



# Seagrass-Watch E-Bulletin

**31 December 2009**

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## NEWS

### ***Ocean Foundation makes dubious claims in seagrass proposal (USA)***

28 December 2009, Tampabay.com

A Washington-based foundation has teamed up with a controversial local company to propose a radical change in the way Florida deals with the destruction of its sea grass beds. The proposal from the Ocean Foundation says that anyone who needs to destroy seagrass — say, for a new marina — could make up for the damage by writing a check to the foundation. Then the foundation would hire a contractor — most likely Seagrass Recovery of Indian Rocks Beach — to repair seagrass beds that have been scarred by boaters.

Foundation president Mark Spalding predicted this approach could bring in "billions of dollars every year" for seagrass, but the proposal has already hit some rough waters:

- The foundation has undertaken only one previous seagrass restoration project — financed by Absolut Vodka — and officials say they don't know yet whether it worked. The foundation's claim that it completed a second project, this one in the Tampa Bay area, turns out to be false.
- Critics say Seagrass Recovery's methods have yet to show any verified success, and question how fixing damaged seagrass beds can count as making up for wiping out other beds.
- The foundation has already had to backpedal from a claim that the state's top seagrass expert is working with it.

Full story and source: <http://www.tampabay.com/news/environment/wetlands/ocean-foundation-makes-dubious-claims-in-sea-grass-proposal/1061582>

## **To Save the Planet, Save the Seas (USA)**

26 December 2009, New York Times

For the many disappointments of the recent climate talks in Copenhagen, there was at least one clear positive outcome, and that was the progress made on a program called Reducing Emissions From Deforestation and Forest Degradation. Under this program, key elements of which were agreed on at Copenhagen, developing countries would be compensated for preserving forests, peat soils, swamps and fields that are efficient absorbers of carbon dioxide, the primary heat-trapping gas linked to global warming. But the program is limited in that it includes only those carbon sinks found on land. We now need to look for similar opportunities to curb climate change in the oceans.

Few people may realize it, but in addition to producing most of the oxygen we breathe, the ocean absorbs some 25 percent of current annual carbon dioxide emissions. Half the world's carbon stocks are held in plankton, mangroves, salt marshes and other marine life. Seagrass meadows, for example, which flourish in shallow coastal waters, account for 15 percent of the ocean's total carbon storage, and underwater forests of kelp store huge amounts of carbon, just as forests do on land. The most efficient natural carbon sink of all is not on land, but in the ocean, in the form of *Posidonia oceanica*, a species of seagrass that forms vast underwater meadows that wave in the currents just as fields of grass on land sway in the wind.

Worldwide, coastal habitats like these are being lost because of human activity. Extensive areas have been altered by land reclamation and fish farming, while coastal pollution and overfishing have further damaged habitats and reduced the variety of species. It is now clear that such degradation has not only affected the livelihoods and well-being of more than two billion people dependent on coastal ecosystems for food, it has also reduced the capacity of these ecosystems to store carbon.

The case for better management of oceans and coasts is twofold. These healthy plant habitats help meet the needs of people adapting to climate change, and they also reduce greenhouse gases by storing carbon dioxide. Countries should be encouraged to establish marine protected areas — that is, set aside parts of the coast and sea where nature is allowed to thrive without undue human interference — and do what they can to restore habitats like salt marshes, kelp forests and sea-grass meadows.

*Full story and source:* [http://www.nytimes.com/2009/12/27/opinion/27lafolley.html?\\_r=1](http://www.nytimes.com/2009/12/27/opinion/27lafolley.html?_r=1)

*Read more on Carbon sequestration in Issue 36 of Seagrass-Watch News magazine:* <http://www.seagrasswatch.org/magazine.html>

## **City discusses nutrient solutions (USA)**

24 December 2009, Rockport Pilot

The Rockport City Council discussed public comments received from the Texas Commission on Environmental Quality (TCEQ) regarding the permit renewal of the City's wastewater treatment plant (WTP). The TCEQ permits wastewater treatment plants in Texas for a period of five years. The City's permit, which expires in early 2010, has been the subject of some debate. Public comments regarding the permit include concerns about the amount of nitrogen which is being released from the plant.

The issue is especially sensitive since some of the treated effluent released from the treatment plant eventually dumps into Little Bay, via Tule Creek. The City is studying different ways to reduce the amount of nitrogen, regardless of source, which reaches Little Bay. City Manager Tom Blazek said it would cost about \$2.2 million if the amount of nitrogen reduction at the outfall of the WTP, as requested by some parties opposed to the permit being issued in its current form, were eventually required by the TCEQ. He said money would have to be raised on the backs of the current 4,440 wastewater customers through increases in their utility bills, or be paid by the current 6,140 residential and commercial property owners via ad valorem taxes.

Prior to discussing the permit, the council received the quarterly report from the City's Water Quality Committee, as presented by Tom Callan. He reported a "little comeback in seagrass" in Little Bay, but noted there is spike in nutrients released into Little Bay following large rain events. He said that would suggest the nutrients are being carried down Tule Creek into Little Bay, as well as from surrounding neighborhoods located adjacent to that body of water. Callan reiterated the spike in readings occurs after major rain events. Callan said the high nutrient numbers in Little Bay can be addressed by several methods, including storm water management, improving the circulation in Little Bay (i.e. - by opening a channel near the entrance to the Rockport Beach Park), process improvements at the wastewater treatment plant, constructed wetlands, and the dispersal of effluent (i.e. - on park land).

*Full story and source:* <http://www.rockportpilot.com/articles/2009/12/24/news/doc4b338aaca73a9577972568.txt>

## **Phuket 'EM Ball' project underway (Phuket, Thailand)**

24 December 2009, Phuket Gazette

In a bid to help the environment, a group of activists on Saturday released thousands of 'effective microorganisms' (EM) balls into the sea off Pa Khlok and into Klong Pakbang in Patong.

Starting at 9am in Pa Khlok, the group sprayed 5,000 liters of EM solution from a fire engine into Bang Rong Bay from the beach at Weerasatree Anusorn School. After that, they and about 100 volunteers took to the sea in eight longtail boats, dropping 10,000 hand-rolled EM balls along the seagrass line about a kilometer from the shore. The

activists hope the balls will spur the growth of seagrass, the staple food of the highly-endangered local dugong population.

At 1pm, the group took on a decidedly more difficult challenge: Patong's filthy Klong Pakbang. First they sprayed 5,000 liters of EM solution into the klong, then dropped in 10,000 more EM balls at six different locations. They started behind Patong Hospital and worked their way down the klong, past Jungceylon and all the way to the bridge at Tri Trang Beach, where the klong empties into Patong Bay.

Project Manager Ms Pareeya said researchers from the Phuket Marine Biological Center (PMBC) at Cape Panwa will monitor the water in both places over the next 15 days to see if the EM balls bring about the desired effect. The group plans to continue spraying EM solution and dropping EM balls at both locations, monthly at Pa Khlok and weekly at Klong Pakbang, she said.

*Full story and source:* <http://www.phuketgazette.net/archives/articles/2009/article8151.html>

### ***It's manatee vs. military in pending habitat ruling (Fort Lauderdale, Florida, USA)***

22 December 2009, Los Angeles Times

Manatees may rank lower than traditional military menaces like torpedoes or air-to-sea missiles. But a proposal to protect additional habitat for the deceptively gentle, seagrass-munching creatures could, according to the U.S. Navy, end up reducing habitat for destroyers, aircraft carriers and nuclear submarines. The U.S. Fish and Wildlife Service soon will make a decision on whether to expand what's called critical habitat for the manatee in Florida and southern Georgia, in response to a petition from several environmental groups.

Although the Navy doesn't object in principal to an increase in protected areas -- and indeed points out the many measures it takes to prevent harm to endangered species -- it says that an overly broad expansion could have "significant impacts" on Navy operations. Among the military's concerns are security arrangements for Ohio-class submarines entering and exiting Kings Bay. The Navy does not want protections for a marine mammal, no matter how lovable, to compromise security arrangements for submarines approaching shore armed with nuclear weapons.

A critical habitat designation would not prohibit construction or other activities. But it would require the wildlife service to review federal activities or decisions that could affect the manatees' habitat, such as permitting development, oil drilling, boating or shipping.

*Full story and source:* [http://www.latimes.com/news/nation-and-world/la-na-manatee23-2009dec23\\_0,7566595\\_story](http://www.latimes.com/news/nation-and-world/la-na-manatee23-2009dec23_0,7566595_story)

### ***Researchers formalize plans for center to study Bay (USA)***

18 December 2009, SDNN: San Diego News Network

Three local research institutions and the Port of San Diego today formalized the establishment of a center to study San Diego Bay. The research center is the result of a collaboration between the port, San Diego State University, the Scripps Institution of Oceanography and the Hubbs-SeaWorld Research Institute.

The Center for Bay and Coastal Dynamics will be located at SDSU's Coastal and Marine Institute Laboratory at the former Naval Training Center in Point Loma. The collaboration will allow scientists to map San Diego Bay and conduct long-term scientific monitoring of its ecosystem, according to the port.

Donald Kent, president of Hubbs-SeaWorld Research Institute, said the center will work to determine what environmental challenges face San Diego Bay and how can they be minimized. Projects will include studies of water quality, understanding the seismic stability of the harbor floor, restoring sea turtle and fish populations and determining what role seagrass plays in providing healthy bay habitats.

*Full story and source:* <http://www.sdn.com/sandiego/2009-12-18/local-county-news/researchers-formalize-plans-for-center-to-study-bay>

### ***Rotting seaweed a health risk (Western Australia)***

18 December 2009, ABC Regional Online

The desire for a piece of prime waterfront real estate has long been part of the WA dream. It has seen marinas developed up and down the West Australian coast, and homes built with easy access to sand and surf. But it does not always go to plan. At Port Geographe Marina near Busselton a once pristine beach is a prime example of when planning and construction go horribly wrong - and where poorly designed groynes have changed the natural water flow. Now weed that would have once been flushed out to sea, stays trapped on the beach becoming a rotting mountain of vegetation.

Busselton Shire President, Ian Stubbs, says when construction of the marina began in the mid 1990s developers were oblivious to the environmental problems they were about to create. Each year more than 100 thousand cubic metres of seaweed is left to rot on the shore turning the beach into a putrid wasteland. In 2005, Saracen Properties took over the development and agreed to carry out bypassing works each year to remove the seaweed but that was simply a short term solution. Residents have been raising health concerns about the weed build up for years because of hydrogen sulphide (H<sub>2</sub>S) emitted from the rotting mounds. The weed is usually removed each spring, but this year the work has been delayed and the weed left to rot increasing the H<sub>2</sub>S emissions.

The latest health concerns have reinforced the need for more urgent action to find a long term solution to the problem. Mr Stubbs says the shire is in discussions with the State Government and the developers to find a solution. "We're jointly funding a very detailed and comprehensive study of the seagrass movement," he said. "We hope sometime next year to be in a position to decide what sort of reconfiguration of those groynes would be best for a long term solution to the problem." The State Government has also acknowledged the urgent need for a long term solution. The Minister for Transport Simon O'Brien said the new study is expected to deliver results in early 2010.

*Full story and source:* <http://www.abc.net.au/news/stories/2009/12/18/2775597.htm?site=southwestwa>

*Related articles:* <http://www.bymnews.com/news/newsDetails.php?id=63931> ,

<http://www.busseltonmail.com.au/news/local/news/general/busselton-beach-resort-owners-criticise-port-geographe-bypassing-works-plan/1706781.aspx>

## ***Native techniques prove better than science***

17 December 2009, environmentalresearchweb

Modern methods can answer a multitude of questions but sometimes traditional techniques are superior. Recent studies from the James Bay region of northern Canada and the Torres Strait islands off Australia show just how valuable local knowledge can be when it comes to the environment. Presenting at the BOREAS conference, a European Science Foundation project that took place at the Arctic Centre in Rovaniemi, Finland, Colin Scott, an anthropologist from McGill University in Canada demonstrated how native knowledge can outshine modern scientific techniques when it comes to environmental monitoring. In his first example Scott talked about the Torres Strait Islanders and their relationship with dugong, a large marine mammal, similar to the Caribbean manatee, which lives in the northern waters of Australia. The Islanders hunt these animals for their meat and fat. In recent years dugong numbers in their larger Indo-Pacific distribution are thought to have declined, mainly due to habitat degradation, fishing accidents and hunting; the International Union for Conservation of Nature lists the dugong as vulnerable to extinction.

While it is generally accepted that dugong populations in Australian waters are doing comparatively well, there is controversy about whether indigenous subsistence hunting is sustainable at current levels. However, monitoring the dugong population is far from easy. Scientists have been carrying out aerial surveys to count the mammals, but Islanders have argued that this method doesn't provide an accurate picture. The Islanders explained to Scott that dugong come onto shallower reefs on a high tide to graze seagrass, but on a low tide they go into deeper water where they are very difficult to spot. During half the year, the highest tides are at night. What's more, dugong are most comfortable coming onto the reef at night because they feel safer.

To keep an eye on trends in dugong numbers, the islanders use a variety of methods, including monitoring the pattern and quantity of seagrass browsed in particular areas, and going out by boat to count the animals on fine, calm nights, informed as much by sound as by sight. "They told me that they can count, and they can differentiate between male and female dugongs, and between fat and skinny dugongs, by the sound of their breathing when they surface and blow," Scott said.

Local practices that promote sustainable use of dugong include employing hunting areas on a rotational basis, and taking only animals that are in prime condition. What's more, the Islanders avoid hunting when seas are rough, and on unfavourable tides and currents, so the pattern of hunting is always intermittent. Scott says that it is important that we continue to dismantle the divide between indigenous and scientific knowledge, and prioritize collaboration with indigenous populations. "Their methods often involve more checks, are sensitive to a broader range of variables, and have great potential to increase our understanding of complex ecological realities," he said.

*Full story and source:* <http://environmentalresearchweb.org/cws/article/research/41265>

## ***Bajau fishermen save rare dugong (Petaling Jaya, Malaysia)***

17 December 2009, Malaysia Star

Local fishermen have saved an endangered dugong from certain death at the proposed Tun Mustapha Park near Pulau Banggi in northern Sabah. The dugong was found in a net by Bajau fishermen within the marine sanctuary in Pulau Maliangin Kecil early on Tuesday morning.

The 1.5m-long female juvenile dugong was taken to Pulau Banggi and a rescue team from WWF-Malaysia – with advice from the Sabah Wildlife Department – later arranged for the dugong's release back into the sea at Kg Pangasaan near Karakit, Banggi. The marine mammal is a protected species and is rarely seen these days, but sightings of it were common in the past within the proposed Tun Mustapha Park.

Leela Rajamani, a dugong researcher with the Borneo Marine Research Institute in Universiti Malaysia Sabah, said Pulau Maliangin Kecil had been confirmed as a feeding ground for the mammals. She said the discovery of the dugong further emphasises the importance of protecting the areas within the proposed park – including Maliangin.

*Full story and source:* <http://thestar.com.my/news/story.asp?file=/2009/12/17/nation/5319917&sec=nation>

# CONFERENCES

## **World Seagrass Conference & ISBW9 (Thailand, November 2010)**

A World Seagrass Conference (WSC) and the 9th International Seagrass Biology Workshop (ISBW9) will take place in southern Thailand in November, 2010. The region features fascinating seagrass ecosystems; Phuket is a world-renowned diving area and Trang has Thailand's largest seagrass meadows. Both the WSC and ISBW9 will be hosted by Prince of Songkla University, Southern Thailand.

### **World Seagrass Conference (WSC) (Phuket, 21–25 November, 2010)**

*Open to all and will include invited plenary lectures and oral and poster presentations. The expected cost for WSC is US\$200 which includes registration, lunches, two dinners and a half-day field trip to the seagrass meadow in Phuket (hotel and travel are separate).*

### **9th International Seagrass Biology Workshop (ISBW9) (Trang, 27–30 November, 2010)**

*ISBW9 will follow the WSC and consist of a smaller group of participants, including both international seagrass experts and regional scientists and practitioners, to address problems of seagrass conservation and restoration, which so far are little known across Southeast Asia and South Asia. The expected cost for the workshop is US\$350, which includes travel to Trang from Phuket, lunches, two dinners and a full day excursion to the nearby seagrass meadow (again, hotel and travel separate).*

If you are interested in WSC and/or ISBW9, please respond by filling out the short **Call for Interest** form available from <http://isbw.seagrassonline.org/isbw9/>

### **Important Dates for the WSC and ISBW9**

August 2009	First Announcement, Call for Interest
November 2009	Second Announcement (including themes and a preliminary programme) and Registration Opens
March 2010	Abstract Submission Deadline
June 2010	Notification of Abstract Acceptance for Oral or Poster Presentations, Updated Programme
July 2010	Registration Closes
August 2010	Final Programme Announcement
21–25 November 2010	WSC in Phuket, Southern Thailand
27–30 November 2010	ISBW-9 in Trang, Southern Thailand

# FROM HQ

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

**Seagrass-Watch News Issue 38** <http://www.seagrasswatch.org/magazine.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.