

SeaRead

Marine Park news from catchment to coral



Australian Government

Great Barrier Reef
Marine Park Authority



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Experts look to the Reef's future

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Over 60 people recently attended an Outlook Forum to provide a diversity of views to help develop the Great Barrier Reef Outlook Report.

The participants were all recognised as leaders or experts in their field with representatives from science, industry, government and community backgrounds.

The two day Forum was hosted by the Great Barrier Reef Marine Park Authority. Its aim was to collect feedback and suggestions from participants to ensure the Outlook Report, which is currently being prepared, is based on the best available information from well recognised and professionally respected sources.

Great Barrier Reef Marine Park Authority Outlook Taskforce Director Jon Day said the Outlook Forum was successful with participants providing valuable input and advice that will help in the preparation of the report.

"The Forum provided the agency's staff with a chance to explain the rationale behind the report's preparation to date and also gave participants the opportunity to convey their interpretation of the outlook for the Great Barrier Reef," Jon said.

"The feedback from the participants was extremely useful and assured the agency staff involved in the preparation of the Outlook Report that we are on the right track.

"When the report is completed, we hope that it will be seen as a credible and robust document providing an important stocktake of the Great Barrier Reef, its management and its future," Jon said.

The Great Barrier Reef Marine Park Authority is producing the Outlook Report in line with the recommendations of the 2006 Review of the *Great Barrier Reef Marine Park Act 1975*.

The first Outlook Report will be finalised and ready for the Minister by June 2009.

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Message from the Chairman



The last two months have seen a number of important initiatives and announcements.

On the 24th of October representatives of the Australian and Queensland Governments, NRM bodies, industry and conservation organisations met in Brisbane to formally agree on a way forward for updating the Reef Water Quality Protection Plan. Reef Summit clearly showed just how committed Governments, non-government organisations and industry are to improving the quality of water flowing into the Great Barrier Reef. A number of initiatives came out of the Summit that will be expanded upon in coming months.

The Minister for the Environment, Heritage and the Arts recently appointed Ms Melissa George and Mr Russell Beer as members of the Great Barrier Reef Marine Park Authority. I warmly welcome them both and look forward to working with them to manage for the long-term future of the Great Barrier Reef.

Melissa has extensive expertise in natural resource management and Indigenous matters, and her appointment delivers on the

Australian Government's commitment to restore an Indigenous member to the Marine Park Authority.

Russell is a Cairns-based lawyer and partner of Queensland law firm MacDonnells Law. His recent work includes commercial advice on climate change and Australia's proposed emissions trading scheme, and air and sea port issues.

I would also like to take this opportunity to thank Ms Fay Barker for her seven years of service as a member of the Marine Park Authority. Fay was a committed and hard working member of the Authority and a strong supporter of the work the GBRMPA carries out on a daily basis to protect the Great Barrier Reef.

In other news, the second package of amendments to the Great Barrier Reef Marine Park Act has progressed through Parliament and will see us well placed to manage the Marine Park in 2009 and beyond.

On a lighter note Reef HQ Aquarium played host at a gala dinner to over 400 teachers and students from 15 countries as part of the International Pacific Marine

Educators Network Conference and International Youth Coastal Conference. The International Youth Coastal Conference was a fantastic example of kids teaching kids about environmental sustainability, ensuring that the next generation will be well placed to take up their roles as environmental leaders of the future.

Finally, I would like to thank everyone who participated in the highly successful Outlook Forum. The feedback and suggestions we received are helping to ensure the Outlook Report accurately reflects how science, industry and community see the Outlook and future of the Great Barrier Reef.

As the year draws to a close I wish everyone a very safe and happy festive season.

Regards

Russell Reichelt
Great Barrier Reef
Marine Park Authority

International Year of the Reef

International Year of the Reef (IYOR) has centred the world's attention on just how important and valuable our coral reef ecosystems are.

Great Barrier Reef Marine Park Authority Chairman Russell Reichelt said as the IYOR draws to a close it is timely to reflect on the year that has been but also firmly focus on the future.

"We are critically aware that the Great Barrier Reef is under increasing pressure from the impacts of climate change, declining water quality, over fishing and coastal development," Russell said.

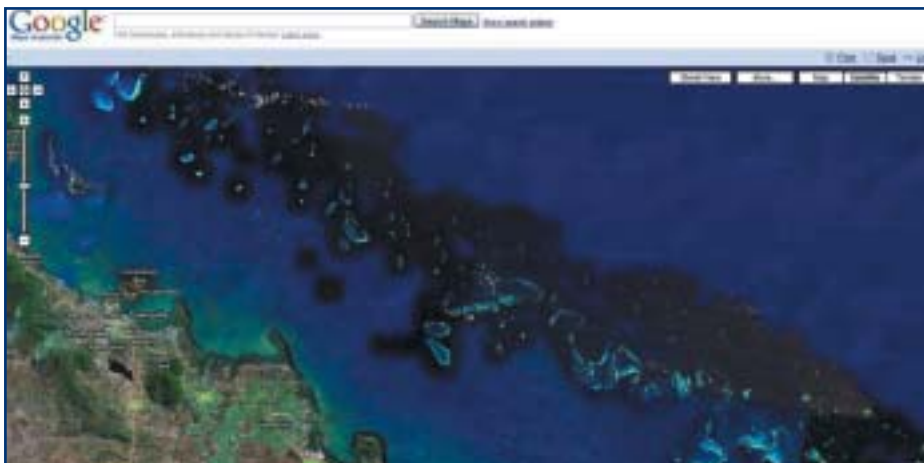
"It's important that while IYOR comes to an end we continue to focus on how we can mitigate pressures impacting the Great Barrier Reef and ensure we keep the Reef top of mind as we head into 2009."

International Year of the Reef has aimed to strengthen awareness and improve understanding of coral reefs worldwide while generating urgent action to ensure they are protected for future conservation and sustainable use.

"I would like to take this opportunity to thank everyone who has been part of International Year of the Reef activities and who continue to support the protection of our very own reef icon – the Great Barrier Reef."



Bird's-eye view of the Great Barrier Reef Marine Park **launched**



Google Maps enable you to explore the Reef with the click of a button

A bird's-eye view of the Great Barrier Reef Marine Park is now possible, thanks to innovative online mapping technology.

This is the first time maps of the Marine Park are available through online mapping service Google Maps, enabling internet users worldwide to dive deeper into this great natural icon with just the click of a button.

Great Barrier Reef Marine Park Authority Chairman Russell Reichelt welcomed the addition of the new map data and satellite imagery of the world's largest coral reef system to Google Maps.

"The Great Barrier Reef Marine Park belongs to all of us and this is a fantastic opportunity for all Australians and people from around

the world to see this natural treasure like never before," he said.

"This is a great example of how technology can be used to educate people about the Great Barrier Reef Marine Park and why this area is special and should be protected.

"It also allows other marine planners and managers to study aspects of the Great Barrier Reef Marine Park, which is widely recognised as one of the best managed and healthiest coral reef ecosystems in the world."

The move coincides with International Year of the Reef, a worldwide campaign in 2008 to raise awareness about the importance of coral reefs and to motivate people to take action to protect them.

The new technology enables internet users to search for and locate islands, reefs, cays and rocks in the Great Barrier Reef Marine Park online.

The information can also be used by people planning holidays, researchers and divers scoping dives and distances in advance, and educators teaching students about Reef geography.

The inclusion of Marine Park map layers was made possible by a close collaboration between Google Maps and the Great Barrier Reef Marine Park Authority.

"The Great Barrier Reef Marine Park is one of the world's greatest geographical treasures and we are thrilled to share it with people worldwide who use Google Maps," said Raul Vera, Head of Geo Products, Google Australia.

"Adding the Great Barrier Reef Marine Park to Google Maps is in keeping with our goal to provide innovative ways for people to learn about and explore the world around them."

Online maps of the Great Barrier Reef Marine Park are available at <http://maps.google.com.au>

Using features of Google Maps, Australians can create personalised My Maps of their experiences in the Marine Park. This enables people to share photos, videos and stories with friends, family or the world.

Third-party web developers can also create Mapplets to add new features or overlay their data on the reef system.

New waste oil **recycling** facilities for local government

As part of the Australian Government's Product Stewardship for Oil program, four Councils along the Great Barrier Reef coast have received new waste oil recycling facilities, spill kits and safety equipment.

Great Barrier Reef Marine Park Authority Water Quality and Coastal Development Director Hugh Yorkston said the new facilities would make it easier for the community to recycle their waste engine oil from vehicles, vessels and farm machinery.

"Cook Shire Council received an oil transport tank to help service outlying communities while Townsville

City Council's Jensen transfer station, Burdekin Shire Council's Claire and Giru transfer stations and Rockhampton Regional Council's Byfield and Marlborough transfer station have all received new holding tank facilities," he said.

Hugh said one litre of used oil could contaminate up to one million litres of water.

"If waste oil is not recycled or disposed of properly it can pollute land, waterways, underground reservoirs and the marine environment.

"We encourage people to take their used engine oil to their local transfer station for recycling rather than stockpiling it in garages and sheds or putting it out for normal household rubbish collection, where it goes into landfill sites and contributes to the creation of greenhouse gases. Even worse - illegally dumping it in parks, waterways, sewer systems and

stormwater drains where it can have devastating consequences for marine plants and animals."

Hugh said many other Councils also offer waste engine oil recycling at their waste transfer stations.

"Hinchinbrook Shire Council in particular have recently built a state-of-the-art waste transfer station that has a convenient waste engine oil recycling shed right by the entrance."

All facilities provided under the Product Stewardship for Oil program are for used engine oil and not for cooking oil.

To find out if your local Council recycles waste engine oil check out www.recyclingnearyou.com.au, www.oilrecycling.gov.au or contact your Council.



New no anchoring areas in Keppel Bay

Four no anchoring areas have been established in Keppel Bay to minimise anchor damage to corals, following community concerns about coral being affected by anchors and coral bleaching.

Healthy reefs have a greater chance of surviving changes in the climate and this is one of the strategies that can help protect corals.

Great Barrier Reef Marine Park Authority (GBRMPA) Planning Manager Sally Harman said the community approached the agency to look at ways to manage increased use and to help make corals more resilient to bleaching and flooding.

"The Keppel Bay area is one of the many special and beautiful places in the Great Barrier Reef Marine Park and it's attracting increased visitors and has been exposed to bleaching and flooding," she said.

"With increasing use comes a greater pressure and the corals in Keppel Bay are being damaged. We're responding to community concerns about how to manage this.

"We're working with the Environmental Protection Agency to look at ways to ensure tourism and recreation use in the area is well managed and sustainable so the reefs in the bay can stay healthy and the marine environment is protected."

These no anchoring areas are one of the strategies adopted as part of a flexible approach to managing use in the Marine Park, particularly to address threats like climate change.

The community, lead by the Capricorn Coast Local Marine Advisory Committee (LMAC), helped select the locations. Information on the level of resilience and the type of habitat that will be protected helped inform their decisions.

"The no anchoring areas will be designated by reef protection markers, which highlight where fragile reefs are located and where anchoring is not permitted," Sally said.

"We know that no anchoring areas minimise anchor damage as we have seen their success in the Whitsundays and Magnetic Island off Townsville. Now we want to see how effective they are helping to increase the resilience of the reefs.

"By protecting these corals today, they will be healthier to help withstand the impact of climate change in the future."

Stakeholder consultation for this project has been via a targeted approach.

It included discussions with members of the LMAC, Traditional Owners including the members of the Woppaburra Steering Committee,

The no anchoring areas are located at:

- Barren Island – north western side
- Great Keppel Island - Big Peninsula
- Great Keppel Island – Monkey Beach Reef, allowing access to the beach
- Humpy Island – west of the campground

The areas are designated by Reef Protection Markers - white pyramid shaped buoys (joined by an imaginary line) with blue marine park labels.

Anchoring is not allowed inshore of the line of buoys.

Reef Protection Markers must not be used to moor vessels, but may be used as a descent line for diving.

These measures take place in conjunction with other protection measures such as zoning and site-specific Plans of Management.

aquarium fishers, Great Keppel Island residents, yachting community, general Rockhampton/Yeppoon residents via ABC Radio interview, Fitzroy Basin Association, Rockhampton Regional Council, key researchers, key recreational fishers, and CapReef.

Check your free zoning map over Christmas or risk a fine!

Before heading out on the water this festive season, don't forget to grab your free zoning map so you know where you can go and what you can do in the Great Barrier Reef Marine Park.

GBRMPA's Mick Bishop said zoning maps were useful to keep onboard boats or in tackle boxes and should be checked regularly when out on the water over Christmas.

"It's a good idea for fishers to check their maps when they're out on the water to ensure they aren't illegally fishing in areas where fishing isn't allowed or is limited," he said.

"Even people who go out on the water regularly should take time to check the activities' guide on the maps to refresh their knowledge of

what they can and can't do in particular areas.

"If you can, consider buying a GPS to help navigate the zones as GPS is internationally-recognised as a reliable navigation tool."

Green Zones are no-take areas where extractive activities like fishing or collecting are not allowed.

Anyone can enter a Green Zone to anchor and participate in activities such as boating, swimming and snorkelling.

Stowing fishing gear onboard the boat or in rod holders with a hook still attached is also allowed in a Green Zone, provided the fishing apparatus is out of the water.

Travelling through a Green Zone with fish onboard is - and always has been - allowed. It is only an offence to fish in Green Zones.

There's limited line fishing in Yellow Zones - this means fishing with one hand-held rod or one hand-held line per person, with one hook attached to that line.

Early indications are that zoning is working and research in 2008

confirms that fish numbers are increasing.

North Queensland scientists found a spectacular recovery in coral trout numbers on unfished reefs following the introduction of protected, no-take areas.

They found coral trout numbers rebounded by 31-75 per cent on a majority of reefs which had been closed to fishing for as little as 1.5 to 2 years.

Free zoning maps are widely available from bait and tackle shops, visitor information centres, ship chandlers and Environmental Protection Agency and Queensland Boating and Fisheries Patrol offices. Alternatively call the Great Barrier Reef Marine Park Authority 1800 990 177 for a free map.



Demonstration cane farms showcase **innovation** for the future

A total of 15 North Queensland cane growers are involved in the Department of Primary Industries and Fisheries (DPI&F) demonstration farms initiative, which showcase innovative, sustainable land management practices that do not compromise profitability.

Farms have been established on commercial properties at Tully and the Burdekin. Both demonstration farms (where new initiatives are implemented) and comparison farms (where largely existing practices are used) have been established.

One of the demonstration farmers is Burdekin-based Peter Fiamingo, who has been farming for the past 35 years, leaving school at 15 to join the family enterprise.

"At the end of the day, you have to make a commitment to continuous improvement, because lowering your margins can only increase your profitability," Mr Fiamingo said.

"There's also the link this initiative has with improving practices to reduce environmental impacts – and it's these things that will keep future generations farming.

"Ultimately, I aspire to leave my property in better condition than when I got it," he said.

DPI&F Demonstration Farm Project Officer Ian Durham said all growers involved would be able to look closely at their cost of production and the cost of implementing improved practices on the demonstration farm.

Water quality samples are also being taken regularly to monitor the downstream impacts of implementing these farming practices.

Ian said the initiative was part of an ongoing response by the sugar sector to minimise the environmental impact of their industry.

"We live and farm in a unique part of the world, and the choices we make as land managers have flow-on effects for our neighbours and sensitive receiving environments," he said.

"For this reason the project will focus on key pollutants of concern such as nutrients, sediment and agricultural chemicals."

The project will operate for a minimum of three years, thanks to a



Photo courtesy of the Department of Primary Industries and Fisheries

\$600,000 grant from the Australian Government. It is just one of DPI&F's activities under the Queensland and Australian Government's Reef Water Quality Protection Plan to improve the quality of water entering the Great Barrier Reef lagoon.

For more information please contact Ian Durham of the Queensland Department of Primary Industries and Fisheries on (07) 4722 2511.

Reef HQ makes a **splash** at tourism awards

Reef HQ made a splash at this year's North Queensland Tourism Awards taking out two of the major awards.

The Aquarium was in the spotlight for the night winning the top awards for Major Tourist Attraction, Outstanding Contribution by a Volunteer or Volunteer Group and as a bonus Operations Manager Martina Neidig was recognised on the night with the Outstanding Contribution by a Young Achiever award.

Reef HQ Director Karen Vohland said the awards recognised the commitment and enthusiasm the employees and volunteers of Reef HQ have for the Reef.

"I think it's fantastic recognition for the staff and volunteers who put in the extra effort to make every visit to the Aquarium a special learning experience," she said.

"The staff and volunteers at Reef HQ are very committed to educating the public about the Reef and ensuring every visitor understands the value of the Reef, inspiring each visitor to care for it.

"The volunteers especially need to be recognised. Their enthusiasm and commitment have meant they've well and truly earned this award.

"Each year, Reef HQ volunteers give an average of over 11,000 hours voluntary service. This is a fantastic contribution, equal to over \$180,000 of in-kind support. They really are the cornerstone of Reef HQ Aquarium," Karen said.

Reef HQ's Business Operations Manager Martina Neidig was also

recognised for her 14 year contribution to the North Queensland Tourism Industry and was presented with the award for Outstanding Contribution by a Young Achiever.

Martina said she was delighted to have seen north Queensland emerge in its own right as a must see holiday location and was proud to be a contributor to that.

"I am thrilled and humbled to receive the award," Martina said.



The Reef HQ Team picked up the award for major attraction



Melissa George appointed as member

Minister for the Environment, Peter Garrett recently announced the appointment of Melissa George to the Great Barrier Reef Marine Park Authority, restoring Indigenous membership to the body.

Great Barrier Reef Marine Park Authority Chairman Russell Reichelt said he was pleased that Melissa George had been appointed to the board.

"Melissa brings valuable skills and experience in managing the long-term protection and ecologically sustainable use of the Great Barrier Reef," he said.

"Melissa has extensive expertise in protected area and natural resource management, as well as in Indigenous matters, and her appointment provides Indigenous representation on the board."

Melissa George is a Wulgurukaba woman, whose traditional country includes Magnetic Island and the greater Townsville area of North Queensland. Ms George currently chairs the Indigenous Advisory Committee, which advises the Environment Minister under the *Environment Protection and Biodiversity Conservation Act 1999*. She has extensive expertise in cultural heritage, land and sea management and Traditional Owner and Indigenous community issues.

Melissa has been appointed for a four-year term.



Turtle time

It's that time of year again when people need to take care and ensure they don't disrupt female marine turtles returning to the areas of their birth to come ashore and nest.

GBRMPA Species Conservation Manager Mark Read said most female turtles come ashore to lay eggs between October and February, laying between 50 and 120 eggs in a clutch depending on the species.

"The hatchlings then emerge from the nest seven to 12 weeks later, usually between December and May," he said.

Six of the world's seven species of marine turtle live in the waters around Australia, and all six can be found within the Great Barrier Reef World Heritage Area.

"All these species of turtles are protected species. This is one of the reasons why it is essential people take care when watching female turtles lay eggs or the hatchlings emerge from the sand and make their way to the ocean," he said.

Mark said human interaction with nesting turtles and hatchlings was not the only threats these 'sentinels of the sea' face.

"Climate change is also a threat to marine turtles. Increased sand temperatures can alter the sex ratios of hatchling turtles during incubation or even lead to their mortality, while higher ocean temperatures can result in damage to turtle feeding habitats. A rise in sea level can also mean the loss of feeding and nesting habitats."

Mark said a number of best environmental practices for turtle watching had been developed to assist people to do the right thing when they are around turtles.

"People can also help protect turtles by not throwing any garbage including fishing line or plastic bags on the beach or in the ocean and by reducing their environmental footprint to help address climate change," he said.

For more information about marine turtles in the Great Barrier Reef World Heritage Area see www.gbrmpa.gov.au or www.environment.gov.au/coasts/species/turtles



Sea Country Snippets



Girringun Traditional Owners have come together to extend the Traditional Use of Marine Resources Agreement (TUMRA) for an extra year changing the expiration of this agreement to December 2009.

The Girringun Traditional Owners were the first to have their agreement accredited by the Australian and Queensland Governments in December 2005 with the agreement's expiration date set for December 2008.

The agreement was developed by the six Girringun groups: Djiru, Gulnay, Girramay, Bandjin, Warragamay and Nwyaigi and it covers sea country between

Rollingstone and Mission Beach. Girringun Aboriginal Corporation Executive Officer Phil Rist said that the implementation of the TUMRA had been a great success.

"Over the last three years, the TUMRA has been recognised as an effective process to acquire turtle sustainably and protect dugong. It has also been seen as a positive step in ensuring traditional law is recognised," he said.

At the conclusion of the TUMRA's 12 month extension a new agreement will be developed building on the experience of the current agreement.

Reef HQ looking to give new patients some TLC

Some flippered friends could soon be checking in to Reef HQ Aquarium to be nursed back to health.

The Aquarium is looking to raise \$500,000 over the next three years to establish a Turtle Hospital where sick and injured animals can be cared for and rehabilitated.

Reef HQ Business Operations Manager Martina Neidig is appealing to the local community and businesses to help get the hospital off the ground.

"With more sick or injured turtles requiring care, we need to expand our facilities to cater for an increase in patients and to ensure they get the best care possible," she said.

"We are hoping the community and local businesses can get behind us to help establish and run the hospital, thereby helping sick and injured turtles to have the best chance of survival.

"The Turtle Hospital is expected to play a key role in treating acute and chronic ailments and rehabilitating turtles so they can be released back into the ocean.

"Through educational talks and guided tours of the hospital, visitors to Reef HQ will also be able to learn about the animals and see treatment first-hand."

It is expected that the hospital will provide short, medium and in some cases long-term care.

The Hospital will be built at the Aquarium, utilising environmentally friendly products and sustainable energy options to minimise its carbon footprint.

To make a contribution or for further information on sponsorship packages, please contact Martina Neidig on (07) 4750 0800 or martina.neidig@gbmpa.gov.au



reefHQ
AQUARIUM



Reef HQ Aquarium's Claire, Chris and Steve with Willow the turtle

Expert confirms GPS accurate for navigating Marine Park zones

Fishers who have a global positioning system (GPS) are encouraged to continue using it to navigate zoning in the Great Barrier Reef Marine Park.

The reliability of GPS to navigate Marine Park zones has been confirmed by an expert witness in two illegal fishing cases this year.

The Commonwealth Department of Public Prosecutions used GPS expert Danny Galbraith from Geoscience Australia in both an illegal recreational and commercial fishing case.

"GPS is internationally recognised as a reliable and accurate way to determine a person's location either on land or on the ocean," he said.

"GPS is used by shipping and aviation industries throughout the world as a reliable device for navigation."

On both occasions, the accuracy of GPS was confirmed and the fishers were convicted and fined \$1100 and \$6000 respectively.

The Magistrate presiding over the recreational fishing case said the expert witness gave "compelling" evidence on GPS accuracy.

The Great Barrier Reef Marine Park Authority (GBRMPA) is just one of many Australian Government agencies throughout Australia who use GPS for enforcement purposes.

GPS is used for evidence on foreign fishing boat activity, customs and immigration, land clearing and many other activities.

Like other Australian agencies, the GBRMPA uses GPS as part of evidence collecting to keep the waters of the Great Barrier Reef safe from misuse such as illegal fishing.

The coordinate-based zones are defined by lines of latitude and longitude that are fixed points on the Earth. GPS is a tool that's used to establish a person's location in relation to the zones.

New tool to help industry and land managers **improve** Reef water quality

A new tool to assist industry and land managers improve the quality of water flowing into the Great Barrier Reef was released recently by the Great Barrier Reef Marine Park Authority (GBRMPA).

The Draft Water Quality Guideline for the Great Barrier Reef Marine Park draws together all the available evidence of the effects on marine ecosystems of land-based run-off and identifies trigger levels for managers to commence remedial actions if these concentrations are above current acceptable levels to support good reef health.

GBRMPA Chairman Russell Reichelt said the Guideline gives communities and industry a science-based reference guide to assist in understanding the potential implications of land-based pollutants on reef ecosystems, and to guide on-ground management actions.

"We have developed the guideline through comprehensive on-the-ground consultation with natural resource management groups and industry bodies to give us a very robust basis to improve the quality of water flowing to the Reef," Russell said.

"The consultation process is ongoing and we are seeking input from regional communities, industry, land managers, councils and natural resource management groups on this draft."

Russell said that the current condition of the waters of the Great Barrier Reef show that for much of the time Reef waters are already within these draft guidelines.

"However, what the science has been telling us over the past 10 years is that there are times when our coastal waters in particular, exceed the concentrations which are optimal for maintaining the health and resilience of the Great Barrier Reef."

Reef catchments - Mackay Whitsunday CEO, Rob Cocco said that the guidelines provide a valuable set of information for use by regional communities to guide development of solutions oriented programs that strive to improve water quality entering the Great Barrier Reef lagoon.

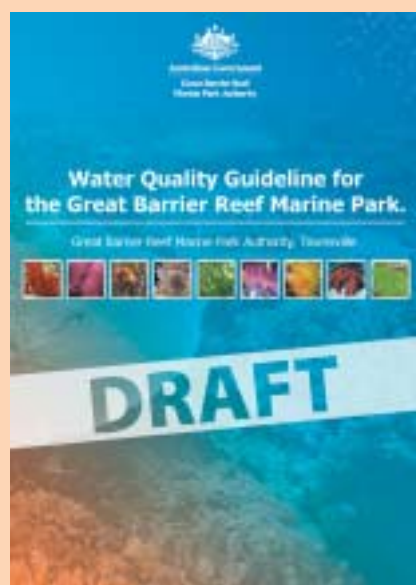
"In addition, NRM bodies neighbouring the Reef lagoon look forward to ongoing development and review of the guidelines and their integration within regional water quality planning activities," he said.

CropLife Australia's Chief Executive Officer Paula Matthewson said the development of these guidelines has been a robust and inclusive process.

"If we are to seriously address water quality on the Great Barrier Reef we need to ensure all the players are engaged and part of the process."

Russell said GBRMPA is committed to ensuring that industry is engaged and very much a part of the process as more information becomes available and the guidelines are finalised.

The draft guidelines can be found at www.gbrmpa.gov.au



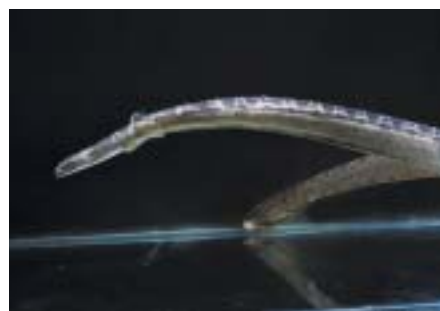
Creature Feature

The Stokes' Sea Snake

The Stokes' Sea Snake (*Astrotia stokesii*) spends its entire life in the ocean. Growing to a length of around 1.5 metres, the snake has a paddle-like tail that helps it to swim and a thick flattened body that gives it an eel-like appearance. This snake does not have gills and must come to the surface to breathe. The head is large and triangular-shaped, with the nostrils located on top of the snout. As well as inhabiting the waters of the Great Barrier Reef the Stokes' Sea Snake can also be found in the Indian Ocean, China Sea, Gulf of Thailand and waters around Malaysia, Indonesia and the Philippines. Most sea snake species prefer shallow waters close to land, but this species has been known to swim 160 kms out to sea.

To survive the snake feeds on small fish and eels, which are quickly immobilised by the snake's venom. They have also been recorded to eat small stone fish, a species of fish which is also known to contain highly toxic venom.

Although toxic the Stokes' Sea Snake is not generally aggressive and rarely strikes in conflict. Sea snakes are active both during the day and at night, and they can sometimes be seen on the surface basking in sunlight. When disturbed they can dive as deep as 90 metres and can remain below water for two or more hours, depending on their ability to conserve energy.



Fishers hooked on **barotrauma** model

Fishers from Tully to the Daintree are benefiting from a new hands-on model that shows how to release fish with barotrauma.

Barotrauma can occur when a fish is brought quickly to the surface. As it rises, the fish's swim bladder swells due to the expansion of gases. Symptoms can range from a hard, swollen stomach to extreme cases where the stomach is forced out the fish's mouth. The fish's chances of survival is increased if treated before release.

Research funded by the Fisheries Research and Development Corporation and completed by the Queensland Department of Primary Industries and Fisheries has identified the best practice for treating reef fish with barotrauma is to vent the gas from the fish's swim bladder using a clean, hollow needle.

A common desire to educate fishers about the best treatment method has resulted in a unique partnership between the region's Local Marine Advisory Committees, bait and tackle shops, Rec Fish Australia, Infofish and the Great Barrier Reef Marine Park Authority.

A series of lifelike fish models have been funded by Local Marine Advisory Committees to sit on bait

and tackle shop counters. The shops will use the model to provide hands-on demonstrations of the correct method to vent fish with barotrauma.

An inexpensive venting tool for releasing the trapped gas, and a brochure produced by Infofish explaining the exact place to insert the needle will be available at the tackle shops.



Dave Nissen and John Smyth demonstrate the device

Training **helps** marine wildlife in strife

More than 100 marine managers and community members are better equipped to respond to marine wildlife strandings thanks to some recent hands-on wildlife response training.

The two-day courses held in Rosslyn Bay near Rockhampton, Mackay, Townsville and Cardwell focused on training participants to respond to dugong, marine turtle, whale and dolphin strandings.

Participants included Marine Parks officers from the Queensland Parks and Wildlife and Great Barrier Reef Marine Park Authority, councils, veterinarians, and community groups.

Malcolm Turner from the Great Barrier Reef Marine Park Authority said this training was a vital part of the Marine Wildlife Strandings Program.

"Each year hundreds of marine animals wash up dead on beaches or are involved in incidents like being tangled in fishing line or nets," he said.

"This hands-on training is extremely important in ensuring people out in the field know how best to respond to these incidents.

"The field scenarios and practical sessions gave participants an opportunity to test their skills in marine wildlife strandings response, including how to undertake a necropsy."

The training is part of the Marine Wildlife Strandings Program, which began in Queensland in the 1980s and collects information about marine wildlife mortality.

The program is the main source of knowledge about human-related

mortality factors affecting threatened and protected species in the Great Barrier Reef World Heritage Area.

The program also allows managers to assess the effectiveness of management actions and inform the development of conservation and management strategies.

To report sick, injured or dead dugongs, marine turtles, whales and dolphins call the EPA Hotline on 1300 130 372.



The training consisted of both classroom and hands-on sessions

Terminators hook 1998 tilapia

Aloomba State School's Tilapia Terminators Fishing Challenge was another roaring success this year with 463 registered participants catching 1998 tilapia.

That equates to a total of 303 kilograms of the pest species removed from local waterways.

Competition co-ordinator Sandra Charlton said while participant numbers were up this year the number of tilapia caught was down 550 on last year's competition.

"We like to think that the Tilapia Terminators Fishing Competition is having an impact and may have contributed to the lesser numbers," Sandra said.

"We also think more native fish were caught this year."

The annual competition aims to cut down numbers of the aggressive imported pest with students of all ages hooking and disposing of the fish.

"There were 31 schools registered this year and the interschool trophy

was taken out by Hambledon State School catching 12.5 fish per student," Sandra said.

"A whopping 243 tilapia were caught by Year 9 student Micky Rogan in the senior category while Lane Greenwood caught an impressive 79 in the junior category.

"The longest tilapia was hooked by Year 7 student Alex Gobus and measured 329mm."

The Department of Primary Industries and Fisheries advises if you catch a tilapia you should kill the fish as quickly and humanely as possible and dispose of the fish as soon as practicable by burying it a suitable distance from the waterway where it was caught or disposing of it in a rubbish bin. It is an offence to have noxious fish (such as carp and tilapia) in your possession, dead or alive (except dead Nile perch).



Aloomba State School School Captain Steve Charlton with tilapia

Praise for Reef HQ volunteers

They're the heart and soul of Reef HQ Aquarium and this month they're being praised along with other like-minded people from around the world.

The 140 volunteers at Reef HQ Aquarium were recognised for their outstanding contribution during International Volunteers Day on 5 December.

Reef HQ Interpretation and Volunteers Manager Julie Spencer said volunteers played an important role in ensuring both the smooth operation of the Aquarium and an enhanced visitor experience.

"Our volunteers do a wonderful job and we're delighted to again be able to celebrate their important contribution to the running of Reef HQ," she said.

"Year round, volunteers help us by providing thousands of hours of their time and by being the public face of the centre."

President of the Reef HQ Volunteers Association Tracey Von Hoff praised the work of the 140 active volunteers who have contact with visitors to the aquarium.

"Our volunteer's help educate the public about the Reef and the environment by passing on invaluable information," she said.

"It is the personal contact, either talking to them one to one or by giving guided tours, that helps make Reef HQ unique."

This year's celebration follows Reef HQ winning the "Outstanding Contribution by a Volunteer or Volunteer Group" at the North Queensland Tourism Awards recently.

International Volunteers Day was established by the United Nations General Assembly in 1985 with the aim highlighting the role of volunteers in their communities.



reefHQ
AQUARIUM



Future leaders thinking global and acting local

More than 60 Reef Guardian students from the Townsville region met with reef managers, land managers, Traditional Owners, and Townsville Mayor Cr Les Tyrell, in October to discuss ways of making the region more environmentally sustainable and helping to improve the health of the Great Barrier Reef.

Great Barrier Reef Marine Park Authority (GBRMPA) General Manager Andrew Skeat said the Eco Challenge brought together schools, Traditional Owners and management agencies to develop a coordinated approach to local environmental issues.

"With 2008 being the International Year of the Reef and looming challenges like climate change and declining water quality threatening our Reef, it is more important than ever that we work together to achieve positive outcomes for our Marine Park," Andrew said.

"Schools are really leading the way in sustainability initiatives and the Future Leaders Eco Challenge supports students, teachers and their schools in working with the GBRMPA and other organisations to take action on environmental issues."

During the Eco Challenge students shared success stories about what they were doing to make their schools more sustainable and discussed ways of

working together with their community to have an even greater impact.

Student delegates used creative approaches such as songs, skits and demonstrations to explain environmental initiatives like recycling and composting.

Future Leaders Eco Challenge workshops were also held in Port Douglas, Cairns, Innisfail, Townsville (for Cape York), Proserpine, Mackay, Rockhampton, Gladstone and Gympie.

The Townsville Future Leaders Eco Challenge was a carbon neutral event.



Students and teachers joined GBRMPA's Andrew Skeat and Townsville Mayor Les Tyrell for the Eco-Challenge

International Year of the Reef



The Port Douglas community celebrated International Year of the Reef with a weekend packed full of family activities, including a clean-up of Four Mile Beach. GBRMPA liaison officer Phil Laycock received plenty of helping hands from Reef Guardian students (from left) John, Rosie and Karen from Port Douglas State School and their dad Terry Williams

Fishing fun



Well over 250 students, parents and community members attended Cranbrook State School's Annual Fishing Day

Sustainable Schools



Isabella State School leader Jesse Davis shows Cairns Mayor Cr Val Schier how to take a spin on an energywise bike during the Sustainable Schools celebrations in Babinda

Students learn hands-on skills



Townsville and Magnetic Island recently played host to the 2008 International Youth Coastal Conference. The event gave over 300 students and teachers an opportunity to participate in a hands-on learning experience designed to give students the skills they need to be tomorrow's environmental leaders

Community Links

A profile of **Andrew Skeat**

General Manager
Marine Park Management



Andrew Skeat has tracked buffalo by helicopter, hunted for invasive weeds in airboats, traversed Kakadu National Park on quad bikes and dived some of the most remote locations on the Great Barrier Reef – all in the name of work.

From city slicker to bush basher, Andrew has loved the sense of purpose and closeness with nature that has come with a career in natural resource management.

"I have been so lucky to be able to enjoy my job and to believe wholeheartedly that the work I am doing is making a difference for our environment."

Originally a Melbournite, Andrew moved to Canberra where he completed a Bachelor of Science in Environmental Sciences and then to Western Australia where he earned a Master of Science in Animal Population Dynamics studying water buffalo.

After a brief stint at the Great Barrier Reef Marine Park Authority (GBRMPA) in 1978, Andrew was rotated to National Parks where he worked with the International Whaling Commission on whaling issues in Australia and later conducted aerial surveys of kangaroos to set national harvest limits.

Living the bushy's dream, Andrew moved to Kakadu National Park where he worked as Superintendent of the park, raising his children at park headquarters and developing management plans for the park.

Andrew eventually moved to Queensland to manage over a million hectares of reserves for Queensland Parks and Wildlife, returning to GBRMPA in 1998 as Director of Program Delivery and later Executive Director.

Now a General Manager of the Authority, Andrew has loved every moment of his time at the GBRMPA.

"On a personal level, I am passionate about the Reef," he said.

"Being able to visit the Reef and meet the people who use and enjoy it reminds me that everything I do at work has a very real purpose.

"People care about whether we succeed and this is a constant reminder about the level of responsibility we shoulder in caring for one of Australia's most precious natural assets."

Andrew believes the future challenges for the Reef include: climate change, declining water quality, overfishing and coastal development. The solution, he says is to decrease pressures on the Reef and improve its health and ability to cope with unavoidable pressures.

"In the face of such big challenges it is easy to become disillusioned but I am crystal clear that we have made and continue to make a difference to the long-term health of the Great Barrier Reef."

Calendar of events

1 - 7 December 2008

Coastcare week

3 December 2008

Gladstone LMAC meeting

5 December 2008

International Volunteer Day

4 December 2008

Burnett LMAC meeting

9 December 2008

Port Douglas LMAC meeting

10 December 2008

Cairns LMAC meeting

11 December 2008

Capricorn Coast LMAC meeting

16 December 2008

Mackay LMAC meeting

18 December 2008

Cape York LMAC meeting

25 Dec 2008 – 1 Jan 2009

GBRMPA offices closed

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Australian Government

Great Barrier Reef
Marine Park Authority



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