



Seagrass-Watch E-Bulletin

18 February 2010

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NEWS

Seagrass friendly moorings trialled in Queensland (Australia)

11 February 2010, My Sunshine Coast

New boat moorings which do not damage seagrass are being trialled in Queensland. Minister for Primary Industries, Fisheries and Rural and Regional Queensland Tim Mulherin said the new moorings are being installed in several locations in Moreton Bay.

"Traditional 'block and tackle' mooring designs drag on the sea floor killing seagrass, algae and other marine plants," Mr Mulherin said. "The heavy mooring chains can scour a 'halo' or circle where no marine plants grow. "These halos can be up to 1000m² per vessel in size and in some cases are clearly visible from the air. "Destroying sections of seagrass in this way can harm fish, prawn, turtles and dugong populations." Mr Mulherin said there were three types of environmentally-friendly moorings being trialed.

"These moorings minimise the area of disturbance of the mooring anchor system, and keep the vessel and mooring chain off the seabed at all stages of the tide. "For example, the Seagrass Friendly Mooring System uses a moveable arm raised off the seafloor which is attached to a fixed anchor. "After a small amount of disturbance during installation, these moorings allow seagrasses and other marine plants, and soft-sediment animals to remain, live and grow uninhibited.

Member for Redcliffe Lillian van Litsenburg said this project recognised the high ecological and economical importance of Moreton Bay. "It is estimated that Moreton Bay's commercial fisheries alone generate \$33 million gross value of production. "The bay is one of the State's most popular recreational fishing areas." "In addition to the commercial value, the bay also supports a healthy population of turtles, dugongs and wader birds of national and international conservation significance. "These values are protected by the Moreton Bay Marine Park, a haven for wildlife and people on Brisbane's door step," Lillian said.

The trial will be conducted for two years in sensitive seagrass areas at: Tangalooma Island Resort - Moreton Island, One Mile - North Stradbroke Island, Point Halloran near Victoria Point, and Dalpura Bay - Macleay Island. If the trial is successful it may be expanded to other parts of Queensland's coast.

Read more on Anchors and impacts on seagrass in Issue 32 Seagrass-Watch magazine: <http://www.seagrasswatch.org/magazine.html>
more..... <http://www.seagrasswatch.org/news.html>

What are the impacts of fish-farming on marine ecosystems?

12 February 2010 Environmental Expert (press release)

New EU-supported research in the Mediterranean Sea has assessed the impact of fish-farming on seafloor ecosystems. Results indicate that impacts are only apparent in habitats with no vegetation, but the researchers suggest that habitats with vegetation seagrass could be masking the effects. The EU Marine Strategy Framework Directive 2008/56 1 aims to achieve good environmental status of the EU's marine waters by 2020. Eutrophication is one of the biggest threats, causing algal blooms and affecting ecosystems, including fish species. Fish-farming is thought to contribute to eutrophication and the worldwide growth of this industry is of concern.

Research funded as part of the EU MEDVEG project², studied small benthic organisms ('metazoan meiofauna') to assess the impact of fish-farming on seafloor ecosystems. The research also assessed the level of organic matter in the sediment to investigate its potential impact on meiofauna. The results indicated that the total abundance of meiofauna was greater on the seafloors beneath the fish-farms. The researchers suggested that this result was due to a positive response from certain meiofauna species to an increase in sediment organic matter, which was low before the fish farms were built.

In seafloors with seagrass meadows, meiofauna showed no consistent response to fish-farming. The researchers suggested that the presence of seagrass and the large number of wildlife it attracts could mask the impacts of fish-farming by providing a buffer against the organic matter from the farms reaching the sediment and therefore affecting the meiofauna. However, seagrass itself is known to be highly sensitive to the impacts of humans and the effects of fish-farming on this habitat may be noticeable in the long-term. The researchers suggest that the impact of fish-farming on vegetated and non-vegetated ecosystems should be assessed differently.

Full story and source: <http://www.environmental-expert.com/result/EachPressRelease.aspx?cid=37051&codi=152459>

Pollution concern at Lake Macquarie's lost seagrass (Australia)

08 February 2010, Newcastle Herald

Three species of seagrass have declined in Lake Macquarie over the past five years, prompting concerns about the lake's health. The deterioration of the *Posidonia* species is attracting the most attention. "*Posidonia* is one of the more sensitive species of seagrass and not widespread, so it's quite a concern," Lake Macquarie City Council lake spokesman Symon Walpole said. "We've been using seagrass for a number of years as an indicator of the health of the lake."

A council report said the latest research showed seagrass coverage in seven bays of the lake measured 1265 hectares, a decrease of 208 hectares from 2007. But seagrass had increased by 240 hectares since 2000.

Mr Walpole is leading a council team to improve the lake. "The lake itself is significant to not only the city, but the whole region," Mr Walpole said. "In a lot of respects, the lake provides a bit of identity to people and a lot of people in the city connect with it." Mr Walpole will try to keep that connection strong this year, with a \$3 million budget at his disposal.

Much work has been done over the past decade improving areas around the lake. "The priority this year is getting up into the catchments and addressing the sources of pollution," he said. Research will be done to understand how rising sea levels will effect the lake and its exchange of water with the ocean.

Full story and source: <http://www.theherald.com.au/news/local/news/general/pollution-concern-at-lake-macquaries-lost-seagrass/1744550.aspx>

Mobile Bay loses 1300 acres of seagrass beds, concerning scientists

07 February 2010 al.com (blog)

Alabama lost 1,371 acres of seagrass beds between 2002 and 2009, according to aerial surveys conducted for the Mobile Bay National Estuary Program. While seagrass meadows can be somewhat ephemeral, disappearing for a time and reappearing a year or more later, scientists said the newly documented losses were disturbing because they appear to reflect the same downward trend seen worldwide.

That leaves the state with 5,248 acres of underwater vegetation, about 66 percent of it in the Mobile-Tensaw Delta. Because the surveys were conducted primarily by looking at aerial photographs, it is possible that some patches of grass were missed. Most of the losses seen during the study period occurred either in the delta or in the north part of the bay, just south of the Causeway.

The reasons for the decline are not clearly known, according to Amy Hunter, a marsh and seagrass specialist with the Mobile Bay National Estuary Program. Calling the delta a "complicated system," Hunter said physical factors, such as water clarity, salinity, light, temperature and the frequency of major storms can all play a role in the health of the beds.

Ken Heck, a scientist at the Dauphin Island Sea Lab, has speculated that Mobile Bay has lost about 50 percent of its grass beds since the 1950s. Longtime residents of the Eastern Shore for instance, describe a nearly continuous grass meadow running from Daphne to the mouth of Weeks Bay that persisted into the early 1970s. Today, it is difficult to find a single plant rooted and growing in those waters. Heck said the primary cause of the decline in Mobile Bay, as in the rest of the world, is sediment from construction projects and other sources that flows into creeks and rivers all over the state before ultimately draining into Mobile Bay. "The take-home message from this report is that there are 1,300 fewer acres mapped," Hunter said. "That's something to watch and keep tabs on."

To see the full report, visit www.mobilebaynep.com.

Full story and source: http://blog.al.com/live/2010/02/1300_acres_of_grass_beds_lost.html

Related links: http://www.baldwincountynow.com/articles/2010/02/05/local_news/doc4b685aa8e237d249070550.txt

Dugongs hide from the developers (Abu Dhabi)

07 February 2010 National

They are the gentlest of creatures, a key feature of the capital's sealife, but environmental experts fear that the dugong is being pushed into a corner by coastal development. While numbers of the large mammal have remained steady, surveys by the Environment Agency–Abu Dhabi (EAD) have found that dugongs seem to be congregating in Abu Dhabi's marine protected areas and avoiding the rest of the emirate's waters.

In 2001, 65 per cent of dugongs lived in protected areas. The proportion is now 90 per cent. The agency's latest survey was carried out between January 17 and 22. Some of its findings were presented to the Conference on Biodiversity Conservation in the Arabian Peninsula, held in Sharjah. Dr Thabit Zahran al Abdessalaam, EAD's director of biodiversity, said that although the results of last month's survey were still being finalised, they confirmed trends spotted in another investigation last summer.

"The biggest problem with the conservation of dugongs and turtles is the conservation of the habitats," said Dr al Abdessalaam. If Abu Dhabi's dugongs are to be preserved, the sea grass beds that the animals depend upon for food must be protected. Seagrass is very sensitive to changes in the water salinity, turbidity and temperature, so outflows from desalination plants and the accumulation of sediment from land reclamation can be extremely damaging. Tourism and housing projects, industrial developments and electricity and desalination infrastructure all compete for space along Abu Dhabi's coastline and have negative impacts on coastal ecosystems. Nuclear facilities, which need vast amounts of water for cooling, may have an impact in the future if the sensitivities of delicate marine habitats are not considered.

Full story and source: <http://www.thenational.ae/apps/pbcs.dll/article?AID=/20100207/NATIONAL/702069970/1022>

Dredge operator asks for another \$794130 (USA)

16 February 2010 Tampa Tribune

HERNANDO BEACH - The county's dredge consultant, Halcrow Inc., has submitted two change orders totaling \$794,130 to complete operations at Hernando Beach. The first change order from Halcrow is for \$634,300. In a memo, Halcrow said it needs the extra money to complete on-site seagrass mitigation and to institute a series of de-watering systems mandated by the Florida Department of Environmental Protection.

In a separate request, Halcrow is asking for commissioners' approval for an eighth change order totaling \$159,830 to cover the costs of seagrass monitoring. Instead of calling it a change order, Halcrow calls it a "supplemental agreement." Halcrow is projecting the completion of the dredge project to be the end of May rather than the originally agreed-upon date of mid-March.

In 2005, county commissioners entered into an agreement with Halcrow for \$206,450. Last May, commissioners approved a seventh change order totaling \$1 million submitted by the firm, bringing the total contract amount to \$1.97 million. Given the setbacks and the potential loss of state funding for this much-delayed dredge project, the county doesn't have much time to review this latest change order.

Full story and source: <http://www2.hernandotoday.com/content/2010/feb/04/dredge-operator-asks-another-634300/>

One bay's problems start with a creek (USA)

01 February 2010 Sarasota Herald-Tribune

Restoring a trio of Roberts Bay projects would improve water quality in the troubled water body, but the impact would be negligible because of the sheer quantity of pollution coming from Phillippi Creek. While the county has spent more

than \$200 million removing septic tanks, buying out leaky private sewer plants and creating its own sewage system in the Phillippi Creek watershed, there is still way too much nitrogen pouring from the creek into the bay, according to the federal Environmental Protection Agency.

Improvements in Sarasota Bay were marked by a 32 percent increase in seagrass on that bay's bottom in recent years. Roberts Bay, though, lost seagrass over the same period. This summer, the EPA told the county that it needed to cut the amount of nitrogen coming out of Phillippi by another 70 percent to get Roberts Bay off the "impaired" water body list, said Teresa Connor, the county's director of environmental services.

But Phillippi Creek's watershed is highly populated and much of its surface is paved. To reduce the fertilizer, oil and generally nitrogen-rich storm water from getting into Phillippi Creek would require construction of 200 water retention projects on par with the county's 300-acre Celery Fields facility at Fruitville Road and Interstate 75, Connor said. That would require a major land acquisition. Even if that were politically possible, a preliminary estimate puts the cost at \$5 to \$10 billion, she said.

Full story and source: <http://www.heraldtribune.com/article/20100201/ARTICLE/2011058/-1/NEWSITEMAP?p=2&tc=pg>

SEAGRASS-WATCH Magazine Issue 39

The latest issue of Seagrass-Watch news (the official magazine of the global seagrass and assessment program) is now available online at <http://www.seagrasswatch.org/magazine.html>

SEAGRASS-WATCH Workshops 2010

Pacific

Fiji: March 01 -02: *(Registration closed)*

Australia

Broome, WA, August 13-15

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

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, 21–25November, 2010)

Open to all and will include invited plenary lectures and oral and poster presentations.

9th International Seagrass Biology Workshop (ISBW9) (Trang, 27–30November, 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.

Please visit the conference & workshop web site for further details: <http://www.sc.psu.ac.th/seagrass/>

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/>. Online registration will open soon.

Important Dates for the WSC and ISBW9

15 February 2010	Call for Abstracts/Interests
15 March 2010	Registration Opens
31 March 2010	deadline for student support fellowship applications
15 May 2010	Early registration closes
31 May 2010	student support fellowships notified
15 June 2010	The last day of abstract submission
31 July 2010	Notification of Abstract Acceptance for Oral or Poster Presentations, Updated Programme
15 August 2010	Registration closes
15 September 2010	Final Programme Announcement

GALLERY

Mabuiag Island (Qld, Australia): 08 February 2010 <http://www.seagrasswatch.org/gallery.html>

Yule Point (Cairns, Qld): 29 January 2010 <http://www.seagrasswatch.org/gallery.html>

FROM HQ

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

Seagrass-Watch News Issue 39 <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 HQ is supported by the Australian Government's Marine and Tropical Sciences Research Facility (Department of the Environment, Water, Heritage and the Arts) represented in North Queensland by the Reef and Rainforest Research Centre, the Great Barrier Reef Marine Park Authority (GBRMPA), Fisheries Queensland (a service of the Department of Employment, Economic Development and Innovation) and by private donations.

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