

# SeaRead

Marine Park news from catchment to coral



Australian Government

Great Barrier Reef  
Marine Park Authority



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## Coral trout numbers increase in Green Zones



*Coral trout are among the most popular species targeted by Queensland's commercial and recreational fishers*

A team of marine scientists has shown that coral trout populations on the Great Barrier Reef increased by between 31 and 75 per cent on reefs closed to fishing.

Fish populations on reefs offshore of the cities of Townsville, Cairns and Mackay as well in the Palm and Whitsunday islands were shown to benefit substantially from the no-take Green Zones introduced by the Great Barrier Reef Marine Park Authority in 2004.

Researchers from the ARC Centre of Excellence for Coral Reef Studies, James Cook University and the Australian Institute of Marine Science surveyed 56 reefs spread over more than 1000 kilometres to find evidence that protected fish populations bounced back rapidly after years of heavy fishing.

Team leader Professor Garry Russ said that coral trout numbers rebounded on reefs which had been closed to fishing for as little as 1.5 to 2 years.

"We were very agreeably surprised at the speed at which coral trout populations recovered – and also the sheer scale and consistency of the response," Garry said.

"The Great Barrier Reef is an Australian and international icon, the largest and most complex of marine ecosystems. Our findings provide encouraging evidence that bold political steps to protect such ecosystems can be successful."

Garry said the increased fish populations in Green Zones would mean greater protection for the tourism industry on the Great Barrier Reef and could also enhance the sustainability of reef fishing in the longer term.

"Our findings show that large scale reserve networks, set up to protect biodiversity and ecosystems, can produce rapid positive responses for harvested species."

Great Barrier Reef Marine Park Authority Chairman Russell Reichelt said the results were consistent with previous findings that the Green Zones in the Marine Park were working.

"The results of this study are very exciting and provide further evidence that the Green Zones are helping to replenish fish populations.

"In time, we hope the growing fish populations in Green Zones will lead to improvements in fish numbers on fished reefs."

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## Message from the Chairman



This month I am pleased to welcome our four newly appointed General Managers who will join a team of highly qualified staff here at the Authority. Andrew Skeat, Peter McGinnity, Margaret Johnson and Bruce Elliot will be working with me to lead the Authority into the future. With looming environmental challenges such as climate change and declining water quality posing a threat to our Great Barrier Reef, the strong leadership this team will provide will ensure that we are well positioned to improve the resilience of the Great Barrier Reef in the face of these challenges.

On that note, it is great to see recent research from our partners at the Australian Institute of Marine Science, Newcastle University, ARC Centre of Excellence for Coral Reef Studies and James Cook University further confirming the positive effects of Green Zones in improving reef resilience. Long-term studies are showing increases in fish abundance in the no-take zones and decreases in crown-of-thorns starfish outbreaks. This research adds to an ever-growing

body of evidence verifying the positive benefits of Green Zones.

I continue to be impressed with the work of our Reef Guardian partners including schools and councils who are taking reef protection into their own hands. Recently, a group of students from Cape York came to Townsville to learn about the Reef first hand. This was a fantastic experience for all involved and we thank the children and teachers for sharing stories of their region with us. Reef Guardian students from the Gladstone region also took time out to share important messages of sustainability and reef protection on the global stage. Congratulations to Devin DaSilva Martins and Josh De Jonckheere who represented Australia at the Veolia convention *Cities Around the World* in Paris, France. Their school submitted a wonderful plan for reducing their city's impact on the Great Barrier Reef.

Closer to home, I'd like to recognise some of the changes we are making to our own offices to reduce our impact on the Reef. Our

passionate Green Office Committee has been busy constructing a worm farm, establishing battery recycling facilities and investigating other ways we can make our offices more sustainable.

I encourage everyone in the catchment to follow our lead and look at ways we can reduce the impact our households, schools and businesses have on the climate and on the Great Barrier Reef.

Regards

Russell Reichelt  
Great Barrier Reef Marine Park  
Authority



Russell met with Prime Minister Kevin Rudd during the launch of the Reef Atlas

## Making history on the Reef

***Two icons in the Great Barrier Reef Marine Park have been formally recognised for their place in Australia's cultural and Indigenous heritage.***

Low Island and the Low Islets Lightstation have been incorporated into the Commonwealth Heritage List by the Minister for the Environment, Heritage and the Arts, Peter Garrett.

This is a first for the Great Barrier Reef because the listing recognises both Indigenous history and Australian cultural history.

Belinda Jago from the Great Barrier Reef Marine Park Authority welcomed the heritage recognition for the island and lightstation, located about 15kms north-east of Port Douglas in north Queensland.

"We are delighted these very important and beautiful areas have been recognised for their place in Australia's heritage," she said.

"It is even more special because the listing combines their contribution to both Indigenous history and Australian cultural heritage."

The area is important to Australia's Indigenous history and is particularly significant for the Kuku Yalanji and Yiriganji people as part of their Dreaming.

Low Islets is considered to have formed part of a united landmass that was separated during the Dreamtime.

The lightstation was also the first constructed in north Queensland,

used as a navigation aid to address dangers to ships approaching northern Queensland waters.

This was particularly significant to the ports of Cairns and Port Douglas.

The Commonwealth Heritage List was established under the *Environment Protection and Biodiversity Conservation Act 1999*.

It recognises the importance natural, Indigenous and historic heritage places in the Great Barrier Reef Marine Park have in Australian cultural heritage.



# Praise for protected areas on the Great Barrier Reef

***New research that praises Australia's approach to protecting the Great Barrier Reef through no-take areas has been welcomed by the Great Barrier Reef Marine Park Authority.***

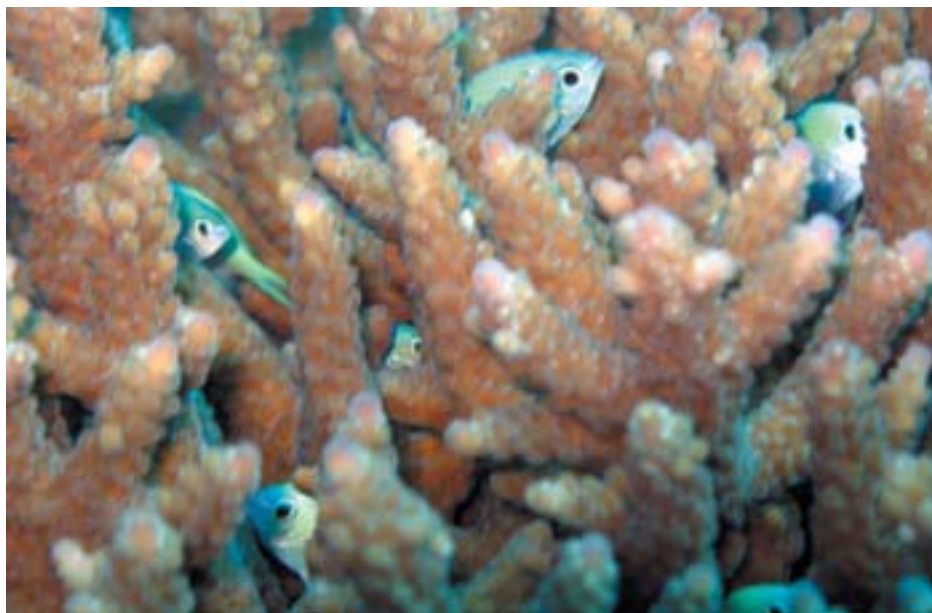
Scientists from the ARC Centre of Excellence for Coral Reef Studies, Newcastle University and Wildlife Conservation Society say Australia's protected areas on the Great Barrier Reef were a model for how to protect large reef systems under climate change.

Dr David Wachenfeld from the Great Barrier Reef Marine Park Authority said the research confirmed Australia was a world leader in marine conservation.

"It is fantastic that Australia has been recognised as a world leader in marine conservation and that our approach to protected areas has been highlighted as a best practice model in this research," he said.

"Protected areas on the Great Barrier Reef have made an amazing contribution to protecting plants and animals, ensuring this great Australian icon is protected for the future.

"The research suggests that some areas in the world are facing challenges with their approach to marine conservation but clearly shows the Australian model is working effectively."



*Small damselfish shelter amongst the branches of a coral colony - photo courtesy of Shaun Wilson*

The scientists studied marine protected areas in 66 sites in seven countries in the Indian Ocean for more than a decade.

Dr Shaun Wilson from the ARC Centre of Excellence for Coral Reef Studies said protected areas in these countries may protect local fish but may be too small to enable reefs to recover from major coral bleaching.

The research highlighted protected areas in Australia's Great Barrier Reef were an effective model for how to protect large reef systems under climate change.

"The Great Barrier Reef Marine Park Authority have put a lot of effort into determining exactly where these protected zones should be located to give the Reef the best over all chance of recovery from bleaching events," he said.

The researchers recommended existing no-take zones in the Indian Ocean region should not be removed, but new protected areas were needed in the right places to enable corals to recover from the mass die-offs caused by rising temperatures.

## Protecting fisheries for the future

***The Queensland Seafood Industry Association (QSIA) is working to improve and manage the industry's environmental performance.***

They've announced three Environmental Management Systems (EMS) that outline steps to ensuring commercial fishing is sustainable.

QSIA Senior Vice-President Robin Hansen said sustainable fishing was important to both fisheries resources and the industry itself.

"The EMS allows industry to identify activities that impact on the environment, document and assess risks, and look at ways to reduce that risk to the environment," he said.

"The aim is to increase community involvement and consumer confidence in the seafood industry and enhance the co-management

capacity of fishers in fisheries resources and management.

"It demonstrates to the community and government that fishers are using and will continue to use natural resources in a responsible and environmentally sustainable way.

"The EMS has revealed just how pro-active fishers have been by voluntarily contributing to government research initiatives."

This includes the development and implementation of by-catch reduction devices, turtle excluders and studies into maximum gear selectivity such as mesh size and crab pot design.

"Developing the EMS has enabled fishers to recognise the many ways they are already operating in an environmentally secure way," Robin said.

"It has meant that they feel more confident addressing the community on these issues and that they see the value in doing so."

The EMS completed so far relate to: Hinchinbrook Region Net/Line/Crab EMS; Wide Bay Burnett/ Great Sandy Straits Net/Line/Crab EMS; and Sunshine and Cooloolo Coasts Net/Line/Crab EMS and Trawl EMS.

Within each fishery there are multiple sub-fisheries prescribed by the Queensland Department of Primary Industries and Fisheries (DPI&F) defined by gear type, target species and or region as listed.

As part of the process, QSIA have also developed a voluntary "Lets Talk Professional Fishing," modelled on the DPI&F recreational Fishcare program.

This volunteer program is promoted by wearing a t-shirt that identifies that the wearer is happy to talk about commercial fishing to anyone.

If you're interested in participating in the "Lets Talk Professional Fishing" Initiative, please contact Ashleigh Hoffman from QSIA on (07) 3262 6855.

# Proserpine Mill **rewards** sustainable cane farming

***In an effort to improve the sugar industry's environmental performance, Proserpine Mill encourages and promotes the adoption of Best Practice Management in the cane growing sector.***

Company Secretary of the Proserpine Mill Ian McBean said the implementation of land and water management plans, nutrient management plans and herbicide and pesticide management plans were amongst the Best Practice Management (BPM) Modules supported by the Proserpine Mill as part of an incentive program for its cane growers.

"We target nutrients, sediments, agricultural chemicals and smoke, these are the major sources of pollution we are dealing with and they are inter-related," he said.

"If a grower successfully completes and implements any of the agreed BPM modules in a season, the Mill pays an additional payment of five cents per tonne of cane supplied per module during the season in which the module was completed - capped at twenty cents per tonne over a four year period."

When the incentive program was first introduced in 2006, the Mill paid out an additional \$160 500 to 264 farms. In 2007, a Soil Analysis Incentive Scheme was introduced whereby the Mill covers the cost of up to five soil analyses per farm. The soil samples must include both fallow and ratoon blocks and the results are

used with the Proserpine soil specific fertiliser recommendations (part of the BSES Six Easy Steps program) to develop a Nutrient Management Plan for the farm.

"When it comes to nutrient management, it is critical to optimise fertiliser application based on soil analysis, soil type and crop needs. Other things like accurate calibration of equipment also come into play," Ian said.

To date the program has been well received with approximately 68 per

cent of the Mill supply area participating. The Nutrient Management Planning system developed in Proserpine is now forming the basis of a system to be rolled out by BSES across the industry.

The Mill incentive program has been very successful so far, with not only the benefits for the environment but also the benefits for the growers in terms of lower input costs confirming once again that what's good for the environment is good for the business.

## **About Proserpine Sugar:**

*Proserpine Cooperative Sugar Milling Association Limited is a medium-sized sugar milling company located in the Whitsunday region and employing around 280 people during the crushing season. An established and successful business over the last decade, the Cooperative has placed a strong emphasis upon modernising facilities, implementing value-adding projects and focusing on the sustainability of the business and the industry in general.*



## Green Zones **protect** Great Barrier Reef from crown-of-thorns starfish attacks

***Reefs where fishing is not allowed are much less prone to outbreaks of the devastating coral-eating crown-of-thorns starfish than fished reefs, according to long-term monitoring surveys on the Great Barrier Reef.***

Dr Hugh Sweatman from the Australian Institute of Marine Science predicted that any future outbreaks of crown-of-thorns would not be as destructive as in the past because of the 30 per cent increase in Green Zones in 2004.

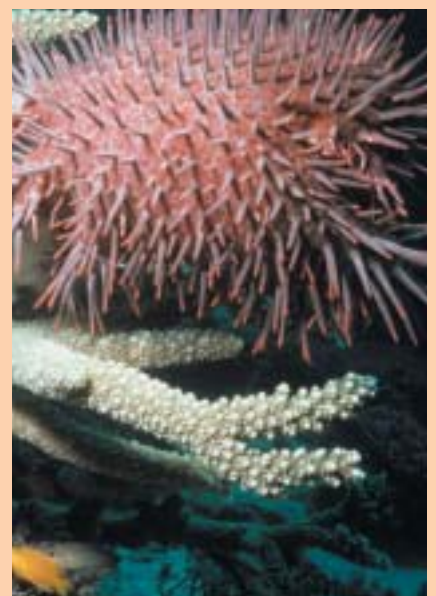
Hugh said the findings boosted the scientific case for protection of reef ecosystems.

"This study provides an additional argument for establishment of effective marine protected areas wherever the starfish occurs."

Crown-of-thorns outbreaks are at a 20-year low, according to the surveys that also found that the frequency of crown-of-thorns outbreaks on reefs open to fishing was nearly four times higher than on no-take reefs.

Crown-of-thorns starfish outbreaks last about 15 years, beginning in the northern reaches of the Great Barrier Reef and moving southward through the central areas.

Over the past 40 years, these outbreaks have caused more damage to Great Barrier Reef reefs than storms or coral bleaching.



*Coral-eating crown-of-thorns starfish are in decline due to the increase in Green Zones on the Great Barrier Reef*

# Helping ensure ongoing protection of dwarf minke whales

**Researchers, tourism operators and the Great Barrier Reef Marine Park Authority have joined forces to help secure a better future for dwarf minke whales in the Great Barrier Reef.**

Revising the code of practice for operators involved with swimming-with-whales activities helps ensure these animals are protected and that interactions with them are managed in a sustainable way.

The code of practice applies to the nine tourism operators that currently have a permit to conduct swimming-with-whales activities in the Cairns/Port Douglas area.

Mark Read from the Great Barrier Reef Marine Park Authority said the code of practice sets out the best way to approach and interact with dwarf minke whales when tourism operators take visitors to swim with the animals.

"By working together we are helping ensure the best interests of the whales are considered as they interact with people in the Marine Park, while allowing tourism operators to give visitors an opportunity to experience these animals face-to-face.

"The recent revisions to the code of practice help ensure these animals are protected and interactions with the whales are managed in a sustainable manner.

"The code of practice also outlines ways to monitor minke whale activity in a standard way so we gain a better insight into their behaviour.

"We believe giving people the opportunity to interact with dwarf minke whales in a safe way allows them to learn about these animals and leads to a greater appreciation of the marine environment."

Tourism operators are required to supply information on dwarf minke whale encounters to the Great Barrier Reef Marine Park Authority.

Researchers from James Cook University have been funded by the GBRMPA since 2003 to collate and analyse the information which is then used by managers to make

informed decisions regarding multiple use activities in the Marine Park.

This information helps marine managers make informed decisions regarding multiple use activities in the Marine Park.

Pre and post-season workshops involving marine managers, swimming-with-whales endorsed tourism operators and researchers ensure management of this activity is regularly evaluated.

The nine operators are: Aristocat, Floreat Reef Charter, Mike Ball Dive Expeditions, Nimrod Explorer, Poseidon Cruises, Silverseries, Eye to Eye Marine Encounters, Taka Dive and Undersea Explorer.



## Vessels seized during crackdown on illegal commercial fishing

**Five commercial fishing vessels were seized off Mackay and Gladstone recently as part of a widespread investigation into illegal fishing in protected areas on the Great Barrier Reef.**

The investigations by compliance officers from the Great Barrier Reef Marine Park Authority (GBRMPA) followed tip-offs from people in the industry about illegal poaching by some operators.

Mick Bishop from GBRMPA said five commercial fishing dories were detected operating in no-take Green Zones in the Great Barrier Reef Marine Park around Mackay and Gladstone, and search warrants were issued and the vessels seized.

Mick said he believed the majority of commercial operators were doing the right thing as they realised sustainable fishing was important to the future of their industry as well as the future of the marine resources.

"It's disappointing that some commercial operators are illegally fishing in Green Zones.

"It undermines the efforts of those commercial operators who are following the rules and it undermines the environmental benefits that these no-take zones will have for fishing in the future."

This type of illegal behaviour is at odds with where the commercial fishing industry is trying to head - the Queensland Seafood Industry recently launched its new Environmental Management System for their industry to provide an adaptive framework for continuous improvement of the seafood industry's environmental performance.

Customs Coastwatch surveillance plays a major role in detecting

commercial line fishers and the GBRMPA Day-to-Day Management team now have a team of staff totally dedicated to detecting and investigating these offences.

Illegal fishing can be reported to GBRMPA on (07) 4726 0510 (business hours) and (07) 3830 8246 (after hours).

**Two commercial fishers pleaded guilty and were fined in the Mackay Magistrates Court in late July for fishing related offences in protected areas on the Great Barrier Reef. These court results are among several recent cases involving commercial fishers convicted of illegal fishing on the Reef; the highest court result in recent weeks was a \$40,000 fine in June. These court cases follow widespread investigations conducted as a result of detections from the recently enhanced Customs Coastwatch operations.**



## Reef Guardians share message with the world

**Reef Guardian students Devin DaSilva Martins and Josh De Jonckheere crossed an ocean to share their important message of sustainability with the world.**

Year four teacher Shay Thetford said the pair from St Francis Catholic Primary School in Tannum Sands were selected to represent their school and their country at the Veolia convention *Cities Around the World* in Paris, France.

"Our school was selected to participate in this international environmental forum because of our involvement in the Reef Guardian Schools program and our hands-on initiatives aimed at protecting the Great Barrier Reef," Shay said.

"Our winning submission included a plan developed by the year four class, aimed at turning our industrial city of Gladstone into an environmentally sustainable city.

"The plan included a focus on co-operative industry and environmental progress and looked at ways of reducing the city's impact on the Great Barrier Reef."

Devin and Josh travelled with Shay to represent Australia, which was among the 22 countries that attended the convention.

Josh said the convention presented an important opportunity to share what they had learned as Reef Guardians with people around the world.

"The main reason we went to Paris was to discuss our awareness of sustainable futures," Josh said.

"We explained our special relationship with the Great Barrier Reef and our need to look after it to all the other countries."

"We also presented a special Gooreng-Gooreng dance to highlight the cultural heritage of our region."

Both of the boys said the trip was a once in a lifetime experience.

"We had an amazing time and we got to see many great things like the Eiffel Tower, Sacre Coeur, the Paris Opera, Versailles, and Notre Dame.



Year four Reef Guardian students Devin DaSilva Martins and Josh De Jonckheere shared conservation messages in Paris, France

"We also learned about the way of life in France and what other countries are doing in order to ensure the Earth is a healthy place to live."

The students said the highlights included meeting and interacting with other kids from around the world and visiting Disneyland Paris.

Shay said St Francis Catholic Primary School was passionate about incorporating action-based sustainability initiatives into its curriculum and the trip to Paris was a great example of how real life experiences helped to promote environmental stewardship.



## National Geographic visits Reef Guardian Schools down under

***Fifteen American students visited Hambleton State School to learn about the Great Barrier Reef Marine Park Authority's Reef Guardian Schools Program as part of the National Geographic Kids Explorer Challenge.***

Reef Guardian Schools Coordinator Megan Sperring said it was a wonderful opportunity for the students to share ideas about sustainability.

"Both groups of children learned a lot from each other and the American students will take home lots of great ideas on how to reduce energy and waste, recycle and be water wise at their school.

"The students also learned about permaculture by visiting Hambleton State School's water wise native garden which promotes using native plants to



*Winners of the National Geographic Kids Hands-On Explorer Challenge Expedition Team and students from Hambleton State School participate in the Great Barrier Reef Marine Park Authority's Reef Guardian Schools Program - photo courtesy Annie Griffiths Belt ©2008 National Geographic*

save water and provide shelter and food for native wildlife," Megan said.

"The students from Hambleton State School are fantastic ambassadors for the Reef and have won a 'Reef Guardian Champions Award' for past work mentoring other schools and spreading their enthusiasm for safeguarding the Reef."

Hambleton State School's Reef Guardian Coordinator Debbie Townsend said the whole school enjoyed hosting the National Geographic students and was happy that some of their Reef Guardian initiatives would be adopted internationally.

## From little things big things grow

***Young environmentalists from two Townsville Reef Guardian Schools left a lasting mark when they planted more than 100 native seedlings to help protect the Great Barrier Reef during Planet Ark's Schools Tree Day.***

Seventy-five students from Hermit Park and St Margaret Mary's schools teamed up with the Great Barrier Reef Marine Park Authority (GBRMPA) and Burdekin Dry Tropics Natural Resource Management (BDTNRM) to revegetate a local riparian zone near the Ross River.

GBRMPA education officer Laura Dunstan said the preservation of native vegetation was important for the health of the Great Barrier Reef.

"Native plants act like a filter and improve the quality of water that is transported through our rivers and streams out to the Reef.

"Clean water is essential for healthy marine life and it is great to see schools actively contributing to improving the health of our local environment.

"Plants are also helpful in absorbing carbon dioxide which is

important as climate change is one of the greatest threats to the Reef."

The tree planting was a collaborative effort between the two schools, GBRMPA, and the BDTNRM with materials and assistance provided by Coastal Dry Tropics Landcare Inc., Conservation Volunteers and Townsville City Council.

Thanks to the Savannah Nursery on Thompson St in Townsville for donating all the plants for the Kingfisher Lagoon planting.



*Students from St Margaret Mary's College in Townsville helped to green up a local riparian area in order to help protect the Great Barrier Reef*



## Cape York students lead the way in protecting the Reef's future

*Students from schools in the Cape York region visited Townsville recently for four days to network with some of Townsville's leading Reef Guardian Schools and to share ideas on how to protect the Great Barrier Reef.*

Twenty students from schools in Cooktown, Hopevale, Bloomfield and Lockhart River were involved in the Reef Guardian Schools 'Cape York Future Leaders' workshop hosted by the GBRMPA.

GBRMPA Director of Communication and Education Karen Vohland said that the aim of the workshop was to give students from these remote areas the chance to meet and share ideas with local students and also get some tips for possible environmental projects to implement at their own school.

"There have been some fantastic environmental initiatives from our Reef Guardian Schools and this was a great opportunity for the students to see first hand how these projects are working in school communities.

"I am always impressed by the level of environmental awareness and the enthusiasm that our Reef Guardian School students show in their efforts to help protect the Great Barrier Reef by practising and promoting sustainable environmental activities within their school and their communities," Karen said.

During their stay, the students visited four schools across Townsville including Rasmussen State School, Belgian Gardens State School, Hermit Park State School and St. Patrick's College.



*Students from Cape York enjoyed learning first hand from marine managers during a visit to Townsville*

Students taught each other about permaculture gardening, water conservation and how to look after wetlands and seagrass.

Students also participated in special seminars at Reef HQ and learnt about the Great Barrier Reef, the pressures from climate change and how marine resources are managed.

The GBRMPA worked in partnership with Terrain Natural Resource Management, the Earthwatch Institute, Cook Shire Council and the Queensland Department of Natural Resources and Water, Training and the Arts to give students the opportunity to take part in this workshop.

## Bob Muir awarded Elder of the Year award during NAIDOC Week

*Bob Muir, an Elder of the Woppaburra people was awarded the Male Elder of the Year award during National NAIDOC celebrations in Canberra recently.*

The National NAIDOC Awards recognise the outstanding contributions that individual Indigenous Australians make to their own communities and the broader Australian community.

Award winners were chosen based on their individual status as an inspirational role model for Indigenous people and the broader Australian population, their leadership skills, their future goals and likely impact, and their commitment to personal development.

Bob Muir has worked tirelessly with the Authority over many years ensuring Traditional Owner involvement in Marine Park management and has been instrumental in forming co-operative management arrangements for the Marine Park.

## Sea Country Snippets



### What is NAIDOC?

NAIDOC Week is the outcome of a long history of Aboriginal and Torres Strait Islander efforts to bring issues of concern to the attention of Governments and non-Indigenous Australians. NAIDOC has its origins in the fight for Aboriginal rights that began to gather pace in the 1920s and 1930s. In those years, organisations such as the Australian Aborigines Progress Association (AAPA), the Australian Aborigines League (AAL), and the Aborigines Progressive Association (APA) were

established to draw attention to the living conditions suffered by Aboriginal people and their complete lack of citizenship rights. Originally the NAIDOC acronym stood for 'National Aboriginal and Islander Day Observance Committee.' Today the meaning of NAIDOC has changed to reflect the reconciliation process and celebration of Indigenous cultures. The name is now recognised as 'National Aboriginal and Islander Day of Celebrations'.

# Expanding environmental education in regional north Queensland

***Schools from Charters Towers, Townsville, Bowen and other regional towns got a boost last month when the Great Barrier Reef Marine Park Authority (GBRMPA) and Burdekin Dry Tropics Natural Resource Management (BDTNRM) officially joined forces to expand the Reef Guardian Schools environmental education program.***

The partnership was launched as the organisations welcomed Mundingburra State School as the newest recruit to the action-based education program, bringing the total number of Reef Guardian Schools to 148.

GBRMPA Chairman Russell Reichelt said the close collaboration between the two organisations was already reaping rewards for local schools, particularly smaller schools in the regions.

"We're delighted to work with Burdekin Dry Tropics Natural Resource Management to give more schools the opportunity to

get involved in on-ground reef protection projects," he said.

"We now have 148 Reef Guardian Schools and that's a fantastic achievement – they are undertaking some great environmental sustainability projects and spreading their environmental messages to their families and communities."

BDTNRM CEO Bob Frazer said working with the GBRMPA to get students involved in Reef protection was an important way to ensure this great Australian icon is protected for the future and to help them understand that our actions throughout the entire Burdekin Dry Tropics Region have an impact on the Great Barrier Reef.

"We are pleased to support the Great Barrier Reef Marine Park Authority's Reef Guardian Schools Program, which is helping schools such as Mundingburra State School to undertake on ground environmental activities and to make a commitment to the future protection and conservation of the Great Barrier Reef," he said.



*Mundingburra State School becomes the 148th Reef Guardian School*

"Students are the future custodians of the Reef so we believe it's tremendously important to build their understanding and appreciation of the Reef and its connection with the Burdekin River Catchment so it is protected for the future."

Russell and Bob joined 40 students from year four and year six at Mundingburra State School to mark the occasion.

## Reminder about Garners Beach zoning

***People visiting Mission Beach are reminded to brush up on zoning around Garners Beach, a popular spot for visitors to the area.***

Zoning, like a town planning scheme, defines what activities can occur in which locations and penalties apply for not following the zoning rules.

Cassowary Coast Local Marine Advisory Committee Chair Bill Shannon said people visiting the area should be particularly mindful of zoning around Garners Beach.

"It's a good idea for fishers to make sure they have a free zoning map and check it regularly to ensure they aren't illegally fishing in areas where fishing isn't allowed or is limited.

"It's important that people are aware there's a Green Zone off Garners Beach and that Green Zone commences at the high water mark.

"You cannot fish in a Green Zone.

"In this location, as there's the State Marine Park Green Zone right off the beach, you can't fish off the beach near Garners Beach.

"Even if you go out on the water often, it's useful to know where you are and what the zoning is for that area, otherwise you could risk getting a fine for illegal fishing."

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 on board 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.

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.

Bill said research and feedback was showing the positive effects of zoning.

"Early indications show that zoning is working and preliminary research showed fish numbers are increasing," he said.

"The research found both coral trout and stripey sea perch increased as much as two times in the newly protected no-take Green Zones.

"Fishermen have also commented on increased fish in areas they visit regularly."

You can get a free zoning map from bait and tackle shops, visitor information centres, ship chandlers and Environmental Protection Agency and Queensland Boating and Fisheries Patrol offices. Alternatively you can call the Great Barrier Reef Marine Park Authority on 1800 990 177 for a free map.



**our great barrier reef  
let's keep it great**

# North's cane farmers **rise** to Reef challenge

**North Queensland cane farmers have become increasingly aware of the important role they can play in sustaining the long-term health of the Great Barrier Reef.**

As part of the Queensland Department of Primary Industries and Fisheries' (DPI&F) Reef Extension Project, more than 100 cane farmers from Cairns to Home Hill have been engaged over the past three years.

The project put in place a dedicated team of extension specialists tasked with assisting producers in the voluntary adoption of management practices capable of supporting profitable sugar production systems, whilst also improving the quality of water leaving farms and entering the Great Barrier Reef.

"We worked to showcase how environmentally sensitive management measures could be incorporated into farming systems without having to compromise profitability," project manager Adam West said.

"Working in partnership with regional Natural Resource Management bodies and industry, the project delivered a range of services including on farm demonstration trials, workshops and economic assessments."

Senior Project Officer Rob Milla teamed up with FutureCane and BSES officers to promote relevant farming system components including best practice nutrient, soil health and irrigation management. The project will also promote controlled traffic, planting of legume crops and use of computer based software tools to enhance record keeping and decision making.

The project assisted the development of an agreed set of best management practices tailored to the Lower Burdekin sugar sector, with a specific emphasis on reducing nutrient, sediment and agri-chemical loss.

This agreed practice listing provided the foundation for an allied market-based incentive project funded through Burdekin Dry Tropics Natural Resource Management, which assisted more than 30 producers incorporate improved practices into their farming systems.

The types of practices funded included tail-water recycle pits, shielded sprayers, legume fallow crops for improved nutrient



DPI&F officer Rob Milla and demonstration farmer Peter Fiamingo from Clare are part of the Reef Extension Project, an initiative to improve the quality of water entering the Great Barrier Reef - photo courtesy DPI&F

management and improved irrigation systems.

Despite the Reef Extension Project coming to a close, project learnings will provide an excellent reference and guide for future project initiatives.

One such project is the Producer Demonstration Farms Initiative, which builds from the Reef Extension initiative by focusing on quantifying the biophysical (water quality) and economic benefits of improved management practices.

Adam said the DPI&F was committed to working with the north

queensland sugar industry in accelerating the adoption of sustainable production systems and water quality improvement.

For more information, contact the DPI&F Business Information Centre on 13 25 23.

The Reef Extension Project was a joint Queensland and Australian Government funded ReefPlan initiative to improve the quality of water entering the Great Barrier Reef lagoon, with the support of the Terrain and Burdekin Dry Tropics Natural Resource Management.



Reef Guardian Schools coordinator, Megan Sperring, met with students from the Yarrabah State School prep class. During the visit the group told stories about what happens to litter if it is thrown on the ground, played a game called 'junior marine biologist,' and ate a turtle-shaped cake baked by the students. The prep students often have 'emu parades' where students pick up litter to make sure it doesn't go out to sea and harm the marine animals.

# Creepy crawlies cut greenhouse emissions

*Some slimy citizens have taken up residence at the Great Barrier Reef Marine Park Authority (GBRMPA) and are working hard to help reduce the agency's carbon footprint.*

Approximately ten thousand worms in the Authority's new worm farm spend their days chewing through food scraps, reducing the amount of waste going into landfill.

Worm farm champion Katrina Goudkamp said the farm was an initiative of the GBRMPA's Green Office Committee and was just one of the things being done around the office to reduce the agency's environmental impact.

"Food scraps are a valuable resource that would otherwise go into rubbish bins and with a little help from our worms we can turn our waste into

fantastic fertiliser for our gardens, pot plants and lawns," Katrina said.

"Our worm farm has been a huge success with lots of staff contributing food scraps.

"The worms are extremely efficient at digesting food scraps and turning them into useable and totally organic plant fertilizer that our worm farmers take home to use on their plants."

Household worm farms are a good way to reduce individual greenhouse gas emissions.

Worm farms are about the size of a compost bin or smaller, are relative inexpensive and easy to maintain and will pay for themselves by producing free fertiliser.

"Composting or worm farming can help to reduce greenhouse gas emissions in two ways – one by reducing transport emissions created in getting waste to landfill and the other by reducing the amount of greenhouse gas emissions produced since the same waste would create

more emissions if it was sent to landfill," Katrina said.

For these reasons, it is also best to dispose of household green waste such as yard clippings and palm fronds through backyard composting.



GBRMPA staff members Diane Grainger and Kate Nairn tend to the slimy tenants of the Authority's worm farm - photo courtesy Townsville Bulletin

## Doing your bit to look after it!

### *Did you know that your garden can help to improve the health of our Great Barrier Reef?*

Growing your own vegetable garden, setting up a back yard compost, building your own worm farm and planting native trees and shrubs can all help reduce your household's carbon emissions and improve the quality of the water running off your property and out to the Reef.

#### **Backyard vegetable garden**

Grow for gold! With rising costs of groceries, growing your own fruit and vegetables is a great way to save money and help reduce your household's greenhouse emissions. An above ground vegetable garden is easy to construct using old timber for borders, newspaper for weed mat, and some good compost or manure. Plant your garden in full sun and use netting and fencing to keep out hungry animals.

#### **Composting**

Create soil from spoil. Turn your stinky food scraps into rich dark fertiliser using a back yard compost bin. Contrary to popular belief, compost bins can be odour free, cheap and easy to use. Most scraps from the table, green waste from plants and paper products can be composted. Composting creates less greenhouse gas emissions than taking the same waste to a landfill.

#### **Worm farms**

Making your own worm farm is a great way to get your food scraps working for you. Worm farms can be made out of old bathtubs or fridges or can be purchased at your local hardware store for under \$100. The farms pay for themselves by creating high quality organic fertiliser for your garden, pot plants and lawn. Worm farms also create less greenhouse gas emissions than taking the same waste to a landfill (the worms can also be used as bait for fishing). Place your worm in a shady spot out of direct sun.

#### **Native plants**

Get planting! Native plants require fewer pesticides and fertilisers and less watering than exotic species because natives are bred for the local conditions. Planting trees and shrubs around the edges of your property creates a natural filter that helps to clean up water before it runs off your yard and into the ocean. Native seedlings are generally quite inexpensive (e.g. \$1-\$5) and are often provided free of charge by local councils. Contact your local council to find out where to get natives in your area.

# Ready for wildlife rescue

**An army of Marine Park officers are ready to come to the rescue of wildlife in the event of an oil spill off the Queensland coast, following a five-day training course in Airlie Beach.**

Over five days, field staff from the Great Barrier Reef Marine Park Authority and Queensland Parks and Wildlife got tips on the best way to care for oiled wildlife particularly birds.

Malcolm Turner from the Great Barrier Reef Marine Park Authority said this training helped equip field staff with practical skills they could use if an oil spill occurred.

"While oil spills are rare in the Great Barrier Reef World Heritage Area, it is important to have a network of people with the skills and knowledge in how to help look after affected wildlife," he said.

"The training had a strong focus on practical skills that can be used if an oil spill occurs and activities that enabled participants to put their knowledge to the test.

"An oil spill can be devastating for marine animals so it is important to act quickly to give them the best chance of survival.

"Marine Park officers are well-placed to lend a hand if wildlife are affected by oil spills and it's great to see so many participating in the training."

Mike Short from the Queensland Environmental Protection Agency conducted the training.

Part of the training involved participants being shown how to supervise a team of volunteers in the response required to deal with the acute impacts of oiled wildlife response.

This covered everything from how to handle birds to cleaning and post wash care, release and monitoring.

The training was also rolled out to community members during a weekend volunteer training course, with 15 community members taking part.

To report oil spills please call (07) 3830 4919 or 0427 969 384 and quote 'oil spill.'



Marine Park staff were trained to clean marine animals so they will be ready to assist in the event of an oil spill

## Calendar of events

All September 2008

Biodiversity Month

07 September

National Threatened Species Day

10 September 2008

Cassowary Coast LMAC meeting

16 September 2008

Hinchinbrook LMAC meeting

18 September 2008

World Water Monitoring Day

24 September 2008

Whitsunday LMAC meeting

All October 2008

Energy Awareness Month

08 October 2008

Gladstone LMAC meeting

09 October 2008

Burnett LMAC meeting

08 October 2008

Port Douglas LMAC meeting

14 October 2008

Cairns LMAC meeting

## GBRMPA contacts

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