28 February 2019

Seagrass-Watch's electronic news service, providing marine and coastal news of international and national interest. Abbreviated/edited 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.

IN THIS BULLETIN

Please note: links to sources were active on date of publication. Some sources remove links periodically.

NEWS

Floods create risk of Great Barrier Reef 'freshwater bleaching' (Australia)

28 February 2019, The Sydney Morning Herald

Researchers believe the effect of the recent flooding in north Queensland on the Great Barrier Reef could be as bad as recent bleaching events. The ARC Centre of Excellence for Coral Reef Studies at James Cook University found sudden dramatic changes in ocean salinity provoke a reaction in coral similar to extreme heat or acidity. The research, published in the journal BMC Genomics on Friday, used the genome of the common reef-building coral, *Acropora millepora*, to detect changes in the coral's biology from the effect of desalinification.

During the recent flooding in north Queensland, a massive flood plume was detected pushing out from the Townsville region, with estimates nearshore reefs were exposed to roughly half the normal ocean salinity. The researchers said with more extreme weather events predicted in the coming years, more needed to be done to protect the reef from runoff. “There’s a wider appreciation of the fact that extreme temperature events cause damage to reefs, it’s less well-known that low salt conditions caused by extreme rainfall are similarly damaging to coral reefs.”
more……..http://seagrasswatch.org/news_Feb2019archives.htm

DoE warns against Barkers seagrass removal (Cayman Islands)

27 February 2019, Cayman News Service

The Department of Environment has said that removing more than four acres of turtle grass in Barkers will adversely affect essential habitat for protected species, that it will destroy live coral and lead to beach erosion, among many other problems. Following comments by the tourism minister that a controversial coastal works application by the owner of Calico Jack’s bar might prove “successful”, despite local objections, the DoE has published its scientific findings, which make it clear the project would have a very serious impact on the marine habitat and beach, and include detailed recommendations about why the application should be refused.

During an appearance on Radio Cayman on Monday, Tourism Minister Moses Kirkconnell said that the application to develop in Barkers was a good example of people wanting to develop in the right way, as he hinted that government backed the project and all parties were looking for a way to make it happen. But the DoE’s review of the formal coastal works application indicates that this project would not only pose a significant threat to the environment in and around the site, which is a marine replenishment zone, but that the aim of creating a crystal clear sandy bathing area was fruitless. The review gives details of several previous attempts to remove turtle grass in other parts of Cayman and the subsequent beach erosion and ongoing problems decades after the removal.

In light of the minister’s comments on the radio Monday, a representative from the DoE told CNS that representatives from the department had only just met with Whittaker, the applicant, several hours after the minister’s appearance on For the Record. The DoE said that following the meeting, in which its experts explained why it was recommending that government refuse the application, the parties were going away to rethink the project, and the DoE had agreed to give feedback on any alternative ideas.
more……..http://seagrasswatch.org/news_Feb2019archives.htm

Related article
Minister hints at Barkers bar ‘success’ (26Feb19 Cayman News)
https://caymannewsservice.com/2019/02/minister-hints-barkers-success/

Dept backs stand on dugong hunt (Thailand)

25 February 2019, Lakeland Observer

The Department of National Parks, Wildlife and Plant Conservation (DNP) yesterday insisted it did not fabricate evidence of dugong hunting in Trang, as claimed by wildlife advocacy groups. Department director-general Thanya Nethithammakul yesterday said the agency had nothing to gain from framing villagers for dugong hunting, as its duty was to preserve the seacow-like mammal. Mr Thanya also asked wildlife activists not to point the finger at anybody for the drop in dugong numbers, but instead cooperate with officials to conserve the species and improve the fertility of seagrass habitats.

The DNP chief‘s comment came after a Trang artisanal fishery network disputed a report released by Mr Thanya last week on the drop in the mammal‘s population in the province. The report claimed dugong populations are being threatened by a loss of fertility in the seagrass habitat and disturbance due to fishing gear and hunting. Currently, less than 200 dugongs live in Thai waters, of which around 130-150 are found along the coastline of Koh Libong in Trang‘s Kantang district. A department source also said the island was a black market where the sale of dugong fangs and bones could fetch up to 10,000 baht per kg while the mammal‘s meat could fetch 150 baht per kg.

Following these claims, fishery network chief Aren Prakong criticised the report, insisting villagers on Koh Libong have been taking part in the preservation of dugong for the past three decades. He said they were disheartened by Mr Thanya‘s accusation. Mr Thanya said he or his deputy Pinsak Suraswadi would visit Trang to discuss the issue with residents and wildlife networks tomorrow to build understanding among villagers. He also asked villagers who have information about dugong hunting to cooperate with the agency.
more……..http://seagrasswatch.org/news_Feb2019archives.htm

Dumping sludge in Great Barrier Reef Marine Park given go ahead (Australia)

25 February 2019, SBS

A controversial plan to dump more than one million tonnes dredge sludge near the Great Barrier Reef has been approved by the Great Barrier Reef Marine Park Authority (GBRMPA). The 10-year Commonwealth permit allows maintenance dredging to be carried out at Mackay's Port of Hay Point, and the sludge to be dumped within the Great Barrier Reef Marine Park, in separate campaigns to take place every three to five years. According to the recipient of

the permit, North Queensland Bulk Ports Corporation, the first dredging program will begin next month after it was approved on January 23.

Greens senator for Queensland Larissa Waters told The Guardian that dumping sledge into world heritage waters treats our reef like a rubbish tip. The permit allows 756,553 cubic metres of maintenance dredge sludge to be disposed of in the marine park and a further 200,000 cubic metres for sediments deposited by extreme weather events. The announcement comes just weeks after extensive flooding in north and central Queensland that has deposited large amounts of sediment on to the reef. The flood runoff could also affect seagrass and marine animals such as turtles and dugongs, a Senate committee heard last week.
Acting chief executive officer of the GBRMPA Bruce Elliot said the influx of water into the reef could lead to freshwater bleaching events and impact seagrass. But despite these concerns, in a statement released last week, the North Queensland Bulk Ports Corporation said its assessment reports found "the risks to sensitive marine environments as a result of the maintenance dredging were predominantly low." The GBRMPA added that the project would be monitored after each campaign.
more……..http://seagrasswatch.org/news_Feb2019archives.htm

Fiji extends 10 year ban on hunting and selling turtles (Fiji)

25 February 2019, Radio New Zealand

The Fiji Government says a ban on the harvesting of sea turtles will continue this year. A 10 year moratorium on the harvesting and sale of turtles expired at the beginning of the year but the government said it will continue to prohibit the sale, possession and transportation of the turtles. Fisheries Minister Semi Koroilavesau said the ban will ensure that the conservation, management and protection of the turtles is strengthened. He said the operation must be carefully managed to ensure the turtles' sustainability.

There are at least five turtle species in Fiji that are listed internationally as vulnerable. These include the Leatherback (Vonu Tutuwalu), the Green Sea Turtle (Vonu Dina) and the Loggerhead Sea Turtle (Tuvonu). Fines for individuals caught breaking the ban start at $US4000 and can be as much as $US23,000. Corporations found breaking the moratorium can face a maximum fine of $US68,000.
more……..http://seagrasswatch.org/news_Feb2019archives.htm

Okinawa votes in referendum on US military base relocation (Japan)

23 February 2019, by Yuri Kageyama, The Associated Press

The people of Okinawa voted Sunday on a plan for a U.S. military base relocation in a referendum that will send a message on how they feel about housing American troops in Japan, who many see as a burden on the group of tiny southwestern islands. The referendum is technically not binding but interest is high for testing the public sentiment about the plan to relocate Futenma air base, which is pushed by the national government of Prime Minister Shinzo Abe.

The plan has its beginnings in 1995, when a replacement base was identified on a coastal landfill in an area called Henoko. Critics say wildlife such as coral reefs and the dugong will be hurt. Japanese media surveys have shown voters are likely to reject the Henoko plan. Nearly 1.16 million residents were eligible to vote. Interest has been strong, not only in the rest of Japan but among pacifists internationally. The referendum asked: “On the landfill for the construction of the U.S. military base planned by the government in Henoko, Nago city, to replace Futenma air base,” with the answers being: “I agree,” ”I oppose,” or “Neither.”

Although Okinawa makes up less than 1 percent of Japan’s land space, it houses about half of the 54,000 American troops stationed in Japan, and makes for 64 percent of the land used by the U.S. bases, under a bilateral security treaty. Japan relies heavily on the U.S. for its defense, and the government has said it will not abide by the referendum, even if the Henoko plan is rejected.
more……..https://www.seattletimes.com/nation-world/nation/okinawa-votes-in-referendum-on-us-military-base-relocation/

Related article
Dugong lawsuit plaintiffs submit brief claiming DoD not consulting local citizens violated NHPA (09 February 2019, Ryukyushimpo)
http://english.ryukyushimpo.jp/2019/02/08/29895/

Red tide is gone in Florida, state says (FL, USA)

23 February 2019, by Carlos R. Munoz, Daily Commercial

The unforgettable red tide bloom that tarnished Florida waters and destroyed hundreds of the state’s beloved marine animals is no more. For the first time since October 2017, the Florida Fish and Wildlife Conservation Commission reports that the red tide organism, *Karenia brevis*, is no longer present in water samples collected in coastal waters anywhere in the state. Samples were taken over the past week in Southwest Florida, where the bloom once stretched for 150 miles from Pinellas County to Monroe County, in Northwest Florida and along the east coast.

The 2017-2019 bloom killed a record number of sea turtles, hundreds of manatees and contributed to the deaths of 145 bottlenose dolphins. That led the National Oceanic and Atmospheric Administration to declare an unusual mortality event for dolphins in July. No evidence exists to show more toxic algae is brewing, says Robert Weisberg, a professor of physical oceanography modeling and a forecaster at the Collaboration for Prediction of Red Tides.

While the red tide bloom is gone, a few isolated pesky red tide cells are still causing respiratory irritation in Pinellas, Manatee and Lee counties and fish kills were found in Collier County. Conservation groups are planning snook restocking initiatives after thousands of fish in Gulf waters were killed by the bloom. Many washed ashore in rotting piles during the summer, creating hazardous conditions.
more……..https://www.dailycommercial.com/news/20190223/red-tide-is-gone-in-florida-state-says/1

Catching dugongs and fending off crocodiles as rangers risk everything for conservation in Gulf of Carpentaria (Australia)
22 February 2019, ABC NEWS

In the remote Gulf of Carpentaria, scientists and Indigenous rangers have been jumping into crocodile-inhabited waters to learn more about the region's dugong population. The area is thought to have the highest concentration of dugongs in the Northern Territory, but current estimates of the creatures are believed be inaccurate.

To help properly establish a method of estimating numbers, the Department of Environment and Natural Resources (DENR) teamed up with NT Parks and Li-Anthawirriyarra Sea Rangers to fit dugongs with GPS trackers. The data collected by the GPS trackers will help scientists understand how dugongs move through their habitat, making future aerial surveys much more accurate. "Dugongs spend most of their time in about two metres of water, but we can only see them when they're half a metre below the surface," DENR scientist Rachel Groom said. "So we're probably missing 50 per cent of the NT's dugongs just by doing that survey. "So what we will probably find, by collecting all this data, is that we actually have maybe twice as many dugongs or several factors higher than we currently have as an estimate."

Scientists hope having an accurate estimate of dugong numbers will help underpin the importance of maintaining a healthy habitat for dugongs. Ranger Shaun Evans, who is putting his body on the line, the research was well worth the risk. "From my point of view it's really important to see the dugong's movements, how they travel, how they feed, where they end up," he said. "Dugongs mean a lot to us, it's part of our ceremony, songlines, it's part of people's totem and it's also part of our food source for Yanyuwa people."
more……..http://seagrasswatch.org/news_Feb2019archives.htm

Related article
Aussie researchers fend off sharks, crocodiles to study dugong population (22 February 2019, Xinhua)
http://www.xinhuanet.com/english/2019-02/22/c_137842477.htm

20-million-year-old tusked sea cow is Central America's oldest marine mammal
19 February 2019, Science Daily

Steven Manchester, curator of paleobotany at the Florida Museum of Natural History, didn't set out to discover Central America's oldest known marine mammal. He was hoping to find fossil plants, when he spotted bones while clambering down onto the narrow, exposed Panama Canal shoreline. "There were two or three vertebrae, orange-ish in color, dipping into the black rock on the side of the canal and a couple of ribs around them. We guessed that there would be more under the rock." said Aaron Wood, director of Iowa State University's Carl F. Vondra Geology Field Station and a lecturer in the department of geological and atmospheric sciences who was leading fieldwork in Panama. What Wood described as an "emergency fossil excavation" due to rising water levels yielded a remarkably complete skeleton of an ancient sea cow, estimated to be about 20 million years old, the first evidence of a marine mammal from the Pacific side of the canal.

The fossil skull, vertebrae, ribs and other bones belong to a new genus and species, *Culebratherium alemani*, a tusked seagrass-grazing relative of modern dugongs, which live in the warm coastal waters of the Indo-Pacific. Wood and lead author Jorge Velez-Juarbe, assistant curator of marine mammals at the Natural History Museum of Los Angeles County, published their findings in the Journal of Vertebrate Paleontology. The researchers propose that *C. alemani*'s thick neck muscles, tusks and downward-pointing snout were adaptations for digging pits in the ocean floor to get to the underground stems of seagrass, the plants' most nutritional parts. "Finding *C. alemani* is pretty good evidence that there was seagrass in this region 20 million years ago," said Velez-Juarbe. "This particular group of sirenians" -- the order that includes dugongs and manatees -- "are seagrass specialists."

While only one species of dugong is alive today, about 30 species have been recovered in the fossil record. The group originated in the West Atlantic and Caribbean and dispersed westward through Panama, whose seaway did not close until a few million years ago, and south to Brazil. Today, Panama is the juncture between two continents, and that's where we have a mixture of mammals between North and South America. In the early Miocene, when this dugong lived, it wasn't a land connection but a sea connection between the Atlantic and Pacific. We would expect to see communities of sea cows there, too. Previous research shows that multiple species of dugongs commonly lived

together, each with slightly differently shaped tusks, snouts and body sizes that would have enabled them to divide up food resources, Velez-Juarbe said. "Some would eat larger species of seagrass buried deeply in the sand while others would feed on smaller grasses closer to the surface," he said. *C. alemani* was excavated as part of a large-scale, years-long project to salvage fossils during the expansion of the Panama Canal, which temporarily exposed fresh outcrops.

more……..http://seagrasswatch.org/news_Feb2019archives.htm

Related article

Scientist accidentally discovers 20-million-year-old tusked sea cow in Panama (20 February 2019, The Independent)
https://www.independent.co.uk/news/science/sea-cow-dugong-new-species-panama-canal-dig-excavation-fossils-a8788071.html
20-million-year-old tusked sea cow is Central America's oldest marine mammal (20 February 2019, Science Daily)
https://www.sciencedaily.com/releases/2019/02/190219111720.htm
20-million-year-old tusked sea cow is Central America's oldest marine mammal (20 February 2019, University of Florida)
https://www.floridamuseum.ufl.edu/science/sea-cow-is-central-americas-oldest-marine-mammal/

Geographe Bay seagrass showing positive signs (Australia)

19 February 2019, Busselton Dunsborough Mail

Preliminary results from a recent study into seagrass health in Geographe Bay have shown pleasing signs for scientists. Each summer, scientists from Edith Cowan University join divers from the Department of Biodiversity, Conservation and Attractions to monitor the seagrass meadows at eight sites across the bay. Edith Cowan University associate professor Kathryn McMahon said so far, the results from two days of sampling and diving, indicated the shoot density of seagrass had either improved or stayed the same as 2018 numbers. "The Busselton Jetty and Port Geographe sites showed increases of 23 per cent and 28 per cent respectively, which is fantastic."

Professor McMahon said the Port Geographe improvements might be attributed to reduced seagrass wrack accumulation following the marina realignment. Another positive observed in the study was a reduction in epiphyte growth across all sights. “In previous years the Buayanup and Vasse Diversion Drain sites had high algal growth on the seagrass leaves, but in 2019 only a low cover was observed," she said.

The Keep Watch seagrass monitoring project is coordinated by GeoCatch and funded by Water Corporation, and has been running since 2012. GeoCatch Chair Felicity Bradshaw said the program helped determine if impacts such as poor water quality from the catchment were affecting seagrass health. Results from this year’s monitoring will be analysed and put in a report on the GeoCatch website geocatch.asn.au.

more……..http://seagrasswatch.org/news_Feb2019archives.htm

Qld floods to impact reef's marine animals (QLD, Australia)

18 February 2019, SBS

Green turtles and dugongs who call the Great Barrier Reef home could die as a consequence of the recent Queensland floods, a Senate committee has heard. Acting chief executive officer of the Great Barrier Reef Marine Park Authority Bruce Elliot said the influx of water into the reef could lead to freshwater bleaching events and impact seagrass. Previous severe weather events have led to the "dramatic increase" in mortality rates of green turtles and dugongs - who feed on seagrass - and the authority is monitoring the health of the marine creatures, Mr Elliot told a Senate estimates hearing in Canberra on Monday.

more……..http://seagrasswatch.org/news_Feb2019archives.htm

Related article

Fears flood water runoff could 'smother' Barrier Reef (15 February 2019, The Sun Daily)
https://www.thesundaily.my/world/fears-flood-water-runoff-could-smother-barrier-reef-BX536030
Iconic Great Barrier Reef hit by polluted floodwaters (15 February 2019, Xinhua)
http://www.xinhuanet.com/english/2019-02/15/c_137823998.htm
Australian floods send dirty water across Great Barrier Reef (16 February 2019, Saudi Gazette)
http://www.saudigazette.com.sa/article/559211/World/Asia/Australian-floods-send-dirty-water-across-Great-Barrier-Reef
North Queensland Flooding Causes Sediment Pollution to Great Barrier Reef (16 February 2019, The Advertiser)
https://www.adelaidenow.com.au/news/national/north-queensland-flooding-causes-sediment-pollution-to-great-barrier-reef/video/e1acded0924d98dcf423d7c46ee0a309
Great Barrier Reef in troubled waters (15 February 2019, The Straits Times)
https://www.straitstimes.com/multimedia/photos/great-barrier-reef-in-troubled-waters
Huge muddy plume of water seeps into Great Barrier Reef that could harm the world wonder (15 February 2019, Evening Standard)
https://www.standard.co.uk/news/world/dramatic-images-show-great-barrier-reef-being-hit-by-extremely-large-patch-of-muddy-floodwater-a4067621.html

Vessel uses sonar to scan sea beds for mapping survey (Turks and Caicos)

18 February 2019, Turks and Caicos Weekly News

The second phase of a project aimed at mapping the waters surrounding the Turks and Caicos Islands has begun. This January the UK Hydrographic Office in partnership with the Maritime Department used a vessel equipped with state-of-the-art sonar equipment to scan the territory's sea beds. It followed a seven week aerial survey with a specially adapted aircraft which took place last summer. The third phase is a satellite survey.

The in-depth study will allow the UK agency to update old seabed charts and identify hazards to allow for safer navigation around the territory. Data from the survey will also enable scientists to carry out research based on the information, and enable government departments to use it for future planning. Once completed the TCI will be one of the best surveyed countries in the Caribbean.

This January the second phase commenced with a multi-beam vessel equipped with sonar equipment for capturing sound waves into deep water and measuring refraction of the transmitted wave. Equipment also recorded the movement of the ocean current, the locations of shoals, seagrass beds, as well as the depths of the various portions of the Caicos Banks. Particular emphasis was placed on South Dock, Providenciales, South Caicos Dock and the area around Government dock in Grand Turk. The three areas were highlighted due to vessel restrictions, with the inability to maneuver due to the shallow draft and also future concerns for dredging.

more……..http://tcweeklynews.com/vessel-uses-sonar-to-scan-sea-beds-for-mapping-survey-p9421-127.htm

'No proof of dugongs going extinct' (Malaysia)

18 February 2019, by Avila Geraldine, New Straits Times

The sightings of dugongs off Sabah's coast and in marine parks several times in recent years put paid to public perception that the marine mammal may have gone extinct in the state's waters. Marine experts said the almost non-appearance of dugongs did not mean the species had been wiped out. Between 2003 and 2010, Universiti Malaysia Sabah's (UMS) first and most comprehensive studies on dugongs showed that the species tend to inhabit a particular area. The population in Sabah is small, with about 60 individuals.

The purpose of the studies was to investigate the distribution and abundance of dugongs, while highlighting the need for urgent management of seagrass for dugong habitat and feeding ground. Based on the research, UMS' Borneo Marine Research Institute (BMRI) director Professor Dr Rossita Shapawi said these dugongs usually inhabit the waters off Brunei Bay and Sandakan Bay. "Other areas, such as Mantanani Island (off Kota Belud), Banggi Island (off Kudat) and several areas in Marudu Bay, have also shown presence of dugongs," she told the New Straits Times. Pulau Mantanani, for example, is known for dugong sightings. Some tour operators have promoted the area as "dugong beach" to lure tourists to the island. However, because sightings at the island have dwindled to almost none, many assumed they no longer exist. "The presence of dugongs in a particular area is highly dependent on the availability of food resources, especially seagrass. They may occasionally visit an area for feeding, especially when seagrass is abundant in a particular season," said Rossita.

Rossita said accelerating loss of seagrass was considered the most important factor behind the dwindling dugong population in Sabah and Malaysia in general. Dugongs feed exclusively on seagrass. Excessive sedimentation due to uncontrolled anthropogenic activities mainly of coastal development will smother seagrass. This results in the disappearance of habitat and food for dugongs. Other factors, such as accidental catch by fishermen and use of destructive fishing methods, also contribute to the direct mortality of dugongs, as well as the loss of food resources. More studies have to be conducted on dugongs in Sabah waters, with particular focus on the restoration of seagrass areas. "This is important to ensure that dugong habitats are maintained and well preserved," he said.

more……..https://www.nst.com.my/news/nation/2019/02/461127/exclusive-no-proof-dugongs-going-extinct

Related article

Nicky, the friendly dugong (23 February 2019, New Straits Times)

https://www.nst.com.my/news/nation/2019/02/461123/nicky-friendly-dugong

Gov't, GRID-Arendal to enhance Seagrass management (Gambia)

07 February 2019, The Point

Gambia Government and GRID-Arendal; a Norwegian organisation supporting environmentally sustainable development and Wetlands International on Monday discussed their work partnership targeting to enhance the management of seagrass in West Africa. Held at the Abuko Nature Reserve, the partnership will emphasize the importance of seagrasses.

GRID-Arendal project coordinator Dr. Malle Dagana said along the coast, bordering the ocean and sea of the world, there are vast marine prairie extended seagrasses meadows in 2003 UNEP reports in the form of an Atlas which, he said contains the first global and regional maps of seagrass distribution and a wealth of information on the key issues concerning the valuable ecosystem. Dr. Dagana emphasised the importance of economic and ecological valuable productive ecosystems on the earth, saying it appears that there is limited awareness on the existence and

importance of seagrass meadows which in turn contributes to their degradation with threats such as the discharge of domestic, agricultural and industrial waste waters.

Ousainou Touray, deputy director of the department of parks and wildlife said the aim of the project is to bring together managers and researchers to build capacity on how to collect and analyse seagrass distribution data to create national and regional expertise within West Africa. He said this will provide the ability to enact positive change for seagrass habitats.
more……..http://seagrasswatch.org/news_Feb2019archives.htm

Dugong found dead in Pulupandan (Philippines)
07 February 2019, Sun.Star

A decomposing dugong was found at the shoreline of Barangay Zone 6 in Pulupandan, Negros Occidental on Wednesday afternoon, February 6. Commander Ludovico Librilla Jr., head of Philippine Coast Guard (PCG)-Negros Occidental, said the municipal sub-station received a call from Federico Infante, officer-in-charge of Municipal Agriculture Office, informing them about the seacow which drifted at the shoreline at 5 p.m.

Personnel of PCG in Pulupandan responded and pulled the sea cow to the shoreline. It was 290 centimeters long and 60 centimeters wide. Librilla said the sea cow hit a reef wharf which caused its intestines to detach from its body. We cannot determine if it has wounds, he added. It was already turned over to the Municipal Agriculture Office for proper disposition
more……..http://seagrasswatch.org/news_Feb2019archives.htm

Nearly all the seagrass in Biscayne Bay is dead. County commissioners want to know why (FL, USA)
05 February 2019, Miami Herald

The past decade has not been good for Biscayne Bay: More than 25,000 acres of seagrass meadows have vanished as Miami boomed and climate change drove seas ever higher. In a report released last week, Miami-Dade County environmental regulators blamed chronic pollution for the massive die-off, brought on by dirty canals, increasing floodwater and leaky septic tanks in older neighborhoods. The bay — once inhabited by seven species of seagrass — now has wide swaths of barren bottom, muddy water and clumps of macroaglae. But on Tuesday, the bay enjoyed a mini love fest when county commissioners ordered not one, but two reports on how to fix problems.

The report suggested continuing a number of ongoing efforts, including monitoring water quality and the bay bottom. But it failed to suggest more specific fixes like identifying and dealing with sources of pollution. Clearly frustrated, Commissioner Daniella Levine Cava asked county environmental chief Lee Hefty to come back in six months with more detailed recommendations for problems that have escalated in recent years.
more……..http://seagrasswatch.org/news_Feb2019archives.htm

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
Session and workshop proposal deadline: 20 September 2018
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 49,662 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*

****

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