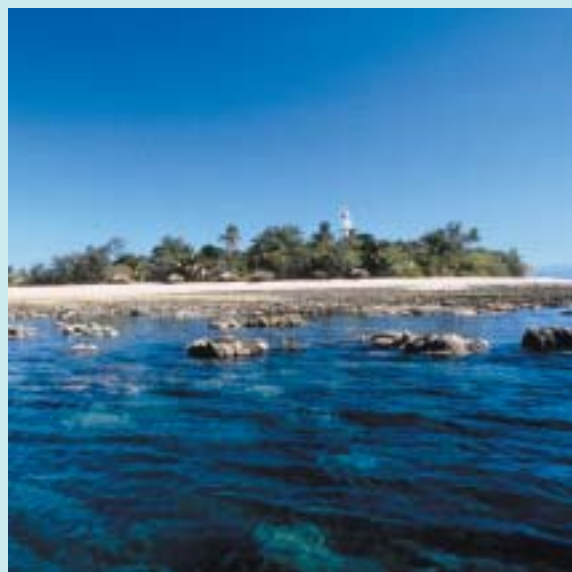
➔ Be quiet around wildlife and fellow visitors

➔ Take your rubbish and any litter you find back to the mainland

➔ Do not use detergents, toothpaste or soap in creeks, streams or lakes - use only biodegradable products

➔ Do not trample vegetation or break branches from trees and shrubs

➔ Do not touch or disturb nesting seabirds or turtles and avoid loud noise, strong lights or sudden movements near them.



Community Links

A profile of **Vern Veitch**

Wetlands Research Officer
with the Australian Centre
for Tropical Freshwater Research



Vern Veitch is passionate about the marine environment and north Queensland, having lived in the region for 27 years.

And his new role with the Australian Centre for Tropical Freshwater Research allows him to be hands on in managing local wetlands.

"Coastal freshwater wetlands are critical to the productivity of coastal fishery resources and are vital to the Great Barrier Reef," he said.

"Wetlands play an important role in absorbing pollutants, providing habitat for animals and plants and purifying water.

"They can also be good recreational fisheries in their own right if they are healthy."

After 15 years of lobbying for better wetlands management, Vern completed a Bachelor of Science at James Cook University as a mature age student.

"I started out as a keen recreational fisher but became increasingly aware of the importance of habitat to support fishery productivity," he said.

"Before going to uni, I was often criticised for not knowing what I was talking about.

"Whilst I learnt a lot of new things and continue to develop my understanding of marine and aquatic issues, I also found that I knew more than I thought I did."

In his current role Vern undertakes fieldwork to investigate the health of aquatic ecosystems and uses this information to analyse the overall condition of waterways.

His reports cover water quality samples and readings, fish species identification, habitat condition assessment, and the impact on waterways.

Scientists, researchers and marine managers use this information to better understand and develop strategies to protect these important environmental assets.

Vern's interest in wetlands began in the early 1990s after noticing water quality was changing in the places he liked to fish.

"At first I did not understand the implications for fish," he said.

"I thought it may have been the turbid water making them hard to catch but then we started getting a run of large fish kills.

"I knew that this was not natural and decided I needed to do something to try to stop it."

In his spare time, Vern is a member of the Townsville Local Marine Advisory Committee.

He also represents Sunfish Queensland on a few committees and is involved in a local fishing club, the Tag and Release Sportfishing Club.

Calendar of events

09 – 13 July 2007

NAIDOC Week 2007

11 July 2007

Mission Beach LMAC meeting

27 July 2007

Schools Tree Day

29 July 2007

National Tree Day

8 August 2007

Cairns LMAC meeting

14 August 2007

Port Douglas LMAC meeting

16 August 2007

Townsville and Capricorn Coast
LMAC meetings

21 August 2007

Mackay LMAC meeting

18 – 26 August 2007

National Science Week

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Australian Government

Great Barrier Reef
Marine Park Authority



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let's keep it great