



# Seagrass-Watch E-Bulletin

24 December 2008

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. Seagrass-Watch welcomes feedback on the bulletins, and you are free to distribute it amongst your own networks.

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## NEWS

### **Dead dugong thought victim of fishing gear (Thailand)**

03 December 2008, Phuket Gazette

LAEM PANWA: More bad news for Phuket's tiny dugong population came early yesterday morning, when the carcass of an immature female was found floating less than a kilometer offshore from Laem Ka, up the coast from the Sea Gypsy Village in Rawai.

Dugong researcher Kanjana Adulyanukosol from the Phuket Marine Biological Center (PMBC) said the carcass was recovered at about 6 am by local fisherman Boonlert Sukasem, who brought it to Chalong Pier and notified local conservationist Sutha Prateep na Thalang, who in turn notified the PMBC.

A necropsy performed later that afternoon indicated that the dugong had been feeding well, with a wide variety of seagrasses in both its large and small intestines, she said. Although the exact cause cannot be confirmed, Dr Songtaya said the most likely cause of the sudden death was that the animal became ensnared in fishing gear and was unable to get to the surface to breath.

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

Read more on Dugong research in Thailand in Issue 35 of Seagrass-Watch News: <http://www.seagrasswatch.org/newsletters.html>

### **Dugongs attract crowds at Mermaid Lagoon exhibition (Sydney, Australia)**

19 December 2008, *The Western Australian*

They may not be as pretty as the mythical creatures they inspired, but the newest additions to the Mermaid Lagoon exhibition at Sydney Aquarium are still wowing the crowds.

Ten-year-old male Pig and four-year-old female Wuru - two of only five dugongs on exhibition in the world - joined the new tropical water habitat this month. The docile herbivores will feed on up to 90kg of cos lettuce daily to replace their natural diet of seagrass.

The number of dugongs in the wild are in decline due to the destruction of their natural habitat, boating injuries and drowning in nets. Pig and Wuru - an Aboriginal word meaning young child - were raised in Queensland's Sea World after being rescued as orphaned calves.

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

### **Kentucky HPV researchers tackle similar manatee disease (Lexington, KY, USA)**

22 December 2008, by Sarah Vos *Kentucky.com*

Two Kentucky researchers who helped develop a vaccine to thwart a sexually transmitted disease in humans are using some of that knowledge to help an unlikely group of patients — manatees.

More than 15 years ago, Dr. A. Bennett Jenson and Shin-je Ghim of the University of Louisville were part of a team that helped develop a vaccine for the human papilloma virus, which causes cervical cancer. When a similar virus was identified in manatees, they were asked to help.

West Indian manatees, or sea cows, are large aquatic mammals that live along the Atlantic coastline and in estuaries in Florida. They eat seagrass, weigh as much as 1,200 pounds and are most closely related to elephants. They migrate hundreds of miles a year, going as far north as Virginia in summer and wintering in warmer waters around Florida. In manatees, the virus is spread from mother to calf. When the manatees have lesions, it can also be spread from manatee to manatee when they snuggle and nuzzle.

The two researchers created a vaccine for the virus in manatees and a test to see whether manatees had been exposed to it. They found that about 30 percent of migrating manatees had been exposed to the virus, compared with 35 percent to 40 percent of manatees in captivity, Jenson said. This fall, the U.S. Fish and Wildlife Service awarded Jenson and Ghim a Manatee Conservation Award for their work.

Full story and source: <http://www.kentucky.com/news/state/story/634802.html>

### **Massive Coral Bleaching Could Decimate SE Asia's Coral Triangle (London, UK)**

19 December 2008 *Earthtimes*

Potentially widespread and severe coral bleaching is predicted this winter, which could cause immense damage to some of the world's most important marine environments including the Coral Triangle of SE Asia and the Western Pacific, the World Wildlife Fund (WWF) warns.

A report from the US Government's National Oceanic and Atmospheric Administration (NOAA) predicts severe bleaching for parts of the Coral Triangle, a 3.4 million square mile expanse of ocean in the Indo-Pacific that is considered the center of the world's marine life.

Stretching from the Philippines to Malaysia, Indonesia, Papua New Guinea, Timor Leste and the Solomon Islands, the Coral Triangle is home to 75% of all known coral species and more than 3000 species of fish. Labyrinths of limestone reefs, extensive seagrass meadows and coastal mangrove forests attract several different species of tuna, sea turtles and giants of the sea such as humpback whales, who all feed, breed and rest in the rich and sheltered waters.

The bleaching, predicted to occur between now and February, could have a devastating impact on coral reef ecosystems, killing coral and destroying food chains, including economically significant tuna species. There would be severe impacts for not only the 120 million people who live in the region, but cause a ripple effect felt around the world.

Full story and source: <http://www.earthtimes.org/articles/show/massive-coral-bleaching-could-decimate-se-asias-quos-coral-triangle-this-winter,662351.shtml>

## **How clean are our waterways? (Port Charlotte, FL, USA)**

14 December 2008, Sun newspapers

When Bobbi Rodgers wants to know how clean the water is in Lemon Bay, she looks at the seagrass. A slow-growing, flowering plant that likes shallow water, seagrass provides vital habitat for wildlife. To be healthy, it needs plenty of sun and won't grow in polluted, cloudy or turbid water. A century ago, the water was clear.

Beyond the pollution running off from the land, the ecology of Lemon Bay was altered in the 1960s and 1970s when the Intracoastal Waterway was cut along Florida's west coast, extending the dead-end bay north to South Venice. The mix of freshwater and saltwater changed, as did the circulation of water in the bay. With it came a change in the sea life. "There were profound changes in salinity and turbidity" in shallow Lemon Bay, said Ernie Estavez, director of Mote Marine Laboratory's Center for Coastal Ecology.

"In Lemon Bay, seagrass is doing well," said Rodgers, who has been monitoring water quality in Lemon Bay for years as environmental resources manager for Charlotte Harbor Environmental Center at Cedar Point Park. Studies show coverage is stable, she said.

*Full story and source: <http://www.sunnewspapers.net/articles/pnnews.aspx?NewsID=428285&a=newsarchive2/121408/ch1.htm&pnpng=0>*

## **Old Ideas Are Polluting the Chesapeake Bay (United States)**

14 December 2008, Washington Post

The last sail of the year was a good one -- stiff breeze from the south, flocks of wintering sea ducks buzzing around close to the water and, as expected, the Chesapeake Bay as clear and clean as all outdoors. If that last bit doesn't sound right to you in view of recent reports of dead zones and a general decline in the bay's water quality, you must be a fair-weather boater. In warm months, the bay indeed looks dismal -- murky and clouded with suspended algae. By late June, most grass beds are gone and dead zones return in vast areas of deep water, where decomposing algae eat up oxygen and higher life-forms can't survive.

The villain in this tragedy is well known: excess nutrients. Walter Boynton, a University of Maryland professor who has studied the bay's decline for 30 years, says loads of phosphorus and nitrogen entering the bay and tributaries from sewage plants, farm fields, polluted air and storm-water runoff are six times what they were 400 years ago and double what they were just 50 years ago.

Boynton was among a group of scientists who gathered this month to note a depressing milestone in the Chesapeake's ongoing saga. Twenty-five years ago, top elected officials from Maryland, Virginia, Pennsylvania and the District met in Fairfax to forge a historic agreement to clean the bay. The U.S. Environmental Protection Agency agreed to lead the resulting Chesapeake Bay Program, whose mission was to reduce nutrient loads with the active support of the states. "The hope was that very substantial decreases in nitrogen and phosphorus would develop," Boynton said. Ambitious targets were set but none ever were met. What happened?

"The simple, semi-mindless answer is, 'Not much,' " Boynton said. The bottom line is, in a quarter-century the CBP has run through an estimated \$6 billion to reduce nutrients, but the bay is no better. "In some places it's worse, in some places it's better," Boynton said. "In most places, it's not worse." Faint praise for all those billions spent, and all those good intentions.

*Full story and source: [http://www.washingtonpost.com/wp-dyn/content/article/2008/12/13/AR2008121301765\\_2.html](http://www.washingtonpost.com/wp-dyn/content/article/2008/12/13/AR2008121301765_2.html)*

## **Ghost nets scheme wins award (Australia)**

12 December 2008, ABC Online

An environmental program aimed at cleaning up waters in the Gulf of Carpentaria, in far north Queensland, has won more recognition, this time taking out a state award as part of the Clean Beach Challenge. The Carpentaria Ghost Nets program has won the Wildlife Protection Award for its work in tracking and removing fishing nets from the water.

The coordinator, Riki Gunn, says that helps to save marine life which becomes tangled in the nets as they wash up on shore. "Most of the marine life we're finding is all shallow water stuff, like the turtles, but also we've found swordfish, crocodiles, sharks and lots and lots of crabs," she said.

"Some of them [the nets] are humungous and some of them are just mere scraps - but over 5,000 net pieces at this time ... I think that was from the end of August and that's pretty scary when you think of how much could still be out there. "We're only working on the shoreline so we don't know exactly what is happening on the water. Ms Gunn says 18 Indigenous communities around the gulf rim are also involved in the program

*Full story and source: <http://www.abc.net.au/news/stories/2008/12/12/2444500.htm>*

*Read more on Ghost Nets in Issue 32 of Seagrass-Watch News: <http://www.seagrasswatch.org/newsletters.html>*

## **Competition between the invasive macrophyte *Caulerpa taxifolia* and the seagrass *Posidonia oceanica*: contrasting strategies (New York, NY, USA)**

11 December 2008, 7thSpace Interactive (press release)

Plant defense strategy is usually a result of trade-offs between growth and differentiation (i.e. Optimal Defense Theory - ODT, Growth Differentiation Balance hypothesis - GDB, Plant Apparency Theory - PAT). Interaction between the introduced green alga *Caulerpa taxifolia* and the endemic seagrass *Posidonia oceanica* in the Mediterranean Sea offers the opportunity to investigate the plausibility of these theories. We have accordingly investigated defense metabolite content and growth year-round, on the basis of an interaction gradient.

When in competition with *P. oceanica*, *C. taxifolia* exhibits increased frond length and decreased Caulerpenyne - CYN content (major terpene compound). In contrast, the length of *P. oceanica* leaves decreases when in competition with *C. taxifolia*. However, the turnover is faster, resulting in a reduction of leaf longevity and an increase on the number of leaves produced per year. The primary production is therefore enhanced by the presence of *C. taxifolia*. While the overall concentration of phenolic compounds does not decline, there is an increase in some phenolic compounds (including ferulic acid and a methyl 12-acetoxyricinoleate) and the density of tannin cells.

Interference between these two species determines the reaction of both, confirming that they compete for space and/or resources. *C. taxifolia* invests in growth rather than in chemical defense, more or less matching the assumptions of the ODT and/or PAT theories. In contrast, *P. oceanica* apparently invests in defense rather than growth, as predicted by the GDB hypothesis. However, on the basis of closer scrutiny of our results, the possibility that *P. oceanica* is successful in finding a compromise between more growth and more defense cannot be ruled out.

*Full story and source:*

[http://7thspace.com/headlines/299839/competition\\_between\\_the\\_invasive\\_macrophyte\\_caulerpa\\_taxifolia\\_and\\_the\\_seagrass\\_posidonia\\_oceanica\\_contrasting\\_strategies.html](http://7thspace.com/headlines/299839/competition_between_the_invasive_macrophyte_caulerpa_taxifolia_and_the_seagrass_posidonia_oceanica_contrasting_strategies.html)

## **Sethusamudram Project could damage marine eco system (Noida, Uttar Pradesh, India)**

11 December 2008, Zee News

Asking India to shelve the controversial Sethusamudram Project as it could damage the productive marine ecosystem, an international group of environmentalists has suggested the Gulf of Mannar region should be declared a Cultural and Natural World Heritage Site.

Requesting President of India Pratibha Patil to cancel the Sethusamudram Shipping Canal Project, the Ecologists and Environmentalists group claimed that the government's decision to go ahead with the project was based on legal flaws and would have inevitable and disastrous ecological and social impact. The project could disrupt and damage the productive marine eco-system through a massive increase in the burden of silting and sedimentation, the group said adding, it will also affect coral reefs, seagrass beds, oyster beds and food fisheries.

It also asked India and Sri Lanka to write an application to the UNESCO to declare the Gulf of Mannar region a mixed Cultural and Natural World Heritage Site. Earlier, a resolution in this regard was adopted on the issue at a two-day meeting here attended by an international consortium of ecologists, academics, scientists and religious leaders.

*Full story and source:* <http://www.zeenews.com/nation/2008-12-11/490117news.html>

*Read more on the Gulf of Mannar in Issues 25 and 26:* <http://www.seagrasswatch.org/newsletters.html>

*To learn more about the campaign, visit* <http://www.livingplanetfoundation.org/campaign.htm>

## **Anti-Essar activists petitions the President (Port of Spain, Trinidad and Tobago)**

09 December 2008, Trinidad News

Members of the Claxton Bay Resource Protection Group yesterday met with President George Maxwell Richards with the hope that he could mediate with the Government for construction of the Essar Steel Mill and port at Claxton Bay to be scrapped. Speaking to the media after meeting with Richards for close to one hour, Rhea Mungal, said the meeting with the President was very informative.

Two petitions were presented to Richards, one signed by residents which contained 12,000 signatures and an online petition with more than 600 signatures. Mungal said international groups have taken interest in the group's cause including Fian International from Germany, Global Response, Mangrove Action Project and Greenpeace.

President of the Claxton Bay Fishing Association Kishore Boodram said Richards was told of the destruction of seagrass and destruction of mangrove, and shrimp and mullet hatchery. He said fishermen have been "struggling more than year". Boodram said if food security was a concern in the country then the mangrove and seabed should be saved. Dr Wayne Kublalsingh, a member of the group, said 500 acres of arable Caroni 1975 Ltd land, 625 acres of seagrass bed and 35 acres of mangrove will be destroyed "to put a steel mill in the midst of six to seven small communities."

*Full story and source:* <http://www.newspaper.co.tt/news/0,91411.html>

## ***It's a shore thing for volunteers (Pakenham, Victoria, Australia)***

*09 December 2008, Australian Star*

A NEW marine care volunteer group in Hobsons Bay will help Parks Victoria undertake scientific research at Jawbone Marine Sanctuary. The group, called the Jawbone Marine Sanctuary Care Group, was established a few weeks ago and will monitor the 110-year-old sanctuary to compile data for Parks Victoria. The data will help Parks Victoria detect any changes in ecology and marine life at the sanctuary and could be used for future management decisions.

The group's joint secretary, Carol Majernik, said the group would compile information as part of Parks Victoria's Sea Search program. This program uses community-based organisations to undertake monitoring projects, such as for seagrass and fish stocks. Parks Victoria Jawbone Marine Sanctuary park ranger Emily Matheson said it was beneficial for the sanctuary to have a community group help Parks Victoria.

The group will hold the next seagrass monitoring day on 17 January and on 18 January will host a Walk and Talk around the sanctuary to educate the public about its features. "It's important to get the community involved, as the sanctuary is part of their backyard and needs looking after," Ms Majernik said.

*Full story and source: <http://www.senews.com.au/story/67786>*

## ***Manatees sighted in St Ann's Bay (Kingston, Jamaica)***

*07 December 2008, Jamaica Observer*

A group of manatees (*Trichechus manatus*), locally called Sea Cows, have been sighted in St Ann's Bay, sparking excitement among environmentalists. The animals have been in the Bay since Saturday, November 29th.

"Manatees, which are a protected species in Jamaica, are rarely sighted in our waters, as the population in the wild is estimated to be less than 50 manatees (in Jamaican waters)," said Ainsley Henry, manager of the Ecosystem Management Branch at the National Environment and Planning Agency (NEPA).

Manatees feed on water plants such as seagrass, consuming up to 45 kg of vegetation in six to eight hours. They are commonly found along the coast in shallow, calm brackish waters (a mixture of salt and freshwater), usually one to two metres deep. They are seen near areas with rivers as they drink freshwater from the sea surface. It is believed that the presence of seagrass beds and freshwater in the bay may be the reason for them remaining in the area as they appear to be feeding. In Jamaica, they have been sighted mainly along the south coast, in Clarendon, Manchester and St Elizabeth.

*Full story and source: [http://www.jamaicaobserver.com/news/html/20081206T210000-0500\\_143410\\_OBS\\_MANATEES\\_SIGHTED\\_IN\\_ST\\_ANN\\_S\\_BAY\\_.asp](http://www.jamaicaobserver.com/news/html/20081206T210000-0500_143410_OBS_MANATEES_SIGHTED_IN_ST_ANN_S_BAY_.asp)*

## ***Gippsland Lakes caretaker comes clean (Melbourne, Victoria, Australia)***

*07 December 2008, The Age*

THE chairman of the Gippsland Lakes Taskforce has admitted that the authority has failed to adequately monitor the vulnerable wetlands' health and has no real idea how sick the waterways are. Professor Barry Hart, the independent chairman of the State Government taskforce — which has received \$20 million in taxpayer funding since 2001 — also revealed the group was under pressure from Treasury officials to prove it was effectively reducing nutrient pollution levels in the lakes.

"We have tried to monitor what is coming into the lakes and a little bit, a lot less than we would have liked, of monitoring what is going on in the lakes' catchments," he told the meeting. "We think the major change we are going to need is much more focus on the lakes themselves and their health. "What's their health? We haven't really, no-one really is focusing on a good comprehensive monitoring program that's saying what's going on there."

Already under stress, the Gippsland Lakes were swamped in June 2007 with floodwaters laden with phosphorus, nitrates, heavy metals and chemicals accumulated across its 2-million-hectare catchment during a decade of drought. Six months later a marine algae, *Synechococcus*, was detected in the lakes for the first time.

Locals soon noted the disappearances of barnacles from jetty pylons and boats, sandworms were in short supply, seagrass beds were thinning, drifts of mollusc shells were washing ashore and the Department of Primary Industry issued permits for farmers to shoot swans that had begun feeding in lucerne paddocks.

*Full story and source: <http://www.theage.com.au/national/gippsland-lakes-caretaker-comes-clean-20081206-6sx8.html?page=-1>*

## CONFERENCES/WORKSHOPS

**Seagrass-Watch Workshops 2009** For more information: <http://www.seagrasswatch.org/training.html#wrkshop09>

### Australia

Whitsunday (QLD), April 4-5

Cooktown (QLD), March 9-10

### Asia

Singapore, May 02 -03

Bali (Indonesia), May 09-10

### Queensland Coastal Conference 2009: Waves of Change (Gold Coast 13-15 May, 2009)

Registration for the Queensland Coastal Conference 2009 "Waves of Change" has now opened. The Early Bird discounted rate will be available until Wednesday 28 January 2009, please register and make payment before this date to secure the special rate.

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>

## GALLERY

**Hervey Bay and GSS, Qld (Australia): 12 - 14 December 2008** <http://www.seagrasswatch.org/gallery.html>

A quick visit to Hervey Bay and Great Sandy Strait by Seagrass-Watch HQ provided the opportunity to catch up with Seagrass-Watch teams and revisit some sites.

**Singapore : 12 - 13 December 2008** <http://www.seagrasswatch.org/gallery.html>

*It's a very special monitoring trip as we also celebrate the newly wed Mr and Mrs Lam our first wedding in TeamSeagrass of two Team members! After a quick celebratory toast and cake, we're off with Melvin in the wonderfully named boat, for a monitoring session on Cyrene Reef. It's busy work monitoring on Cyrene as we have lots of species on this reef. Although the reef is next to our busy world-class port and ringed by petrochemical plants, the meadows are very rich.*

## 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.