

SeaRead

Marine Park news from catchment to coral

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Australian Government

Great Barrier Reef
Marine Park Authority

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First ever adoption of a Great Barrier Reef island



Students from Innisfail State School celebrate adopting Russell Island

Reef Guardians from Innisfail State High School have made a commitment to help protect their own outdoor classroom.

The school is partnering with marine managers in the first community adoption of a Great Barrier Reef island.

Great Barrier Reef Marine Park Authority (GBRMPA) chairman Russell Reichelt said the island, coincidentally named Russell Island, was an important ecological site as well as a popular camping destination in the Marine Park.

"As you might guess I have a soft spot for Russell Island and it is wonderful to see this island becoming a platform for such an important partnership between managers and the community.

"Because of their unique ecology, islands are particularly vulnerable to threats like climate change so we will be relying more and more on inter-agency co-operation and community partnerships to assist us in protecting our spectacular Great Barrier Reef islands into the future."

More than 20 students, teachers and Traditional Owners in the region worked alongside marine managers from the GBRMPA and the Environmental Protection Agency to conduct an important baseline assessment of the island.

Innisfail State High School principal Julie Pozzoli said she was thrilled that the environmental data collected by the Reef Guardian students would be used to inform future management plans for the region.

"Our students have been collecting observations of the island for more than 15 years as part of their marine studies curriculum," she said.

"Although most of our past data was lost during Cyclone Larry, it will be fantastic to start afresh with guidance from management agencies and an aim of working together to protect this special place."

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With the start of the new year, we have spent some time considering and mapping out our key priorities and projects that we will focus on this year to help achieve our goal of protecting the Great Barrier Reef.

Climate change and declining water quality will continue to be a strong focus for the agency this year, building on a lot of the groundwork that has taken place over the last few years.

While this summer has only seen a few incidents of coral bleaching so far, we are by no means being complacent about tackling climate change. It remains one of the greatest threats to the Reef ecosystem.

On a policy and project level, we are looking at a range of on-ground measures to protect the Reef and build its health to ensure it can cope with changes in the climate.

Beyond that though, I believe we all have a role to play in Reef protection. The ability for individual actions to have a positive effect on the Reef should not be discounted.

Real progress can be made if individuals consider making environmentally-friendly choices in their own life.

There are simple things we can all do like choosing energy efficient appliances, using public transport or carpooling, and turning off unnecessary lights.

This year we are also continuing our commitment to work with partner agencies, stakeholders and the community on a range of issues. This includes zoning education and compliance, and our Reef Guardian Schools and Reef Guardian Council Programs, research, tourism and

sustainable fishing practices activities.

Reef Guardian Schools continues to be one of the agency's strongest on-ground participation programs and its success is a credit to everyone involved.

The program is playing a key role in building an environmentally-aware generation and it is my hope that these future leaders will continue to recognise the importance of protecting the Great Barrier Reef.

Regards

Russell Reichelt
Great Barrier Reef
Marine Park Authority

Continued from page 1

The students have monitored and cleaned up rubbish on the island, conducted beach profiles, studied sea cucumbers and corals, monitored coral bleaching and worked with QPW rangers to monitor and remove invasive weeds.

"Each time we go to Russell Island, we try to leave it in better condition than when we found it," Julie said.

Russell said he was looking forward to seeing what ideas the students came up with and was hopeful that this type of community-based management would become more widespread around the Great Barrier Reef Marine Park.

"The work the students, Traditional Owners and others in the community are doing to help with the management of Russell Island is very important.

"By working together to manage our marine resources, we can achieve better outcomes for our communities, our industries and for our world heritage listed Great Barrier Reef."

New research on coral growth decline has **serious** implications for the Great Barrier Reef

The Great Barrier Reef Marine Park Authority (GBRMPA) recognises the seriousness of the latest scientific research results from the Australian Institute of Marine Science (AIMS) showing evidence of a widespread slowing of coral growth rates throughout the Great Barrier Reef.

The research showed widespread decline in coral growth in the major reef-building coral species, *Porites*, with a sharp drop of 14 per cent since 1990 to the slowest growth rate in 400 years.

Because the slowing of growth was very widespread, the possibility of local effects are considered less likely as a cause and large scale effects such as rising ocean temperature and acidity are more strongly implicated as likely causes. This research adds to the growing weight of evidence that global climate change is already affecting the Reef.

GBRMPA Chairman Russell Reichelt said healthy coral reefs have a greater ability to withstand coral bleaching than coral reefs under

stress from pressure such as poor water quality.

"Coral reefs can bounce back from a major disturbance if the natural ecosystem is operating normally. Human-induced climate change is a global issue which must, ultimately, be solved at a global level."

"We can help the Reef by ensuring it is not exposed to local pressures that are readily avoidable. Poor water quality is the most significant local issue."

"The Great Barrier Reef's ability to survive the global phenomenon of climate change is largely up to us - it is imperative we act now to minimise all stresses to the Reef and in this way help build its resilience to the effects of global warming and changing ocean acidity."

"This will give us the best chance of having a viable Great Barrier Reef for future generations to enjoy."

For more information on the Australian Institute of Marine Science research go to www.aims.gov.au

Reef named after Australian marine science pioneer

A passionate and dedicated marine science pioneer has been recognised for her contribution to the field, with the Great Barrier Reef Marine Park Authority (GBRMPA) recently announcing a reef named in her honour.

Isobel Bennett's immense contribution to coral reef research is formally recognised with a previously unnamed Reef (Reef No 21-505) now bearing her name.

GBRMPA Chairman Russell Reichelt said Isobel Bennett, who passed away in 2008, made an immense contribution to our understanding of coral reefs.

"We are delighted to recognise Isobel Bennett's contribution to marine science by naming a reef in her honour – it is a fitting way to ensure her important legacy to marine science lives on," he said.

"Isobel was a quiet achiever but her impact on Australian marine science cannot be underestimated. She spent 40 years with the University of Sydney where she was involved in teaching and fieldwork.

"Her extensive field experience along the east coast and in the laboratory helped her assist the university's students, many of whom went on to become leading scientists.

"Isobel was well regarded for her knowledge and achievements. She was innovative and dedicated to her work and paved the way for other women in what was at the time a very male-dominated field.

"Those who knew her personally and professionally were impressed by her hard work, determination, attention to detail, and never-ending curiosity."



Among those who knew Isobel's commitment to marine science are Richard Kenchington and Len Zell, who initially approached the GBRMPA to name a reef after her.

"Having known Isobel personally, it gives me great satisfaction to see her outstanding achievements recognised in this way," Richard said.

"She was a real pioneer in marine science and was a fantastic friend, colleague and leader."

Isobel Bennett Reef is located in the Mackay/Capricorn Management Area of the Great Barrier Reef Marine Park – it is Reef No 21-505 located at Lat -21.708°S Long 152.355°E.

The reef was officially named after an assessment under a formal process and principles for reef naming.

The submission was assessed by the GBRMPA, the Royal Australian Navy - Australian Hydrographic Office, the Queensland Department of Natural Resources and Water.

Large quantities of illegal cargo seized

Investigations are continuing into a recreational fishing vessel in northern Queensland after a search revealed it contained quantities of seafood, animal products and firearms.

Intelligence gathered by marine management agencies, and information supplied, led to the investigation.

Aerial surveillance detected the recreational vessel in the Great Barrier Reef Marine Park near Lizard Island and it was searched at this location. The search allegedly revealed more than 20 types of illegal product including a five-inch mesh commercial gill net and large quantities of seafood, crocodile meat, barramundi fillets, and crocodile bones and skin.

This was part of a multi-agency operation by the Great Barrier Reef Marine Park Authority, Queensland Boating and Fisheries Patrol, Queensland Environmental Protection Agency and Queensland Police.

Great Barrier Reef Marine Park Authority Field Management Director Mick Bishop said this was one of the largest amounts of illegal product allegedly found on a recreational fishing vessel in recent times.

"This operation was the result of combined intelligence information gathered by the agencies involved and was coordinated by the Great Barrier Reef Marine Park Authority's investigative compliance team," he said.

"The quantities of seafood were well above the designated bag limits for recreational fishers. Crocodiles are a protected species in Queensland.

"Illegal fishing undermines the efforts of those fishers who are following the rules, is not sustainable, and can have a detrimental effect on the entire marine environment.

"It is great to see marine management and enforcement agencies are working together to detect and stop illegal activity in the World-Heritage listed Great Barrier Reef."

Illegal fishing can be reported to the Great Barrier Reef Marine Park Authority on (07) 4726 0510 (business hours) and (07) 3830 8246 (after hours).



Isobel Bennett Reef

Top environmental accolade for north Queensland manager

The Great Barrier Reef Marine Park Authority's Director of Environmental Assessment and Management Dr Adam Smith was recently awarded the 2008 Certified Environmental Practitioner of the Year.

Adam was presented with his award by the Minister for the Environment, Heritage and the Arts Peter Garrett at the annual gala dinner of the Environment Institute of Australia and New Zealand.

"It was fantastic to win the award. You always feel you are doing a good job, but to be recognised on the national stage with the Minister for the Environment, in front of all your peers, is just tremendous," he said. Adam was also recognised for his work in championing the Certified Environmental Practitioner Program.

"The program ensures environmental managers are certified to the highest industry standard," he said.

"Stakeholders can have confidence that when dealing with a certified environmental practitioner that they are dealing with a professional with experience, skills, conduct and ethics that meet or exceed environmental industry best practices."

Adam said the Great Barrier Reef Marine Park Authority was leading the Pacific with 10 environmental managers now certified under the program.

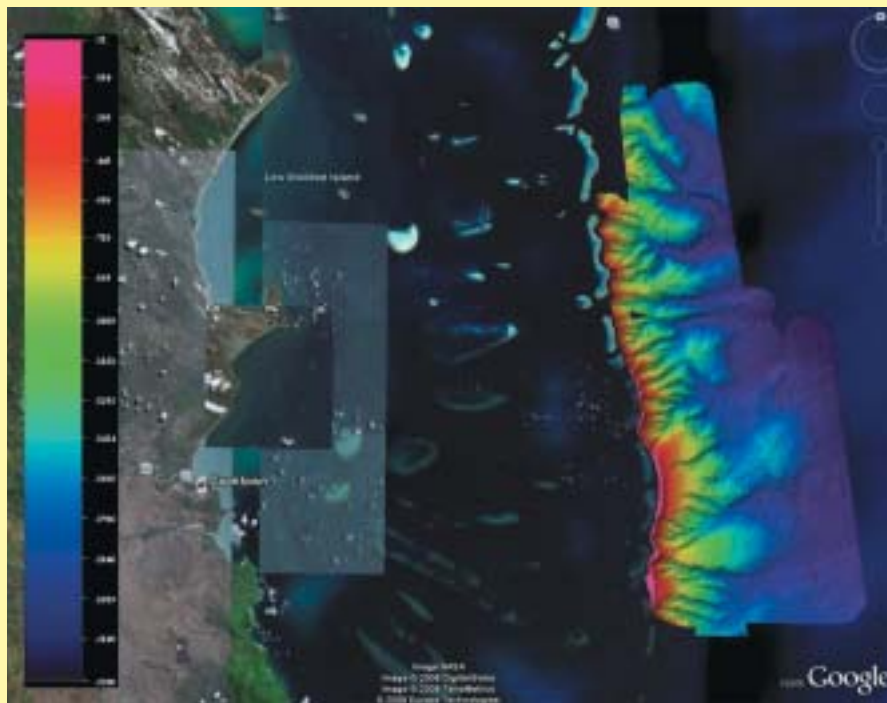
"I would like to congratulate Tanja Brugmann, Kevin Edison, Leigh Gray and Jessica Hoey who have all recently received certification."

For information about the program visit www.cenvp.org



Dr Adam Smith with the Minister for the Environment, Heritage and the Arts the Hon Peter Garrett

Amazing discovery unearthed by JCU Deep-Sea Mapping



Bathymetry model and satellite image from Google

Scientists from the School of Earth and Environmental Sciences, at James Cook University, in collaboration with other government agencies, have discovered an underwater landscape every bit as rugged as the landscape found on land along the outer edges of the Great Barrier Reef.

Dr Robin Beaman, a Marine Geologist with James Cook University, said that for the past few years a program of deep-sea mapping had been conducted by researchers from the University using advanced echo-sounder technology.

"The deep-sea mapping has uncovered some amazing landscapes which look similar to many of the ridges and gullies that drain the highlands of Queensland," Robin said.

"In depths over one kilometre, huge undersea landslides have left scars and slump deposits on the abyssal seafloor which borders the Great Barrier Reef shelf.

"Sediment cores recovered from the base of these canyons have

revealed that they are the conduits for shallow coral rubble being transported into the deep basin.

"An area in the Coral Sea offshore from Cairns holds a cluster of huge blocks which has been colonised by cold water corals. These corals are very different to their shallow-water cousins as they exist in perpetual darkness, under incredible pressure.

"Off Townsville the continental slope becomes gentler in gradient and the canyons begin to disappear. The upper continental slope here holds a veneer of live algae and extensive soft corals," Robin said.

It is hoped that these exciting discoveries and the detailed 3-D maps will be used to target future research projects and be used by marine park managers to help understand the diversity of seascapes found in the deep Great Barrier Reef.

The surveys were funded by the Marine National Facility and the National Geographic Society.

World's first – hybrid fish at Reef HQ Aquarium

In a world first two different species of clownfish at Reef HQ Aquarium have bred to create a new species.

The Blue Band Anemone fish and the Great Barrier Reef Clownfish have bred completely by chance to create a new species of the fish.

Reef HQ Aquarist Glenn Everson said it was only by chance that the two species of clownfish, both from the wild, found each other in the aquarium's 2.5 million litre coral reef exhibit and bred successfully.

"No specific breeding program was put in place, we just released both species into the tank and somehow they've found each other and laid eggs," he said.

"It is amazing that this has occurred even though they are

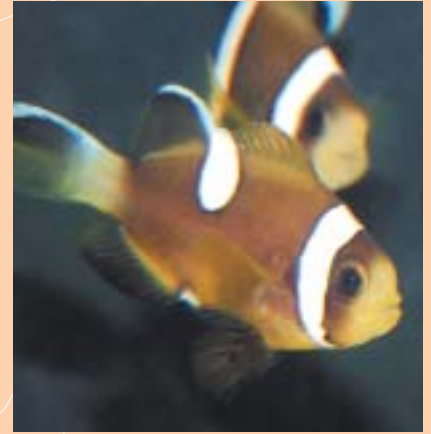
different species of anemone fish and had the option in the large tank to breed with members of their own species.

"From the eggs some 20 baby hybrid clownfish have been born.

"This is the first time these different species of clownfish have united of their own accord. There are instances reported where, under controlled laboratory environments, this has occurred but never like this where two species have chosen to get together of their own volition," said Glenn.

The babies are now three months old and are on display at the aquarium in a separate tank.

The aquarium will now try and raise the juveniles up and see whether they can create their own babies.



Reef HQ clown anemone fish



reefHQ
AQUARIUM

Sunfish angler education program reaches milestone

Sunfish Mackay's Schoolfish Angler Education program recently reached a 5000 student milestone.

Sunfish Mackay spokesperson Lance Murray said the program started as a local trial on a shoe string budget over ten years ago and has since been adopted as a statewide Sunfish Queensland activity.

"As we look back the success of the program can be attributed to the volunteer effort of the instructors and in-kind and financial support from the Queensland tackle industry and a grant from the Gaming Fund," Lance said.

"Records show that the Mackay branch has invested more than 6000 volunteer man hours to the school fish program to date."

"Over the years we have had the pleasure of meeting some absolutely fantastic kids, and we have twice conducted this program with Asian exchange students, most had never dreamt of going fishing let alone doing it."

Lance said a typical Schoolfish program consists of three different workshops, the first in a classroom situation, the second a practical

lesson in the school grounds and finally, where all the kids want to be – on the beach fishing where all fish caught are released to live another day.

"Apart from conducting the Schoolfish program, the Angler education team also conducts two to three Kids Fishing Adventure Days a year," Lance said.

"This year one program has been committed to the Smith Family Group, and another will be done with children with disabilities.

"We also conduct our own Take a Kid Fishing Day and we currently

have a monthly partnership arrangement with adults who have mental health problems, where we take them and their carers fishing for a few hours which always concludes with a BBQ.

"Over the years we have progressed from sharing rods and reel with other Sunfish branches to acquiring our own gear to accommodate 100 students- all this would not be possible without the financial and in-kind support of sponsors like Reef Marine and Yamaha Outboards Australia."



Steve Howells, Mike Connolly, Glen Fahy, Greg Camilleri, Andrew Dixon, Jim Ryman, Lance Murray with a flathead caught at the event



Students praised for protecting the Great Barrier Reef from climate change

Queensland students helping protect the Great Barrier Reef from climate change have been recognised for their outstanding environmental effort.

Great Barrier Reef Marine Park Authority Chairman Russell Reichelt recently announced awards for 30 schools from the Great Barrier Reef Marine Park Authority's Reef Guardian Schools program.

The awards acknowledge the schools' good environment work and provide funding to expand on-ground projects aimed at reducing human impact on the Reef.

"Our Great Barrier Reef is a natural treasure and it is fantastic to

see future generations helping protect this great Australian icon," he said.

"These students have demonstrated an outstanding commitment to safeguarding the Reef and it's inspiring to see them getting their schools and communities onboard.

"This is especially important in the face of climate change, which is recognised as one of the greatest long-term threats to the Great Barrier Reef.

"To give the Reef it's best possible chance, we need to reduce human pressures and ensure it is as healthy as possible to be able to cope with future changes.

"These awards recognise the important contribution young people are making to environmental initiatives in Australia."

The 'r-Amp It Down Award for reducing energy use is among ten awards where the winning school receives \$1000 from the Great Barrier Reef Marine Park Authority.

An additional 20 'Ripples of Change' funding grants provide \$500 to support future environmental projects in schools during 2009.

Russell recognised the Reef Guardian Schools program was playing a large part in fostering environmental awareness and outcomes in school communities.

"Reef Guardian Schools are demonstrating exemplary environmental ethics and leading the way forward to achieve positive outcomes for the Great Barrier Reef," he said.

"I am very pleased to recognise the many teachers, students, parents and caregivers who have worked together to make their schools outstanding guardians of the Reef."

Currently in its seventh year, this action-based education program sees more than 61,000 students in 150 schools across Queensland developing on-ground projects to help protect the Reef.

2008 Ripples of Change Funding Grant recipients

Bowen State School
Bowen

Gordonvale State School
Cairns

Hambleton State School
Cairns

East Palmerston State School
Innisfail

Belgian Gardens State School
Townsville

Cawarral State School
Rockhampton

St Catherine's
Proserpine

Proston State School
West of Wondai

Taranganba State School
Yeppoon

Gympie East State School
Gympie

St Francis Xavier's School
Cairns

Star of the Sea Catholic School
Gladstone

The Cathedral School
Townsville

Aloomba State School
Cairns

Southern Cross Catholic School
Townsville

Slade Point State School
Mackay

Rasmussen State School
Townsville

Bowen State High School
Bowen

Yarrilee State School
Bundaberg

Mansfield High School
Brisbane



Belgian Gardens State School students beside their wetland

2008 Reef Guardian School Award Winners

Reef Guardians Mentors Award

The Hall State School,
Rockhampton

Sea 'Stars' Award

Ignatius Park College,
Townsville

Water Warriors Award

Pialba State School,
Hervey Bay

Learning Legends Award

The Willows State School,
Townsville

Waste Watchers Award

Dingo State School,
Emerald

Action and Adventures Award

Burnett Heads State School,
Bundaberg

Habitat Heroes Award

Hermit Park State School,
Townsville

Community Connections Award

Wondai State School P-10,
inland Sunshine Coast

'r-Amp It Down Award

Bartle Frere State School,
Innisfail

Bright Sparks Award

Beaconsfield State School,
Mackay



Dingo State School students are big recyclers



Southern Cross State School students being water wise



Students from Dingo State School tend to their worm farm



Cathedral School students



Cannonvale State School students with teacher Kylie Anderson and Whitsunday Local Marine Advisory Committee representatives Dan Van Blarcom and Tony Fontes

Students say thank you

Cannonvale State School students recently said thank you to the Whitsunday Local Marine Advisory Committee for their assistance in aiding the students' attendance at the International Youth Coastal Conference in Townsville late last year. The students Brittney Gregory, Hannah Duncan, Lily Mercieca and Eva Lorenz, together with teacher Kylie Anderson, met with committee representatives Dan Van Blarcom and Tony Fontes to talk about their experiences at the conference and express their gratitude for the assistance offered by the Whitsunday Local Marine Advisory Committee and the Rotary Club of Airlie Beach.

It's all connected Upstream - Downstream: Celebrating World Wetlands Day 2009

Schools and communities along the Great Barrier Reef coast learned about the vital role wetlands play throughout our catchments as they celebrated World Wetlands Day 2009 recently.

GBRMPA Program Coordinator for Great Barrier Reef Wetlands and the Queensland Wetlands Program Donna-marie Audas said wetlands play an important role in protecting the health and biodiversity of the Great Barrier Reef.

"With the theme of World Wetlands Day 2009 being "Upstream Downstream", it's really important for everyone to remember that what goes into our waterways in our upper catchment areas, eventually flows to the Great Barrier Reef", she said.

"Much of our treasured marine life like barramundi relies on our

freshwater rivers and creeks to complete their lifecycle."

Donna-marie said 2008 was an exciting year for wetlands with the completion of the five year Queensland Wetlands Program (QWP) which was jointly established by the Australian and Queensland Governments.

The program delivered projects and programs that will result in long-term benefits to the sustainable use, management, conservation and protection of Queensland wetlands.

"The Program involved 38 projects delivering a range of new methodologies, mapping, information, education and decision-making tools to improve wetland management.

"The projects enable agencies, regional natural resource management bodies, landholders,

environmental groups and other stakeholders to protect and manage wetlands for future generations."

The products, tools and results of the program can be found at the first-stop-shop site WetlandInfo www.epa.qld.gov.au/UAT/wetlandinfo/site/index.html

Donna-marie said phase two of the Queensland Wetlands Program would focus on extension and delivery of the program's products, tools and information.

"We will also be working with resource managers and stakeholders to ensure the best possible outcomes for wetlands," she said.

For further information about the Queensland Wetlands Program contact Donna-marie Audas on 4750 0845 or email d.audas@gbbrmpa.gov.au.

Plan of Management changes now in effect

Tourism operators and boaties are encouraged to brush up on the latest amendments to the Plans of Management for Cairns and the Whitsundays.

The amendments follow community consultation on the best approach to balance tourism and recreation, and environmental conservation.

The amendments include creating a Designated Water Sports Area in the Whitsundays. This expands the area available for popular activities like parasailing and waterskiing.

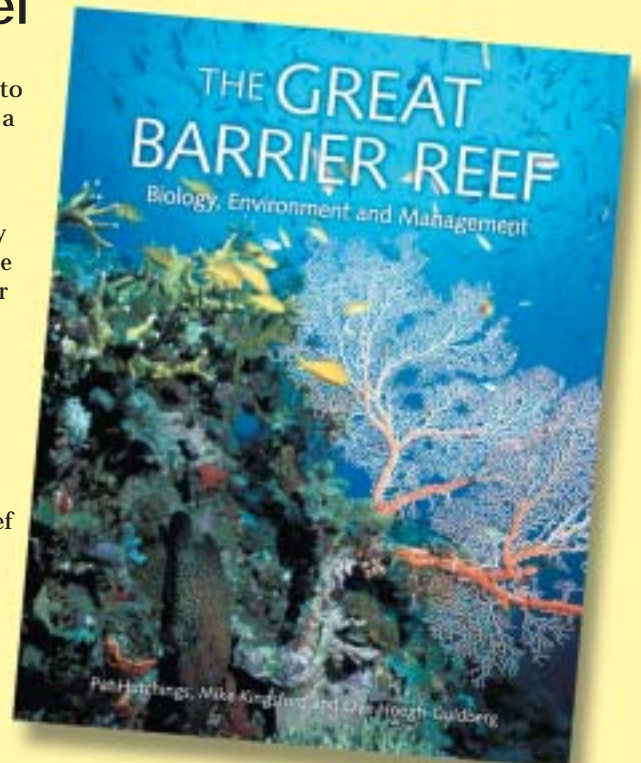
Many of the other amendments provide tourism operators with increased opportunities for sustainable growth.

Plans of Management are site-specific to protect intensively used areas, and work in conjunction with zoning. They aim to provide options for tourism and recreational activities while also protecting important habitats and vulnerable species.

Full details of the amended Plans are available online at www.gbrmpa.gov.au under Latest News/Updates. Alternatively, contact the GBRMPA Planning Unit on (07) 4750 0700.

New book a comprehensive guide to the Reef

For those wanting a comprehensive guide to the Great Barrier Reef a new book titled *The Great Barrier Reef, Biology, Environment and Management* may be just the answer. The book guides the reader through this diverse ecosystem and the contemporary issues facing the Reef. It includes a field guide to help students, researchers, managers and visitors to the Reef identify the common plants and animals that call the Reef home. *The Great Barrier Reef: Biology, Environment and Management* was written by leading authorities on the biodiversity of the Great Barrier Reef with contributions from 33 international experts.



The book can be purchased online from CSIRO Publishing at www.publish.csiro.au

Free Indigenous Youth Conference to be held as part of the Australian Indigenous Tourism Conference 2009

The Western Australian Indigenous Tourism Operators Committee (WAITOC) is inviting Indigenous youth under the age of 30 to attend the Australian Indigenous Tourism Conference - Youth Forum which will be held in Townsville at the end of March.

The conference themed 'Many Tribes - One Country' will focus on young Indigenous people, the environment, protecting culture and the business of doing business.

WAITOC CEO Angelique Fransen said that the main aim for holding the Youth Forum was to ensure young Indigenous people interested in the tourism and hospitality sectors had an opportunity to hear about career possibilities.

"During the youth forum participants will hear about the increasing demand for culturally authentic Indigenous tourism products especially in the development, employment and training of Indigenous people."

"Indigenous tourism is one of the unique icons that Australia has to offer and there is a strong demand for expansion in this sector of the industry," she said.

Tammy Prior, Youth Forum Coordinator said the Youth Forum would allow young Indigenous people to hear from role models who have become very successful in the industry.

"The Youth Forum will be held the day before the main Australian Indigenous Tourism Conference with



many of the issues raised at the Youth Forum to be discussed at the main conference."

Anyone looking for more information or wishing to register should go to www.aitc2009.com or e-mail Tammy.Prior@westernaustralia.com.

The Youth Forum is free to attend and will be held on Tuesday 24 March. Lunch and afternoon tea will be provided free to participants and a free networking function will follow after the forum from 5.30pm - 8.30pm.

Replica boat bow centrepiece of new display

Reef HQ Aquarium is undergoing a mini-makeover, with exhibits officer Jim Tregonning hard at work designing and building a range of exciting new exhibits.

Jim is currently putting the finishing touches on a replica boat bow and interpretative displays on the role of tourism in the Great Barrier Reef Marine Park.

Reef HQ Aquarium Assistant Director Fred Nucifora said the exhibit looked great and a lot of work had gone into developing the concept and constructing it.

"The Reef Tourism exhibit is being developed to heighten visitor awareness to Reef tourism and its benefits to visitors to the Great Barrier Reef," he said.

"Visitors will leave the exhibit with a better understanding and appreciation of the different types of experiences on offer in the Reef.

"They'll get an insight into the positive contributions the tourism industry is making towards reef ecosystem monitoring.

"The exhibit also features reef practices we hope visitors will adopt to minimise their impact on the Reef and indeed the Reef's potential impacts on them."



Jim Tregonning and Paul Boyd installing the new exhibit

Located near the coral reef exhibit, the replica boat bow and associated display is made from a range of materials including timber, slumped acrylic, and fibreglass.

As Reef HQ Aquarium is committed to reducing its carbon footprint, the exhibit has environmentally-friendly and efficient LED lights.

This display is one of several currently being planned and developed.

"What makes them so special is that they are a mixture of creative design, interesting information and gob-smacking living creatures that visitors can come face-to-face with," Fred said.

Special features of the display include inset lights and sounds to simulate what it's like to be on a real vessel. Further panels of information and other elements will be installed soon.

Tourism and recreation are important ways for people to experience and learn about the wonders of the Great Barrier Reef and help conserve this World Heritage Area.

The Reef attracts approximately 1.9 million tourists and 4.9 million recreational visitors each year.

Approximately 840 tourism operators and 1700 tourism vessels are permitted to operate in the Marine Park.

Rangers ramp up reef **health** assessments

The experienced eyes of trained staff find it easy to notice differences in the health and condition of our parks above water, but have you wondered how hard it must be to do it successfully under the sea?

Marine Park rangers from across Queensland recently took time out to learn how to recognise key health indicators of our precious coral reefs, as a first alert system for their protection.

The training and delivery of this Rapid Assessment Monitoring Program (RAMP) was organised by the Field Management Coordination Unit, jointly funded by the Great Barrier Reef Marine Park Authority and the Environmental Protection Agency.

RAMP is a basic health assessment that seeks to ensure a number of important factors are observed,

counted and to some extent quantified.

Before getting in the water to undertake training surveys, rangers learnt from coral experts about everything from reef ecology to the impacts of crown-of-thorns starfish.

In just two and a half days, the rangers took to the water to practise recently learnt skills, assessing and recording the health of the North Keppel Island corals as part of the course.

Information gained from the health assessments enhances knowledge about our reefs and how they deal with the impacts they face as well as the effectiveness of many of our management actions.

Nah Judd
Project Officer, Whitsundays
Environmental Protection Agency



Nah Judd conducting a rapid assessment

Enough rope

It took two hours to retrieve and unload an 800-metre rope found floating in the Great Barrier Reef Marine Park at a reef about 20 nautical miles east of Cooktown.

The rope was detected after a charter game boat hooked it while trolling.

The master of the vessel alerted the Great Barrier Reef Marine Park Authority to the rope and played an important role in helping secure it for retrieval.

While it's not known if the rope was deliberately discarded, it's a timely reminder about making sure items on your boat are secure for both the safety of marine wildlife and to avoid damaging other boats.

Unsecured items such as ropes, nets and plastic can blow into the water where marine wildlife become entangled or swallow it, often leading to death.



Field staff retrieve the 800-metre rope

Litter can also become entangled in boat propellers, block water inlets on outboard motors or damage boat hulls.

Creature Feature

Pearl fish

The pearl fish (Family *Carapidae*) is one of the Great Barrier Reef's most unique fish – unique because of its close relationship with sea cucumbers and other host organisms.

Pearl fish seek refuge from predators by hiding out in the anal cavities of sea cucumbers. Pearl fish are also known to hide in the body cavities of giant clams and pearl oysters.

Pearl fish occupy these strange hiding places during the day, but leave at night to feed on small fishes and shrimp.

Pearl fish have long slender bodies, no scales and small pelvic fins, all of which make it easy for them to enter small cavities.

Pearl fishes are able to enter the anal cavities of sea cucumbers by swimming tail first.

As juveniles, some pearl fish are parasitic, feeding on the internal organs of their hosts.



Fishers **urged** to report incidents out on the water

Out on the water, from time-to-time, incidents happen just like they do on land.

Whether it is suspected illegal fishing, breaching whale approach distances or littering you can submit an incident report form online at www.gbrmpa.gov.au

Alternatively you can call (07) 4726 0588 during business hours or (07) 3830 8246 after hours.

If you witness a suspected breach of the law you are advised not to approach any suspected people or request information from them.

Keep in mind it's hatching time – some practical precautions

At this time of year the Great Barrier Reef gives visitors a special opportunity to observe the hatching of marine turtles.

Each year four of the seven species of turtles (green, loggerhead, hawksbill and flatback) choose the Great Barrier Reef Marine Park as their critical nesting area and at this time of year their hard work pays off.

If you're on the look out for turtle hatchlings or turtles in general, then there are some important things to keep in mind to ensure the safety of the animals you're looking to admire.

- Stay well clear, at least two metres from nests where hatchlings are emerging
- Limit the use of light and never shine lights directly onto hatchlings – hatchlings may become confused by artificial light and may not make it to the ocean
- Use low wattage torches (less than three-volt, two-cell) with red cellophane or a filter over the bulb
- Do not shine torches out to sea when hatchlings are in the water – this may cause the hatchlings to become disorientated and return to shore
- Allow hatchlings to dig themselves out of the nest and run to the sea without disturbance or assistance
- Do not touch or handle hatchlings
- Always keep your dogs leashed near areas where marine turtle hatchlings are likely to emerge
- Never interfere with natural events (for example, rescuing hatchlings from seabirds or predatory fish).

Globally, marine turtle numbers are rapidly declining, which makes our Australian 'nursery' even more significant.

It's vital that you be particularly careful when you're watching turtle nesting to ensure future generations the ability to enjoy the same unique experience in years to come.



Doing your bit to look after it!

Check your outboard before heading out on the water

Every day more and more people are getting out onto the waters of the Great Barrier Reef. Many private vessels are powered by outboard engines. By keeping your outboard in good condition, and being aware of the type of outboard you use, you can make valuable contributions in limiting the impacts of outboard engines on the Great Barrier Reef.



Many small engines, such as conventional two-stroke engines, are high polluters relative to their engine size and usage, emitting a range of toxins into the water and the air. As substantial power is required to move small craft through water, even the better performing engines can emit far greater quantities of pollutants per hour than typical modern car engines.

A recent comparison of a conventional 15 horsepower carburettor two-stroke outboard and a 150 horsepower fuel-injected four-stroke outboard found that the smaller engine produced three times the emissions of the larger engine.

To help reduce the impact your outboard engine may be having on the Reef, keep in mind these responsible reef practices:

- Consider purchasing a new, cleaner running marine engine
- Choose ultra low emission engines and use the OEDA VELs as a guide (www.gbrmpa.gov.au/corp_site/key_issues/tourism/recreation/outboard_engines)
- Ensure that your outboard motor is kept in good condition and serviced according to the manufacturer's recommendations
- Properly match engine horsepower to the size of your vessel
- Use the right size propeller and keep it in good condition (nicks and dents reduce performance)
- Drive your boat conservatively – abrupt starts, excessive speed and extended use of full throttle not only reduce fuel efficiency and increase emissions, but are also hazardous to slow moving marine animals such as dugong and turtle
- Learn to trim your boat whilst underway
- Reduce unnecessary engine idling
- Reduce weight. Extra cargo in your boat reduces fuel efficiency.

For these and other responsible reef practices please go to www.gbrmpa.gov.au

Bloomin' green

Have you ever wondered what causes the greenish tinge to the water that you come across in rivers, creeks or offshore after heavy rainfall?

Heavy rain in northern Queensland this wet season means you will see these large outflows from flooding creeks and rivers. These flood plumes often extend well out to sea.

As part of the cycle of this process, after a period of time the sediment in the water which causes the brownish colour starts to drop out.

The nutrients are taken by algae and other micro organisms which essentially creates the algal bloom, presenting the greenish colour to the water.

Depending on the amount of nutrients in flood waters, algal blooms can last from days to weeks and can affect plants, animals and humans.

As the algae die off, bacteria increase and use up oxygen in the water and can affect the health of fish and plants.

Even non-toxic species can cause allergic skin reactions or dermatitis in sensitive skin and swallowing affected water can make people ill.

While algal blooms are a natural process – in fact Captain Cook saw some on his voyage to Australia – it can be made worse by excess nutrients and sediment in flood water.

The Great Barrier Reef Marine Park Authority is working with landholders to improve the quality of water entering the Marine Park.

Community Links

A profile of **Peter McGinnity**

General Manager
Environment and Sustainability



It was a long way to the Reef from Peter McGinnity's home town of Cootamundra, a town of 6000 people in central New South Wales.

For a boy from the bush, though, the call of the sea was too strong to ignore and has been a driving factor throughout Peter's career.

In the late 1970s, Peter followed the summer up north to Brisbane to pursue a degree in environmental planning at Griffith University where he spent his days trying to determine the economic and social value of the Great Barrier Reef and his holidays camping and diving at the Capricorn and Bunker islands.

His passion for the Reef, led Peter further up the Queensland coast where he began working for the Great Barrier Reef Marine Park Authority (GBRMPA) in the early 1980s. "As a research assistant undertaking manta tow surveys to map the extent of crown-of-thorns starfish outbreaks, I got to see lots of the Great Barrier Reef first hand. I couldn't believe my luck."

Peter has now worked for the Authority in many roles, including pioneer programs such as the earliest zoning plans, dugong protection areas, and establishing the joint Day-to-Day Management Coordination Unit.

"The diversity of jobs I have had at the Authority - along with the opportunity to work at the forefront of marine management developing new programs and looking at new and better ways to do things - has kept me interested in my work," Peter said.

In between his work with the Authority Peter has also worked on coral reef management programs in Florida Keys, Belize and a number of countries in South East Asia.

In his new role as General Manager of Environment and Sustainability, Peter will now be leading the Authority in the development and implementation of new policies around the key Marine Park issues of water quality, climate change, Indigenous use, heritage protection and fisheries.

He is looking forward to the new challenges and opportunities his position will bring.

"We are better placed than ever before to manage the key challenges for the Marine Park," he said.

"A combination of much better information than we have had in the past, better partnerships and better understanding of our stakeholders' needs, means that we have the capacity to make well-informed management decisions to implement solutions that will help us cope with increasing environmental pressures."

In the early days GBRMPA dealt only with issues that fell under the Authority's zoning and regulatory responsibilities - in other words, things that occurred within the Marine Park. "It is now well recognised that some of the key impacts on the Marine Park are coming from external influences such climate change, catchment activities and growing coastal populations," Peter said.

"We are now working with a range of partners to address all types of activities that influence the health of our Great Barrier Reef.

"Developing strong relationships with Traditional Owners has been and will also continue to be an essential part of what we do."

Calendar of events

2009 Earth Sciences for
Society - an International
Year of Planet Earth

24 February

Business Clean-up Day

27 February

Schools Clean-up Day

1 March

Clean-up Australia Day

2 - 8 March

Sea Week 2009

22 March

World Water Day

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Peter admits that like everyone, he is still learning about emerging issues such as climate change.

But he is certain that by improving water quality, ensuring people adhere to zoning in the Marine Park, and managing use sustainably, the GBRMPA will be able to enhance the resilience of the Great Barrier Reef and improve its ability to cope with future changes.

"This is a daunting and yet exciting time to be a manager of the world's most spectacular coral reef and I, for one, am up for the challenge."