30 June 2019

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NEWS

New tool measures intensity of human activities affecting seagrass (NS, Canada)

29 June 2019, by Frances Willick, CBC News

Seagrass plays a crucial role in marine ecosystems, and it's on the decline, thanks in large part to human activity. Until recently, there wasn't a way to measure those human activities, like run-off from farming, shellfish aquaculture and coastal development. Researchers in Nova Scotia at Dalhousie University and the Bedford Institute of Oceanography have changed that. They analyzed data for a number of factors, including nutrient pollution, population density, coastal land protection, land use, invasive species, commercial fishing and aquaculture, and figured out how to quantify those activities.

A new study by the researchers published this month in the journal FACETS reveals that nitrogen loading — run-off from fertilizer, wastewater effluent and waste from finfish farms — is one of the most significant factors affecting seagrass in the Maritimes. The scientists studied 180 seagrass beds in P.E.I., Nova Scotia's South Shore, Eastern Shore and Northumberland shore, and along the coast of New Brunswick between Miscou Island and Shediac. They found that 64 per cent of the beds are at risk of degradation from nitrogen loading, including all the P.E.I. sites and 25 per cent of the sites along Nova Scotia's South Shore and Eastern Shore. The P.E.I. sites also had the highest risk of eutrophication, which is when an excess of nutrients causes plant life to grow, killing animal life by depriving it of oxygen.

Among the other findings are that structures on the water such as docks, wharfs and causeways are also posing a threat, as they produce shade in seagrass beds and can change the water circulation, dredging up sediment and further blocking sunlight. The scientists said their work could be useful to identify high-risk areas where management strategies should be implemented and low-impact areas that should be conserved. For example, lead author Grace Murphy, a post-doctoral researcher in the biology department at Dalhousie, said the sites studied along Nova Scotia's Eastern Shore were found to have the lowest level of human impact and the highest level of land conservation, with comparatively healthy seagrass beds. "This indicates to us that this area would be a really good area to protect," Murphy said.

more……https://www.cbc.ca/news/canada/nova-scotia/human-impact-seagrass-maritimes-study-1.5192279

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Measuring human impact on coastal ecosystems (24 June 2019, Dalhousie University)
https://phys.org/news/2019-06-human-impact-coastal-ecosystems.html

Orphan baby dugong 'Mariam' to stream on Facebook (Thailand)

28 June 2019, Bangkok Post

The Department of Marine and Coastal Resources is planning a 24-hour live Facebook broadcast of superstar Mariam – a six-month old female orphan dugong – claiming it will be the world's first case study on how to look after the rare marine mammal species. The broadcast planned for next month was recently agreed by the department's chief Jatuporn Buruspat and the Trang governor who visited the dugong together at an animal shelter on Koh Libong in Trang. Mr Jatuporn said it would provide a good opportunity for the public to learn more about the rare marine species.

Mariam remains close to the shore at Koh Libong, raising concerns among officials as she has been found beached many times because of fast-receding water as the tide goes out. She also tends to be drowsy so officials must patrol every day to make sure she doesn't get stuck on the shore. Mr Jutuporn said the department's team has spent more than two months taking care of Mariam, prioritising her health and safety. He said it might take one more year of nursing before the baby dugong can be returned safely to the wild.

The online broadcast via Facebook is aimed at members of the public who are interested in learning about the dugong. "People from all around the world will be able to see us with the little dugong. It's a great opportunity to cultivate a mindset of dugong conservation as there are only 200 of them in Thai waters," he said.

more……https://www.thephuketnews.com/orphan-baby-dugong-mariam-to-stream-on-facebook-71932.php#sDFpHyrfhlzItu4m.97

Climate change blamed as huge mounds of rotten seaweed spoil pristine beaches in Mexico (Mexico)

28 June 2019, by Emma Snaith, The Independent

An infestation of rotting seaweed that is blighting many of Mexico's pristine white-sand beaches on its Caribbean coast is believed to be the result of climate change. Mounds of *Sargassum* has washed up on the shores of popular tourist destinations including Cancun, Playa del Carman and Tulum. Mexico has already spent $17m (£13.4m) so far this year in an attempt to clear 500,000 tons of the plant from its coastline, but these efforts are proving futile.

For the past decade, *Sargassum* has been blooming across the Caribbean. Scientists believe this is the result of rising ocean temperatures and agricultural fertilisers and untreated sewage flowing into the Caribbean Sea. Chuanmin Hu, a professor of oceanography at South Florida University's College of Marine Science, said: "Because of global climate change we may have increased upwelling, increased air deposition, or increased nutrient source from rivers, so all three may have increased the recent large amounts of *Sargassum*."

Last month, the Quintana Roo government declared a state of emergency over the issue, describing it as an "imminent natural disaster". Prior to his visit, residents wrote a letter complaining that authorities had not acknowledged the real scale of this "serious situation". "Most months of the year our beaches have lost the crystalline colour of their waters and their shades of blue and turquoise green; seagrass and fish die because of the lack of light and oxygen, the turtles and the coral reef are also affected," the letter reads, according to Turquesa News.
more…….https://www.independent.co.uk/news/world/americas/rotting-seaweed-beaches-sargassum-mexico-carribbean-cancun-playa-del-carmen-tulum-a8978756.html

UWA PhD student Belinda Martin a finalist for 2019 Premier's Science Awards (WA, Australia)
26 June 2019, by Victoria Rifici, Community Newspaper Group

Developing ways to manage and protect seagrass ecosystems in WA has scored UWA PhD student Belinda Martin a finalist spot for the 2019 Premier's Science Awards. White Gum Valley resident Ms Martin said she was "pretty stoked" to be named a finalist for the ExxonMobil Student Scientist of the Year award.

Ms Martin has conducted PhD research for more than four years and assessed how seagrass can be protected through studying changes in its bacteria. According to Ms Martin, there has been a loss of seagrass at Cockburn Sound, as well as Albany at Princess Royal Harbour and Oyster Harbour, which has threatened local fishery industries. Ms Martin said her research proves bacteria in seagrass ecosystems can be studied to help human's predict and prevent further declines of seagrass along coastlines.

"We currently manage seagrass health by monitoring how much we've got and how it changes, but that doesn't actually tell us what is causing the changes, so we're developing novel tools that work to provide early warning signs of seagrass health to prevent declines and to understand the cause of the declines," she said. "Bacteria are critical for healthy seagrass and any changes in the types and amounts of bacteria associated with seagrass can tell you if there is a potential problem occurring in seagrass meadows in a time-frame that we can actually do something to remove that stress."
more…….https://www.communitynews.com.au/western-suburbs-weekly/news/uwa-phd-student-belinda-martin-a-finalist-for-2019-premiers-science-awards/

Dead seagrass in Tampa Bay is one of the long-term effects of red tide (FL, USA)
26 June 2019, FOX 13 Tampa Bay

Red tide levels may be low, but the Tampa Bay area is still seeing the effects from last year's bloom. Large clusters of dead seagrass can be seen floating on the surface in the Intracoastal Waterway near Treasure Island. It's just one section of the bay still seeing the effects of red tide. It's a problem fishing captain Karen Hughart has seen first-hand. She takes charters out on a daily basis to fish, but she said there's very few areas you can fish lately without catching dead seagrass.

According to biologist Tom Ries, who has more than 30 years of experience studying seagrass, last year's toxic algae bloom wiped out a significant portion of our local ecosystem's seagrass. In some places, as much as 50% of the vegetation is gone. "It's not too unusual to see blue-green algae and grass floating, but the amount this early in the year are unusual," Ries said.

Seagrass typically rises to the surface in the fall, but this year's early appearance could pose a danger to the local ecosystem with more nutrients entering the water. "When there's nutrients in the water with this kind of light and temperature, there's a lot of stuff that grows, which could be Chlorophyll A and in this case could be blue-green algae," Ries said. As Ries explained, seagrass is essentially a barometer of health, which means the more there is, they healthier the water. He said it could be at least 4 years for the seagrass to fully re-populate.
more…….https://www.fox13news.com/news/dead-seagrass-in-tampa-bay-is-one-of-the-long-term-effects-of-red-tide

Equator Village pledges total protection of its seagrass bed (Maldives)
26 June 2019, by Ahmed Aiham, The Edition

The Equator Village in Gan, Addu Atoll, on Tuesday pledged to maintain 100 percent of its seagrass beds, following its participation in the nationwide campaign to 'Protect Maldives Seagrass'. According to a statement by the resort, its seagrass bed spans an area of approximately 7,600 square metres.

Hoping to change how people perceive seagrass, in 2016 the Maldives Underwater Initiative (MUI) and Blue Marine Foundation (BLUE) together with the luxury resort Six Senses Laamu, joined efforts to demonstrate how seagrass

and tourism can coexist and generative positive outcomes hand in hand. As their message gained momentum, the collaboration launched the campaign, calling for resorts and the public to pledge their support for the protection and preservation of seagrass beds in the country. A total of 35 resorts and 22 organizations have endorsed the campaign, resulting in the protection of around 655,000 square metres of seagrass, which is equivalent to 90 football fields.

The campaign has also been officially endorsed by the Ministry of Tourism. “The results of this campaign show that tourism and seagrass can coexist. If we want the Maldives’ marine environment to have the best chance of withstanding the challenges over the next century, then we need to work towards protecting this critical habitat”, said BLUE's Laamu Project Manager Shaha Hashim.
more…….https://edition.mv/news/11214

Task Force provides Bonnet Carré Spillway monitoring update (LA, USA)
25 June 2019, WXXV News 25

With the ongoing freshwater intrusion into Mississippi waters from the Bonnet Carré Spillway, the Governor’s Task Force has continued to track the effects of the spillway opening on the Mississippi Sound. With the spillway nearing 50 days open, the Mississippi Department of Marine Resources (MDMR) and the University of Southern Mississippi (USM) have provided Gov. Phil Bryant with their most recent findings.

At the June meeting of the state’s Commission on Marine Resources, the commission voted to open shrimping season in Mississippi despite the legal benchmark of 68 shrimp per pound not having been met. When the season opened on June 20, 133 shrimp boats fished in Mississippi waters and shrimpers indicated the overall catch was low. Brown shrimp in state monitoring trawls is down more than 82% over the past four weeks compared to the prior 5-year average. Based on MDMR sampling for the week of June 10, oyster mortality on Mississippi harvest reefs was higher than 90% for all reefs except for Pass Marianne. Oyster mortality on the reefs have continued to increase as the spillway remains open. While commercial landings of blue crab were down February through April compared to the prior 5-year average, landings in May increased and were similar to the prior five years.

USM researchers conducted an expedited seagrass survey at Cat Island on June 17. Although the seagrass did not appear to be stressed, researchers observed the introduction of a low salinity species known as widgeon grass since monitoring began at these stations in 2011. While salinity levels started to increase mid-June, USM researchers found that salinity levels in the Mississippi Sound continued to decrease again as winds pushed surface waters to the north entrapping flow from the spillway.
more…….https://www.wxxv25.com/2019/06/25/task-force-provides-bonnet-carre-spillway-monitoring-update/

Tampa Bay horse tours leave poop in water, concern environmentalists (FL, USA)
23 June 2019, by Gabrielle Calise, WJXT News4JAX

You can spot the horses from far away, little dots out in the water of Tampa Bay, splashing around in a single file line off the North Skyway Bridge Park. Up close, it's easy to see why this is one of the most popular attractions on the local Trip Advisor page. The main event comes when it's time for the horses to swim. But back at the shoreline, the water lapping against the sand is dotted with greenish-brown lumps the size of softballs. Horse poop.

Environmental organizations say it's a problem. For one thing, it's a health risk to have horse poop floating in the same water where families play, kayak and fish. It's just not humans who could be in danger. Tampa Bay is Florida's largest estuary, and as one of the state's 41 aquatic preserves, it requires extra attention and protection. Horse manure is filled with nitrogen and phosphorous, said Kelli Hammer Levy, an environmental management director of Pinellas County's Natural Resources Division. This makes it a great fertilizer for gardens, but those nutrients can also drive algae bloom, which can produce toxins that harm marine life and humans. Levy says the tours are also destroying seagrass, which is important for filtering water in an estuary's ecosystem. "It's bad enough you can see it on the aerial - it's basically just areas where they ride back and forth that have stripped the seagrass out," Levy said. "You can see it on Google Earth."

The Agency on Bay Management spent nearly three decades restoring seagrass to the way they were in the 1950s, said Wren Krahl, deputy executive director of the Tampa Bay Regional Planning Council. "This is so not about beautiful animals like horses," Krahl said. "It's about tearing up the seagrass beds. And we've worked so hard - especially in aquatic preserves we need to maintain that seagrass health to be able to have any kind of recreation." Some of this came up recently in a meeting held by the Agency on Bay Management. They plan to write a letter to the state Department of Environmental Protection supporting recommendations from Pinellas County to curb horseback riding in aquatic preserves.
more…….https://www.news4jax.com/news/florida/tampa-bay-horse-tours-leave-poop-in-water-concern-environmentalists

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Hold your horses: Horseback riding ban could be coming to Tampa Bay (25 June 2019, WTSP.com
https://www.wtsp.com/article/news/local/pinellascounty/ban-on-horseback-riding-in-the-water-could-be-coming-to-tampa-bay/67-0bf5f159-7045-4557-83f4-a0d49f654c0d

Dugong Mariam stranded again after ebb tide (Thailand)

22 June 2019, by supawadee wangsri, ThaiVisa News

The authorities accelerated installation of buoys in front of Duyong Bay to mark the area where all types of vessels are prohibited from entering because they may be dangerous to the dugong while the baby dugong Mariam are still stranded after the ebb tide. The Libong Islands Non-Hunting Area officials together with the officials of the Department of Marine and Coastal Resources (DMCR), administrative authorities and the Subdistrict Administrative have been monitoring the baby dugong Mariam which was found stranded in front of Khao Batoo. The authorities brought her to the deep water channel until it is safe.

Mr. Chaiyaphruek Weerawong, head of the Libong Islands Non-Hunting Area, ordered the Libong Islands Non-Hunting Area officials to install additional orange buoys in the sea in front of Duyong bay, 150 meters from the shore, for a distance of 200 meters to mark the area where all types of vessels are prohibited from entering because it is the area for caring for the little dugong because "Mariam" is familiar with all types of boats. When a boat approaches, she will swim to snuggle it because she takes it as her mother so he is afraid that she will be hit by a boat or hurt by a fishing boat propeller.

He added that it is necessary to prevent Mariam from being stranded because she doesn't know the tidal currents. Initially, an orange canoe will be placed in the deep water channel at night so that "Mariam" will stay there and will be stranded. More buoys will be installed to designate the safety zone for the safety of the baby dugong "Mariam".
more…….https://news.thaivisa.com/article/36740/dugong-mariam-stranded-again-after-ebb-tide

Diving with mermaids (Philippines)

21 June 2019, Tempo

Tourists can now enjoy diving with mermaids in Coron, Palawan. Dugongs inspired the legendary mermaids while lonely sailors were out at sea. Dugong (*Dugong dugon*) used to be common in the Philippines but habitat destruction and hunting have reduced their population. Now, they can only be found in the waters of Palawan, Isabela, Mindanao and Guimaras and are classified as critically endangered in the Philippines.

The Tagbanua tribe have become the pro-tectors of the dugong in the coasts in Northern Palawan. The dugongs are protected by the Wildlife Resources Conservation and Protection Act (RA 9147) because they are also threatened by poachers and can be tangled in fishing nets. During the ecotourism program called "Dugong Watching", tourists can watch the dugong from the boat, then they can snorkel and scuba with these gentle animals as guided by members of the Tagbanua tribe. The islands of Dimipac, Aban-aban and Maltanu-bong are in the ances-tral lands of the tribe on Calauit Island.

There are 30 Tagbanua members trained and assigned to be "Bantay Dugongs" to make sure that the program runs efficiently while protect-ing the marine wildlife of the area. These Ban-tay Dugong can stop a tour if tourists refuse to follow the guidelines of the dive. Tours are also limited to forty people per day to allow the dugong to rest and pre-vent them from being stressed by the tourist activity.
more…….http://tempo.com.ph/2019/06/21/diving-with-mermaids/

Sendi - From Accomplished Diver, Revered Teacher to Underwater Forester (Maldives)

20 June 2019, by Rae Munavvar, The Edition

"More marine scientists, thats what we need!" he grins, nearly jumping out of the beautifully carved wooden seat in his excitement - and his enthusiasm is infectious. Hussein Rasheed, better known to colleagues, students and fans alike simply as Sendi, needs no introduction in the world of diving and such oceanic pursuits. "I found out, being a dive instructor, that environmental aspect is very very important. The dive industry actually relies on the environment", said Sendi. After three decades developing the industry, Sendi sought to spend more time in conservation and research.

Detailing the factors prompting his interest in seagrass and seaweed, he explained, "I met a professor in Lakshadeep six years ago, and he explained the importance of seaweed and seagrass to the ecosystem". The next phase ties into his position as founder of Villa College's Faculty of Marine Studies, well known for its excellence in watersports and scuba diving training. With the development of the Marine Science and Research Department seemingly in stasis, Sendi's growing curiosity about seaweed and seagrass combined with international resources, cemented the decision for the faculty and himself, to plunge deep into the field of research.

While the gears were set in motion, however, there was one essential matter to uncover - it remained unclear whether Maldives could provide the necessary ingredients to further their work, especially considering the particular species of seaweed and seagrass the research community were interested in. "Seagrass and seaweed are the rainforests of the ocean", he declared, eyes lighting up once the interview delved further into the topic he is so clearly passionate about. Scientists around the globe have attested to Sendi's statements that seagrass plays a vital role in balancing the ecosystems of the world. He referred to Maldives' obsession with removing "unsightly, ugly" seagrass,

which sparked the formation of the #ProtectMaldivesSeagrass movement led by Six Senses Laamu's team Maldives Underwater Initiative, earlier this year. "For me", he smiles, "it is beautiful".
more…….https://edition.mv/features/11046

Environmentalists calling for measures to limit human pressure (Spain)
18 June 2019, Majorca Daily Bulletin

Environmentalists GOB yesterday restated their demand for the Balearic government and other public institutions to limit human pressure through a reduction in the number of tourist accommodation places. The organisation advocates a two-for-one principle. For any new accommodation place, two should be removed.

At a meeting in Minorca, GOB representatives referred to the "emergency situation" which exists in the Balearics and to the need for "urgent" measures. Included among these, in GOB's view, should be a reduction in tourist pressure and contamination caused by planes and cruise ships.

Other measures would be a change in land classification to stop further development by the coasts and in areas of special natural interest. Property speculation needs to be addressed; rules regarding the protection of posidonia sea grass should be enforced; new construction should have zero impact in terms of water and energy use; and the tax system needs to be revised in order to bring in ecological criteria.
more……. https://www.majorcadailybulletin.com/news/local/2019/06/18/55771/environmentalists-calling-for-measures-limit-human-pressure.html

Sarasota County's annual Seagrass Survey also a celebration of citizen science (FL, USA)
15 June 2019, by Michael Moore, Sarasota Herald-Tribune

More than 150 scientists, volunteers and vendors turned out to boat, kayak and wade into the water to collect data for Sarasota County's Seagrass Monitoring Program. Volunteers and staff members arrived for registration at 8 a.m. where they were assigned a captain, a team and were given a hexagon that they would use to survey a 50-foot-radius of water. Once out on the water, surveyors measured things such as the length of seagrass blades, the amount of coverage, the different species and the amount of algae. Volunteers also noted any marine life they came across. Volunteer Michael Harrison said that in addition to lots of jellyfish, his crew spotted lots of algae, which in excess can be harmful to seagrass beds.

While seagrass in the area has increased by as much as 50 percent since restoration efforts started in the 1950s, the past couple of years have seen a dip, starting in 2016, according to Darcy Young of the Sarasota Bay Estuary Program, which helps to host the event each year. Sheila Scolaro, the Sarasota County Environmental Specialist who helped organize the event, said there has been roughly a 5% decline in seagrass habitats in the area in the past five years. "Seagrass is really critical to the environment. It provides habitat to critical species, it's an indicator of water quality and the health of critters. Plus, seagrass is just awesome," Scolaro said.
more…….https://www.heraldtribune.com/news/20190615/sarasota-countys-annual-seagrass-survey-also-celebration-of-citizen-science

Thai Vets Nurture Lost Baby Dugong (Thailand)
14 June 2019, Associated Press

A baby dugong that has developed an attachment to humans after being separated from its mother and getting lost off southern Thailand is being nurtured by marine experts in hopes that it can one day fend for itself. The estimated 5-month-old female dugong named Marium has become an internet hit in Thailand after images of marine biologists embracing and feeding it with milk and seagrass spread across social media.

Marium was spotted alone near a beach on Ko Poda island in Krabi province in April. Officials later tried to release it into a dugong habitat off the coast of another island but it swam away. Veterinarians and volunteers set out each day in canoes to locate Marium near the dugong habitat off Ko Libong island. It does not swim with the herd and usually comes straight to them, then follows them into shallower water, where it is fed milk and seagrass, similar to her natural diet, for up to 15 times a day while also receiving health checks. Marium's caretakers believe it has formed a bond with humans but is also drawn to the shape of the underside of canoes, perhaps seeing it as a mother substitute.

Marium has attained fame on social media, and images of it bonding with its human guardians have been widely published by Thai media. It also attracts crowds on Libong island, where its feeding is often watched by scores of people crowding the seashore. Veterinarians say they need to continue looking after Marium for at least another year until it can be weaned off of bottled milk, after which they hope it will be able to look after herself without their help.
more…….https://www.snopes.com/ap/2019/06/14/thai-vets-nurture-lost-baby-dugong/

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Baby dugong 'clings' to human carers after being separated from its mother (14 June 2019, 9News)
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Baby dugong capturing Thai hearts set for live feed (27 June 2019, The Nation)
https://www.nationthailand.com/breakingnews/30371875

Some 200 dugongs spotted in Andaman Sea (Thailand)

13 June 2019, Vietnam plus

After seeing the adorable baby dugong "Mariam," who has become an internet sensation, marine surveys in the Andaman Sea have discovered a 200 strong dugong population, mostly at Ko Libong Animal Sanctuary. Ko Libong Animal Sanctuary Chief, Chaiyapruek Weerawong said on June 13 the population of dugongs offshore in Trang province can mostly be found at Ko Libong Animal Sanctuary, specifically at Laem Ju Hoei and Ao Thung Chin, with about 180 dugongs taking to living around the sanctuary. Dugong communities are also found at seagrass sources in Hat Chao Mai National Park.

The latest marine observation by air this year confirmed there are no fewer than 200 dugongs living in the Andaman Sea from Satun up to Krabi. Many mother and baby dugongs have been spotted, and the birth rate of the dugongs has increased every year. Dugongs are still in need of protection and conservation to raise their population, and spare them being faced with extinction.

Dugong is a protected species according to the Wild Animal Reservation and Protection Act BE 2562. They are also protected under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) prohibiting all kinds of trade except for research and reproduction.-NNT/VNA
more…….https://en.vietnamplus.vn/some-200-dugongs-spotted-in-andaman-sea/154344.vnp

US Army Corps of Engineers working to move more water south to Florida Bay (FL, USA)

13 June 2019, The News-Press

The U.S. Army Corps of Engineers is revising management plans that should eventually help water quality and quantity in southern Florida. Corps officials met Thursday with the South Florida Water Management District in West Palm Beach to talk about the changes and how the agency plans to get more water to Florida Bay, which has been damaged from a lack of freshwater in recent years. Called the Combined Operations Plan, or COP, the revisions include lumping several projects south of the Tamiami Trail into one system that will deliver water from storage areas in Collier and Miami-Dade to Everglades National Park.

The new plan centers around water control structures along Tamiami Trail and south of the highway near Shark River Slough and as far south as Florida Bay. Getting more water to Taylor Slough is a priority, too, because it feeds the eastern part of Florida Bay, which has been devastated by seagrass die-offs in recent years because of a lack of freshwater flow. "For the environment, as we increase flows we want to keep the water in the park," said Lt. Col. Jennifer Reynolds, with the Army Corps' Jacksonville office.
more…….https://www.news-press.com/story/news/local/2019/06/13/u-s-army-corps-of-engineers-working-to-move-more-water-south-to-florida-bay/1442231001/

Marium the dugong improving in nursery's care (Thailand)

09 June 2019, The Nation

Marium, an orphaned baby dugong found on the Krabi shore in April, will remain for at least six more months in the care of a dugong nursery on Koh Libong in Trang, the province that is presumed to have been its original habitat. Chaiyapruek Weerawong, head of the Koh Libong Wildlife Preserve, said on Saturday the female dugong would then be released in the open sea off Trang coast. He said Marium, now about six months old, was in the good hands of officials and volunteers in the island's Khao Batu area.

Chaiyapruek said Marium was recovering well, consuming two litres of milk a day and now eating seagrass by itself. "Although it's stronger now, it's still too small to release into the open sea because it could be harmed," he said. "We'll continue taking good care of it for the next six months at least." He said the dugong would also undergo survival training at low tide so it can avoid being washed ashore again.

Marium was found on Krabi's Ao Tung Beach on April 29 and taken to Trang to recover. Dugongs are classed as "vulnerable to extinction" and protected by law in Thailand. Trang has the largest dugong population in the country, with at least 210 counted in an aerial survey last year by the Andaman Marine and Coastal Resources Research and Development Centre. The docile sea mammals are often sighted around Koh Libong among the masses of seagrass, their primary food.
more…….https://www.nationthailand.com/breakingnews/30370768

Related article
Little Marium growing up in a Dugong Thai nursery (09 June 2019, The Thaiger)
https://thethaiger.com/hot-news/environment/little-marium-growing-up-in-a-dugong-thai-nursery

Glyphosate to Be Banned on Fort Meyers Beach (FL, USA)

05 June 2019, by Jordan Davidson, EcoWatch

First Fort Myers banned plastic straws. Now it banned Roundup, or glyphosate, the controversial herbicide recently blamed for causing cancer by several juries, the News Press reports. Like the plastic straw ban, the driving force behind the ban was the health of Fort Myers' waterways and marine resources.

City officials ducked the assertion that Roundup causes cancer, by focusing on water pollution. "We are only interested in the fact that it's very bad for the aquatic environment," said Shannon Mapes, the town's marine resource task force vice chair, to the News Press. Glyphosate's efficacy as an herbicide is remarkable, which spells trouble for marine plants when the herbicide seeps into the water table and washes into the nearby Estero Bay aquatic preserve.

Carried by landscape runoff, glyphosate can percolate into the water table and wash into the water near Fort Myers Beach, especially the Estero Bay aquatic preserve just south of Fort Myer's. Glyphosate can kill seagrass and the aquatic plants that serve as a nursery for the foundation of the beach food chain, Mapes said to the News Press. The town will start a public education and outreach campaign to curtail private use of Roundup.
more…….https://www.ecowatch.com/glyphosate-fort-myers-beach-2638701041.html?rebelltitem=1#rebelltitem1

Innovative drone conservation research shared internationally (Philippines)

03 June 2019, Phys.Org

Community efforts to protect dugongs in the Philippines were boosted by a recent technology training camp with Murdoch researchers. The researchers spent a week developing the drone skills of team at Community Centered Conservation (C3) Philippines, an organization working closely with communities in the Calamianes Islands and Northern Palawan to protect dugongs.

Researchers Dr. Christophe Cleguer and Dr. Julian Tyne based at the Aquatic Megafauna Research Unit in Murdoch University's Harry Butler Institute trained the C3 team in flight planning, drone operation, and processing data collected from the surveys. "Monitoring dugongs facilitates both the conservation of this vulnerable species and the protection of their seagrass habitat that supports the livelihoods of many coastal communities in the dugongs' range," Dr. Cleguer said.

Four C3 staff were trained over five days in operating the drones, and six dugongs were spotted and mapped during the program. C3 Philippines Board member Patricia Davis said the program provided an important long-term low-cost means of monitoring dugong populations.
more…….https://phys.org/news/2019-06-drone-internationally.html

'Tremendous victory' for Everglades restoration as $100 million Tamiami Trail bridging project fully funded by feds, Florida legislature (FL, USA)

03 June 2019, by Amy Bennett Williams, The News-Press

Money to remove a bottleneck that's parched the Everglades for more than nine decades is now in place for a $100 million project to raise the Tamiami Trail's course through the River of Grass. Since it was opened in 1928, the roadway has acted as a dam, stopping the natural movement of water to the Glades and creating dry conditions that have contributed to wildfires and killed huge swaths of seagrass in Florida Bay.

Monday, the U.S. Department of Transportation announced it will give Florida $60 million for the work, which will be added to $40 million kicked in by the Florida Legislature. The money will be used to finish elevating the remaining 6.5 miles of roadway between two bridges built during the earlier phase, and install six sets of concrete culverts between them.

The cross-state highway radically altered natural water movement in the eastern United States' largest wilderness area. Completed decades later, the Naples-Miami portion of Interstate 75 known as Alligator Alley to the north of the Trail was built with culverts to allow water and wildlife to move below the roadway.
more…….https://www.news-press.com/story/tech/science/environment/2019/06/03/everglades-restoration-100-million-tamiami-trail-bridging-project-funded-feds-florida-legislature/1329710001/

Marine Scientists give Texas Coast a B rating in overall health (TX, USA)

03 June 2019, by Chelsea Torres, KRIS Corpus Christi News

For the first time, the Texas Coastline has received a grade for its overall health. For the past couple of years, about 40-50 marine scientists that specialize in birds, water quality, seagrass, oysters and fisheries came together at the Harte Research Institute to determine a health report for the Texas coast and the Gulf of Mexico. This project was built on stakeholder values established during the EcoHealth Metrics Project, a partnership between Harte Research Institute, Harwell Gentile and Associates, and the University of Mayrland Center for Environmental Science.

The five categories that made up the report card of the Texas Coast include; the abundance of oysters, the coverage of seagrasses, fisheries (brown shrimp, black drum, spotted seatrout, red drum), birds (lesser sandpiper, piping plover, lesser scaup, forster's term, greater egret, mottled duck), and water quality specifically looking at salinity, dissolved oxygen, and chlorophyll. After determining the common factors that make up the health of the Texas Coast, Dr. Larry McKinney, Director of HRI, says a B- was the correct score to give. As for regions throughout the coastline, the Corpus Christi area is known as the Mid Coast and was given a grade B. "Fisheries in our part of the Coastal Bend is in really good shape, oysters and seagrass are holding their own. And water quality and birds are in good shape as well."

Dr. McKinney explains that the Texas Coast is like a rubber-band that is resilient and can bounce back. He says he hopes that it continues to bounce back in the future. But to make sure that the coast can keep up a high grade, he says, "ordinary people can do a lot of things, one, is just take care of your plastic and your trash. Don't throw them in the gulf. Water pollution, don't over fertilize your lawn and those types of things. There's all types of things we as individuals can do living on the coast and takes care of the environment around them."
more…….https://kristv.com/news/2019/06/03/marine-scientists-give-texas-coast-a-b-rating-in-overall-health/

Florida summer rainy season fertilizer ban helps Indian River Lagoon avoid toxic algae bloom (FL, USA)

01 June 2019, by Tyler Treadway, TCPalm

Between 2010 and 2015, over 40 counties, cities and towns along the Indian River Lagoon enacted laws banning the use of fertilizers with nitrogen and phosphorus, nutrients that can feed harmful algae blooms in the lagoon. In most municipalities, the ban starts June 1 and ends Sept. 30 — Nov. 30 in Sewall's Point and Stuart — to coincide with Florida's wet season, when rains are more likely to wash fertilizer into ditches and creeks leading to the lagoon, where algae blooms can kill seagrass and marine animals that depend on seagrass beds. Toxins in blue-green algae blooms have been linked to liver disease and neurological diseases such as ALS, Alzheimer's and Parkinson's.

While the bans prohibit the use of fertilizers with nitrogen and phosphorus, state law says they can't prohibit stores from selling them. Fortunately, finding fertilizer without nitrogen and phosphorus has gotten easier since the bans went into effect, said Alexis Peralta, Indian River County's fertilizer enforcement officer, who tracks fertilizers available in stores each summer. In her survey of Indian River County stores this week, Peralta said she was able to find a couple of fertilizers that complied with the ban. And she suspects stores in all six counties along the lagoon, especially the major chains, will have the same.

To find a ban-compliant fertilizer, look for three numbers on the fertilizer bag and pick one with zeroes for the first two numbers, such as "0-0-16." The first number represents the percentage of nitrogen, the second the percentage of phosphorus. The third is potassium, which isn't part of the ban. Most ordinances allow the use of "yard waste compost, mulches or other similar materials that are primarily organic in nature," but that doesn't include organic fertilizers containing nitrogen and phosphorus. Many ordinances also prohibit blowing, sweeping or washing grass clippings and other yard waste, into water bodies and stormwater drains or onto impervious areas (roads, driveways and sidewalks, for example) where they can be washed into water. The bans generally apply to both businesses and residences; and most have exceptions for agriculture, golf courses and athletic fields.
more…….https://www.tcpalm.com/story/news/local/indian-river-lagoon/health/2019/05/31/florida-summer-rainy-season-fertilizer-ban-helps-indian-river-lagoon/1284164001/

CONFERENCES

OceanObs'19 (16-20 September 2019, Honolulu, Hawaii, USA)

Theme: Connecting Science and Society

The OceanObs'19 conference is a community-driven conference that brings people from all over the planet together to communicate the decadal progress of ocean observing networks and to chart innovative solutions to society's growing needs for ocean information in the coming decade.

As part of the decadal conference series, OceanObs'19 will galvanize the ocean observing community ranging from scientists to end users. OceanObs'19 seeks to improve response to scientific and societal needs of a fit-for-purpose integrated ocean observing system, for better understanding the environment of the Earth, monitoring climate, and informing adaptation strategies as well as the sustainable use of ocean resources. Overall, OceanObs'19 will strive to improve the governance of a global ocean observing system, including advocacy, funding, and alignment with best practices and to designate responsibility for product definition, including production and timely delivery at the appropriate scales (global, basin, regional, national) to serve user needs. The conference program will be built focusing on a single objective each day to provide adequate time to answer to the proposed questions.

More information:
To get important updates, visit: http://www.oceanobs19.net/#main

The 25th Biennial CERF Conference (Mobile, Alabama on 3–7 November, 2019)

Theme: "Responsive | Relevant | Ready"

CERF2019 endeavors to connect science and society in the collective goals of preserving the coastal and estuarine habitats, resources, and heritage. Through the conference, attendees will discuss the nature of research agendas that are directed at finding and solving problems, and how to engage stakeholders in that process. CERF2019 goal is to balance a natural and social scientific agenda with the food, music, and art emblematic of the central Gulf of Mexico. In keeping with tradition, CERF2019 hopes to create a seriously fun and memorable 25th Biennial CERF Conference.

Special session - Seagrasses: sentinel species in a changing world - a tribute to Dr. Susan Williams

Session co-chairs – Robert Orth and Ken Heck

Seagrasses are key sentinel species whose sensitivity to changing water quality is well known to warn of deteriorating conditions in coastal waters. The past five decades have seen great progress in understanding the biology of seagrasses, the ecology of the world's seagrass meadows and in valuing the many services they provide. During this time there have been paradigm shifts in our understanding of many fundamental processes that underpin the ecology of seagrass meadows. Among them is a revised understanding of the phylogeny and evolutionary history of seagrass lineages, the smaller role played by the consumption of detritus in seagrass food webs, and the larger role of direct consumption of seagrasses in energy flux. Additional advances include convincing evidence that seagrasses can be pollinated by small invertebrates, that microbial-seagrass interactions in the sediments and in the water column are a vast area only beginning to be explored and that individual seagrass clones can cover vast areas and exist for millennia. Other recent advances include a revised understanding of the widely varying dispersal abilities of different seagrass species, as revealed by the much improved ability to genotype seagrass clones and the rapidly advancing knowledge, aided by much trial and error, of how to improve the success of seagrass restoration efforts. We have also seen important advances in valuing the services provided by seagrass meadows, such as their important role as nursery habitat for a variety of economically important finfish and shellfish. In addition, their previously less well known services, such as their functioning as vast reservoirs of blue carbon, is becoming increasingly elucidated, with the implication that the continuing global decline of seagrass meadows has profound implications for earth's climate.

Seagrasses face many emerging challenges associated with our changing climate, including the effects of the alteration of temperatures, pH and dissolved oxygen, as well as the immigration and assimilation of tropical species, whose predatory, competitive and pathological effects on the ecology of seagrasses and their associated biotas may be enormous but which remain unknown and unpredictable.

This session will highlight the most exciting, recent advances in seagrass research by those at the forefront of the field, and is dedicated to Dr. Susan Williams, who, throughout her career, played a leadership role in seagrass ecology and mentored some of its leading practitioners. It will be of interest to researchers and resource managers faced with the challenge of preserving, restoring and managing seagrass resources.

More information:
To get important updates, visit: https://www.erf.org/cerf-2019
Follow on twitter @CERFScience, #CERF2019
Schedule-at-a-Glance: https://www.erf.org/2019-schedule-at-a-glance

SEAGRASS-WATCH on YouTube

Seagrass: Pastures of the sea *http://www.youtube.com/watch?v=66Y5vgswj20* or *http://www.seagrasswatch.org/seagrass.html*

Presentation on what seagrasses are and why they are important (over 49,857 views to date)

Seagrass & other matters

World Seagrass Day http://wsa.seagrassonline.org/world-seagrass-day/

A global campaign for World Seagrass Day: Raising public awareness on the importance of seagrass meadows is central to efforts in the protection and conservation of seagrass meadows worldwide. The international seagrass research and conservation community, together with the undersigned, call on the United Nations to declare a World Seagrass Day to recognize the importance of seagrass meadows to the health and well-being of the planet, as well as the people, communities, flora, and fauna that rely on them. Show your support by signing the petition.

SeagrassSpotter https://seagrassspotter.org/

SeagrassSpotter seeks to expand the number of people studying seagrass from a handful of scientists to hundreds and potentially thousands of 'citizen scientists.'. As part of efforts to build a sustainable monitoring network, and by leveraging the enthusiasm of everyone from fishers to SCUBA divers to people on vacations at the beach, we'll create a more comprehensive picture of seagrass meadows around the globe. This in turn will inspire new scientific research and practical conservation measures that can help protect ocean habitats. Working together with citizen scientists all over the world, we'll accomplish big things for seagrass and other vulnerable marine species, but only with your help.

World Seagrass Association http://wsa.seagrassonline.org

Keep up to date on what's happening with the around the world from the WSA. The World Seagrass Association is a global network of scientists and coastal managers committed to research, protection and management of the world's seagrasses. WSA members come from many countries and include leading scientists in marine and seagrass biology. The association supports training and information exchange and raises global awareness of seagrass science and environmental management issues.

World Seagrass Association on Twitter @Seagrass_WSA

Everything seagrass related. World Seagrass Association official account. Follow to stay up-to-date with global seagrass info. Moderator: LM Nordlund

Dugong & Seagrass Research Toolkit http://www.conservation.tools/

Dugongs and seagrass are under threat from human activities. By using this Toolkit you should be able to gather information to:

understand better the status of dugongs, seagrass and communities at your research site;
understand threats to dugongs and seagrasses and help find solutions to those threats;
understand the communities that value or may affect dugongs and seagrasses.

The toolkit will guide you to the techniques and tools most suitable to your team capacity, budget and timeline. By using the toolkit, you will also be helping to standardise data sets and methods across different countries and sites, allowing for better comparison of global dugong and seagrass conservation status. The Toolkit is designed for use by marine natural resource managers and decision-makers (government and non-government) and for dugong and seagrass researchers. The Toolkit will assist organisations to assess funding proposals by describing the scope of work, choice of techniques and tools, and budget.

FROM HQ

Past E-bulletins *http://www.seagrasswatch.org/publications.html#ebulletin*
Frequently Asked Questions *http://www.seagrasswatch.org/faq.html*
Magazine *http://www.seagrasswatch.org/magazine.html*
Virtual Herbarium *http://www.seagrasswatch.org/herbarium.html*
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.