Searce and Real a



Australian Government Great Barrier Reef Marine Park Authority

What's inside

New report strengthens wetland protection **3** Representative Areas Programme receives international praise **3**

Reef-wide community Chairs come together

4

Flippered friends to visit our beaches soon **5** IMPAC International conference outstanding success **6**

Reef Guardian Schools help to celebrate 30 years of managing the Marine Park **8**

ReefHQ praised for ecologically-friendly practice 10 GBRMPA

environmental practitioners recognised 12

Monitoring of fish changes 14

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Cowboys Reef named to honour remarkable season

'Cowboys Reef' was officially named recently in recognition of the North Queensland Toyota Cowboys outstanding 2004 and 2005 seasons.

'Cowboys Reef' is the initiative of Member for Herbert, Peter Lindsay, after the team's phenomenal 2004 season. 'Cowboys Reef' will be depicted on all Great Barrier Reef Marine Park zoning maps in the future.

The Chairman of the Great Barrier Reef Marine Park Authority, Virginia Chadwick and Peter Lindsay, announced that a reef located off Townsville, the North Queensland Cowboys' home base, would now be known as 'Cowboys Reef'.

"We are absolutely delighted to be able to recognise the magnificent efforts of the Cowboys over the last two years with the naming of a reef in their honour," Virginia said.

"When Peter Lindsay suggested the idea, we got 100 percent behind the initiative. After the Cowboys' sensational 2005 season it seems particularly fitting that we can now announce 'Cowboys Reef'."

Peter Lindsay, said he was thrilled a piece of the Great Barrier Reef was named after North Queensland's own Cowboys.

"Our community is just so proud of the team and how well they have done over the last two years and I think it is a fitting tribute to have a reef named 'Cowboys'," Peter said.

'Cowboys Reef' is located off the coast of Townsville, south of Myrmidon Reef and close to Davies Reef.

Virginia said naming a reef is a complex exercise, involving a range of people and organisations.

"Our priority was ensuring we found the closest, unnamed reef to the Cowboys' Townsville home base, where the team has such a huge supporter base," she said.



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Peter Lindsay and Virginia present Cowboys Captain, Travis Norton (second from left) and Cowboys CEO Peter Parr (far right) with a framed map of 'Cowboys Reef'



Message from the **chairman**

As 2005 ends, it's time to reflect on this year's vast and varied achievements, significant milestones, and the people who have made it all happen.

It's been just over one year since the Representative Areas Programme came into affect. I congratulate all staff involved in ongoing compliance and public education, and commend responsible reef users helping protect the world's largest coral reef ecosystem.

The grass-roots success and importance of this marine conservation initiative was underscored with the GBRMPA receiving two international environment awards for the programme. This includes the 2005 Sultan Qaboos Prize for Environmental Preservation from UNESCO's Man and the Biosphere Programme and the World Wildlife Fund's highest award, the Gift to the Earth.

The latter was presented at the inaugural International Marine Protected Areas Congress, which attracted over 750 marine experts from over 65 countries. It was a significant gathering of world leaders, generating much interest in our world-first marine conservation programme. I thank all staff who worked tirelessly to organise and run this highly successful event.





The GBRMPA this year also celebrated 30 years of being the custodian of the Great Barrier Reef, allowing us to demonstrate our impressive track record in protecting marine biodiversity over the entire reef area. To this end, we this year appointed regional liaison officers to ensure a continued presence throughout the coast. Their first year has proven successful in highlighting a whole-of-region approach to reef management, and we look forward to expanding our relationship with reef users in the new year.

I thank you for your continued effort and support this year, and wish you and your family a safe and happy Christmas.

Regards

Virginia Chadwick AO Chairman, Great Barrier Reef Marine Park Authority

END

Watching out for coral bleaching

As the mercury rises so too does the possibility of a coral bleaching incident, according to a local climate change expert.

Great Barrier Reef Marine Park Authority (GBRMPA) Climate Change Manager Paul Marshall said there was a direct link between elevated water temperature and coral bleaching.

"Corals become stressed when water temperature increases, and losing the microscopic algae that lives within their tissue causes them to turn bright white," he said.

Corals normally range from brown and green to yellow, blue and even pink.

Bleached corals appear extremely pale or bone white. A bleached coral is still alive, and close inspection can reveal the nearly transparent tissue and tentacles that cover the skeleton.

"A lot of the corals' energy and colour comes from the algae. If hot conditions persist, then bleached corals are unable to regain their algae causing starvation and death."

Paul urged users of the Great Barrier Reef to report any coral bleaching through the online BleachWatch programme.

"This is especially important once summer sets in, from December onwards," he said.

"The Great Barrier Reef Marine Park Authority relies on the many and varied reef users to help identify coral bleaching incidents, enabling us to learn more about when and where bleaching occurs.

"Being a BleachWatch participant, and submitting a bleaching report online at www.gbrmpa.gov.au, is a simple way to help us learn more about coral bleaching and support efforts to understand how to help reefs survive future bleaching events."



Paul said that healthy corals are more resilient to coral bleaching. People can help corals cope with bleaching by implementing best practices on the land and around their homes.

Reef visitors can learn more about the BleachWatch program on the GBRMPA website.



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New report strengthens wetland protection

The Chair for the Great Barrier Reef Marine Park Authority, the Hon. Virginia Chadwick AO, recently released a new report, prepared by Sunfish detailing the connectivity between wetlands and fish stocks on the Great Barrier Reef.

The report, titled *Freshwater Wetlands and Fish: Importance of Freshwater Wetlands to Marine Fisheries Resources in the Great Barrier Reef* was compiled by Vern Veitch and Bill Sawynok of *Sunfish Queensland* and has made a number of recommendations.

"One of the key recommendations of the report is a call for action. We've put in the groundwork and we've gained a good appreciation for the situation. Our next step will be to take practical steps to ensure the health of these important areas," Virginia said.

Virginia said the report would help the Australian and Queensland Governments better understand and protect wetlands along the Great Barrier Reef coast.

"Through the *Reef Water Quality Protection Plan* that was released in 2003 and the Queensland Wetlands Programme, the Australian and Queensland governments have commenced work which will address some of the issues raised in the report, including the mapping and inventory of wetlands resources; supporting on-ground actions to conserve and manage wetlands and protection of remaining wetlands."

"This report will assist Regional Natural Resource Management Boards to prioritise on-ground actions for wetland protection and maintenance in the Great Barrier Reef Catchment, which is one of the key strategies in the *Reef Water Quality Protection Plan*," Virginia said.

The Australian Government contracted Sunfish Queensland to prepare the report in August 2003 in recognition of group's long-term fish tagging programme. The project was developed to address information needs identified by the Great Barrier Reef Marine Park Authority regarding fisheries values of coastal wetlands in the Great Barrier Reef Catchment.

"There is an urgent need for the holistic management of wetlands from a fishery perspective. This report identifies the dependence that over 70 species of fish have on both marine and freshwater environments. The variety of wetlands within the Great Barrier Reef Catchment needs to be protected to ensure the ongoing biodiversity of the Great Barrier Reef Marine Park" Vern said.



Connecting wetlands - river to reef



Young fish find shelter in mangrove roots

"The importance of the connectivity of the wetland system for fish species and the Reef has been highlighted in this report and while our knowledge has improved in the last decade, the report identifies a number of initiatives that we need to take to improve the health of the systems" Bill said.

"We understand that to keep the Reef healthy we have to keep all of the habitats and the marine life in them healthy. This report will be an important tool in allowing us to do just that," Virginia said.

The Great Barrier Reef Marine Park Authority would like to thank Sunfish for their support in preparing this report and congratulate both Vern and Bill on their outstanding work.

The full report is available at www.gbrmpa.gov.au

END

Representative Areas Programme receives international praise

The Australian Government recently received an international environmental accolade for the Representative Areas Programme.

The World Wildlife Fund's (WWF) highest award, the Gift to the Earth, was presented at the inaugural International Marine Protected Areas Congress in Geelong in October.

The award recognised the Zoning Plan as an innovative marine conservation project, setting the benchmark for marine protected areas in Australia and around the world.

"The Great Barrier Reef is one of the world's most treasured natural wonders, and the Australian Government has shown it is truly a world leader in marine conservation by implementing the Great Barrier Reef Marine Park Zoning Plan," said WWF International Director General designate James Leape.



Executive Director of the GBRMPA John Tanzer, the Hon. Senator lan Campbell and Chairman of the GBRMPA, the Hon. Virginia Chadwick AO accept the WWF Gift to the Earth award from WWF International Director General designate, James Leape

Reef-wide community Chairs come together

The Chairs of the Great Barrier Reef Local Marine Advisory Committees (LMACs) met in Townsville recently to discuss ways to improve linkages between their respective Marine Advisory Committees, the community and the Great Barrier Reef Marine Park Authority.

Chair of the Townsville Local Marine Advisory Committee, Steve McGuire, said it was a fantastic opportunity for the Chairs of all the committees to come together and talk about issues relevant to their communities.

"We had a chance to discuss local issues and in doing so we were able to determine that many of the themes we raised that we thought were individual to our community were actually things that were of Reef-wide interest," Steve said.

"Things like water quality, Reef Guardian Schools and coastal development have featured as items for discussion for many of the committees."

"The workshop gave us a great opportunity to talk about how we can strengthen the links between the Local Marine Advisory Committees, our communities and the Marine Park Authority," he said

Steve said the Chairs had an opportunity to speak to the team conducting a review of the Great Barrier Reef Marine Park Authority. "As community-based representatives we were able to talk to the review team about the Authority and the *Great Barrier Reef Marine Park Act."*

Director of Community Partnerships at the Great Barrier Reef Marine Park Authority, Dr Leanne Fernandes, said the annual Chairs meeting was well attended by 25 community representatives participating over the two days of the workshop.

"We value the input of local communities in Marine Park management and recognise the contribution that the Local Marine Advisory Committees play in acting as a conduit between their communities and the Marine Park Authority.

"These committees have been very helpful in providing management and planning advice to us since their inception. This two-day workshop gave us an opportunity to discuss ways we could further our relationship with the Committees," Leanne said.

There are 10 Local Marine Advisory Committees along the Great Barrier Reef coast, including Port Douglas, Cairns, Mission Beach, Hinchinbrook, Townsville, Whitsundays, Mackay, Capricorn Coast, Gladstone and a newly formed committee in the Burnett area.

END

New species of Dolphin calls Australia home

4



The Australian snubfin dolphin. Photo Guido Parra

A new species of dolphin has been recognised in Australia and it is known to occur in the Great Barrier Reef.

The Australian snubfin dolphin, *Orcaella heinsohni*, is now the new name for the Irrawaddy dolphin in Australia. The new species is considered endemic to Australia and southern Papua New Guinea, as it is not known to occur anywhere else in the world. Research conducted by Isabel Beasley from James Cook University, Dr Peter Arnold from the Museum of Tropical Queensland and Kelly Robertson from the US National Oceanic and Atmospheric Administration on the dolphin previously thought to be Irrawaddy dolphins from Australia, Vietnam, Cambodia, southern Laos, Thailand, Indonesia and the Philippines, showed that, in fact, the Australian dolphins are a different species to those found in Asia.

Very little abundance and biological information is known about this species. Most information has been collected by a Stranding Programme GBRMPA operates with the Queensland Parks and Wildlife Service, and a recently completed James Cook University PhD dissertation titled 'Behavioural ecology of Irrawaddy, Orcaella brevirostris (Owen in Gray, 1966) and Indo-Pacific humpback dolphins, Sousa chinensis (Osbeck, 1765), in northeast Queensland, Australia: a comparative study'.

In Australia, it is likely that the species is found around the inshore northern coastline in Queensland, Northern Territory and Western Australian waters north of 22°S. Within the Great Barrier Reef, important habitats appear to include Halifax and Cleveland Bays near Townsville, the Hinchinbrook Region, Cairns and Princess Charlotte Bay.

The term 'snubfin' highlights the key feature of the dolphin and can help to readily differentiate it from a dugong.



Flippered friends to visit our beaches soon

As we bid farewell to the humpback whales we will soon be welcoming female marine turtles to our shores as they return to the region of their birth to nest.

Sarah Salmon from the Species Conservation Unit said most female turtles come ashore to lay eggs between October and February, laying about 120 eggs each.

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

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

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

See 'Doing your bit to look after it' on page 11 to ensure you follow best environmental practices when watching turtles.

Zoning catching on....

Looking back over the last year GBRMPA is pleased that, given the millions of people visiting and operating in the Marine Park, only 414 possible incidents were recorded.

Director of Operations, Mick Bishop said this demonstrated a very high level of understanding and acceptance of the Zoning Plan by users.

"We received \$3.9 million additional funding allocated by the Commonwealth which has assisted in ensuring compliance with the Zoning Plan and has enabled a stronger surveillance presence, especially in inshore areas," Mick said

The principal area of increase in possible incidents was in the recreational fishing category where reports of incidents rose from 44 in 2003/2004 to 194 in 2004/2005.



END

Please report any injured or dead dugong, whales, dolphins or turtles to the EPA Hotline on 1300 130 372

"We have been really pleased with the level of most people's willingness to ensure they know where they can and can't fish, and to only fish in zones which permit the activity.

"Unfortunately a few people have not been compliant, and this has resulted in them being fined."

Mick said GBRMPA is urging locals and visitors to the Great Barrier Reef to continue to ensure they check a zoning map before venturing out on the water.

"GBRMPA is continuing to improve signage and educational products available to help ensure people are aware of the zoning that is in place."

Examples of some recent court results below.

Location	Offense	Fine
Pine Island	Unpermitted fishing (Recreational)	\$1000
Pine Island	Unpermitted fishing (Recreational)	\$1000
West Butterfly Bay, Hook Island	Unpermitted fishing (Recreational)	\$850
Egg Rock, Great Keppel Island	Unpermitted fishing (Recreational)	\$700
Zoe Bay, Hinchinbrook Island	Unpermitted fishing (Recreational)	\$1000
Ribbon Reefs	Unpermitted fishing (Commercial Charter vessel)	\$4000
Peak Island	Unpermitted purpose (Anchoring in a Pink Zone)	\$5000

Remember you can do your bit to keep the Reef great by reporting any incidents you see by emailing compliance@gbrmpa.gov.au or phoning (07) 4726 0510 or (07) 3830 8246 (24hr).

5

International conference outstanding success

More than 750 international marine experts from 65 countries descended upon Geelong for the first International Marine Protected Areas Congress.

Nineteen Great Barrier Reef Marine Park Authority (GBRMPA) staff were among the delegates at the four-day event, co-hosted by GBRMPA and Parks Victoria.

GBRMPA Executive Director and Co-Chair of the organising committee John Tanzer said it was a very significant gathering of marine protected area practitioners, policy makers and scientists.

"Many of the world's leading experts on marine protected areas were there to share their expertise and experiences, focusing on how to better manage the world's marine environment," he said.

"GBRMPA staff played major roles in planning the congress, and also coordinated various associated 'satellite events' including three field trips on the Great Barrier Reef."

He said the congress generated considerable interest in GBRMPA's activities, particularly the re-zoning of the reef.

"There was much interest in our current activities and the lessons we've learnt," he said.

"Many conference delegates were particularly interested in various aspects of the Representative Areas Programme, with the view to implementing similar marine conservation initiatives in their own regions."

The Congress was opened by the Minister for the Environment and Heritage Senator Ian Campbell, who highlighted some of Australia's recent achievements in marine conservation.

The programme included 160 concurrent oral presentations covering five key themes and three cross-cutting issues, with 120 posters on display and a number of networking opportunities taking place.

Keynote speakers included Achim Steiner (Director-General, World Conservation Union), Ian Kiernan (Chair, Clean Up Australia), and Sylvia Earle (Explorer-in-Residence, National Geographic). Seven GBRMPA staff also delivered papers.

Following the congress 35 delegates went on a four-day technical tour of the Great Barrier Reef to learn more about Marine Park management.

A number of the international marine experts also specifically came to Townsville to further share their expertise with GBRMPA staff.

These visitors included Dan Laffoley, the Head of Marine Conservation for English Nature and Henning Von Nordheim, Head of Marine and Coastal Nature Conservation for the German Federal Agency for Nature Conservation.



The GBRMPA display at the IMPAC conference was a great success

"The aim of the post-conference visit was sharing expertise and learning more about management and research approaches used in North Queensland," John said.

"We were delighted in the opportunity to further share expertise with these experts first-hand.

"Given GBRMPA's 30 years experience in managing the world's biggest marine protected area, they were also very keen to learn what may assist them to protect and sustain the oceans and seas in their regions."



GBRMPA staff listen to a presentation from Henning Von Nordheim

END

Aquaculture regulations get seal of approval

The report card is in: aquaculture regulations introduced five years ago have improved environmental performance in the Great Barrier Reef Marine Park.

The historic *Great Barrier Reef Marine Park* (*Aquaculture*) *Regulations 2000* for the first time directly regulated land-based pollutant inputs into the Marine Park.

Great Barrier Reef Marine Park Authority Aquaculture Manager Leigh Gray said there were only positive results after the first five years of the regulation.

"The regulations followed increasing community concern about the rapid development of a new aquaculture industry adjacent to the Marine Park," Leigh said.

"The good news is ongoing assessment and compliance auditing provide reassurance that this new industry can co-exist with other activities without causing significant environmental harm.

"There has been a significant improvement since the legislation came into affect. This improvement was achieved through the cooperative actions of various government agencies, the aquaculture industry, and wider community," he said.



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Worldwide fish breeding under threat

Aggregation fishing is a global threat to healthy coral reef ecosystems and food security in the tropics, according to a local fisheries expert.

Great Barrier Reef Marine Mark Authority (GBRMPA) Fisheries Project Manager Martin Russell said globally there was an urgent need to address fishing pressure on places where tropical fish species gather at specific times to spawn.

"Many coral reefs around the world are being seriously affected by intense fishing pressure, and increasing interest in focusing fishing on reef fish spawning aggregations is concerning," he said.

Martin said this trend was first noticed in the tropical western Atlantic, later spreading to the Indo-Pacific.

"Reef fish must complete their life cycle if there are to be fish for the future, therefore spawning aggregations are highly important to fish and any fishery based on that fish."

Martin said spawning aggregations couldn't withstand uncontrolled fishing.

"The increased abundance of fish in localised areas at predictable times makes spawning aggregations particularly vulnerable to overexploitation by fishing."

Spawning aggregations of about 50 species of fish are reported in the Great Barrier Reef Marine Park to date. More than 80 other species of fish are reported to aggregate to spawn elsewhere within their geographical range.

Martin said there was no simple solution to protecting these spawning sites but some positive steps had been taken.



"In the Great Barrier Reef Marine Park the concern about fishing of spawning aggregations has been greatly alleviated through proactive management by the GBRMPA and Queensland Government," he said.

"The Queensland Government has introduced size limits and spawning closures, and GBRMPA now has 33 percent protection of the Great Barrier Reef Marine Park."

He said including the spawning sites in the design of reserve networks would help to maintain sustainability and resilience of fish stocks.

Sites are influenced by seasons, lunar phases and temperature, and fish usually aggregate at places with specific characteristics.

END

Bundaberg residents give helping hand to environment

Bundaberg residents are helping protect the Great Barrier Reef by collecting water samples as part of an innovative water quality monitoring programme.

The samples will be tested for land-based pollutants, under the programme run by the Great Barrier Reef Marine Park Authority (GBRMPA).

GBRMPA Community Monitoring Coordinator Deb Bass praised community participation in the long-term water monitoring project.

"We are pleased the Bundaberg community are taking a hands-on approach to helping determine what affects our waterways and seas," she said.

"This community project in Bundaberg involves taking monthly water samples from the Burnett River and coastal sites to monitor long-term changes in nutrient and sediment concentrations.

"State-of-the-art samplers were also set up above the water treatment plant intake to monitor concentrations of pesticides and herbicides."

She said it was part of a wider programme aimed at reversing the decline of water quality entering Great Barrier Reef waters over the next 10 years.

"The overall programme monitors changes in water quality at ten major river mouths along the coast of Queensland and at offshore locations in the Marine Park," she said.

GBRMPA and Australian Institute of Marine Science (AIMS) staff trained Bundaberg City Council staff and



Mark Follet from Bundaberg City Council and GBRMPA Community Monitoring Coordinator Deb Bass

Burnett Mary Regional Group and Woongarra Marine Park coordinators in water sampling procedures.

Volunteers from the Woongarra Marine Park Monitoring and Education Project are assisting by taking water samples along the coast, south of the Burnett River mouth.

Crew from Lady Musgrave Barrier Reef Cruises are also helping by taking sea water samples en-route to Lady Musgrave Island.

The monitoring programme is coordinated by GBRMPA, in conjunction with the Reef Cooperative Research Centre, Australian Institute of Marine Science and University of Queensland.

It is part of a large-scale cooperative monitoring programme outlined in the Reef Protection Plan. The plan involves local, state and federal governments, industry and landholders.



Belgian Gardens State School celebrate Reef Guardianship with a splash of colour

Belgian Gardens State School held the official opening of their mural "Rainforest to Reef" recently, celebrating their efforts to protect the Reef and their involvement in the Reef Guardian School programme.

Various members from the Great Barrier Reef Marine Park Authority (GBRMPA), the Townsville City Council and the Department of Primary Industries and Fisheries were present at the opening, along with the man responsible for the mural, talented aerosol artist Simon Fleming.

Belgian Gardens State School teachers, Brett Murphy and Gayle Joyce commissioned Mr Fleming to create the mural, standing 12 metres long by three metres high.

The mural depicts a variety of water catchment themes and the animals you might find there and is a celebration of the excellent work done in the field of caring for the environment," Brett said.

"The scenes and animals were selected by the Rowes Bay Junior Ranges and animals include a dugong, green sea turtle, cassowary, lionfish and a green tree frog.

The Rowes Bay Junior Ranges are made up of two year six classes and a year six/seven composite class who work closely with the GBRMPA and the Council to clean up the beach at Rowes Bay and monitor seagrass with the assistance of Dr. Jane Mellors from the Department of Primary Industries and Fisheries

The mural was funded with prize money won by Belgian Gardens State School when the Rowes Bay Junior Ranges displayed excellence in Reef Guardianship as part of the Reef Guardian School programme.

The Reef Guardian School programme is an important education initiative of the GBRMPA that encourages students and teachers to make a difference to help keep the Great Barrier Reef great for the future.

"The mural took several weeks to complete and the students are very happy with the end result. It really sums up the school's passion for the environment," Brett said.

Mr Fleming was presented with an oversized cheque decorated by the students at the opening of the mural.



The Belgian Gardens mural featuring a dugong and marine turtle



State School unveil the Reef Guardian School mural

> Simon Fleming adds the Reef Guardian School logo to the mural

> > END

Reef Guardian Schools help to celebrate 30 years of managing the Marine Park

To help the GBRMPA celebrate 30 years of managing the Marine Park, Reef Guardian School students were invited to explain what the Great Barrier Reef means to them and how they can do their bit to look after it.

The winning classes in each region received \$500 worth of product to set up their very own reef research station in their classroom or library.

The winners are:

Primary School Class Winners Aloomba State School (Year 5, Teacher - Glenda Thomas) Cape York - Mission Beach Abergowrie State School (Preschool to Year 3, Teacher - J. Bosworth) Cardwell – Mackay Anakie State School (Year 2/3, Teacher - Sheila McMillan) Rockhampton – Bundaberg Gympie East State School (Year 3/4, Teacher - Sharon Dan) Southeast Queensland and Interstate Secondary School Class Winners

Woree State High School (Year 11, Teacher - Ross Patane) Cape York - Mission Beach **St Margaret Mary's College** (Year 8, Teacher - Mary O'Toole) Cardwell - Mackay Yeppoon State High School (Teacher - Anne Bates) Rockhampton - Bundaberg Toowong College (Year 11 Biology Class, Teacher -

Margaret Kerwin) Southeast Queensland and Interstate

A big thank you to all schools who submitted entries.



St Margaret Mary's College students in Townsville with their competition entries

The Great Barrier Reef Marine Park Authority

Pialba State School discovers Woody Island



Grade five students explore the ruins of the old lighthouse

As a part of the Reef Guardian School programme, grade five students at Pialba State School in Hervey Bay recently headed to Woody Island to study its flora, fauna and history.

Woody Island, located in the Great Sandy Strait between Fraser Island and Hervey Bay, was first inhabited by Europeans in 1866, when two identical lighthouses were built to aide sailors who navigated the treacherous Sandy Straits on their way to the port of Maryborough.

Reef Guardian co-ordinating teacher at Pialba State School, Bob Creedon, said the children enjoyed two full days of exploration on the island.

"During the excursion, the children trekked along the paths that were created by the lighthouse keeper and his family more than one hundred years ago," Bob said.

"Back then, the lighthouse keeper would walk the track twice daily to light the flame each evening and extinguish it at dawn. The children viewed the heritage-listed remains of his house plus the grave site where his young daughter was laid to rest."

As well as learning about the history of the island, the children looked at the environment. Human activities such as littering the foreshores, the deterioration of the old lighthouses and the impact of introduced species on this ecosystem have affected the area.

"The children have work sheets to complete, one of which is an analysis of the rubbish collected as they traverse the island. The children then take the rubbish off the island for placement in the correct bins on the mainland," Bob said.

Grade 5 student at Pialba State School, Matthew Hendrie, was disappointed with the amount of litter his class found at Datum Beach on Woody Island.

"We collected lots of metal and plastic, there were plastic bottles, drink containers, nets and glass beer bottles, as well as metal drink cans and some wire, rope and vinyl," Matthew said. "We collected the rubbish in a bag and disposed of it properly when we got back to the mainland, but it makes me sad to think of how the rubbish has ended up on the shores of Woody Island - knowing that it has been done by people not doing the right thing by our environment.

"This litter can hurt or kill our marine and bird life, and I hope people start to take more care when disposing their rubbish," Matthew said.

In other Reef Guardian School activities at Pialba State School, grade four students are studying a whale unit that will see them head out to the Reef for some whale watching and the entire school has recently been involved in a 'Tree Planting Day', where each year level planted a 'Bush Tucker' plant in their gardens.



The rubbish collected by Pialba State School on Woody Island

END

Reef Guardian Schools tap into water conservation

Schools involved in the Reef Guardian School programme are committed to minimising water usage within their schools in an effort to protect the Great Barrier Reef and other marine environments.

Nearly 50 schools have taken the initiative on board and each school will receive a free 'Reef Guardian Aqua Clic' to attach to their chosen tap and reduce water flow by up to 50 percent.

GBRMPA National Education Manager, Angela Colliver said Reef Guardian students and teachers are making the commitment to minimise water consumption because they realise how this can benefit the Reef.

"Reduced water use enables more environmental flows in natural waterways leading to the Reef and the ethic of water conservation is part of the bigger picture of 'Doing our bit to protect it'," Angela said.

Redlynch State School in Cairns are aiming to have their entire school fitted out with Aquaclics before the end of the school year.

Reef Guardian coordinating teacher at Redlynch State School, Dianne Ruddell, said students have been raising money to purchase the Aquaclics by holding school discos throughout the year.



The Reef Guardian Aquaclic in the classroom

ReefHQ praised for ecologically-friendly practice

Reef HQ Aquarium is only the second Townsville tourist attraction to receive the thumbs up for ecologically-friendly practices from Eco-tourism Australia.

The national organisation's Eco-certification Programme identifies and rewards genuine ecotourism and nature tourism products.

Reef HQ Visitor Services Manager Mark Jones said it was a great honour.

"Having the aquarium recognised for its ongoing efforts in the field of customer service and environmental sustainability is something that all staff and volunteers feel very proud about," he said.

"What's more, visitors to Reef HQ can be assured that their Reef HQ Aquarium experience will be of the highest possible standard."

GBRMPA Tourism and Recreation Director Lisha Mulqueeny urged others to follow the example of ReefHQ and more than 20 Marine Park tourism operators granted certification.

"The Great Barrier Reef Marine Park Authority is committed to fostering high standards in one of Australia's most internationally-recognised tourism icons," she said.

"We are delighted by the range of tourism operators that have been recognised for their ecologically-sustainable practices, and encourage others to seek certification through Ecotourism Australia.

Reef Guardian School programme takes out top award for community development



Angela Colliver with students from Reef Guardian School, St Joseph's on the Strand

The Reef Guardian School programme has taken out the community development award in the 2005 Regional Heads Forum Excellence Awards.

The aim of the Excellence Awards is to highlight and recognise the contribution made by Australian Government agencies and staff who deliver high quality, customer-focussed services across Queensland.

The Community Development Award recognises outstanding performance and achievement in the implementation of community development initiatives and this is the first time the Reef Guardian School programme has won the award.



"Certification recognises best environmental practice, something particularly important and commendable in an environmentally-sensitive area like the Great Barrier Reef Marine Park.

"Tourism is a vital part of the Great Barrier Reef story, and certification highlights a number of companies who are doing their part in ensuring that a healthy Reef can be enjoyed for generations to come."

Certified high standard tourism operators are rewarded for their best practice approach, becoming eligible for 15-year permits to operate on the Reef.

An up-to-date list of the Marine Park's certified operators is at www.gbrmpa.gov.au by following the links to Tourism and Recreation/High Standard Operations.



National Education Programme Manager at GBRMPA, Angela Colliver, said the programme enables schools to be recognised as leaders in sustainable living and the environmental management of the Great Barrier Reef by focussing on current issues affecting the Reef and other marine environments.

"We have almost 200 schools involved in the programme in Queensland and they are achieving so much. We have schools involved in reducing the use of plastic bags in the community and using the alternative of calico bags. Students are worm farming, composting, drain stencilling and auditing their water and energy usage," Angela said.

"Most importantly, students are educating their community on better environmental practices and are changing peoples actions for a more sustainable future. Students are developing their own brochures, television advertisements, radio programmes, boat ramp signs and are actually getting into the community to educate others."



Reef Guardian students work together to protect our Reef for the future

END

Duggong mums show the way to pastures new Homebody or hoon? A dugong and its mother

Dugongs are either homebodies or hoons, say researchers at the Cooperative Research Centre for the Great Barrier Reef in Townsville.

And it all may depend on what they learned from their dugong mothers.

Dugongs spend their lives grazing meadows of seagrass, but according to James Sheppard of CRC Reef and James Cook University, they can and do travel vast distances at quite high speeds.

"When I started studying dugongs, I shared the popular view that they were rather passive creatures which seldom moved far from where they live.

"I soon discovered how far and fast they can travel, how clever they are at finding the best seagrass meadows – and how much they may owe to their mothers," he said.

Mr Sheppard says that using the latest GPS tracking technology, he and his team have been able to build up a detailed picture of the behaviour of a group of 22 dugongs.

"We carefully captured each dugong and strapped a GPS satellite tag to the animal's tail. The dugong simply trails the tag through the water, and when it comes up for a breath of air, the tag also surfaces and transmits data to a receiving satellite.

"I soon discovered that the herd could be divided into two behaviour types. There are the homebodies, who seem content to stay around and graze in the familiar meadow. But there are also the hoons. "These animals will suddenly leave the herd and travel hundreds of kilometres to fresh fields of seagrass.

"What is clear is that they are moving to a remembered goal. This suggests that they have strongly developed spatial memories," he said.

The research team believes that the reason that not all dugongs in a herd undertake these long voyages is that the knowledge of where to go is passed from mother to offspring.

Having both homebodies and hoons in a dugong population makes sense from an ecological point of view, because the seagrass meadows upon which dugongs depend are so patchy and unpredictable. Dugongs are therefore hedging their bets by staying put when the grazing is good and travelling to distant 'remembered' fresh meadows when the food quality drops.

Mr Sheppard said that Australia's unique and vulnerable dugongs are increasingly threatened by human activities along the coastline, such as netting, boat-strike, and illegal hunting. The degradation of seagrass meadows on which the dugongs depend is also a problem.

"The increasing urbanisation of the coastline may be posing a real threat to the seagrass," he said.

"Runoff and urban pollution are changing the nature of coastal ecosystems, while we are recognising that seagrass itself is a major resource."

END

GBRMPA staff strengthen links with Palm Island community

GBRMPA staff members and Townsville Local Marine Advisory Committee Chair, Steve McGuire, recently headed over to Palm Island to support their Careers and Information Expo.

The expo was coordinated by the Department of Aboriginal and Torres Strait Islander Policy and the Department of Employment and Training and was supported by local businesses and Government organisations such as Ergon Energy, James Cook University and QLD Apprenticeship Services.

Indigenous Partnerships Liaison Unit staff members Melissa Byass, John Tapim and Gail Barry, along with Communication and Education staff member Angela Colliver helped to make the day a success.

"Our presence enabled us to establish and maintain relations within the community and strengthen partnerships between the GBRMPA and the Palm Island community," Melissa said.

"Lots of GBRMPA materials and information were handed out to the community on a variety of issues including zoning, whale watching, fish size and bag limits."

Two positive results to come from the day were GBRMPA donating 64 CDs to Rio the Mumbling Murri for the Palm Island Community Radio Station and St Michael's School joining Bwgcolman College in becoming a Reef Guardian School.



GBRMPA staff share their knowledge and information with the Palm Island community

GBRMPA environmental practitioners recognised



Environmental Impact Management staff Phil Koloi, Dr Adam Smith and Andrew Costen

Three Great Barrier Reef Marine Park Authority (GBRMPA) staff members have recently been recognised as Certified Environmental Practitioners under a new programme launched by the Environment Institute of Australia and New Zealand.

Environment Institute of Australia and New Zealand President Bill Haylock said the scheme is aimed at boosting community and business confidence in environmental professionals.

"The Certified Environmental Practitioner programme provides an opportunity for environmental professionals to be given due recognition in line with their professional counterparts from engineering, accounting, planning and architecture," he said.

"Certified practitioners must meet high standards of professional and ethical conduct, and it is anticipated the scheme will drive environmental practice to new levels."

GBRMPA Manager of Environmental Impact Management Dr Adam Smith said the team has welcomed the Certified Environmental Practitioners programme.

"The programme is important in recognising GBRMPA staff expertise and ethical conduct, as well as best practice environmental management," he said.

GBRMPA Environmental Impact Management staff currently accepted under the programme are Manager Dr Adam Smith, Project Manager Mackay/ Capricorn Coast Phil Koloi, and Project Manager Ports Andrew Costen.

To qualify for the Certified Environmental Practitioner programme, minimum requirements include: holding an environment-related degree; five years of relevant environmental experience over the past ten years; a signed statement of ethical conduct; a commitment to a minimum over two years of 50 hours of continued professional development; and referees to support the application.

END

Our oceans in good hands for the future

Students throughout Queensland have shared their messages on sustainable oceans with thousands of their peers, community members, businesses and Government.

During 2005, a Future Leaders Congress was held in Brisbane, Hervey Bay, Bundaberg, Capricorn Coast, Mackay and Townsville.

The Future Leaders Congress has been run by the Great Barrier Reef Marine Park Authority (GBRMPA) in collaboration with regional schools for the past four years, celebrating a different theme each year.

The GBRMPA's National Education Programme Manager, Angela Colliver, said she was amazed at the ideas the students have presented in the past and the care they show for the Great Barrier Reef and its sustainability.

"Each Congress begins with the students educating their peers by presenting their findings on certain key questions regarding sustainable oceans. Students then work together to develop a charter of shared beliefs," Angela said.

"The Future Leaders Congress gives today's students the opportunity to have a say in their future and the way they live it. Students are encouraged to act on best environmental practices shared throughout the day and spread their messages through the community."

A big thank you to the Townsville City Council, Toowong College, Yeppoon State High School, Wartburg State School, Whitsunday Anglican College and St Mary's College for hosting a successful Future Leaders Congress in their region in 2005.





Students meet to discuss 'Sustainable Oceans' in 2005

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Life on the edge

The Whitsunday's unique marine environment is under pressure, according to Local Marine Advisory Committee (LMAC) Chair Tony Fontes.

Tony said urban development, coupled with marina development and agricultural runoff, was taking its toll.

"It's a complex and harsh environment indeed. Imagine the kinds of plants and animals that could possibly flourish in such an environment," he said.

"You have just discovered life on the edge. If we are not careful, life on the edge may one day be pushed right over the edge."

Ongoing concern culminated with a recent one-day workshop, run by the Order of Underwater Coral Heroes (OUCH) Volunteers and the Whitsunday LMAC with support from the Department of Natural Resources and Mines.

The community event explored the complexities and mysteries of life along the water's edge.

It included speakers from GBRMPA, Queensland University and the OUCH Volunteers discussing mangrove forests, seagrass meadows, dugongs and sea turtles.

"The afternoon was spent out at sea onboard Ocean Rafting, touring local mangroves and turtle spotting," Tony said.

"The day was perfect for the trip and six turtles were spotted. The adults seemed even more excited than the kids."

Reef Check Palm Islands Expedition



Chloe Lucas discovered amazing creatures enjoying their habitat

Last month volunteers from Reef Check Australia discovered the hidden treasures of the Palm Islands fringing reefs. While they're tantalisingly close, most of these reefs are rarely dived. The expedition marked the first stage of an Envirofund project to monitor the health of inshore reefs in the Burdekin region.

Reef Check volunteer Chloe Lucas reports on the trip.

Reef Check Australia is a community-based organisation that trains volunteer scuba divers to survey the health of their local reefs. The results help build up a long-term picture of the health of the Reef, and can give early warning of problems like poor water quality, coral bleaching, or crown-of-thorns starfish.



Whitsunday marina development is putting the coast under pressure

The day also highlighted the OUCH Volunteers' latest project, Whitsunday Mangrove Watch.

It follows the highly successful Seagrass Watch programme, and allows the community to monitor the health of its local mangrove forests. The project is made possible by a National Heritage Trust grant.

END

We travelled up to the Palm Islands to survey reefs around Fantome, Curacoa, Orpheus and Pelorus Islands. None of us anticipated quite how beautiful these reefs would be. North of Curacoa Island we emerged from the water astonished at the vast table corals spanning five metres or more.

Hunting for indicators of the reef's health, I peered deep into the reef's nooks and crannies, where I discovered hiding sharks, rays, and a smug moray eel, grinning as he was preened by an obliging banded coral shrimp.

Unfortunately, along with the many marvels of the Palm Islands reefs, were tell-tale signs of stress. We saw bleached corals on several of the shallow sites, probably due to the recent very low tides, which left some corals high and dry for too long. Poor visibility, layers of sediment and algae on some of the sites suggested the effects of polluted water run-off from towns and farms. And while dive sites which had been Green (no fishing) Zones for several years were rich with fish life, many of the other reefs seemed barren in comparison.

As the community is becoming more aware of the impacts our land-based lifestyles have on coral reefs, we are starting to take the first steps toward dealing with these problems. *The Reef Water Quality Protection Plan* seeks to involve the community in improving the quality of water flowing into the Great Barrier Reef lagoon over the next 10 years. Information collected by Reef Check Australia volunteers will be useful to monitor the effects of this initiative on the health of the reefs themselves.

Visiting these reefs so close to our shoreline made me realise both how precious, and how endangered our coral reefs have become. Reef Check Australia will be returning to the same sites in March, as part of what we hope will be a long-term project to monitor the health of these reefs.

END

Eco-Certified operator Haba takes delivery of new dive vessel

Port Douglas reef operator Haba Dive and Snorkel has leapt into the 21st Century with the launch of their brand new wavepiercing catamaran "Evolution".

By combining best-practice environmental techniques and state-of-the-art technology, the focus is on enhancing passengers' enjoyment through interactive and educational presentations with an emphasis on environmental protection.

Haba's General Manager, Thor Stovell said, "We support ecologically sustainable tourism with the primary focus of our Great Barrier Reef experience to enhance environmental and cultural understanding, appreciation and conservation. The objective of this boat design was to build an efficient, fast vessel with good economy and manoeuvrability, with first-class passenger comfort, interpretation and education of the Reef."

"An onboard 'Reef Cinema' will be used to deliver the informative and educational presentations on our fragile reef systems and to deliver best-practice messages to reef visitors," Thor said.

GBRMPA staff recently inspected the vessel on its delivery run to Port Douglas when it stopped in the Townsville marina for refuelling.

Managing Director Bruce Funch said the delivery voyage from Brisbane in 30 knot plus conditions had proven the vessel's ability to deliver a smooth and comfortable ride to passengers travelling to the Reef.

Haba Dive are one of the growing group of operators taking the path of certification to improve their edge in a competitive market place and to gain longer term access to the Marine Park by successfully applying for a 15-year permit. Haba Dive have also been involved in monitoring programmes such as Bleachwatch and COTS Watch as well as working with the GBRMPA in our Eye on the Reef programme.

If you are a tourism operator and wish to find out more about certification, benefits or joining any of our partnership programmes, email us on tourec@gbrmpa.gov.au.

END



Haba Dive's new wavepiercing catamaran "Evolution"

Monitoring of fish changes

Community feedback during the rezoning of the Marine Park consultation process identified monitoring as an area of concern. In response, a community-based monitoring programme, called CapReef, was established in Central Queensland.

CapReef Programme Manager Bill Sawynok said CapReef has been established with support from the Great Barrier Reef Marine Park Authority and Fitzroy Basin Association.

"CapReef aims to collect data on changes to fish populations and on fishermen's behaviour. It will also establish links with other research and monitoring programmes so that an overall picture of what is happening in the Marine Park can be developed over time," Bill said.

"This is a unique opportunity for the community to be fully involved in assessing the changes to fish and users. The response from fishermen in Rockhampton, Yeppoon and Gladstone has been positive given that changes to zoning arrangements and fisheries management plans have lead to significant increases in restrictions on fishing activities."

"Fishers are keen to find out the effects that the changes are actually having on their fishing.

"While many people in the community will help to collect information they will have the support of fisheries' researchers from supporting research bodies to ensure that the data collected is of high quality," Bill said.

The programme is a community initiative that has the support of Government through the Great Barrier Reef Marine Park Authority and the Department of Primary Industries and Fisheries.

It also has science support from the CRC Reef Research Centre, CRC Coastal Estuaries and Waterways Management and the Central Queensland University.

Community support is provided through the Fitzroy Basin Association, Local Marine Advisory Committee, Capricorn Sunfish and local fishing groups. The Fitzroy Basin Association, with funding provided by the Natural Heritage Trust, is supporting the programme for the next two years.



New on www.gbrmpa.gov.au

Artificial Reef Guidelines

New guidelines about artificial reefs in the Great Barrier Reef Marine Park are available on our website under 'latest news'.

Cairns Area and Whitsunday Plans of Management The Cairns Area and Whitsundays Plan of Managements, as amended in 2005, came into effect on 16 November

as amended in 2005, came into effect on 16 November 2005. The new Plans of Management and guides are available on our website under 'latest news'.

Onboard

Onboard – The Tourism Operator's Handbook is available on our website under 'latest news'.

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Profile of Regional Liaison Manager, Cape York Peninsula **Simon Towle**

Simon Towle is the new Regional Liaison Manager - Cape York Peninsula, based in Cairns and covering the area from the Daintree River to the tip of Cape York.

Simon has worked with the GBRMPA since 2002 when he began working in the Communication and Education unit. He then joined the Species Conservation Unit, working closely with the Indigenous Partnerships Liaison Unit, before moving to Cairns and taking up his current position in mid-August this year.

He feels Cape York is one of the most beautiful and remote parts of the world and says the people, dramatic landscapes, magnificent beaches and reefs and extraordinary wildlife combine to make Cape York special.

"Cape Yorkers are currently confronting many difficult social and economic issues, of which marine and sea country issues are a small, though culturally very significant, part," he said.

"The opportunity to work with communities and other agencies such as Queensland Parks and Wildlife, the Inter-agency Coordination Committee and the Cape York Strategy Unit, to try to progress some of these important issues is both challenging and exciting.

"I hope to improve the relationships between the GBRMPA, the Indigenous and non-Indigenous communities on the Cape, and the other agencies that work in the Region. It would be great to effect some real changes to improve management 'on the ground'," Simon said.

Simon achieved many things before joining GBRMPA. He studied seabirds on many of New Zealand's remote offshore islands, worked as a journalist and broadcaster in the UK and NZ, conducted research in Antarctica, was an executive member of the NZ Waste Management Institute, Conservation Director for the World Wide Fund for Nature - NZ, and managed the Sepik Community Landcare Project in Papua New Guinea. He was also Secretary to the NZ Minister of Tourism, a policy analyst at the Ministry for the Environment, and president of the Wewak Rotary Club.

He has moved to Cairns with his wife Sheena, who is a registered nurse and qualified open-water diver, from the Manus Province in PNG, and their beautiful daughter Sîan Tia who is three and a half years old. END

Musical Furry Lobster Creature Feature



- The musical furry lobster is a stridulatory cray, which means it makes a noise like a cricket by rubbing parts of its anatomy together - probably it's back legs. It's not clear why the lobster makes this sound, but scientists say it may be for mating or defending its territory.
- It's also furry. If you pick it up and handle it, the shell doesn't feel hard and spiny like a typical lobster. It feels like felt.
- Rumour has it the French researchers who discovered the world's first specimen in the 1980s didn't realise its significance. Therefore, they ate it for dinner.
- It was not until 1990 that Dr Peter Davie from the Museum of Queensland officially described the genus from three female Western Samoan species.
- Fortunately, the first one found in Australia is alive and well. It's on display at Townsville's Reef HQ aquarium, run by the GBRMPA.

Doing your bit to look after it!

If you are around nesting or hatching turtles, please ensure you follow these best environmental practices for turtle watching:

- Keep the use of lighting (e.g. torches) to a minimum. Hint: put a red cloth or cellophane over the torch;
- Lights should be no more than a three-volt, two-cell, hand-held torch;
- Do not approach turtles leaving the water and moving up the beach;
- Do not shine lights directly on turtles leaving the water, moving up the beach, building nests, or laying eggs;
- Avoid loud noise and sudden movements near turtles while they are laying their eggs;
- Do not touch the turtles, hatchlings or eggs;
- Keep dogs away; and
- Do not light campfires on turtle nesting beaches.



Community Links



A profile of **Tony Fontes** Chairman Whitsunday LMAC

Tony Fontes' passion for all things marine has led to more than thirty years in the recreational diving industry and a keen interest in marine conservation.

The Chairman of the Whitsunday Local Marine Advisory Committee (LMAC) has learnt a lot about marine management by owning and operating diving companies in Australia and the Pacific.

"I am most interested in conservation and management issues regarding the Great Barrier Reef and, in particular, managing heavily used areas like the Whitsundays," he said.

``I feel the LMACs play a crucial role in the management and protection of the Marine Park."

His love of the ocean began while growing up in a small coastal community in California and later prompted him to pursue marine geology studies at university.

He first travelled to Australia in 1978 as a backpacking dive instructor and officially migrated two years later.

In 1995, he took a hands-on interest in local marine issues by joining the then Whitsunday Coastal Advisory Committee that preceded the LMAC.

"My goals are putting together and maintaining a committee that can best look after the Marine Park," he said.

``I also aim to ensure GBRMPA and QPWS are aware of the particular needs of the Whitsunday region. It is a very unique part of the Great Barrier Reef Marine Park."

He said among the LMACs' greatest achievements was the group's involvement in developing the Whitsunday Plan of Management.

The group also plays a crucial role in the management and protection of the Marine Park.

"With a park as large and diverse as the Great Barrier Reef, even the best plans will fail if the community is not behind them," he said.

"By bringing the community into the planning process, the community will get behind the end result and ensure that it works."

In his spare time Tony, a keen diver, is involved in a variety of marine-related committees and programmes like the non-profit Order of Underwater Coral Heroes.

The group, of mainly divers, have been involved in many marine conservation projects such as reef protection marker buoys and seagrass and coral surveys.

He also teaches a variety of marine conservation programmes including the Great Barrier Reef Marine Park Reef Discovery course.

END



01 January 2006 New Year's Day

26 January 2006

Australia Day

02 February 2006 World Wetlands Day

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