

Seagrass-Watch HQ

From: Seagrass-Watch HQ [hq@seagrasswatch.org]
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SEAGRASS-WATCH E- BULLETIN

21 May 2007

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NEWS

The International Day for Biological Diversity: Biodiversity and Climate Change 22 May 2007

Since the mid-1800s global temperatures have increased by about 0.6°C, impacting the entire world, from low-lying islands in the tropics to the vast Polar Regions. Current climate change predictions are not encouraging; they estimate further increases in temperatures of 1.4°C to 5.8°C by 2100. Even if all human sources of greenhouse gas emissions are stopped immediately, the impacts of climate change would continue for 50 years.

Climate change is already forcing biodiversity to adapt either through shifting habitat, changing life cycles, or the development of new physical traits. Other species will face more unusual challenges. The sex of sea turtle hatchlings, for example, is temperature dependent with warmer temperatures increasing the number of female sea turtles at the expense of males. Those species that are unable to adapt are facing extinction. In fact, predictions estimate that up to 1 million species may become extinct as a result of climate change.

The links between biodiversity and climate change run both ways: biodiversity is threatened by human-induced climate change but, biodiversity resources can reduce the impacts of climate change on people and production:

- the conservation of habitats can reduce the amount of CO₂ released into the atmosphere.
- conserving certain species such as mangroves, seagrass and drought resistant crops can reduce the disastrous impacts of climate change effects, and
- the conservation and sustainable use of biodiversity can strengthen ecosystem resilience, improving the ability of ecosystems to provide critical services in the face of increasing climatic pressures.

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

Port land bill fails to pass session (Bradenton, FL, USA)

May 8th 2007, By Brian Neill, Bradenton Herald

A bill that would have given Port Manatee sovereign control over 585 acres of underwater land failed to pass during the recent session of the Legislature. But State Rep. Ron Reagan, R-Bradenton, the man who sponsored the bill, said Thursday he will work to get the legislation passed next year.

Port Manatee Executive Director David McDonald, who briefed port authority members on the status of the legislation at their meeting Thursday, said passage of House Bill 847 would not have absolved the port of seeking approval from DEP for dredging and similar projects in the waters. He did say it would allow the port to bypass a \$2.25-per-cubic-yard dredging fee that is typically paid to the state.

Glenn Compton, however, isn't convinced. Compton heads local environmental group Manasota-88. He, along with a marine biologist and former Port Manatee consultant, petitioned the DEP last year to prevent the port from starting new dredging projects before completing a seagrass replanting effort required by permit.

Source & full story: <http://www.bradenton.com/breakingnews/story/51930.html>

Pollutants fuel frequency, force of red-tide blooms, scientists say (Orlando, FL, USA)

May 20, 2007, by Wes Smith, Orlando Sentinel

Red tide, *Karenia brevis*, is a naturally occurring microscopic algae found off the Florida coast as far back as the 16th century. While there are red-tide blooms in the Gulf every year, many scientists suspect that pollutants such as fertilizer-laden runoff and sewage leaking from septic

tanks may be intensifying and prolonging red tides along the coast.

Red-tide blooms, which occur worldwide in warm seas, are 10 times more abundant than they were 50 years ago. Outbreaks were abnormally high in 2005 along the Gulf Coast, but last year was a more normal year, scientists said.

This spring near Fort Myers, 27 manatees died from eating red-tide-tainted seagrass, according to the Florida Fish and Wildlife Conservation Commission. Red-tide toxins have been blamed for the deaths of hundreds of manatees, bottlenose dolphins and sea turtles, not to mention countless fish and seabirds in recent years.

Source & full story: <http://www.orlandosentinel.com/news/local/state/orl-redtidebox07may20,0,2686150.story?coll=orl-news-headlines-state>

Plan State of Lagoon improving (Palm Beach,FL,USA)

May 20, 2007, By Willie Howard, Palm Beach Post

The Lake Worth Lagoon has been constricted by sea walls, dredged, loaded with raw sewage and sickened by runoff from farms, streets and neighborhoods. From a fish's point of view, the 20 mile-long former freshwater lake, now Palm Beach County's largest estuary, is but a shadow of what it was a century ago. Water quality has been degraded in many areas, especially after heavy rains. Most of the lagoon's original mangroves and seagrass beds are gone. Bit by bit, though, the lagoon is making a comeback.

More than 300 attended the third Lake Worth Lagoon Symposium at Palm Beach Atlantic University recently. They heard status reports on the lagoon from those overseeing restoration work and from elected officials working to find money to pay for it. The lagoon restoration plan is nearly 10 years old and will be updated with new goals this year. The good news: Lots of people care about the lagoon, for both ecological and economic reasons.

Work that is making the lagoon healthier by cleaning its water and re-introducing mangroves, seagrasses and oysters includes the creation of Snook Islands Natural Area. The \$30-million restoration project involved filling a dredged hole near Lake Worth Golf Course with sand from Peanut Island, creating mangrove islands off the golf course and planters along the shoreline. It also cut channels that restored tidal flow to mangroves at John's Island and Peanut Island. Seagrass is growing, shorebirds are nesting and anglers are catching snook, and even an occasional redfish, around the man-made islands north of the Lake Avenue bridge.

Source & full story:

http://www.palmbeachpost.com/sports/content/sports/epaper/2007/05/20/a11b_outdoors_0520.htm

Manatee deaths up in SW Fla.; red tide to blame, scientists say (Naples,FL,USA)

May 19, 2007, By Julio Ochoa, Naples Daily News

Red tide is still killing manatees in Southwest Florida, even though scientists haven't found the toxin in local waters for weeks. At least 29 manatees that died between March and early May were found with evidence of internal red tide poisoning. The culprit: toxin-laced seagrass.

Scientists with the Fish and Wildlife Research Institute say grasses within the Caloosahatchee Estuary can contain a double dose of *Karenia brevis*, the toxin in red tide. Not only does the seagrass absorb the toxin, but filter-feeding micro-organisms that live on the seagrass also absorb it. The deaths have helped make the first four months of 2007 among the deadliest in Lee County's history.

Between January and April, 59 manatees died in Lee County, more deaths than in all of 2004. In Collier County, scientists found six dead manatees. The statistics are not very promising for a species that came off the deadliest year ever in 2006, when 417 manatees died in Florida. Because manatees graze on the seagrass, they can easily eat several pounds of it a day.

Source & full story: http://www.naplesnews.com/news/2007/may/19/2007_shaping_bad_year_manatees_lee/?breaking_news

Boat motors decimate seagrass (St. Petersburg,FL,USA)

May 18, 2007, By Catherine E. Shoichet, St. Petersburg Times

In aerial photographs of Cockroach Bay, thousands of white, zigzag streaks stand out against a sea-green backdrop. They are propeller scars - strong evidence, some experts say, that the seagrass is struggling.

"It looks like a desert in some areas," Hillsborough County Community College biology professor J. Nicholas Ehringer told a group of local planners and scientists last week. Now officials are considering new boating rules to help Cockroach Bay's dwindling seagrass population bounce back. "We've got some pretty severe levels of scarring out there," said Gerold Morrison, director of the EPC's environmental resources management division. The "pole and troll" approach - a first for Hillsborough County - would preserve boaters' access to the area and give seagrass a chance to recover, he said. EPC officials will present that possibility, along with other parts of the agency's proposed Seagrass Management Plan, at a meeting at 6 p.m. May 31 at the SouthShore Regional Library in Ruskin.

Source & full story: http://www.sptimes.com/2007/05/18/Brandontimes/Boat_motors_decimate_.shtml

No-prop rules appear to be helping seagrass (Austin,TX,USA)

May 17, 2007, By Mike Leggett, American-Statesman

A year after Texas Parks and Wildlife commissioners imposed mandatory no-prop zones to protect fragile seagrass on the Texas Gulf Coast, the program appears to be working. "I think we're doing pretty well," said Larry McKinney, the Coastal Fisheries division director at Parks and Wildlife. "The outreach (to the public) on the rules has been fantastic. We've been working with law enforcement and local courts so we'll be able to make those cases (against violators). And we're doing aerial surveys to determine the effectiveness (of the rules)." Implementing the mandatory rules in the Redfish Bay State Scientific Area near Rockport has produced better compliance and more knowledge of the seagrass rules and the value of the grasses themselves, McKinney said. However, the impact on the seagrass within the area remains something of a mystery.

"We don't know yet (how much seagrass has been saved)," he said. "We're still working on the methodology on how we do those evaluations." One method involves high-definition aerial photography, which will help track propeller scars as they heal, as well as the growth or diminution of the grass beds. McKinney noted that his fisheries staff members were concerned not only with restoring propeller-scarred seagrasses but with monitoring what grows back in those scars. "Do they come back in turtle grass or weeds?" McKinney asked. Scars have been marked and documented, and determining how those areas recover — and which aquatic plants grow there — will be part of the plan for protecting the seagrass beds.

Source & full story: <http://www.statesman.com/sports/content/sports/stories/outdoors/05/17/17seagrass.html>

A big win for our river (Fort Myers,FL,USA)

May 15, 2007, Editorial, The News-Press

The battle to save Lee County's estuaries is far from over — it will never end — but a major victory was won last week. Gov. Charlie Crist still has to sign it, but the Legislature OK'd more than \$400 million in additional South Florida environmental cleanup money, and — even more important — designated a Northern Everglades area, including Lake Okeechobee and the Caloosahatchee and St. Lucie rivers as part of the Everglades system.

That confers new, equal status and protection to the rivers and their tributaries, which have often been treated as dumping grounds for polluted lake water. This legislation gives the right scope to "Everglades restoration," including now the lake, the rivers that flow into and out of it, and the coastal estuaries affected by them, as well as the Everglades itself.

Credit goes to several leaders — Lee County commissioners, the Sanibel City Council and others — but also to hundreds of ordinary residents and their organizations on both coasts, including school kids and nature-loving tourists who were angry enough over what was

happening beginning early last year to demand action. The News-Press started a STOP THE MUCK campaign, inspired by the ugly mats of algae that smothered seagrass beds in J.N. "Ding" Darling National Wildlife Refuge on Sanibel, after releases from the storm-swollen lake. Source & full story: <http://www.news-press.com/apps/pbcs.dll/article?AID=/20070515/OPINION/705150336/1015>

Ding Darling on the verge of dying? (Ft. Myers, FL, USA)

May 14, 2007, by NBC2 NEWS, WBBH

LEE COUNTY: One of Southwest Florida's most popular wildlife refuges is barely surviving. Algae has blanketed much of Sanibel's Ding Darling National Wildlife Refuge for the past couple of years. But new concerns have surfaced. If the algae is left unattended, it could leave Ding Darling barren. Officials at Ding Darling say a carpet of algae exists along the bottom of the waterways and it's changing the entire habitat.

Kevin Godsea, who works at Ding Darling, says the problem isn't what you see, it's what you don't see. Godsea says Lake Okeechobee water releases from years ago are still feeding seven different types algae species. It's gone from laying on the top of the water, to blanketing the estuary's bottom. Seagrass does try to grow through the algae. But when waves come along, it folds over the top of the sea grass and kills it. Godsea explained the system is struggling to rebound, but the research to help it is lacking since the federal government cut its funding.

Source & full story: <http://www.nbc-2.com/articles/readarticle.asp?articleid=12564&z=3&p=>

Mooring field seeks permits (St. Petersburg, FL, USA)

May 13, 2007, By Nick Johnson, St. Petersburg Times

GULFPORT - The City Council recently passed a proposal to install a mooring field in Boca Ciega Bay, and the city has proceeded to the permitting phase. The mooring field would be a first for Pinellas County but likely not the last. With the increasing value of waterfront property and a shortage of boat slips, mooring fields are considered a practical solution for area boaters.

Once moorings are installed, they have little effect on the bottom-dwelling sea life and seagrass. In an unregulated harbor like Boca Ciega Bay, boaters can drop anchor and stay in the water indefinitely. Anchors can drag along the bottom, damaging the grass and any animal life there, and boats are sometimes abandoned.

Source & full story: http://www.sptimes.com/2007/05/13/Neighborhoodtimes/Mooring_field_seeks_p.shtml

Holy cow (Moreton Bay, QLD, Australia)

May 12, 2007, by John Lambert, Courier Mail

IF YOU WERE TO AMPUTATE THE TRUNK FROM AN elephant, punch it squarely in the nose, lose the ears, legs and tail and add a pair of flippers, a dolphin tail-fluke and cover it all with coarse bristles, you'd have a dugong. It forages at high tide on seagrass banks, belches and farts loudly and yet communicates with high, birdlike chirps similar to those of a canary. One researcher, albeit fondly, described it as having fallen from the ugly tree and struck every branch on the way down.

Janet Lanyon, a marine scientist with the University of Queensland who is leading the world's first ongoing "mark-recapture" program within a population in the wild, has witnessed firsthand the challenges the dugongs are facing. Her research reveals that the Moreton Bay population can sustain only a small number of mortalities per year. And while she and her colleagues play a desperate game of "research catch-up", some scientists fear the population may be gone within 25 years.

Around 500 dugongs now carry titanium tags from the university's Dugong Team. Some also carry the scars of boat strikes, shark attacks, even failed attempts at spearing. More alarming is the discovery of lethal chemicals that may be bio-accumulating within the dugongs themselves. Dangerous PCBs (polychlorinated biphenyls) and dioxins, collectively known as POPs

(persistent organic pollutants), have been detected and the race is on to determine their levels and origin. Through a process of bio-magnification, they can pass from the seagrass to the dugongs, into a female's milk and on to her calves. These toxins were recognised by the United Nations Environment Program in 1995 as the "Dirty Dozen", to be reduced as a matter of extreme urgency.

Source & full story: <http://www.news.com.au/couriermail/story/0,23739,21711077-5003425,00.html>

Seagrass Acres Dip 38% In Coastal Bays (Ocean City,MD,USA)

May 11, 2007, By Cara Dahl, The Dispatch

Eleven square miles of coastal bays seagrasses have died off in the last two years, according to a report by the Virginia Institute of Marine Sciences (VIMS). The institute reports that the coastal bays watershed has seen 38 percent of its bay grasses disappear, dropping from 17,012 acres to 10,548 acres. Grasses in Maryland's coastal bays have declined by roughly 4,000 acres, while Virginia lost about 2,500 acres, from 2004 to 2006.

Bay grasses are prime indicator species of water quality as they are quite sensitive to light levels. Light filtering into the bays can be reduced through sediment run-off and algae blooms caused by high nutrients. The culprit in this die off is the combination of high temperatures and excess nutrients, said Maryland Coastal Bays Program (MCBP) Outreach Coordinator Dave Wilson.

Water quality monitoring on both sides of the border reported high water temperatures in 2005, with the bay grass beds appearing to thin out. Aerial surveys could not confirm this, as planes were either prevented from flying by bad weather, or the water was too cloudy. The influence of the excess nutrients is perhaps more alarming, particularly in Chincoteague Bay, which is largely bordered by undeveloped land, and usually suffers less nutrient loading.

Source & full story: <http://www.mdcoastdispatch.com/article.php?cid=37&id=425>

Requirements for Con Dao re-zoning contest come out (Hanoi, Vietnam)

May 10, 2007, VietNamNet Bridge

The southern province of Ba Ria-Vung Tau has announced requirements for an international contest to re-zone Con Dao islands into an eco-tourist attraction.

Provincial vice chairman Vo Thanh Ky has signed a dispatch announcing the requirements for the competition aimed at selecting the best design and architecture ideas for developing the archipelago off the coast of Vung Tau City in the years to come. A new master plan must center on a long-term socio-economic development plan for Con Dao and include measures to protect the environment and historical sites on the islands. The first prize will be US\$40,000 in cash, and the second prize US\$20,000. There will also be consolation prizes worth US\$10,000 each.

The archipelago is situated at about 185km from Vung Tau and 230km from HCMC, and comprised of 16 mountainous islands and islets, with the total land area reaching 76 square kilometers. The largest island is Con Son, also known as Con Lon, famous for its prison built by the French colonial government. In 1984, the islands became a national park, Con Dao National Park. Endangered species protected include hawksbill and green turtles and dugongs and ecosystems include seagrass and mangroves.

Source & full story: <http://english.vietnamnet.vn/travel/2007/05/693486/>

Marine weed threatens waterways (Brisbane,Queensland,Australia)

May 10, 2007, UQ News

A marine weed native to Moreton Bay is overgrowing waterways around Australia, in California and throughout the Mediterranean Sea. The plastic-like weed called *Caulerpa taxifolia*, invades naturally occurring seagrass and is only eaten by an uncommon slug that can tolerate its toxins.

Waterway and environmental authorities in Australia, Europe and the United States have tried removing and killing *Caulerpa* with chlorine, copper sulphate, salt and by hand. UQ PhD student Dana Burfeind is studying the weed to understand more about how it grows to produce a model predicting how far and how quickly can spread and how that will impact fish communities.

Miss Burfeind, who is studying through UQ's Centre for Water Studies in the School of Engineering, said many authorities were still trying to settle on the best way to stop the weed's spread, with its introduction blamed largely on the aquarium trade. Miss Burfeind said *Caulerpa* was native to Moreton Bay but it has spread across much of western and southern Moreton Bay, possibly to a decrease in water quality. She said *Caulerpa* was a serious problem when it took over seagrass beds which were important marine nurseries.

Source & full story: <http://www.uq.edu.au/news/?article=12033>

09 - Dads approve marine protected areas ordinance in Davao City (Philippines)

May 09 2007, Bayanihan.org

The city council finally approved on second reading the Marine Protected Areas (MPAs) ordinance after it went through several setbacks in past sessions. Councilor Leonardo Avila III, chair of the committee on environment and natural resources, said "while the legislation had several amendments, the essence of the law had been retained." "With the passage of the ordinance, we can sustain our resources. The number of fishes will increase and their habitats will be protected," he said.

The ordinance declares Lasang-Bunawan, Punta Dumalag in Matina Aplaya and Centro Agdao as MPAs. Lasang-Bunawan has a total area of 415 hectares. The area had been the site of several sightings of whale sharks. The Dumalag area covers 27 hectares and is the home of marine turtles while the Centro Agdao that covers 21 hectares has healthy coral reefs. The ordinance seeks to rehabilitate the marine species' critical habitats such as mangrove areas, seagrass beds, coral reefs and shorelines. It also aims to preserve the endangered species in the identified areas.

Source & full story: <http://www.bayanihan.org/html/article.php/20070509110401166>

Dredging report warnings (Melbourne, Australia)

May 09, 2007, by Ashley Gardiner, Melbourne Herald Sun

PORT Phillip Bay's plants, fish and birds will not be safeguarded enough from a major channel deepening project, a new report has found. But the concerns do not warrant scrapping the \$763 million deepening, the Independent Expert Group report says.

The report found there were several flaws in the \$100 million supplementary environmental effects statement. The report also calls for a dumping ground for dredged material to be moved. The IEG said turbidity (murkiness), was the only water quality measurement proposed to be monitored. "The IEG does not agree that the environmental limit . . . would protect seagrass," the report says.

Source & full story: <http://www.news.com.au/heraldsun/story/0,21985,21696191-2862,00.html>

Researchers map eelgrass, key to aquatic health (San Rafael, CA, USA)

May 7, 2007, by Mark Prado, Marin Independent Journal

Ten volunteers in yellow and orange kayaks, armed with snacks and satellite mapping equipment, went grass hunting on Richardson Bay. The volunteers from the Richardson Bay Audubon Center and Sanctuary were on the lookout last week for eelgrass, a long, sinewy green weed that supports life in San Francisco Bay.

A recent study by National Oceanic and Atmospheric Administration researchers found the plant is doing better than it did 15 years ago in the bay, but it is still not as plentiful as expected.

In 1987, there were 316 acres, and today there are roughly 2,600 acres of eelgrass in the Bay Area. While that sounds impressive, based on the amount of eelgrass in other estuaries on the West Coast, there should be as much as 25,000 acres of the grass here, the study concluded.

Researchers say improved water quality in the bay in recent years has eelgrass making a comeback. But because eelgrass grows in the shallows of the bay, turbidity at the bay's surface and suspended sediment may be keeping it from a full recovery. The more eelgrass, the better the marine environment fares, researchers say. Eelgrass provides a nursery area for many fish and shellfish species. Eelgrass is a major food source, forming the base of food webs and hosting organisms that feed directly on its leaves.

Source & full story: http://www.marinij.com/marin/ci_5835989

GALLERY

Semakau (Singapore): 20 May 2007 <http://www.seagrasswatch.org/gallery.html>

TeamSeagrass is back in action for the super low tides of May. And it's time to check out Semakau again! The Semakau Landfill is of course, the place where ALL our rubbish ends up. It might thus seem surprising to find seagrasses nearby. And astonishing that this is probably Singapore's LARGEST seagrass meadow. Text: Team Seagrass-Singapore.

Torres Strait (Qld): 08-11 May 2007 <http://www.seagrasswatch.org/gallery.html>

Hammond Island 08 May 2007
Horn Island 09 May 2007
Back Beach, Thursday Is 10 May 2007
Front Beach, Thurs. Is 11 May 2007.

TRAINING WORKSHOPS

Suva, Fiji, June 16th 2007 <http://www.seagrasswatch.org/training.html#wrkshop07>

Location: Cathedral Secondary School Hall, Nasese, Suva
Sponsor: Seagrass-Watch HQ
Contact: Register with Seagrass-Watch HQ by: June 05 2007

Airlie Beach, Queensland, July 14th 2007 <http://www.seagrasswatch.org/training.html#wrkshop07>

Location: TBA
Sponsor: Whitsunday QPWS Volunteers & Seagrass-Watch HQ
Contact: Seagrass-Watch HQ hq@seagrasswatch.org

Broome, Western Australia, September 1st - 2nd 2007 <http://www.seagrasswatch.org/training.html#wrkshop07>

Location: TBA
Participants: Environs Kimberley & Kimberley Land Council
Sponsor: Environs Kimberley, Kimberley Land Council & Seagrass-Watch HQ
Contact: Danielle Bain (08 9192 7741 or 0414 841 519 or email dans_al@westnet.com.au)

FROM HQ**Virtual Herbarium** <http://www.seagrasswatch.org/herbarium.html>**Giveaways** <http://www.seagrasswatch.org/shop.html#GIVE1>

- Seagrasses of Australia
- Phytoplankton Guide
- Seagrass Biology
- Bookmarks
- Stickers
- Seagrass-Watch Newsletter 28 (hardcopy)

Future sampling dates <http://www.seagrasswatch.org/sampling.html>**Seagrass-Watch News Issue 28** <http://www.seagrasswatch.org/newsletters.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.