



# Seagrass-Watch E-Bulletin

**18 March 2009**

Seagrass-Watch's electronic news service, providing marine and coastal news of international and national interest. Abbreviated articles are presented with links to their source. Seagrass-Watch HQ recommends that readers exercise their own skill and care with respect to their use of the information in this bulletin and that readers carefully evaluate the accuracy, currency, completeness and relevance of the material in the bulletin for their purposes. You are free to distribute it amongst your own networks.

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## NEWS

### ***Slick recovery (Queensland, Australia)***

*18 March 2009, The Australian*

The pictures tell a compelling story. Oil-covered beaches, rescued seabirds and dozens of men raking sand while decked out in rubber gloves, boots and - if they're following health and safety regulations - chemical hazard suits and face masks. Behind the heartbreaking images lies an even more remarkable tale about the human, environmental and financial costs of one Australia's largest oil spills. And it all began a week ago, at the tail end of tropical cyclone Hamish.

That is, of course, when the Hong Kong-registered cargo ship MV Pacific Adventurer was holed seven nautical miles due east of Queensland's Moreton Island. As 250,000 litres of heavy fuel leaked from two gaping holes in the ship's side, heavy weather swept the sludge into a 60km slick that blackened the eastern coast of Moreton Island, portions of Bribie Island and numerous beaches along the Sunshine Coast as far north as Coolum.

Not only did the oil spread, threatening marine plants and animals and beautiful coastal beaches, but 31 containers of ammonium nitrate fell from the damaged vessel. They too pose a continuing risk to the ecosystem, because the chemical compound, a fertiliser, will trigger damaging algal blooms if it seeps from the containers as they gradually erode.

*Full story and source:* <http://www.theaustralian.news.com.au/story/0,25197,25202358-5006786,00.html>

*Related links:* <http://www.abc.net.au/rural/news/content/200903/s2519253.htm>

<http://www.news.com.au/couriermail/story/0,23739,25179213-3102,00.html>

<http://www.timesonline.co.uk/tol/news/world/article5904301.ece>

[http://www.goldcoast.com.au/article/2009/03/14/59391\\_gold-coast-news.html](http://www.goldcoast.com.au/article/2009/03/14/59391_gold-coast-news.html)

<http://www.westender.com.au/news/454/15/Moreton-Oil-Spill-Update>

<http://www.abc.net.au/news/stories/2009/03/16/2517365.htm>

<http://www.news.com.au/story/0,27574,25181640-1248,00.html>

### **Dead dugong found on Toogoom beach (Australia)**

12 March 2009, Fraser Coast Chronicle (Australia)

A 3.3-metre dead, female dugong had washed up overnight on the sand at the western end of Kingfisher Parade, Toogoom. A spokesperson for the Environmental Protection Agency said marine parks staff had investigated a stranding report. "There were no indications that the death was related to any illegal activity," she said.

A spokesman for the Fraser Coast Regional Council said the council would wait to see if the dugong was still on the beach after last night's high tide. "If it's still there and people think that it's becoming a health hazard or a problem, we will take steps to remove it."

*more.....* <http://www.seagrasswatch.org/news.html>

### **Thailand's dugong population under threat from commercial fishing (Bangkok, Thailand)**

05 March 2009, Thai News Agency MCOT

Thailand's dugong population is now under threat. Trawling and fishing by push net has caused a dramatic and continuous decline in the marine animal's population. According to official statistics, more than 10 dugongs have died over the past 4 months as a result of commercial fishing.

The autopsy of a 40-year-old male dugong in Thailand's Satun province clearly showed the animal did not die from illness or infection. A marine biologist at Phuket Marine Biological Centre, who performed an autopsy for this dugong, believed fishing tools were the culprit.

Construction of wharves, owing to growth of the tourism business, is also impacting on the survival of seagrass which is the dugong's source of food.

*more.....* <http://www.seagrasswatch.org/news.html>

### **Fruits of the seashore (Chichester, England, UK)**

16 March 2009, separationsNOW.com

In the wild, seagrasses of the genus *Zostera* shed large amounts of leaves that are washed ashore and collect in banks of sea litter. One place this occurs is the Arcachon Lagoon at Andernos, near Bordeaux in France. The leaves appear to decompose very slowly, at less than 1 wt.% per day, and this led Micheline Grignon-Dubois, Saïd Achamlalea and Bernadette Rezzonicoa from the University of Bordeaux to study them as a renewable resource for natural compounds.

They were particularly interested in the polyphenolic compound rosmarinic acid (RA), which has found a broad range of applications from cosmetics to food preservatives, and has also been reported to have antiviral, antibacterial, anti-carcinogenic and anti-allergenic activity. RA was found systematically in both *Z. noltii* and *Z. marina*, but was more abundant in *Z. noltii*. The levels in both plants were seasonally dependent, but the highest values were not found in the same season for both plants. RA peaked in winter in *Z. noltii* and summer in *Z. marina*. Interestingly, the production peak in *Z. noltii* coincided with the period of greatest leaf deposits on the beach, facilitating exploitation of this resource.

The levels compare favourably with the RA contents in land-based herbs such as rosemary, sage, thyme and spearmint. So, beached *Zostera* detritus could compete with traditional herbs as a raw material for RA. The simple extraction process backed up by HPLC confirmation and quantitation suggest that rosmarinic acid could be acquired from *Zostera* species at low cost, exploiting a hitherto unused but readily available and renewable marine resource.

*Full story and source:* <http://www.separationsnow.com/coi/cda/detail.cda?id=20986&type=Feature&chId=4&page=1>

## **Maldives to go carbon neutral (Scottsdale, AZ, USA)**

15 March 2009, Minivan News

As world leaders prepare to meet in Copenhagen to find a solution to the threat of climate change, President Mohamed Nasheed has decided to raise the stakes: by 2020, the Maldives will be the first country to go carbon neutral by introducing renewable energies and offsetting carbon emissions.

The blueprint for going carbon neutral was put together by a team of international climate and energy experts and primarily involves a shift from fossil fuels to renewable energy production. Sources within the president's office have confirmed Vice-president Dr Mohamed Waheed will be overseeing the project.

Although environment NGO Bluepeace welcomed the proposal, it advised the government to initiate a reforestation programme within the Maldives to "act as a carbon sink". As mangroves and seagrass absorb higher levels of carbon dioxide than trees, atoll mangrove swamps should be designated as protected places as a matter of urgency, members say.

*Full story and source: [http://www.minivannews.com/news\\_detail.php?id=6162](http://www.minivannews.com/news_detail.php?id=6162)*

## **Ocean acidification link proven (Antarctica)**

09 March 2009, ACECR.org

Scientists from the Antarctic Climate & Ecosystems Cooperative Research Centre (ACE CRC) have published the first field evidence of a link between ocean acidification and a decrease in the shell-making ability of some marine organisms.

Funded by the Australian Government Department of Climate Change and released today in Nature Geoscience, the study compared the shell weights of microscopic marine animals - called forams - from the Southern Ocean with those of older, pre-industrial forams preserved in sediments on the sea floor.

*Full story and source: [http://www.acecrc.org.au/drawpage.cgi?pid=news&aid=797664&sid=news\\_media](http://www.acecrc.org.au/drawpage.cgi?pid=news&aid=797664&sid=news_media)*

## **Too late for Gippsland Lakes? (Victoria, Australia)**

09 March 2009, Weekly Times Now

The Gippsland Lakes is Australia's largest inland waterway. Until recently the water was pink in parts and blue-green in others. The Gippsland Lakes were in the grip of a toxic marine algal bloom for 15 months since flood followed bushfire in 2007. The flood washed decades of phosphorus, nitrogen, other nutrient, herbicide and pesticide into the lakes - though the system had been degrading for decades.

Boatyard manager Peter Bull said it wiped 30-40 per cent off his maintenance business; retired fisherman Barry McKenzie says the lakes are being "stuffed up through lack of management and forethought", and Barry's Bait Supply owner Barry Barling says the flood put him "right out of business". "The lakes turned green, there were no crabs, no worms, no seagrass, everything died," Mr Barling said.

Testing in 2008 showed nine dolphins found dead on the lake's shores died of mercury poisoning. A 1997 study by the Marine and Freshwater Resources Institute found all of 300 black bream sampled had elevated levels of pesticides. A 2006 study found the Latrobe River had one of the highest levels of antibiotics detected on the planet.

Duncan Malcolm, chairman of strategic planning body the Gippsland Coastal Board, said the management structure was working "as well as any management structure ever can". However, he conceded Lake Wellington would not be restored to its former state. In 2001, the Victorian Government assembled the Gippsland Lakes Taskforce, which brought together 11 groups all partly responsible for the health of the lakes and has overseen the spending of some \$20 million.

*Full story and source: [http://www.weeklytimesnow.com.au/article/2009/03/09/59205\\_water.html](http://www.weeklytimesnow.com.au/article/2009/03/09/59205_water.html)*

## **Florida Bay preservation proposals heed boaters' concerns (Miami, FL, USA)**

07 March 2009, MiamiHerald.com

The waters of Florida Bay in Everglades National Park cover nearly a half-million acres laced with seagrass banks and dotted with too many mangrove islands to count or name. Yet even in this vast expanse, it's hard to find a patch of seagrass that doesn't show the criss-crossing scars of buzzing boat propellers.

Park managers, concerned with increasing damage to vital marine habitat, have unveiled four new sets of proposals aimed at curbing the impacts of boating and fishing in waters stretching from Islamorada to Everglades City.

All but one, an unlikely leave-things-as-is option, call for mandatory education and permits for every boater or paddler -- from first-time kayakers to professional fishing guides. Two plans would expand restrictions on power boats, adding more slow-speed zones and "pole and troll" areas where boaters could use only pushpoles or electric motors as well as some paddle-only "no motor zones."

*Full story and source: <http://www.miamiherald.com/news/miami-dade/v-fullstory/story/938620.html>*

## **Fish stock habitat a weak spot (New Zealand)**

04 March 2009, *ScienceAlert*

NIWA scientists have discovered that nearly all snapper on the west coast of the North Island come from nurseries in just one harbour. In 2003, NIWA scientists collected juvenile snapper from seven estuaries along the west coast of the North Island. By testing their ear bones (otoliths) for eight different chemical elements, scientists were able to create a 'chemical signature' to identify which estuary the fish came from. The scientists found that 98 percent of the adult snapper were originally juveniles from Kaipara Harbour.

Kaipara Harbour is under threat from human activities – particularly land uses which causes sedimentation, eutrophication, and changes in water quality. These effects can all damage the biogenic (living) nursery habitat of snapper (usually seagrasses and horse mussel beds). It is likely other west coast harbours were also once important nurseries.

NIWA is now working on ways to restore and recover the habitats. Early indications from a recent experiment in Whangapoua Estuary, Coromandel, suggest a strong positive correlation between increasing seagrass blade densities and juvenile snapper (and other fish species) abundance. Reductions in seagrass blade densities are a sign of environmental degradation of seagrass meadows, which may reduce their value to small fish.

*Full story and source:* <http://www.sciencealert.com.au/news/20090403-18871.html>

## **Water Quality Upgrades Planned for Northern Everglades Estuaries (USA)**

2 March 2009, *Environment News Service*

In support of watershed protection plans for Florida's Caloosahatchee and St. Lucie rivers, the South Florida Water Management District Governing Board has approved a contract with the University of Massachusetts to study changes in nutrient levels in the rivers' estuaries during the 2009 wet season.

The research will help identify where and when the sediments are a source for nitrogen and phosphorus. Scientists will be able to identify "hot spots," or areas of particularly high benthic nutrient flux rates, and optimize future sampling efforts. "This project is an important companion to the studies done in 2008," said Governing Board member Melissa Meeker. "The data collected will ultimately assist in identifying projects needed to achieve water quality enhancements for both estuaries and watersheds."

The Caloosahatchee River and Estuary extend about 70 miles from Lake Okeechobee to San Carlos Bay on Florida's southwest coast. The lower reaches are characterized by a shallow bay, extensive seagrass beds and sand flats. Mangrove forests dominate undeveloped areas of the shoreline. Southwest Florida estuaries provide habitat for more than 40 percent of Florida's rare, endangered and threatened species.

*Full story and source:* <http://www.ens-newswire.com/ens/mar2009/2009-03-02-091.asp>

## **New Ocean Report Card: Florida Making Progress, But Not There Yet (Portland, ME, USA)**

02 March 2009, *Common Dreams (press release)*

While Florida has made several improvements in its efforts to restore the health of its ocean and coasts, the state still has work to do, according to a report card released today by a group of nationally and internationally recognized environmental organizations. The report card evaluated the progress the state has made in reversing the decline of its ocean and coastal resources in 2007 and 2008.

The Florida Coastal and Ocean Coalition, of which the Natural Resources Defense Council is a member, based its report card on the progress the state has made in implementing a set of recommendations the coalition first set forth in 2006, in a report titled "Florida's Coastal and Ocean Future: A Blueprint for Economic and Environmental Leadership."

The coalition emphasized that Governor Charlie Crist and the state legislator have made progress on a range of ocean policies. The governor has developed a plan to counter climate change, supported restoring funds for Florida Forever, stood up for manatees, vetoed a weak seagrass bill and fought for stronger seagrass legislation. The legislature passed a bill to eliminate stormwater outfall, a Clean Oceans bill, and a measure that ensures better management of inlets.

*Full story and source:* <http://www.commondreams.org/newswire/2009/03/02-5>

## **PUBLICATIONS**

### **COASTAL WETLANDS: An Integrated Ecosystem Approach**

Coastal wetlands are under a great deal of pressure from the dual forces of rising sea level and the intervention of human populations both along the estuary and in the river catchment. This book provides an understanding of the functioning of coastal ecosystems and the ecological services that coastal wetlands provide, and suggestions for their management. In this book a CD is included containing color figures of wetlands and estuaries in different parts of the world.

*To order:* [http://www.elsevier.com/wps/find/bookdescription.cws\\_home/716674/description#description](http://www.elsevier.com/wps/find/bookdescription.cws_home/716674/description#description)

## CONFERENCES

### **Queensland Coastal Conference 2009: Waves of Change (Gold Coast 12-15 May, 2009)**

Registration for the Queensland Coastal Conference 2009 "Waves of Change" has now opened. The Queensland Coastal Conference 2009 is not just about learning of new developments in natural resource management, but will be a balanced discussion of practical, on-ground coastal management and the policies and programs that inform coastal zone management in Queensland.

To Register: <http://www.iceaustralia.com/qldcoast09/register.html>

More information: <http://www.iceaustralia.com/qldcoast09/index.html>

## SEAGRASS-WATCH WORKSHOPS 2009

### **Australia**

Cooktown, March 26-27 (Registration closes 24 March 2009)

For more information and registration: <http://www.seagrasswatch.org/training.html#wrkshop09>

### **Asia**

Singapore, May 02 -03 (Registration closes 20th April 2009)

For more information and registration: <http://www.seagrasswatch.org/training.html#wrkshop09>

Bali, May 09-10 (Registration closes 20th April 2009)

For more information and registration: <http://www.seagrasswatch.org/training.html#wrkshop09>

## SEAGRASS-WATCH FIELD DAYS 2009

### **Australia**

Whitsunday, QLD: April 5, 2009 (RSVP by 04 April 2009)

For more information and registration: [http://www.seagrasswatch.org/extension.html#PI\\_Ap09](http://www.seagrasswatch.org/extension.html#PI_Ap09)

## GALLERY

### **Cairns (Qld, Australia) : 09-10 March 2009** <http://www.seagrasswatch.org/gallery.html>

Rangers from Mapoon and Napranum attended the Seagrass-Watch workshop (Level 1) held at the Northern Fisheries Centre.

### **Cyrene reef (Singapore) : 09 March 2009** <http://www.seagrasswatch.org/gallery.html>

A few hours to go before the TeamSeagrass trip to Cyrene Reef today, and the prognosis for the weather is bleak. But for TeamSeagrass, the mantra is "When it's low, We GO!"

### **Torres Strait (Qld, Australia): 04 - 08 March 2009** <http://www.seagrasswatch.org/gallery.html>

### **Poona, Great Sandy Strait (Australia) : 28 February 2009** <http://www.seagrasswatch.org/gallery.html>

Well 2009 is here. Hopefully our year will be just as interesting and exciting as the previous years. We were lucky to have Carla Pacheco, a visiting marine biologist from Portugal, accompany us on our first monitoring event for the year at Poona. It was also Carla's first time seagrass monitoring and she enjoyed the experience.

## FROM HQ

**Frequently Asked Questions** <http://www.seagrasswatch.org/faq.html>

**Seagrass-Watch News Issue 35** <http://www.seagrasswatch.org/newsletters.html>

**Seagrass-Watch Shop** <http://www.seagrasswatch.org/shop.html>

**Virtual Herbarium** <http://www.seagrasswatch.org/herbarium.html>

**Giveaways** <http://www.seagrasswatch.org/shop.html#GIVE1>

**Future sampling dates** <http://www.seagrasswatch.org/sampling.html>

**Handy Seagrass Links** <http://www.seagrasswatch.org/links.html>

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Seagrass-Watch E-Bulletin is compiled by Len McKenzie & Rudi Yoshida.