

# SeaRead

Marine Park news from catchment to coral



Australian Government  
Great Barrier Reef  
Marine Park Authority



Issue 22 • May/June 2008

## What's inside

- Marine park managers fight non-compliance with education 3
- Managers of marine jewel get priceless advice from Australian experts 4
- New residents move into Reef HQ 5
- Indigenous tourism showcase 6
- Reef Guardians' message goes global 7

## Littlest guardians of the Reef



Reef Guardian Schools Coordinator Megan Sperring welcomes the program's youngest ever Reef Guardians.

The Whitsunday region can now officially claim to have the youngest Reef Guardians in Queensland, with 150 tiny tots aged up to six years having taken up the challenge to be guardians of the Reef in their own special way.

Reef Guardian Schools Program Coordinator, Megan Sperring said that 121 Childcare in Airlie Beach was the first Reef Guardian Childcare Centre.

"We were really surprised when the 121 Childcare Centre approached us about becoming a Reef Guardian School, but after seeing what the centre had planned for the children in helping them to appreciate and learn about the plants and animals of the Great Barrier Reef we could see that it was a fantastic idea," she said.

"While these children are a little younger than our usual Reef Guardian School participants, they are just as enthusiastic about being part of the program."

"It is wonderful that they will not only learn to connect with their local environment, but will be able to share what they learn with their parents, their brothers and sisters and the members of their community, to protect the future of the Reef."

121 Childcare Director, Jodie Travers said that children felt a particular connection to the animals that live on the Reef and would fully immerse themselves in the program.

"Our children are passionate and excited about everything they do and while they may not yet grasp complex concepts, they are very attached to animals and want to help care for them.

"Living in the Whitsunday region and being surrounded by the wonderful sea environment and National Parks means that it is important to educate children from a young age about how they can look after their environment."

The 121 Childcare Centre intends to implement sustainable activities in its daily routine and talk to children about things they can do as part of their everyday lives to help protect the Great Barrier Reef.

**DISCLAIMER**  
While all efforts have been made to verify facts, the Great Barrier Reef Marine Park Authority takes no responsibility for the accuracy of information supplied in *SeaRead*.

ISSN 1834-6774

Copyright Commonwealth of Australia

Please note that you are welcome to photocopy *SeaRead*. However, if the text is reproduced separately, it must not be altered and must acknowledge the Great Barrier Reef Marine Park Authority as the source. Illustrations must not be reused separately without permission. Please contact the Great Barrier Reef Marine Park Authority if in doubt.

[www.gbrmpa.gov.au](http://www.gbrmpa.gov.au)



The Prime Minister of Australia, Kevin Rudd convened the Australia 2020 Summit in April, bringing together Australians from all walks of life to debate their ideas about how to make Australia a better place to live by the year 2020. I was privileged to be invited to participate and opted to join the debate on the critical topics of population, sustainability, climate change and water.

The forum brought together people from many different backgrounds, each with a different perspective on the future of Australia's very high value ecosystems and the challenges they face. Some were focussed on the cities and some on the bush. We discussed ways of dealing with biodiversity conservation, the future of our cities, avoiding strip development of our coastline, better

managing water supplies, powering our cities more efficiently, lowering carbon emission rates and improving our public transport and road systems. One recurring issue was the challenge of how to reduce our 'ecological footprint' on the environment without diminishing our well-being.

Another high profile issue was the problem of closing the 17-year gap between the life expectancy of Indigenous Australians and non-Indigenous people. Participants such as Fiona Woods and Kevin Rudd made a convincing case that we should have zero tolerance for such disadvantage persisting in our society.

The agenda included a substantial debate about how our natural environment, that plays such important roles in our health, culture

and national identity will cope with future pressures and what further steps could be taken to ensure the environment will be preserved for the enjoyment of future generations. The Great Barrier Reef is presently in great condition and we need to take all steps to keep it that way.

It was a great privilege to have the opportunity to raise such issues at the summit, not only because of my role within the Great Barrier Reef Marine Park Authority but also as a concerned Australian citizen.

Regards

Russell Reichelt  
Great Barrier Reef Marine Park Authority

## Help protect Reef from marine pests

**The Great Barrier Reef Marine Park Authority is calling on the community to report marine pests and help protect the Great Barrier Reef.**

The call follows a recent quarantine of the Cairns harbour after Asian green mussels and Asian bag mussels were detected.

Russell Reichelt from the Great Barrier Reef Marine Park Authority said the imported pests could have devastating effects on the Great Barrier Reef.

"Reporting marine pests is vital for the long-term health of our marine environment and those who depend on it," he said.

"These imported marine pests can seriously alter the balance of marine life and have a devastating effect on plants, animals, businesses and people.

"Pests like Asian green mussels are fast growing and spread rapidly so they can out-compete native species because they have no natural predators.

"From an economic perspective, they can cause significant and costly damage to vessels and infrastructure if left unchecked."

Asian green mussels can cause problems with water systems by clogging pipes.

They are also a problem for vessels as fouling can increase maintenance, decrease fuel efficiency, and block or damage internal pipes.

Fouling on aquaculture equipment may restrict water flow thus effecting product quality.

Good boat maintenance, thorough checks and cleaning are the key to minimising the impact of Asian green mussels for boat owners.

Sightings can be reported to the Department of Primary Industries and Fisheries on 13 25 23.



Asian green mussels are marine pests that could have devastating impacts on the Great Barrier Reef if left unchecked. Photo: ©Tropical Reef Shipyard – Graham Wharton

# Fishermen **risk** fine for illegal fishing at Newry Reef

**Recreational boaties and fishermen heading to Newry Island group are reminded to brush up on zoning before heading out or risk a fine for illegal fishing.**

Since October last year there's been 14 illegal fishing incidents detected in the area, which is offshore from Seaforth near Mackay.

The majority of offences have been people illegally fishing in Green Zones around the Acacia Island Group, where fishing is prohibited.

Mick Bishop from the Great Barrier Reef Marine Park Authority said compliance patrols were targeting high-use areas to monitor fishing activity.

"It is important people know where they can go and what they can do in an area," he said.

"Zoning Maps are widely available to help people understand the regulations in an area and GPS devices can assist with navigation, so people know exactly where they are.

"Technology is making it even easier to comply with regulations as many GPS units now come with built-in Zoning Maps or can be updated to include zoning information.

"Marine Park enforcement officers can now also issue infringement notices of \$1100 to recreational fishermen found illegally fishing in Green Zones."

# Marine park managers fight non-compliance with **education**

**A new zoning education campaign will be used to raise awareness about zoning in the Great Barrier Reef Marine Park.**

Great Barrier Reef Marine Park Authority (GBRMPA) Communications and Education Director Karen Vohland said the new campaign was designed to remind people of the need to understand the rules and regulations that help protect the Reef.

"Only 50 per cent of people who go fishing on the Great Barrier Reef remember to take their zoning maps with them on fishing trips.

"This campaign aims to encourage people to grab a free Zoning Map before heading out on the water.

"Once people enter the Marine Park, they are responsible for knowing what they can and can't do in a given location, much like following traffic regulations," she said.

Karen said that although recent research by Colmar Brunton indicated that 96 per cent of people who fished in the Marine Park were aware of Green Zones, some were still confused about what they could and couldn't do in various zones.

"The research showed that while most recreational fishers thought they were well informed, a significant proportion actually did not have a good understanding of zoning regulations."

Karen said that people should be aware of relevant State and Federal legislation before heading out to enjoy the Reef.

"If you don't know where you can go and what you can do, grab a free Zoning Map.

"If you are a frequent user of the park, remember to refresh your zoning knowledge by studying your map regularly and always take it with you when you enter the Marine Park."

Keep an eye out for television and press advertising in Queensland coastal communities during holiday periods and the eight billboards along the Bruce Highway.

*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 1800 990 177 for a free map. Maps are not designed for navigation purposes.*



## Test your zoning knowledge

When it comes to fishing, **green** does **NOT** mean go!

- **Q1.** Can you fish in a Green Zone?
- **Q2.** How many hooks and lines can be used in a Yellow Zone?
- **Q3.** Is spearfishing allowed in a Blue Zone?
- **Q4.** Is it okay to enter a Pink Zone?
- **Q5.** If you are in a Green Zone does your fishing gear have to be packed away securely with all hooks removed from the lines?
- **Q6.** When was the current Zoning Plan put in place and why?

**Answers:** **Q1.** No. Green Zones are no-take areas where extractive activities like fishing or collecting are not allowed. Anyone can enter a Green Zone to anchor or go boating, swimming and snorkelling. **Q2.** Fishing in Yellow Zones is limited to one hand-held rod or one hand-held line per person, with one hook attached to that line. **Q3.** Yes, spearfishing is allowed in both Blue Zones (General Use and Habitat Protection Zones). **Q4.** Pink Zones are Preservation Zones and are set aside for the sole purpose of conservation, no one can enter a Pink Zone without special permission. **Q5.** While in a Green Zone, stowing fishing gear on board the boat or in rod holders with a hook still attached is allowed, provided all parts of the fishing apparatus are out of the water. **Q6.** The current Zoning Plan was put in place in 2004. The new zoning was designed to increase the protection of all habitats within the Marine Park, protect a greater diversity of species and safeguard the local marine environment for future generations.

# Extinction a Saw Point

**There are four species of sawfish in Queensland waters: the freshwater sawfish, the green sawfish, the dwarf sawfish and the narrow sawfish. All four species are classified by the International Union for Conservation of Nature (IUCN) as critically endangered.**

Sawfishes are actually rays, which belong to the ray group of cartilaginous fishes. They use their extended saw-like snout (rostrum) to find and catch food. Their highly sensitive snout detects the heartbeat and movement of prey (e.g. crabs and shrimp) burrowed in the muddy seafloor or riverbed. Once the prey is detected the sawfish stuns it with a slashing motion of their toothed rostrum before consuming the prey whole and head first. Other prey on the sawfish menu include live fish, prawn and squid.



When was the last time you saw one of these?

Sawfish prefer to live in shallow, inshore, coastal and freshwater habitats. Their proximity to coastal areas means they are easily affected by human activities. Some of the biggest threats to sawfishes are:

- entanglement in fishing nets e.g. trawl, recreational and shark nets
- disturbance and reduced water quality from coastal development

- reduced access to freshwater due to the development of weirs
- hunting as trophy species for their rostrum, meat and fins
- collection for the live aquarium trade.

The banning of international trading in sawfish body parts introduced and agreed upon by the IUCN in June 2007 will help reduce pressure on sawfish.

## Managers of marine jewel get **priceless** advice from Australian experts

**Protectors of one of the most biodiverse coral reef systems on earth visited Townsville in March to learn from the experienced managers of the Great Barrier Reef Marine Park.**

Located in the 'Coral Triangle' off the northwestern tip of Indonesia's West Papua Province, Raja Ampat is noted for its high level of coral reef biodiversity, holding amongst the richest variety of species in the world.

Great Barrier Reef Marine Park Authority (GBRMPA) Manager of Research and Monitoring, Dr Laurence McCook, said the Indonesian delegation, which included top government officials, had come to the right place.

"This is a wonderful example of a partnership whereby Indonesian marine managers are able to learn first hand what has and hasn't worked in the Great Barrier Reef Marine Park, the world's largest and best managed reef system."

"Lessons learnt in Australia will help protect this important international marine resource and ensure its preservation for future generations."

So far, the spectacular reefs of Raja Ampat have been resilient to threats like coral bleaching and disease.

The region's strong ocean currents mean that coral and fish larvae from this area can help replenish other reef ecosystems, making Raja Ampat a global priority for marine protection.

"Because Raja Ampat is home to a vast diversity of marine life the region is considered to be a refuge for marine biodiversity."

The Indonesian dignitaries and GBRMPA managers discussed key topics such as managing reefs for resilience in the face of climate change, sustainable tourism, ecosystem based management, zoning, compliance and enforcement, sustainable fisheries, and water quality.

They also discussed how to translate strategies from the Great Barrier Reef to the marine management and development of Raja Ampat.

Laurence is the holder of a prestigious Pew Fellowship in marine conservation, aimed at protecting the resilience of coral reefs, both on the Great Barrier Reef and in the Coral Triangle.

The project was supported by the Pew Fellowship and by the Coral Reef Rehabilitation and Monitoring Program.



Indonesian government leaders visited the Great Barrier Reef Marine Park Authority to learn how to better protect precious marine resources in the Coral Triangle.



# New residents move in to Reef HQ Aquarium

A number of new spectacular critters have taken up residence at Reef HQ Aquarium.



Twenty baby clownfish were recently donated to the aquarium by James Cook University where they

were bred for research into fish movement patterns. These little fish proved to be a big hit over the school holidays. Visitors to the aquarium left knowing that the captive breeding of fishes for research and for the aquarium trade minimises the impact on natural reef populations.



A pair of stunning two-spot gobies are setting up house in Reef HQ Aquarium's seagrass tank. Gobies can be

quite aggressive towards each other if they aren't a breeding pair, so it's lucky that these two are mates!



A new baby leopard shark has joined the aquarium's happy family. While the Reef HQ team doesn't want to count the

rest of their eggs before they hatch, three more leopard shark eggs have well-developed embryos and the aquarists are hoping for some new pups within the coming months.



A new clan of nautilus have swapped their deepwater homes for a temperature controlled

exhibit at Reef HQ Aquarium. These living fossils, which include a rare white-shelled specimen, have remained unchanged for millions of years. Typically found in 300 metres of water, the ancient molluscs regulate their buoyancy using gas chambers within their shell, migrating upwards to feed at night.



Seagrass beds are an essential habitat for many marine species including seahorses, dugongs, and turtles.

Seagrasses are difficult to grow in aquaria but a new crop has taken root at Reef HQ aquarium and is doing well.



A herd of new baby seahorses are playfully bobbing around in a tiny blue tank suited to their almost

microscopic size. The babies came from an adult sea horse couple where dad nurtured the kids in his pouch prior to giving birth.



A newly hatched epaulette shark pup has enjoyed the safe waters of Reef HQ Aquarium during its first few weeks of life. The

epaulette shark is a cryptic, bottom-dwelling shark that seeks protection and shelter amongst corals and other structures on the Reef.



**reefHQ**  
AQUARIUM

## Tennis in the tank

**Reef HQ Aquarium was abuzz when the facility played host to the Australian and Thai tennis teams that were in Townsville for a Davis Cup tie.**

It is Davis Cup tradition that the draw reflects the distinguishing features of the host location, therefore Townsville hosted an underwater draw in keeping with its proximity to the Great Barrier Reef.

The draw took place in the coral reef exhibit with a SCUBA diver drawing the players names from an empty clamshell.



Australian tennis team members Lleyton Hewitt, Peter Luczak, Chris Guccione, Paul Hanley and captain John Fitzgerald, enjoyed a leisurely stroll around the aquarium prior to the draw.

Visitors and staff even managed to score a few celebrity photos with the famous five.

It was 10 years ago that the Australian Davis Cup team last played in Townsville.



## Creature Feature

## Indigenous tourism showcase

*The Indigenous tourism industry will soon have an opportunity to showcase their products in north Queensland.*

The next Australian Indigenous Tourism Conference (AITC) will be hosted in Townsville by the Townsville Aboriginal and Torres Strait Islander Cultural Centre in late 2008 – early 2009.

Convened by the West Australian Indigenous Tourism Operators Committee, the event is expected to attract Indigenous tourism operators and organisations from around Australia and the world.

It will be an excellent forum for those involved with or interested in Indigenous tourism to meet and form new partnerships, share information and promote their product.

Further details on dates, venue, theme and program are still to be released. To stay informed about the next conference please contact [waitoc@westernaustralia.com](mailto:waitoc@westernaustralia.com).

## Funding boosts sea country programs

*Sea country programs in the Great Barrier Reef Marine Park have received a boost following funding from the Australian Government.*

The \$200 million Reef Rescue Plan includes a new \$10 million Land and Sea Country Indigenous Partnerships Program.

The funding will provide the Great Barrier Reef Marine Park Authority with additional capacity and resources to strengthen partnerships with Indigenous communities along the Queensland coast to better protect the Great Barrier Reef.

### Seabirds

- The Great Barrier Reef is home to approximately 29 species of seabirds.
- Seabirds have a major influence on island ecosystems. Droppings from the birds fertilise plants, and seeds of plants may be carried to new islands on the birds' feathers.
- Many seabird species live and breed on continental islands and cays in the marine park.
- The seabirds most often seen on the Great Barrier Reef are various species of terns, noddies and boobies and frigatebirds. All rely on a fish diet.
- Care should be taken when visiting known seabird breeding grounds. Walking or sitting carelessly can destroy eggs or chicks. Some birds are easily frightened and may abandon their eggs and chicks.
- Seabirds are declining on the Great Barrier Reef, which is linked to warm water events depriving the birds of enough fish to feed chicks.
- To learn more about seabirds and the ways we can protect these birds and their habitats go to [www.reefed.edu.au/home/explorer/animals/marine\\_vertebrates/seabirds](http://www.reefed.edu.au/home/explorer/animals/marine Vertebrates/seabirds)

## Sea Country Snippets



### Story Place

- *Story Place* – information on traditional connections to sea - is an on-line reference database that holds published resources about Traditional Owner groups adjacent to the Great Barrier Reef in Australia.
- The aim of Story Place is to share information and knowledge about Traditional Owners and their relationship with land and sea country in the Great Barrier Reef region.
- This is a useful resource for Aboriginal and Torres Strait Islanders, managers, researchers, students, marine park stakeholders and other people interested in learning more about Traditional Owner connections with the Great Barrier Reef.

You can access Story Place from the GBRMPA website at: [www.gbrmpa.gov.au/corp\\_site/info\\_services/library/resources/story\\_place](http://www.gbrmpa.gov.au/corp_site/info_services/library/resources/story_place)

# Story Place



White capped Tern



A white Heron



## Reef Guardian teachers get connected

**Teachers from Reef Guardian Schools will be learning from each other and working with local environmental groups to make Queensland schools more Reef friendly following a series of Teacher Networking and Planning Meetings scheduled between April and June along the Great Barrier Reef coastline.**

Reef Guardian Schools program coordinator Megan Sperring said that the teachers would be sharing ideas and learning new skills as part of the initiative.

"During the meetings teachers will be able to build on their current environmental programs by learning first hand what types of activities have been successful in other schools.

"These meetings are a wonderful example of schools, councils, scientists, environmentalists and managers working together to achieve positive environmental outcomes in local communities."

Megan said that many fantastic ideas came out of the first meeting in Cairns.

"A hot topic of conversation was tilapia, which is a major pest species in the Cairns region.

"Teachers discussed a range of successful environmental initiatives such as a nocturnal wildlife walk during Earth Hour, a water quality testing program that teaches students about the importance of healthy waterways, and a World Environment Day Fair which will showcase the environmental initiatives of each class within their school."

"A similar meeting in the Mackay region resulted in the adoption of Cannonvale Beach by Cannonvale State School," she said.

Megan said that Reef Guardian Schools and their regional partners were working together to improve their local environment and help protect the Great Barrier Reef.

The first meeting included participants from seven schools, the Great Barrier Reef Marine Park Authority, Cairns Regional Council, Terrain Natural Resource Management, Department of Primary Industries and Fisheries, Trinity Inlet Catchment Association and the Cairns Local Marine Advisory Committee.

## Reef Guardians' message goes global

**Reef Guardian students from Belgian Gardens State School, Townsville State High School and Oonoonba State School will be sharing messages of environmental sustainability with millions of people in Japan, when broadcasts the students participated in go to air later this year as part of International Year of the Reef celebrations.**

The schools were featured in a two-hour Japanese documentary on the Great Barrier Reef and a multi-part television series produced by Nippon Hōsō Kyōkai (NHK), Japan's principal broadcasting corporation.

Reef Guardian Schools coordinator, Megan Sperring, said that television was a great way for Australian students to share environmental messages with students and people around the world.

"It is exciting for the students to have the opportunity to spread their messages of sustainability to a global audience.

"Some of the students even brushed up on their Japanese in order to share their ideas directly with people in Japan."

The Tokyo-based NHK production crew said the students' messages would resonate well in Japan where marine environments face many of the same threats as Australia's marine ecosystems.

The students' messages included tips on cleaning up litter, especially cigarette butts and plastics, keeping storm drains clean and planting trees to soak up excess carbon dioxide and improve water quality.



Students from Townsville State High School gave younger Oonoonba State School students a helping hand during a tree planting demonstration which will air throughout Japan as part of a television series on coral reefs.



The Rose Bay Junior Rangers from Belgian Gardens State School teamed up with NHK documentary makers to share their environmental messages with the world.

## Community Links

### A profile of John Crowhurst



Birdwatchers from all over the world flock to the Cairns Esplanade to see migratory shorebirds feeding along the mudflats.

Surprisingly, at the top of their 'must see' bird list is a species of the two-legged, unfeathered variety.

John Crowhurst, 70, has helped visiting birdwatchers since he began working as a council gardener on the Esplanade in the 1970s.

Birdwatching tourists soon discovered he was a wealth of information about the many species of waders that use the mudflats to rest and refuel.

"Over the years I've spoken to thousands of birdwatchers," John said.

"The council ended up allocating work time for me to talk to tourists and gave me an assistant to help with the gardening."

John retired from the council six years ago, but still comes down to the Esplanade most days.

"Visitors expect to find me here and I don't like to disappoint them," he said.

"Birdwatching keeps me young and enthusiastic. You never know when something new will turn up."

Australian wetlands play a crucial role as a feeding and resting stop in the annual migration of millions of waders and other birds which fly down the East Asian-Australasian Flyway from their winter breeding grounds in the Arctic circle through Asia to summer feedings grounds in Australia and New Zealand.

The journey for many of these shorebirds may be up to 25 000 km annually. The mudflats off Cairns are world renowned among twitchers as one of the best locations to see these birds on their annual migrations.

Around April the birds began their long journey back to the Arctic circle, sometimes flying more than 6000 km at a stretch.

John is concerned that issues like climate change, oil spills and the loss of wetlands due to development are already having an impact on the numbers and migratory patterns of shorebirds.

"There's certainly not as many birds as there used to be 30 years ago."

"We need to make sure that we keep our own wetlands intact, and encourage other countries to preserve their natural places."

*Photo: Birds of a feather, Doon McColl from the Great Barrier Reef Marine Park Authority and John Crowhurst enjoy the bird life near the Cairns Esplanade.*

## Calendar of events

11 – 16 May 2008

10th World Congress on Environmental Health, Brisbane Convention and Exhibition Centre

22 May 2008

International Biodiversity Day

23 May 2008

World Turtle Day

05 June 2008

World Environment Day

05 – 08 June 2008

Going Green Expo, Melbourne Exhibition Centre

08 June 2008

World Oceans Day

17 June 2008

World Day to Combat Desertification and Drought

## GBRMPA contacts

Great Barrier Reef Marine Park Authority  
2-68 Flinders Street  
PO Box 1379  
Townsville Qld 4810

Phone: (07) 4750 0700  
Fax: (07) 4772 6093  
Email: [info@gbbrmpa.gov.au](mailto:info@gbbrmpa.gov.au)

If you do not wish to receive this newsletter in the future or if you would like to receive this newsletter via email instead of as a hard copy, please email [searead@gbbrmpa.gov.au](mailto:searead@gbbrmpa.gov.au), or phone the GBRMPA on (07) 4750 0700.



Australian Government

Great Barrier Reef  
Marine Park Authority



our great barrier reef  
let's keep it great