

SeaRead

Marine Park news from catchment to coral

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Marine Park Authority

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

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The seafood industry is taking a calculated approach to climate change



The Collard's prawn trawler, *Flora*, cruising off the coast of Townsville

The Great Barrier Reef Marine Park Authority (GBRMPA), in partnership with the Queensland Seafood Industry Association (QSIA), has developed an online calculator for commercial fishers and related businesses to measure and manage their carbon emissions.

The tool will allow for more energy efficient and cheaper operations as the industry looks to do their bit to tackle climate change. By measuring levels of energy use over the last few years, fishers can demonstrate what they have already done to reduce their environmental footprint and identify areas for further attention.

A recent series of industry-led workshops at several Queensland ports were attended by many interested fishers. A follow up extension project is now underway with workshop attendees, and anyone else who is interested in participating in the program. The calculator is tailored for commercial fishers and calculates yearly carbon emissions based on information from standard business records (e.g. fuel consumption, electricity use) and practices (e.g. waste management).

Karen Collard, co-owner of a Townsville prawn trawling business, said the initiative will not only save money but will help to make their business more environmentally friendly.

"In our business, fuel is the biggest consumable and if we can cut down on that, we're going to be more profitable and kinder to the environment in which we operate," she said.

"All of the workshops were well-received. We are hoping that a lot of people will take up this initiative so that we have an industry baseline for good environmental practice."

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Message from the Chairman



This edition of SeaRead rounds out another busy and successful financial year for the Great Barrier Reef Marine Park Authority (GBRMPA). Having achieved many goals in the past 12 months, the GBRMPA is keen to continue its work with refreshed to-do lists. The recently released Corporate Plan 2010 – 2014 provides the direction and priorities and focuses the GBRMPA on delivering the outcomes required by legislation.

Budget Night 2010 brought good news to the GBRMPA. Treasurer Wayne Swan announced more than \$12 million for the GBRMPA over two years. The very successful Reef Guardian Program and Reef HQ Aquarium both benefited from additional funding. These funds demonstrate the Australian Government's dedication and long-term commitment to conserving and strengthening the resilience of the Great Barrier Reef Marine Park.

The Reef Guardian Program, which currently includes Reef Guardian Schools and Reef Guardian Councils, is one of the GBRMPA's most successful initiatives. We received \$3.8 million over two years to extend the program across a broader reach of the community. There are more than 190 Reef Guardian schools, spanning across the entire Great Barrier Reef catchment area. The schools component of the program has been running since 2003, and was joined in 2007 by the councils component. There are now 10 Reef Guardian Councils.

Reef HQ Aquarium has received a \$4 million contribution towards a major infrastructure upgrade. The

project will include a new filtration system that utilises the latest technology and will enhance water quality in the tanks, extensive engineering works to strengthen the floor to enable additional displays and exhibits, a new function space and new research infrastructure to ensure Reef HQ can continue to build on their provision of cutting edge research in collaboration with academic institutions and industry. Reef HQ has been the national education centre for the Great Barrier Reef for more than 20 years and the facility improvements will ensure it continues to educate, inform and engage the Australian community for many years to come.

More than \$4.2 million was allocated for the GBRMPA to continue to protect and manage the Great Barrier Reef Marine Park through world best practice strategies and initiatives. This funding injection is very timely as the GBRMPA embarks on a new financial year with clear objectives spelt out in the Corporate Plan 2010 - 2014.

The GBRMPA has been working with Queensland Seafood Industry Association (QSIA) on developing an online calculator for commercial fishers to look closely at carbon emissions. This important partnership will result in a win-win for the environment as well as fishers.

As SeaRead goes to print the Sea Country Partnerships forum held in Cairns has just wrapped up. This landmark meeting of around 90 Traditional Owners convened by the GBRMPA contained an exciting program of speakers, presentations, group workshops and social

opportunities with a focus on sharing knowledge and experience and working toward best practice sea country management and developing future leaders. The program aimed to strengthen communication between local communities, managers and reef stakeholders and build a better understanding of Traditional Owner issues about the management of the Marine Park. Forum feedback indicates it was a great success and an important milestone in working with Traditional Owners of the Great Barrier Reef.

The grounding of the bulk coal carrier *Shen Neng 1* on Easter Saturday at Douglas Shoal, around 90km north-east of Gladstone has kept the GBRMPA busy. The incident required a coordinated response across many Australian and Queensland Government departments. The GBRMPA was responsible for providing advice on the environmental impact and management of the salvage operation. With the immediate incident management having drawn to a conclusion, it is likely to be some time before Douglas Shoal will recover.

Regards

Russell Reichelt
Great Barrier Reef Marine Park
Authority

Continued from page 1

GBRMPA Chairman Russell Reichelt said the QSIA should be commended for its commitment to sustainable use of the Great Barrier Reef.

"This is an innovative business tool that has the potential to be used as a model for other industries nationwide so they too can improve their business efficiency and care for the environment," he said.

"We all have a role to help protect the Great Barrier Reef for the future."

Over the next two years the GBRMPA will be working collaboratively with commercial fishers to develop a range of other strategies to minimise environmental impact and help future-proof the industry.

Award winner

The emissions calculator took out the Highly Commended award in the Queensland Country Credit Union Community Group Award category presented at the recent Townsville Ecofest. The award was one of the Townsville Environmental Excellence and Sustainability Awards 2010 and recognised the hard work already put into the development of the emissions calculator.



Sea country forum in Cairns sets the agenda for Indigenous partnerships

Approximately 90 Great Barrier Reef Traditional Owners attended a Sea Country Partnerships Forum in Cairns during the last weekend in May.

Organised by the Great Barrier Reef Marine Park Authority (GBRMPA), the two and a half day forum brought representatives from communities as far north as the Torres Strait Islands and as far south as Bundaberg to discuss the future of the Reef.

Queensland Senator Jan McLucas opened the forum, saying it was a landmark event demonstrating the importance of marine managers and Traditional Owners working together to ensure the protection of Australia's iconic Great Barrier Reef.

GBRMPA General Manager Peter McGinnity said the forum provided an opportunity for Great Barrier Reef Traditional Owners to exchange ideas and raise concerns relating to the traditional use of marine resources.

"Presentations at the forum highlighted the issues of poaching and illegal take, and commercial exploitation of marine resources was an area of great concern," he said.

"It's a problem that can only be addressed through strengthening of cooperation between Indigenous communities and compliance teams."

The forum demonstrated Indigenous communities wanted to be actively involved in sea country management, for education, training and employment opportunities.

GBRMPA Manager, Species Conservation Mark Read presented *Managing the Long-term Sustainability of Marine Resources*, which recognised there were a range of impacts affecting the long-term sustainability of many marine species.

"These include climate change and associated risks such as increasing sea temperature, ocean acidification and rising sea levels, declining water quality as a result of catchment runoff of nutrients, pesticides and sediments," he said.

"While coastal development and the depletion of top predators such as sharks, alongside other species of conservation concern are also factors."

The event also provided an opportunity for Traditional Owners to meet and discuss sea country management issues with members of the GBRMPA's Indigenous Reef Advisory Committee who were in Cairns ahead of a meeting on the following Monday and Tuesday.



Nathaniel Surha representing the Manbarra group takes the microphone



Queensland Senator Jan McLucas opens the Sea Country Partnerships Forum



Irene Butterworth with GBRMPA's Jeanette Kirby



Approximately 90 Traditional Owners attended the Sea Country Partnerships Forum



On the opening night participants watched Safeguarding the Gungu Sea Turtle – a short film on traditional hunting

Ship grounding

On Easter Saturday, a bulk-carrier bound for China ran aground on the Douglas Shoal, around 90km off the coast of Gladstone. The *Shen Neng 1* had more than 65 000 tonnes of coal cargo and was carrying around 950 tonnes of fuel oil. Upon impact, approximately four tonnes of oil was leaked from the ship.

The grounding of the ship required a coordinated response across many Australian and Queensland Government departments. Maritime Safety Queensland was the lead operational agency with support from the Australian Maritime Safety Authority (AMSA) and environmental advice and operational support from the Great Barrier Reef Marine Park Authority (GBRMPA) and Queensland's Department of Environment and Resource Management.

The initial priority for the response team was to remove the *Shen Neng 1* from the shoal. Oil had to be removed from the ship, which was a slow, but successful task. Ten days after it first hit the shoal, the *Shen Neng 1* was towed to Barren Island (part of the Keppel Island group) for structural damage inspections.

Once the impact site was deemed safe, the GBRMPA sent a team of divers, including staff from the Department of Environment and Resource Management (DERM), to undertake an initial inspection of the area. The team discovered that the impact site was the largest and most complex ship grounding site the GBRMPA has had to assess. Between hitting the shoal and coming to a complete rest, the *Shen Neng 1* travelled over a large area and, as such, caused extensive damage to the reef community on Douglas Shoal. When the ship's hull dragged across the shoal, it left behind a trail of anti-fouling paint. Anti-fouling paints are used to coat the bottom of ships to prevent sea life such as algae attaching themselves to the hull and given the age of the *Shen Neng 1*, it is likely this paint is toxic and has contaminated the impacted areas of Douglas Shoal.

Following this initial inspection, a rigorous environmental assessment was undertaken by the Australian Institute of Marine Science with support from James Cook University,



Shen Neng 1 grounded on Douglas Shoal (images courtesy of Maritime Safety Queensland)

GBRMPA and DERM. Poor weather restricted their assessment capacity and a third and final trip to the site completed the environmental site assessments. The results from these investigations will be presented to the Scientific Advisory Panel (specifically established for this incident) who will then advise the GBRMPA on possible remediation options for Douglas Shoal.

Once the ship had been confirmed as structurally sound and capable of being moved from Barren Island, it was towed to the Port of Gladstone to undergo the necessary repairs for its trip back to China. Poor weather intervened again, and the ship was not able to be safely docked in Gladstone, so it was towed to calmer and less exposed waters off Hervey Bay. One third of the coal cargo was removed from the *Shen Neng 1* to allow for an easier tow to China and the ship then started its journey home, beginning with the most direct track to the deep and open waters of the Coral Sea.



Hull scrape (top) and diver investigates Douglas Shoal (bottom)

Tackling illegal hunting and poaching on the Great Barrier Reef

A new Indigenous Community Compliance Liaison officer to help tackle illegal hunting and poaching in Cairns and the Cape York region and a new partnership between the Great Barrier Reef Marine Park Authority (GBRMPA) and the North Queensland Land Council was announced recently by the Minister for Environment Protection, Peter Garrett.

"Traditional Owner groups are concerned about the incidence of illegal hunting and poaching, particularly of marine turtle and dugong and the impact it is having on their communities and their sea country," Mr Garrett said.

"The Indigenous liaison position will work closely with Traditional Owners to identify solutions and deliver practical results, building on the work already underway.

"Education and information exchange play an important role in giving Traditional Owners the capacity to identify and report any illegal activities taking place".

Mr Garrett said this was an important step forward in working

with communities to help ensure a sustainable future for their sea country and the Great Barrier Reef.

"It's about empowering communities with practical knowledge and skills. This position will support an existing knowledge base, and help Traditional Owners make a real difference for their sea country," he said.

The new Indigenous liaison position will become part of a team already working with Traditional Owners in far north Queensland on compliance and sea country management issues.

Recently a new partnership between GBRMPA and the North Queensland Land Council (NQLC) commenced, with the first of four workshops in Gordonvale.

Through these workshops, to be held in Gordonvale, Yarrabah, Kuranda and Innisfail, GBRMPA and the NQLC will work together to canvass Traditional Owner interest in developing partnerships to manage sea country, including Traditional Use of Marine Resources Agreements.

"This collaborative approach to managing sea country presents new opportunities for Traditional Owners and benefits for the health of the Great Barrier Reef," Mr Garrett said.

"The NQLC will assist the GBRMPA to provide information and seek views from Traditional Owner groups with strong links to the Reef and dedication to protecting it for the future.

"Our work with the NQLC supports developing and putting in place management arrangements and plans that are driven by Traditional Owners, including Traditional Use of Marine Resources Agreements.

"The Australian Government is committed to working with Traditional Owners on all matters relating to the management and sustainable use of sea country resources in the Great Barrier Reef Marine Park."

NQLC Chief Executive Officer Dewayne Mundraby said they were keen to work with respective government agencies and Traditional Owners on this important issue.

"The NQLC Board of Directors has endorsed this administrative initiative of establishing a communicative management regime across the extent of our coastal representative region for the enhancement of Traditional Owners' socioeconomic wellbeing."

These workshops are supported by the Australian Government's Reef Rescue Indigenous Land and Sea Country Partnerships Program.

NQLC is the Native Title representative body for north Queensland stretching from the Daintree and Bloomfield Rivers in the north, to Sarina in the south, and west to beyond Richmond and Crocydon.

Master and crew **fined** for illegally entering protected Reef areas

A collective fine of \$210 000 for the master and crew of the *MV Mimosa* that illegally travelled through protected areas on the Great Barrier Reef Marine Park is the biggest fine under the *Great Barrier Reef Marine Park Act 1975*.

The fine for the master and two crew navigating the 189 metre bulk carrier, was issued in the Townsville Magistrates Court recently.

Ships over 50 metres are not allowed to enter protected areas on the Reef under the *Great Barrier Reef Marine Park Act 1975*. The fines relate to two offences that occurred on 4 April 2010:

- Travelling through a Marine National Park (Green) Zone near Cowboys, Chicken and Lynch's Reef
- Travelling through a Marine National Park (Green) Zone and Conservation Park (Yellow) Zone near Stanley Reef, Old Reef and Wilson's Shoal.

Great Barrier Reef Marine Park Authority Chairman Russell Reichelt said it was important that everyone complies with the zoning provisions designed to protect the Great Barrier Reef Marine Park.

"The Great Barrier Reef is a natural treasure and the legislation in place to protect it is important for the future of the entire ecosystem and the communities that depend on the Reef," Russell said.

"This decision demonstrates the importance of the rules in place to protect the Reef, and the seriousness of breaching that legislation.

"The Marine Park is a multi-use area and shipping is a legitimate use of the area, but must be carried out in accordance with the rules and legislation."

About 9700 ship movements of large vessels occur in the Great Barrier Reef

Marine Park every year, some passing close to coral reefs and ecologically sensitive areas.

The waters of the Great Barrier Reef have the most stringent management arrangements for commercial shipping of any water body in the world. The arrangements include specified areas and passages for shipping use, vessel tracking and reporting requirements.

Ships may access the Designated Shipping Area and the General Use (Light Blue) Zone without a permit when transiting the Great Barrier Reef Marine Park. These areas were selected considering requirement for safe navigation and environmental protection. To access all other areas, ships require a permit.

Reef named in honour of Marine Park leader

A previously unnamed reef in the Great Barrier Reef Marine Park has been officially re-named in honour of the late Virginia Chadwick AO, an inspiring and dedicated leader in marine conservation.

Virginia Chadwick Reef is located approximately 85km north-east of Cardwell in the Bandjin Reefs Group of the Great Barrier Reef Marine Park (Lat 18°00'14" S and Long 146°50'20" E). It was previously an unnamed reef (reef 18-016).

The announcement was recently made at a special function commemorating Virginia's considerable contribution to the marine environment.

Great Barrier Reef Marine Park Authority (GBRMPA) Chairman Russell Reichelt said it was a fitting tribute to the first female chair of the GBRMPA and honoured the immense contribution Virginia made to protect the Great Barrier Reef.

"During her eight years leading the GBRMPA, she was well-known for both strong leadership and her commitment to the marine environment," Russell said.

"Virginia's passion, interest and involvement in environmental issues won acclaim worldwide and the respect of colleagues and stakeholders alike.

"Among her most significant achievements was overseeing the 2004 rezoning of the Marine Park to achieve a major increase in protected no-take areas.

"Appropriately, Virginia Chadwick Reef is located in a protected area of the Marine Park.

"Virginia was an inspiration to all who knew her and will be remembered for her significant contribution to protecting the Great Barrier Reef Marine Park."

The rezoning of the Marine Park in 2004 included the most extensive community consultation process ever conducted on an Australian environmental issue.

It set an international benchmark in marine conservation and generated international awareness of Australia's environmental conservation initiatives.

Virginia's role in overseeing the agency's involvement in other management initiatives is also noteworthy.

Prior to joining the GBRMPA, she served in the NSW Legislative Council and held various Ministerial positions. She was the first woman elected as President of the Legislative Council.

Her significant contributions in the field of research and education were formally recognised by her peers on many occasions, including being awarded an Office in the General Division of the Order of Australia in the Queen's Birthday 2005 Honours List.

In 2009, Virginia received an Honorary Doctorate at James Cook University in recognition of her significant achievements.

Virginia passed away on Friday 18 September 2009.



Four new schools vow to be guardians of the Reef

Four north Queensland schools in the Burdekin region are the latest in Queensland to commit their schools to take action to protect the Great Barrier Reef.

Townsville's Woodstock State School and Shalom Christian College (Secondary Campus and Crystal Creek Campus) join Collinsville's first Reef Guardian schools, Collinsville State High School and St John Bosco Catholic School, to sign up for the environmental education program Reef Guardian Schools.

They will join 57 schools in the Burdekin region that take part in the program run by the Great Barrier Reef Marine Park Authority in partnership with natural resource management group NQ Dry Tropics.

Great Barrier Reef Marine Park Authority Education Officer Carolyn Luder said it was fantastic to see these four schools getting onboard with protecting the Great Barrier Reef.

"We're delighted these schools are now Reef Guardians and hope they will inspire other schools in the area to follow their lead," she said.

"Through the Reef Guardian Schools Program, they will have an opportunity to get involved in environmental projects that improve their local environment and the outlook for the Great Barrier Reef.

"As the future custodians of the Great Barrier Reef, these students have an important role to play.

"We hope the students and teachers will engage their community in environmental issues and promote environmentally friendly practices at home, work and school."

The schools were officially welcomed into the Reef Guardian Schools Program at special school ceremonies recently.



Reef Guardian Schools given a helping hand

The Great Barrier Reef Marine Park Authority (GBRMPA) recently recognised the dedication of 20 schools committed to protecting the Great Barrier Reef by announcing special funding grants through the Reef Guardian Schools Program.

Each school received a Ripples of Change funding grant of \$500 to build on the good work they have already undertaken or to put in place new environmental actions in their schools.

GBRMPA Chairman Russell Reichelt said the Reef Guardian Schools Program provides students, teachers and their communities with the opportunity to bring about positive change for the environment in the face of emerging threats like climate change.

"With the Reef at a crossroads it is more important than ever to continue activities that build resilience, or in other words keep the Reef healthy and strong, and this is exactly what the Reef Guardian Schools Program is all about," he said.

"I congratulate the schools receiving these grants as it recognises the valuable contribution they are making to protect one of Australia's national icons."

Reef Guardian Schools are located throughout the Great Barrier Reef catchment and each undertakes a wide variety of environmental activities aimed at ultimately protecting the Great Barrier Reef.

Through these activities students learn about the connections between the land and the Reef and how easy it can be to help improve the outlook for the Great Barrier Reef.

The Reef Guardian Schools Program is an education initiative of the Great Barrier Reef Marine Park Authority. Entering its eighth year, this education program sees more than 60 000 students in around 194 schools committed to the protection and conservation of the World Heritage listed Great Barrier Reef.

And the winners are.....

- 121 Childcare Centre, Whitsundays
- Aloomba State School, Cairns
- Bargara State School, Bundaberg
- Bowen State School
- Byfield State School
- Charters Towers State High School
- Dingo State School
- Gladstone Central State School
- Hamilton Island State School
- Kelso State School, Townsville
- Kirwin State School, Townsville
- Mirani State High School, Mackay
- St Michael's Catholic School, Palm Island
- South Johnstone State School, Innisfail
- St John the Baptist Catholic Primary School, Gladstone
- St Luke's Anglican School, Bundaberg
- St Mary's School, Bowen
- The Hall State School, Rockhampton
- The Willows State School, Townsville
- Trinity Beach State School, Cairns



St Mary's School



Byfield State School



St John's Catholic School



St Michael's Catholic School



Bowen State School



Hamilton Island State School

Mackay and Whitsunday region Traditional Owners learn from NT counterparts

Traditional Owners from the Mackay and Whitsunday region recently returned from a field trip to the Northern Territory where they learnt about marine management and ranger programs from Dhimurru Traditional Owners.

The visit was made possible by the Great Barrier Reef Marine Park Authority (GBRMPA), as part of the Caring for Our Country Reef Rescue Indigenous Land and Sea Country Partnerships Program. Traditional Owners and representatives of the Gia, Ngaro, Yuibera and Koinjimal said the trip was a useful learning experience and the group hoped to put some ideas into action in the future.

The Traditional Owners said it was great to see first-hand the work the Dhimurru people are doing in the Northern Territory to protect marine turtles and dugong. We hope to learn from their experiences and develop some systems we can put in place on the ground in the Great Barrier Reef Marine Park.

They said the Larraki Nation also has very well-developed ranger programs for men and women and these are good for the communities as well as good for the environment. It was also useful to link up with the North Australia Indigenous Land and Sea Management Alliance (NAISMA)



Gary Mooney, Djarramu (Dhimarru Ranger), Bawuli (Dhimarru Ranger), Vicki Toffetti, Lisa Roeger (Dhimarru Coordinator), Gary Prior, Marissa Deshong and Samarla Deshong discussing the I-Tracker

who are well-respected for their land and sea management.

During the trip, the Traditional Owners undertook field activities where they learnt about the biology and status of species such as marine turtles and dugong. This included the use of I-Tracker, a system in place in the Northern Territory where the Traditional Owners gather and share information on turtles and dugong and other environmental information with marine managers.

GBRMPA Chairman Russell Reichelt said the field trip was a hands-on practice learning opportunity.

"Traditional Owners have a very close connection to the Great Barrier Reef and those in the Mackay and Whitsunday region are keen to take a more active role in managing their land and sea country," he said.

"They are interested in working with us to protect plants and animals in the Marine Park, protect cultural and heritage values and contribute to strengthening the resilience of the Great Barrier Reef.

"The information and ideas gathered through the field trip will be available to other Traditional Owner groups in the Reef region and we hope it will inspire them to adopt some activities in their own land and sea country".

The Caring for Our Country Reef Rescue Indigenous Land and Sea Country Partnerships Program aims to strengthen communications between local communities, managers and reef stakeholders. The program is part of the Australian Government's \$10 million commitment over five years toward Caring for Our Country.

Reef Guardian Council on right track

After only six months as a Reef Guardian Council, Mackay Regional Council has produced some impressive results.

As part of their agreement with the Great Barrier Reef Marine Park Authority (GBRMPA), the Council has begun implementing their 59 agreed actions.

These actions, in the areas of community capacity, water, waste and land management, are all designed to have a beneficial impact on the health of the Great Barrier Reef.

Council officers, together with GBRMPA staff, are now updating the next financial year's action plan. The new plan will include a climate change module, with actions designed to reduce greenhouse gas emissions and

the effects of climate change, all of which will ultimately benefit the Reef.

Sustainable Futures Committee Councillor George Christensen said Council was already involved in a wide range of initiatives to reduce energy consumption and emissions.

"A significant project was the introduction of mandatory use of E10 fuel in Council fleet vehicles and, where possible, six-cylinder vehicles have been replaced with more fuel efficient alternatives such as hybrids, diesel and four-cylinder cars," he said.

"The mandatory switch of all Council vehicles over to E10 fuel in November has resulted in a 50-tonne reduction of CO2 emissions thus far."

Other initiatives include preparing management plans for significant environmental areas, encouraging the use of local native plants, improving stormwater quality, monitoring waterway health and implementing litter-management programs.

"We're also focusing on the little things that make a big difference, such as an increase in office recycling and the introduction of electronic pay slips," Cr Christensen said.

The Reef Guardian Program supports local councils and their communities to work together to create strategies and undertake actions to protect the Great Barrier Reef.



GBRMPA Chairman Russell Reichelt with Mackay mayor Col Weng

School students learn wetlands' values

More than just an attractive centre-piece for a playground, Townsville's Cathedral School's lagoon is also a good friend to the Great Barrier Reef.

Students from the school recently spent time learning about the importance of the lagoon and other wetlands around the region, to the health of the Reef.

The day's activities, jointly organised by the Great Barrier Reef Marine Park Authority (GRBMPA) and NQ Dry Tropics, involved learning about wetlands' role in the Reef's ecosystem, preparing community education posters and a lesson in water quality testing. The students will now monitor the water quality of their lagoon and work to rehabilitate the wetland area including eradicating weeds and planting native vegetation.

GRBMPA Education Officer Carolyn Luder said the school has requested that the event be extended to include all classes in grade nine.

"Cathedral School is very lucky to have its own natural wetland on its



school grounds and the students were very keen to keep it looking beautiful as well as learning how the lagoon helps the Reef stay healthy," she said.

"The event was held on World Wetlands Day, the theme for 2010 was Wetlands, Biodiversity and Climate Change and its focus was on Caring for our Wetlands – an answer to climate change."

Wetlands can be either artificial or natural swamps, marshes, billabongs, lakes, mudflats, mangroves or bodies of water, including some underground wetlands.

Wetlands play in an important role in protecting the Reef by filtering out water before it reaches the ocean, shielding the coast from storm surges and erosion and provide habitat for plants and animals.

Students get behind Schools Clean Up Day

A group of year seven students from Bowen State Primary School donned their hats for some morning fun in the sun at Front Beach Esplanade recently.

The students were participating in Schools Clean Up Day and were supported by the Great Barrier Reef Marine Park Authority (GRBMPA) and NQ Dry Tropics.

More than 60 students from the Reef Guardian School spent an hour clearing litter and waste from the beach before being treated to some delicious treats from the local bakery.

The school's environmental co-ordinator, Ian Haworth, said the whole community had come out to support the students.

"We had volunteers from around town come down to the beach to lend a hand and Jocheims bakery supplied some fabulous sausage rolls for the students.

"That support will go a long way to encourage the students to participate in more environmental activities," he said.

Ian said the students were gaining an increased awareness of many environmental issues through the Reef Guardian Schools Program and Schools Clean Up Day was one of their activities.

"Every little bit we can do to clean up around our beaches helps. Our beaches are beautiful and we aim to keep them this way now and into the future," he said.

GRBMPA Education Officer Carolyn Luder said the students learned how cleaning up the beaches helps to protect the Great Barrier Reef.

"The Reef Guardian Schools Program has a strong focus on ecosystems and students are made aware of how being responsible with things like rubbish and electricity usage has a positive outcome for the Reef," she said.



Bowen State School students remove litter from Front Beach Esplanade in Bowen

Leonie leopard shark's large family

It's a girl! And she has a brother... or sister. Two baby leopard sharks have hatched at Reef HQ, but the sex of one of them is still unknown.

Reef HQ Aquarist Nick Baker said they have not been able to check the sex of the shark pup as it was too stressful for the little one.

"We suspect it's a male, but we'll have to wait until it's a little older before we can check that out. There is still another egg to hatch, which should happen soon," he said.

Leonie, the mother of the hatchlings and five other pups at Reef HQ, lays many eggs throughout winter in the predator tank. The divers check these eggs each day and if they are viable the divers move the eggs to a separate tank.

Leopard shark eggs have tendrils to anchor them to the sea floor. It takes about four months for the eggs to hatch and when they are big enough to be with the other fish, they will be put on display in the sharks exhibit with their brothers and sisters.

"Leopard sharks are often referred to as zebra sharks because of the appearance of juveniles. They are black with white stripes when they hatch, and later in life this changes to a light brown colour with distinctive darker brown and cream patches over their backs," Nick said.



They are docile and during the day they spend a lot of time lazing on the sea floor. They become more active at night time.

Teachers and enviros: a perfect match

Teachers from across north Queensland have got some fresh learning ideas for their students.

They have been attending speed-dating style networking meetings with environmental and industry representatives from the region to discuss ways to increase environmental awareness and knowledge of school students.

The teachers were able to collect resources and information about upcoming class activities, or to arrange for possible excursions and school visits by the organisations.

The meetings have been held in Townsville, Charters Towers, Ayr, Bowen, the Whitsundays and Mackay.

All of the meetings have had an impressive turn out, with both the teachers and environmental managers praising the initiative. The concept was developed as part of the Reef Guardian Schools Program.

GBRMPA Education Officer Carolyn Luder said each of the meetings had been a great success.

"It was an opportunity for teachers to swap ideas and get the necessary information to develop learning modules and class projects with an environmental theme. They were able to connect with environmental organisations, industry groups and local and state government representatives," she said.

"Non Reef Guardian Schools were also invited to attend and it was great to meet some of those teachers and introduce them to the program.

"I heard a report that at the Whitsundays meeting, everyone was so enthused that they needed to be asked to vacate the room. It is that enthusiasm that will contribute to the success of the learning outcomes for the students".



Burdekin region teachers networking



Leopard shark pup being fed by Aquarist

Your sightings build knowledge

The Great Barrier Reef Marine Park Authority's Sightings Network has released the results for animal sightings in the Marine Park in 2009.

The usual suspects, humpback whales, were regularly spotted, with more than 1000 sightings. One tour group witnessed this whale behaviour:

"A total of 17 whales approached the boat and circled it for around 40 minutes. It appeared as if they were all chasing one whale, possibly a female. The other whales were challenging each other, they were tail slapping, pectoral slapping, hitting each other and actively colliding into each other with their heads," Matty Borg, from Fantasea Cruises in the Whitsundays, said.

"The whales were creating bubble walls and we could hear loud grunting and howling noises coming from them."

Also in the Whitsundays, 10 false killer whales travelled alongside a boat for a period of time and more than five Maori wrasse appeared to be chasing each other.

Dwarf minke whales, who are commonly known for their curious and friendly nature, were often spotted at Flynn Reef in Cairns at times even approaching divers.

There were many sightings of sharks last year, including tiger, whale and one recorded sighting of a hammerhead shark. At Cod Hole near Cairns a very curious female whaleshark was interacting with snorkellers, according to Mike Ball Dive Expedition.

In December, the once-a-year event of coral spawning was watched and photographed at Moore Reef near Cairns. It began in the late

afternoon and continued through the night creating a magnificent spectacle.

The Sightings Network dataset was established in June 2007 and boasts over 3100 descriptions of amazing sightings. Anyone can contribute to the network. If visitors to the Marine Park have seen something special, they are encouraged to let the GBRMPA know including submitting photos to sightings@gbmpa.gov.au



Humpback whale – Image courtesy of Tanya Drury from Islandive in the Whitsundays

In 2010, animals of particular interest include:

- Any cetaceans – whales and dolphins
- Sharks and rays
- Sea snakes
- Crown-of-thorns starfish (adults and juveniles)
- Turtles
- Sea birds
- Dugongs.



Seasnake – Image courtesy of Richard Strain from 1770 Sea Quest



Dwarf minke whale – Image courtesy of Tony Bridgewater, New Horizon Sail and Dive, Cairns

Creature Feature

Humphead Maori wrasse

- All humphead Maori wrasse, are born as female. Later in life, some of them turn into males.
- Humphead wrasse are the largest species of wrasse. They can grow to more than 2.3 metres long and weigh up to 190kg which is around the same length as a small car and the same weight as a sumo wrestler.
- The body of the humphead wrasse is green, ranging between an olive shade to a lighter green, with vertical lines of dark scales. Their heads are blue with yellow lines under their chin and around their fins.
- They eat food such as crabs, starfish, octopus and other fish. They are one of the few predators capable of eating toxic marine animals such as crown-of-thorns starfish and boxfish. There is a second set of jaws in their throats and this allows them to crush their prey.
- The humphead Maori wrasse is a very inquisitive fish. They are curious of humans in the wild and are very interactive in aquaria.
- They live up to 30 years, and reach maturity after between five and seven years.
- Classified as endangered by the International Union for Conservation of Nature, the humphead Maori wrasse is fully protected on the Great Barrier Reef and is a no-take species.
- If one is taken accidentally, it is to be returned immediately and it is illegal to own one without a special permit.
- Of immediate threat to the existing humphead Maori wrasse in the Great Barrier Reef is loss of habitat, accidental capture, marine debris and live reef fish food trade and aquarium trade.



Adopt a Wrasse!

Reef HQ's resident humphead Maori wrasse, Wally, is up for adoption. Wally is one of the animals on the aquarium's new Adopt a Reef Creature program.

Wally is a very curious fish, and will often approach people on the other side of the tanks acrylic who have come to see him. He has a particular fascination with people wearing anything blue or sparkly.

He is also very playful during the dive shows. He is known for sneaking up to divers and sucking on to their dive gear. One diver has lost his face mask three times thanks to Wally!

The Adopt a Reef Creature program allows participants to give back to the marine animals who are under threat due to human activities.

If Wally is the chosen animal, the financial assistance will go directly to his food, vet services and care. Wally's adoptive parents will also get invited to special events.

All donations are tax deductible and participants will receive regular newsletters keeping them up to date on their animal's cheeky antics, as well as invitations to public lectures, guided tours, exhibits and community action days.

More information about adopting Wally can be found by emailing Laura Dunstan on laura.dunstan@gbbrmpa.gov.au.

Calendar of events

2010

International Year of Biodiversity

04 – 11 July

NAIDOC Week

30 July

Schools Tree Day

01 August

National Tree Day

09 August

International Day for World Indigenous People

23 – 29 August

Keep Australia Beautiful Week

GBRMPA contacts



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