



Seagrass-Watch E-Bulletin

22 March 2011

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. This E-bulletin is also available as a downloadable file (pdf) at <http://www.seagrasswatch.org/publications.html#Ebulletin>

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NEWS

2011 declared Pacific Year of the Dugong (Palau)

15 March 2011, by David Sheppard, Island Business

The dugong, also known as the sea cow, is a stranger to many Pacific islands nations and territories. However, we all agree that this peaceful animal is no less deserving of a special year to recognise its importance to marine biodiversity of the Pacific. Last year, the Pacific Regional Environment Programme meeting in Madang, Papua New Guinea, noted the importance of the continuing health of dugong populations for a healthy Pacific Ocean, and

declared 2011 as the Pacific Year of the Dugong. The range of this marine mammal spreads from east Africa in the Indian Ocean, including the waters of six Pacific islands nations and territories—Australia, New Caledonia, Palau, Papua New Guinea, Solomon Islands and Vanuatu.

On the global scale, dugongs are considered vulnerable to extinction. While they are still present at the extreme ends of its distribution range, dugongs have disappeared from several areas including waters off Mauritius, Taiwan, western Sri Lanka and the Maldives. In the Pacific Islands region, the status of dugong populations is generally unknown with the exception of that in the Torres Strait. Palau's dugong population is considered to be the most isolated in the world and unlikely to be increased by dugongs from other areas, and thus can be classified as "endangered".

The incidental drowning of dugongs caught in fishing gear, such as gill-nets, has contributed to the major decline of dugongs in much of its Pacific range. The increase in vessel traffic also increases the likelihood of dugongs being killed by vessel strikes. Then there are the threats to the food sources of dugongs; coastal development, including human settlements, increases sedimentation and turbidity in coastal waters where seagrass is found. Sedimentation and turbidity not only smothers seagrass but also reduces the amount of light reaching them, resulting in their degradation and a reduction in their density and productivity. Added to this threat of the dugong, food security is the challenge of coping with the nutrient runoff from land whereby the enrichment leads to algal bloom which in turn results in reduced light levels for seagrasses.

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

Blue Carbon: An Oceanic Opportunity to Fight Climate Change

10 March 2011, by Robynne Boyd, Scientific American

Mangroves are tangled orchards of spindly shrubs that thrive in the interface between land and sea. They bloom in muddy soil where the water is briny and shallow, and the air muggy. Salt marshes and seagrasses also flourish in these brackish hinterlands. Worldwide, these coastal habitats are recognized for their natural beauty and ability to filter pollution, house fish nurseries and buffer shorelines against storms. Less known is their ability to sequester vast amounts of carbon—up to five times that stored in tropical forests. Dubbed "blue carbon" because of their littoral environment, these previously undervalued coastal carbon sinks are beginning to gain attention from the climate and conservation communities.

Because they hold so much carbon, destroying them can release substantial amounts of CO₂. People around the world wreck coastal habitats through aquaculture, agriculture, timber extraction and real estate development. To date, human encroachment has destroyed more than 35 percent of mangroves, 30 percent of sea grass meadows and 20 percent of salt marshes. Stopping such destruction could therefore become an important element in confronting climate change. "Blue carbon is a source of emissions that hasn't been addressed by the climate community and therefore creates an opportunity to reduce emissions," says Roger Ullman, executive director of the Linden Trust for Conservation in New York City, which promotes the use of conservation finance and environmental markets. "These fabulous ecosystems...don't cover a very large expanse of territory, yet still provide enormously important services to humanity and are being destroyed three or four times faster than the rate of tropical forests."

Getting local communities to save their mangroves will depend on economics. Land managers, farmers and other developers often opt to control these watery landscapes, thereby transforming them into income-generating acreage, such as a shrimp farm or rice paddy. The carbon markets, with their carbon credits selling between \$15 to \$20 per ton, could offer an alternative. The fees would encourage land conservation, which would prevent the release of carbon into the atmosphere, and the markets would reward them for mitigating climate change.

Even without carbon markets nations have obligations to manage their greenhouse gas emissions, which means that the carbon in these coastal habitats can be tallied in national accounts as a way of contributing to their management of global greenhouse emissions. This would be especially helpful in the Coral Triangle (an oceanic area between Southeast Asia and northern Australia that encompasses Indonesia, the Philippines, Malaysia, East Timor, Papua New Guinea and the Solomon Islands) as well as Bangladesh, Indonesia and China, where coastal habitats are being destroyed at an alarming rate. Companies could also start volunteering to launch socially and environmentally friendly coastal habitat projects in the name of climate protection. The final prong would be the creation of international carbon markets. As Crooks puts it: "One day the biggest bang for your buck may come from conservation."

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

Local eyes keep watch on marine habitat (Australia)

10 March 2011, Torres News

Community members and students from Tagai State College are taking part in Seagrass-Watch, a scientific program to track global patterns in seagrass health.

Working at the low tide, students last week recorded visual estimates of seagrass species and algal growth at Hammond Island, Mangroves Bach Beach, Federal Beach (Front Beach), and Wongai (Horn) Island.

Fisheries Queensland senior fisheries officer Jane Mellors said the students undertook seagrass monitoring four times every year.

Seagrass-Watch is described as "the largest scientific, non-destructive seagrass assessment and monitoring program in the world".

The Seagrass-Watch program is open to everyone in the community to join in. Information on the Seagrass-Watch program, and ways to participate, is available online at www.seagrasswatch.org.

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

From saving whales to dugongs (Cairns, QLD, Australia)

15 March 2011, by Daniel Bateman, Cairns Post

They're taken on Japanese whalers in Antarctica, and now the next big mission of Sea Shepherd could be in Far North Queensland. Sea Shepherd's Australian spokesman Jeff Hansen confirmed the society was now considering joining the campaign to protect the Far North's endangered dugong population from illegal hunting.

Concerns have been raised about the rising number of dugongs found either caught in nets or washed up dead on Far Northern beaches in the past year. There have also been reports of a thriving black market in dugong and sea turtle meat. Dugong activist Colin Riddell welcomed the Sea Shepherd's co-operation with the campaign against illegal hunting. However, he said he did not approve of Sea Shepherd's controversial tactics, which have included scuttling and disabling whaling vessels, boarding vessels while at sea, and seizing and destroying drift nets at sea.

Another conservation group, Eco-Force, yesterday released a report detailing dugong and turtle population decline in the Far North. They have joined the Opposition in lobbying the State Government for a policy stating no endangered species should be hunted under any circumstance.

Full story and source: http://www.cairns.com.au/article/2011/03/15/154295_local-news.html

Green group seeks more humane dugong hunting (QLD, Australia)

15 March 2011, by Natalie Poyhonen, ABC News

A conservation group says it wants to work with north Queensland Indigenous communities to look into humane ways to hunt dugongs and turtles.

Ecoforce has released a report into issues facing the marine animals' populations after touring the Torres Strait Islands and parts of Cape York last year. Ecoforce spokesman Kenton Campbell says it is important Indigenous leaders are consulted about dugong and turtle management. He says a key issue for the group is finding ways to adapt traditional hunting methods.

Mr Campbell says 'ghost nets' are becoming a major issue for dugong and turtle populations in parts of north Queensland. He says the scale of the problem of lost and abandoned fishing nets is hard to address. "We went over five kilometres of beachfront at Mapoon and we picked up a hundred nets, big enough to easily take your car but even in some cases a small house," he said. The group has passed on a copy of its findings to federal Opposition environment spokesman Greg Hunt and also plans to hand it to the state and federal governments.

Full story and source: <http://www.abc.net.au/news/stories/2011/03/15/3164030.htm>

New UN project uses financial incentives to try to save the dugong (Palau)

14 March 2011, UN News Centre

The dugong, the reputed mermaid of seafarers' lore, was today thrown a lifeline by a United Nations pilot project that uses financial incentives to curb direct hunting or incidental by-catch of the large marine mammal amid concerns it could become extinct within 40 years. The project, launched in the small Pacific island State of Palau by the country's President Johnson Toribiong, is one of several undertaken by the UN Convention on the Conservation of Migratory Species of Wild Animals (CMS) and the inter-governmental South Pacific Regional Environment Programme (SPREP) to protect the creature, which plays a significant ecological role in the functioning of coastal habitats.

Promoted under the Pacific Year of the Dugong 2011, the projects seek to reduce hunting and by-catch of the creature, which sailors once took for a mermaid when spotted from afar, by providing incentives for behavioural change in local communities with loans or payments for ecosystem services, lessening their catches or changing to more dugong-friendly fishing gear.

The action plan developed under a UNEP/CMS Memorandum of Understanding on the Conservation and Management of Dugongs and their Habitats provides the framework for regional cooperation for long-term protection in the Indian Ocean, South-East Asia, South Asia, Australia and the Pacific Islands. Under conservation agreements with the communities, the ecological and economic value of sea-grass habitats would be protected and livelihood incentives for coastal communities would be guaranteed, many of whom rely on sustainable small-scale fisheries.

Full story and source: <http://www.un.org/apps/news/story.asp?NewsID=37755&Cr=unep&Cr1=>

Related articles: <http://www.environmental-expert.com/resultEachPressRelease.aspx?cid=26788&codi=228881>

<http://www.rnzi.com/pages/news.php?op=read&id=59408>

http://media-newswire.com/release_1145777.html

Goodbye manatees (Palm Beach, Florida, USA)

13 March 2011, by David Flesher, Sun Sentinel

After hundreds of manatees showed up in Broward and Palm Beach counties last December, the endangered marine mammals have clearly tired of the area. An aerial survey of Palm Beach County's waterways this past week found just 20 manatees, and a survey last week in Broward found 12.

The numbers represent sharp declines from December, when frigid weather drove the manatees to the warm-water discharge zones of power plants in Riviera Beach, Port Everglades and Fort Lauderdale. In Broward, biologists counted 967 manatees, and in Palm Beach County they found 799.

When they herd into an area, manatees tend to strip it of sea grass and other food, which isn't abundant in heavily developed South Florida, and now they have dispersed for the summer. Manatee season resumes Nov. 15, when stricter seasonal boating rules go into effect to protect the returning sea cows.

Full story and source: <http://www.sun-sentinel.com/news/palm-beach/fl-manatees-depart-20110313,0,2879031.story>

Seagrass makes comeback in Tampa Bay (Florida, USA)

11 Mar 2011, by Sheena Parveen, FOX 13

It's an underwater world, only partially discovered. Seagrass lines Tampa Bay, and there's more now than there was 20 years ago. "Between 2008 and 2010 we had nearly a 3,300 acre increase," said Kris Kaufman, an environmental scientist with the Southwest Florida Water Management District, or SWFWMD. That's 11 percent! Kris know because she helps keep track of bay seagrass. It hugs the shallow coast, surrounded by water. In some parts, it is almost as clear as the Florida Keys.

"So when you have water quality improvements and better water clarity, that means more light is getting to the seagrass," Kris explained. Much needed sunlight is crucial for seagrass survival and development. Every blade has a purpose: some marine animals eat the grass, while others live in it and use it as a nursery. Not only is the grass crucial for marine life, it also helps protect our coast from erosion.

It's the product of countless volunteers helping to restore the bay's seagrass population. Kris says the goal is to cover 38,000 acres. "Give it 20 years, it will bounce back," she says. But for now, this increase is a major accomplishment, for the environment and those who helped make it possible.

Watch the video: <http://www.myfoxtampabay.com/dpp/news/scitech/foxe/seagrass-makes-comeback-in-tampa-bay-03112011>

Barnegat Bay biometric index (USA)

11 March 2011, Asbury Park Press

Scientists at Rutgers University and the U.S. Geological Survey are developing an index of biological factors to measure the ecological status of Barnegat Bay and link changes to flows of nutrient pollution coming off the bay's suburban watershed.

Some of the measures include:

- Total nitrogen, a measure of nutrients in the water that feed blooms of tiny plants called phytoplankton and algae.
- Chlorophyll-A, a chemical that reveals algae concentrations.
- Seagrass, the density, blade lengths and overall estimated biomass of the eelgrass meadows and other underwater vegetation.
- Macroalgae, the density of sea lettuce and other large algae that flourish with high nutrient levels.
- Shellfish, especially hard clams.
- Brown tide and other algae blooms.
- Benthic invertebrates, small bottom-dwelling animals.
- Dissolved oxygen, which gets depleted when algae blooms die off and decay, putting marine life at risk.
- Water clarity.

Full story and source: <http://www.app.com/article/20110310/NJNEWS/110310095/Barnegat-Bay-biometric-index>

Loss of plant diversity threatens Earth's life-support systems (Virginia, USA)

07 March 2011, Physorg.com

An international team of researchers including professor Emmett Duffy of the Virginia Institute of Marine Science has published a comprehensive new analysis showing that loss of plant biodiversity disrupts the fundamental services that ecosystems provide to humanity.

Plant communities—threatened by development, invasive species, climate change, and other factors—provide humans with food, help purify water supplies, generate oxygen, and supply raw materials for building, clothing, paper, and other products. The 9-member research team, led by professor Brad Cardinale of the University of Michigan, analyzed the results of 574 field and laboratory studies—conducted across 5 continents during the last 2 decades—that measured the changes in productivity resulting from loss of plants species. This type of "meta-analysis" allows researchers to move beyond their own individual or collaborative studies to get a much more reliable global picture. Their study appears in the March special biodiversity issue of the American Journal of Botany.

"The idea that declining diversity compromises the functioning of ecosystems was controversial for many years," says Duffy, a marine ecologist who has studied the effects of biodiversity loss in seagrass beds. "This paper should be the final nail in the coffin of that controversy. It's the most rigorous and comprehensive analysis yet, and it clearly shows that extinction of plant species compromises the productivity that supports Earth's ecosystems."

Full story and source: <http://www.physorg.com/wire-news/60960241/loss-of-plant-diversity-threatens-earths-life-support-systems.html>

Related articles: <http://esciencenews.com/articles/2011/03/07/loss.plant.diversity.threatens.earths.life.support.systems>

<http://www.newswise.com/articles/loss-of-plant-diversity-threatens-earth-s-life-support-systems>

Dugong, dolphin deaths puzzle officials (Miami, Florida)

04 March 2011, AFP

Near-record numbers of dugongs have died in Florida waters in early 2011, the second straight year of above-average deaths, alarming officials who are also puzzled by a surge in dolphin fatalities along the US Gulf Coast.

Of the 163 dugong deaths recorded from January 1 to February 25, 91 of them have been blamed on cold water temperatures off the southern US state, where normally temperate weather draws the protected sea creatures during winter months, according to the Florida Fish and Wildlife Conservation Commission. A record 185 dugongs died in Florida during the same period last year, according to the commission.

Authorities at the National Oceanic and Atmospheric Administration are also investigating the huge increase in baby dolphins found washed up dead along the US Gulf Coast, in the first birthing season since the BP oil spill disaster. Eighty-three bottle-nosed dolphins, more than half of them newborns, were found dead in January and February along the coasts of Texas, Louisiana, Mississippi, Alabama and Florida, where millions of barrels of oil from a leaking undersea well poured into the Gulf of Mexico over three months. "We have not found an indicator on what could be causing these deaths" but several factors could have contributed to the deaths including biotoxins, "red tide" algal blooms, or infectious disease, she said.

Full story and source: <http://www.news.com.au/breaking-news/dugong-dolphin-deaths-puzzle-officials/story-e6frku0-1226015682849>

Seahorses get backing from MEP (United Kingdom)

28 February 2011, Bournemouth Echo

Dorset's endangered seahorses have a new champion in south-west MEP Julie Girling, who is taking their case to the European Parliament. Studland and Poole Harbour are important breeding areas for both the short-snouted and spiny species, which live in seagrass meadows. "We are involved in a number of studies along the south west coast, specifically around the Studland Bay area," said Neil Garrick-Maidment, executive director of the Seahorse Trust. "Julie has been really keen to learn all about the seahorses and their habitat. If we don't look to take action to protect seagrass meadows and seahorses, then on some parts of the coast, they may disappear forever."

Julie said: "It is entirely unacceptable that species are being endangered by an entirely avoidable threat. I want to know if the commission intends to conduct any future studies specifically regarding the loss of seagrass habitats, and also what action they will take to ensure the protection and conservation of seagrass habitats and species."

Full story and source: http://www.bournemouthecho.co.uk/news/8879506.Seahorses_get_backing_from_MEP/

SEAGRASS-WATCH Workshops 2011

Australia

Great Sandy Strait 02 - 03 April 2011: Level 1 (basic)

For more information: <http://www.seagrasswatch.org/training.html#workshop10>

SEAGRASS-WATCH on YouTube

Seagrass: Pastures of the sea <http://www.youtube.com/watch?v=66Y5vqswj20> or <http://www.seagrasswatch.org/seagrass.html>
Presentation on what seagrasses are and why they are important (14,229 views to date)

GALLERY

Post-Tropical Cyclone Yasi monitoring (Queensland, Australia)

Mission Beach, Qld (Australia) <http://www.seagrasswatch.org/gallery.html>
Dunk Island, 18 March 2011
Lugger Bay, 19 March 2011

Far North Queensland (Australia) <http://www.seagrasswatch.org/gallery.html>
Green Island, 17 March 2011
Yule Point, 21 March 2011
Yule Point, 3 March 2011

Post-flood monitoring (Queensland, Australia)

Gladstone, Qld (Australia) <http://www.seagrasswatch.org/gallery.html>
Fishermans Landing, 17 February 2011
Rodds Bay, 18 February 2011
Gladstone Harbour, 19 - 22 February 2011
West Wiggins, 21 February 2011

Hervey Bay (Australia) <http://www.seagrasswatch.org/gallery.html>
Urangan, 19 February 2011
Burrum Heads, 20 February 2011

Moreton Bay (Australia) <http://www.seagrasswatch.org/gallery.html>
Wynnum, 29 January 2011

CONFERENCES

CERF 2011 Conference (Daytona Beach, Florida, 6-10 November 2011)

21st Biennial Conference of the Coastal and Estuarine Research Federation.
Societies, Estuaries and Coasts: Adapting to Change

This theme reflects a growing realization that human societies are an integral component of ecosystems and the dynamics of these societies and ecosystems are interactive - their futures are interdependent. Nowhere is this more evident than in the estuaries and coastal zones of the planet, where human populations are concentrated, typically dominating estuarine watersheds and affecting their linkage with the local, regional, and global dynamics of the coastal ocean. CERF as a professional scientific society has increasingly focused not only on understanding causes of ecosystem change but providing information necessary to manage anthropogenic changes that have impacted the biodiversity and sustainability of estuarine and coastal systems. This conference will highlight new findings and perspectives of the interactive dynamics of diverse ecosystems and human societies, and in particular, explore how these dynamics can only be understood and managed when addressed at regional and global scales. To a greater extent than in previous CERF conferences this will include an effort to specifically address socioeconomic drivers and responses.

Please visit the conference & workshop web site for further details: <http://www.sgmeet.com/cerf2011/>

If you are interested in attending CER2011, we invite you contribute to a session in Management, Planning and Policy:

SCI-085 Threats to Coastal Marine Habitats in the Tropical Indo-Pacific Region

Conveners: Robert G. Coles (rob.coles@deedi.qld.gov.au), Norman Duke (n.duke@uq.edu.au) and Len McKenzie (Len.McKenzie@deedi.qld.gov.au)

Strategies have been developed to understand and manage the cumulative impacts of multiple pressures on the coastal ecosystems, particularly those of seagrass and mangroves, and the goods and services they provide in the tropical Indo-Pacific region. These are tailored to meet the needs of different countries but meet a common theme - there is increasing cumulative environmental pressures on coastal habitats and a requirement for sustainable development based on understanding of ecosystem linkages. This session will explore our experiences from this region. We encourage a blend of pure science and science applied to management strategies and solutions.

When submitting an abstract to this session, select this session in the first Session Choice drop-down as your first choice session. Sessions are listed in numerical order in the drop-down (i.e., SCI-001, SCI-002, etc.).

Important Dates for CERF2011

16 February 2011	Abstract submittal for CERF 2011 opened
12 May 2011	Abstract deadline
6 October 2011	Early Registration ends

FROM HQ

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

Seagrass-Watch Magazine <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.