31 March 2018

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IN THIS BULLETIN

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NEWS

Nutrient reductions credited for resurgence in Bay's underwater grasses (MD, USA)

29 March 2018, The Chesapeake Bay Journal

Nutrient reductions over the last 30 years are the primary factor behind the resurgence of underwater grasses in the Chesapeake - something that scientists cite in a new study as tangible evidence that efforts to improve Bay water quality are paying off. Seagrass beds are in decline globally, but the Chesapeake Bay is one of the few places where that trend has been successfully reversed, according to an article that published in March in the Proceedings of the National Academy of Sciences.

That's good news for the Bay as underwater grasses provide important habitat for fish, crabs and waterfowl. The scientists who led the study also said that the recovery likely foreshadows a broader comeback in the estuary's health. "We are thinking of the resurgence of the grasses as being the harbinger of things to come," said Bill Dennison, vice president for science applications at the University of Maryland Center for Environmental Science and a co-author of the study. The study, built upon an analysis of a wide variety of data collected over three decades, found that a 23 percent decline in nitrogen concentrations in the Bay and an 8 percent decline in phosphorus were the primary factors behind a nearly threefold increase in underwater grasses since 1984.

The study found that nutrients play a "dominant role" in causing the loss of grass beds because they not only spur algae blooms, but also promote epiphytic algae growth directly on the plants. That epiphytic growth, the study found, was three times more harmful to plants than the indirect effects of phytoplankton blooms in the water column. The amount of underwater grasses still fluctuates from year to year, in large part because of weather - rainy years drive more water-fouling nutrients into the water than dry ones. Nonetheless, while the amount of grasses has varied, their overall acreage has increased over time, from a low of 38,229 acres in 1984 to a high of 97,400 acres mapped in 2016. The Chesapeake is still far short of the goal to restore 185,000 acres of underwater grasses, but it is doing better than any other place on the planet, the article said.
more…….. http://www.seagrasswatch.org/news.html

Related article
Cutting pollution in the Chesapeake Bay has helped underwater grasses rebound (06 March 2018, Phys.Org)
https://phys.org/news/2018-03-pollution-chesapeake-bay-underwater-grasses.html

Sea turtles use flippers to manipulate food (CA, USA)
28 March 2018, Science Daily

Sea turtles use their flippers to handle prey despite the limbs being evolutionarily designed for locomotion, a discovery by Monterey Bay Aquarium researchers published today in PeerJ. The in-depth examination of the phenomenon -- Limb-use By Foraging Sea Turtles, an Evolutionary Perspective -- by authors Jessica Fujii and Dr. Kyle Van Houtan and others reveals a behavior thought to be less likely in marine tetrapods is actually widespread and that this type of exaptation of flippers may have been occurring 70 million years earlier than previously thought.

Analysis by Fujii and Van Houtan using crowd-sourced photos and videos finds widespread examples of behaviors such as a green turtle holding a jelly, a loggerhead rolling a scallop on the seafloor and a hawksbill pushing against a reef for leverage to rip an anemone loose. Similar behaviors have been documented in marine mammals from walruses to seals to manatees -- but not in sea turtles. The paper shows that sea turtles are similar to the other groups in that flippers are used for a variety of foraging tasks (holding, bracing, corralling).

The finding came as a surprise to the authors, given sea turtles' ancient lineage and the fact that the reptiles are considered to have simple brains and simple flippers. The results also offer an insight into the evolution of four-limbed ocean creatures that raises questions about which traits are learned and which are hardwired.
more…….. http://www.seagrasswatch.org/news.html

Top marine scientists defend attack on Great Barrier Reef research (QLD, Australia)
29 March 2018, The Guardian

Scientists at Australia's leading marine science agency say an attack on the integrity of their research into threats to the Great Barrier Reef was flawed and based on "misinterpretation" and "selective use of data". The Australian Institute of Marine Science (AIMS) researchers were responding to accusations made in November 2017 in a journal Marine Pollution Bulletin that claimed much of their work "should be viewed with some doubt".

In November Dr Piers Larcombe, an industry consultant affiliated with the University of Western Australia, and Prof Peter Ridd, of James Cook University in Queensland, claimed in a "Viewpoint" article that there was a lack of "quality control" in marine science. The pair claimed to have identified flaws in nine scientific papers published between 2003 and 2013.

But in the response, led by Aims scientist Dr Britta Schaffelke, several of the criticised scientists write: "Given their sincere call to improve quality control processes in science, it is interesting that nowhere in their Viewpoint article do Larcombe and Ridd make it clear to readers that many of their criticisms of the nine GBR papers have been raised previously and have been thoroughly addressed by the original authors." In an emailed response to Guardian Australia, Larcombe and Ridd maintained their concerns and rejected the criticisms.
more…….. http://www.seagrasswatch.org/news.html

Human activity causes fish diversity to drop in seagrass meadows (Canada)
26 March 2018, Oak Bay News

A recent study out of the University of Victoria confirms that human activity around seagrass meadows reduces the diversity of the fish in the area. Coastal seagrass meadows are important nursery grounds for commercial and

ecologically significant fish species, however they have been in steep decline globally – seven per cent a year –since 1990.

UVic post-doctoral fellow Josie Iacarella and biology professor Julia Baum led the effort to examine 89 seagrass meadows across Canada's Pacific Coast, including meadows in Saanich Inlet, Victoria Harbour and Sooke Harbour. The study found that while hardy species like the threespine stickleback dominated in high-disturbance areas, sensitive rockfish species and slow-swimming egg-guarders, such as pipefish and gunnel fish, were more likely to be found in areas with less human disturbance.

"We discovered that the number of different fish species that thrive across disturbed areas is reduced," says Iacarella. "Understanding how human disturbance affects fish communities will inform our conservation efforts of seagrass meadows." The paper, "Anthropogenic disturbance homogenizes seagrass fish communities," has been published in the peer-reviewed journal Global Change Biology.
more…….. http://www.seagrasswatch.org/news.html

Related article
Don't drop anchor on eelgrass meadows (29 March 2018, Victoria News)
https://www.vicnews.com/local-news/dont-drop-anchor-on-eelgrass-meadows/

Threatened blue carbon ecosystems store carbon 40 times faster than forests (VIC, Australia)
26 March 2018, ABC Online

In just the past decade, scientists have discovered that some of our underappreciated coastal habitats - called "blue carbon ecosystems" - play a huge role in tackling CO2 emissions. But human activities such as burning fossil fuels and coastal development have already caused half of them to disappear, said Deakin University marine ecologist Peter Macreadie.

Dr Macreadie estimated that about half of the world's blue carbon ecosystems have already disappeared, thanks to human activities. To spur people into action to protect these "ugly duckling" habitats, Dr Macreadie and his team are getting creative with tea bags. Around the world, citizen scientists have been burying tea bags in the soil of blue carbon ecosystems to find out how well the area stores carbon. The tea leaves inside your everyday tea bag are carbon-based, which makes them a handy addition to the team's experimental toolkit. If, after a few months of being buried in mud, the tea leaves are still there, then that might be a good spot for locking away carbon. But if you dig the tea bags back up and the tea leaves have gone, it means the carbon has decomposed - indicating that area's not capable of carbon storage. The project is uncovering how carbon storage ability varies even within blue carbon ecosystems.
more…….. http://www.seagrasswatch.org/news.html

The Ocean Has Released an Insane Amount of CO_2, and No One Even Noticed (WA, Australia)
24 March 2018, ScienceAlert

An underwater heatwave has triggered a worryingly huge release of CO_2 from *Amphibolis antarctica* seagrass off north-western Australia. Vast tracts of these flowering marine plants were killed by the stress of living in waters that were 2-4 degrees Celsius warmer than normal back in the summer of 2010-2011, researchers have found. More than a third of the seagrass meadows were potentially affected. And no one really noticed. Losing seagrass is a double whammy for our environment's health – not only do we lose the plant's ability to capture and store CO_2, all the CO_2 that's already being stored gets released back out into the ecosystem.

The new study estimates some 1,000 square kilometres (386 square miles) of seagrass meadows could have been wiped out in the years up to 2014. Samples from 50 different sites and soil modelling calculations were used to estimate how much seagrass disappeared. And what seagrass remained was sparser – the researchers logged a drop in the seagrass cover from 72 percent, which was classified as 'dense', in 2002 to a 'sparse' 46 percent in 2014. In total that would've equated to the release of around 9 million tonnes of carbon dioxide (CO_2) into the atmosphere. That's about the same as you would get from 1.6 million cars driving around for a year.

"It's a carbon bomb," one of the team, Gary Kendrick from the University of Western Australia, told Michael Slezak at The Guardian. "And it's one that has gone off without documentation." Plans are now underway to work out how to help the area recover, perhaps by removing dead seagrass (which can hamper regrowth) and planting new seedlings. The research has been published in Nature Climate Change.
more…….. http://www.seagrasswatch.org/news.html

Related article
Heat wave drives massive carbon loss at World Heritage site (28 March 2018, Phys.Org)
https://phys.org/news/2018-03-massive-carbon-loss-world-heritage.html

UF/IFAS to Help Restore Seagrass in Citrus and Hernando Counties (FL, USA)

21 March 2018, Newswise

University of Florida researchers will help restore seagrass off the coast of Hernando and Citrus counties to improve water quality and stabilize the sea floor. Among other activities, UF/IFAS faculty will use a $299,000 grant from the U.S. Environmental Protection Agency to teach boaters how to avoid accidentally tearing up the sea-bottom ecosystems.

Brittany Scharf, a Florida Sea Grant agent in Hernando County, is working with Josh Patterson, an assistant professor in the UF/IFAS program in fisheries and aquatic sciences and Savanna Barry, a regional specialized agent for the UF/IFAS Nature Coast Biological Station on seagrass restoration. Water in the Big Bend – which spans an area from roughly Hernando County north through Wakulla County -- is shallow compared to other areas of Florida, Scharf said. Boaters may inadvertently motor through water too shallow for their vessel, especially if they are unfamiliar with the area or the tide changes. Once damaged, seagrass recovers very slowly, she said. In some cases, erosion increases along with more seagrass loss, Scharf said.

Faculty will educate boaters during the busiest time of the year at the ramps in the two counties -- scalloping season. Because they just received notification of the grant award, they may have to wait until next year's scalloping season to start that part of the restoration effort, Scharf said. Sea Grant agents plan to expand the 'Be Seagrass Safe' program and share the best practice recommendations for avoiding scarring seagrass with propellers, which can be found here: www.beseagrasssafe.com. By the summer of 2019, they also plan to place buoys in the water to attract boaters' attention to places they should avoid, so they don't damage the seagrass, Scharf said.

more…….. http://www.seagrasswatch.org/news.html

Related article

Hernando County: a leader in artificial reef development (16 March 2018, Hernando Sun)

https://hernandosun.com/Hernando-County-leader-in-artificial-reef-development

Statia's seagrass swept away by two hurricanes (St Eustatius)

21 March 2018, The Daily Herald

Seagrasses in the shallow coastal waters of St. Eustatius perform a vital role in the island's marine ecosystems; however, visitors to the Science Café have learned that the destructive sea currents caused by Hurricanes Irma and Maria have dealt a great blow to the native seagrass of Statia and possibly to its future.

For the last 12 months, Rebecca James, marine researcher of the Royal Netherlands Institute for Sea Research NIOZ, has dived and snorkelled in the waters around Statia, Bonaire and St. Maarten. She reported that two species of seagrass on used to occur in Statia, the native *Syringodium* and the invasive *Halophila*. Whereas *Halophila* has made a comeback, there is no way of knowing if *Syringodium* will return. Turtles seem to be particularly fond of *Syringodium*. "They will eat the invasive seagrass, but prefer the native variety since their thin leaves are full of nutrients," said James.

However, in the past, the native seagrass was outcompeted by the invasive *Halophila* that arrived in the Caribbean about 12 years ago. This resilient seagrass originates from the Red Sea and is believed to have been transported through international shipping lanes. James is uncertain as to whether the native seagrass will return to Statia. Director of Caribbean Netherlands Science Institute (CNSI) Johan Stapel and seagrass expert is equally unsure. "Our native seagrass clearly survived the destructive Hurricane Luis in 1995. It is highly efficient at controlling sediment and therefore improving the healthy development of our coral reefs. Various attempts around the world to cultivate and reintroduce *Syringodium* have so far proved a failure. On Statia, we can only wait and see if it returns."

more…….. http://www.seagrasswatch.org/news.html

FOR THE SAKE OF THE LAKE: Residents want health check (NSW, Australia)

22 March 2018, Clarence Valley Daily Examiner

Hayley Talbot has seen more of the beauty of the Clarence River than most, solo paddling down it last year from its source to the mouth at Yamba. But it's what she can't see anymore at the lake on her doorstep that worries her. Ms Talbot is the face of a video on YouTube produced by environmental scientist Nick O'Brien and group Valley Watch asking for the reasons for the disappearance of the seagrass within Lake Wooloweyah to be a priority in next year's revised management plan.

In a statement, resident and ValleyWatch member Ros Woodward asked that council uses the total loss of seagrass in Lake Wooloweyah as a trigger to evaluate the health of the lake, identify the reasons behind the loss of the seagrass and assess how the loss of seagrass may impact the greater Clarence Valley area and the economy that relies upon it. "Seagrass which used to be abundant throughout Lake Wooloweyah has declined rapidly over the last 20 years. The 1999 management plan captured seagrass throughout Lake Wooloweyah, in 2009 it showed that the seagrass had receded to the north eastern corner," she said. "Recent inspections using boats and drones have been

unable to find any seagrass. Seagrass has been referred to as the 'coastal canary', and changes to its distribution signal losses of essential ecosystem services."

It continues that seagrass is essential in keeping the Clarence River healthy and supporting the fish, prawns and crabs which have made Yamba famous. "We believe if seagrass was allowed to return to the Lake Wooloweyah it would have positive environmental and economic flow on effects to the greater Clarence River region." Clarence Valley Council environment, planning and community director, Des Schroder said people would be able to make submissions for the 2018/19 operational plan when it opens for comment in May.
more…….. http://www.seagrasswatch.org/news.html

Men fined $17k over killing of turtles, dugong in Hervey Bay (QLD, Australia)

16 March 2018, Fraser Coast Chronicle

Two men were fined this week after illegally catching and killing two green turtles and a dugong near Hervey Bay in 2016. Larry Matthew, 50 and Bongie Bowie, 22, both of Innisfail, pleaded guilty in the Innisfail Magistrates Court on Monday to one charge each of taking a protected animal from the Great Sandy Marine Park on October 7, 2016. The pair were hunting with three other men in the Great Sandy Strait, Fraser Coast, when they were approached by officers from the Department of Environment and Science.

DES representative Peter Snedden told the court that officers found a dugong and two adult green turtles, all of which had been killed and cut up. "Rangers spoke to a gentleman on the boat, who is not one of the defendants today, who informed the rangers that they were doing an official hunt and that they had permission from local elders to conduct that hunt," he said. The problem is that the local Butchulla people that have the traditional hunting rights to that area put in place a moratorium on any hunting four or five years ago.

Butchulla elder Frances Gala said population concerns for the species meant the Fraser Coast indigenous people did not support the hunting of dugong or green turtles in the region. She said she was concerned that people had been hunting the animals and she hoped the hefty fines would deter anyone from taking the animals. Ms Gala said she was confident no Butchulla elder would give permission for the animals to be hunted.
more…….. http://www.seagrasswatch.org/news.html

Stalemate on sea wrack trigger levels (WA, Australia)

15 March 2018, The West Australian

Despite ongoing concerns about sea wrack accumulation at Port Geographe, the Department of Transport remains tight-lipped on whether it will consider reducing the “trigger levels” that dictate when it will intervene. Geographe resident and founder of the now disbanded Port Geographe Action Group Peter Maccora said the current trigger levels of 60,000cu m would render an entire beach amenity unuseable and unsafe if the department waited to act until the sea wrack reached that level.

Last year, the department estimated 16,000cu m of seagrass was trapped before the City of Busselton intervened for safety reasons. “The seagrass extended all the way down to Morgan Street - if that was only 16,000cu m then their trigger of 60,000cu m would extend this all the way to Ford Road,” Mr Maccora said. “This is ridiculous that as a result of spending $28 million to reconfigure the Port Geographe groynes we have achieved nothing.”

DoT coastal infrastructure general manager Steve Jenkins said the department was satisfied the current environmental monitoring and management plan thresholds were “appropriate” and said there were no plans to remove seagrass wrack unless it exceeded these thresholds. He said that if the thresholds of wrack were exceeded, contingency works would be required but that at present, wrack volumes and odour were under the thresholds. The department said it continued to regularly monitor the coast through site inspections, surveying and photography.
more…….. http://www.seagrasswatch.org/news.html

Manatee County fertilizer law remains in effect (FL, USA)

13 March 2018, Sarasota Herald-Tribune

Most members of the Manatee County Commission indicated Tuesday they are satisfied with a nearly 7-year-old law restricting summertime use of fertilizers - even though the lawn care industry considers it “arbitrary and certainly punitive.” The ordinance is intended to reduce stormwater runoff of phosphorus and nitrogen during the rainy season. The pollutants contribute to algae growth and depletion of oxygen in waterways - which, in turn, can lead to fish kills and the destruction of vital seagrasses.

Representatives of the lawn care industry appealed to the commissioners to schedule a public hearing to review the ordinance and possibly enact changes granting more latitude to their profession. They made their presentation during a work session in which commissioners could indicate their consensus opinion without taking a formal vote.
more…….. http://www.seagrasswatch.org/news.html

How saving an endangered species can mitigate climate change (India)

12 March 2018, Down To Earth Magazine

Dugongs are marine mammals that relish seagrass, the most productive plant communities. Since dugongs (sea cow) and seagrass species are interdependent and interrelated, the extinction of dugongs is threatening seagrass meadows the world over. Interestingly, seagrass can sequester up to 11 per cent of the organic carbon buried in the ocean even though it occupies only 0.1 per cent of the total ocean floor. Conserving dugong, thus, improves not only seagrass but also helps mitigate global warming.

The Tamil Nadu Forest Department has taken up a seagrass rehabilitation project which also targets the conservation of dugongs near Manora village, Thanjavur, Tamil Nadu in Palk Bay. The Species Conservation Action Plan for Sea Cow was organised by the Thanjavur Forest Division in 2016 under the Tamil Nadu Biodiversity Conservation and Greening Project. Research has shown that where there is no human impact, dugong population increases only by about 5 per cent per annum. If more than about 2 per cent of adult female dugongs are killed every year, their population will decline drastically. Dugongs are harvested for food, meat, oil, medicaments etc. When females are hunted, it leads to reduction in the breeding stock. Activities such as pollution, trawling and silt accumulation by mining, mismanagement of catchment or coastal development has an adverse impact on the population of dugongs. Loss of seagrass due to large scale floods can destroy their feeding and breeding grounds.

Research and monitoring scientists are tracking dugongs through the aerial survey method to determine the grazing areas, movements between grazing areas and between regions. By identifying the main feeding areas through aerial tracking, the management of net fishing and boat traffic in these areas are regulated. Awareness programmes have been organised in many coastal villages, such as Kazhumanguda, Karanguda, Mallipattinam, Chinnamanai, Manora, Velivayal, Pillayarthidal, Somanathanpattinam, Sethubhavachathiram, along the coast of Thanjavur. Street plays with dance, music and drama explained the value of seagrass for sustainable fishing and conservation of dugongs. Fishermen were motivated to release dugongs into the sea by giving awards. Since releasing dugongs means the expensive nets have to be cut open, they were given compensation by the forest department.
more…….. http://www.seagrasswatch.org/news.html

Alarming number of manatees are dying in Florida this year (FL, USA)

12 March 2018, Sarasota Herald-Tribune

An environmental watchdog group says manatees are dying at an alarming rate this year and cautions 2018 could be one of the deadliest years on record for the sea creatures. More than 160 manatees have died in the first two months of the year - a morality rate that sets a pace to easily eclipse last year's total of 538 manatee deaths and could surpass the all-time record of 803 deaths in 2013, national nonprofit Public Employees for Environmental Responsibility (PEER) warns.

So far, 166 manatees have died statewide through March 2, according to statistics by the Florida Fish and Wildlife Conservation Commission. Cold snaps in January accounted for 51 of the statewide deaths from cold-stress, state statistics show. Sarasota, Manatee and Charlotte counties recorded three, four and six manatee deaths, respectively, according to state data. Three of the deaths in Sarasota and Manatee counties were due to cold stress, data shows. PEER claims the biggest factor in the spike is the weather, which is nearly double the 27 cold-stress deaths from last year and more than double the five-year average for that cause of death. Severe cold spells in 2010 caused 282 manatees to die and prompted the FWC to declare the events "catastrophic."

PEER also is concerned red tide, or toxic algal blooms, could be contributing to the high rate of deaths. Red tide through March 2 claimed 10 manatees. Concentrations of red tide organism, Karenia brevis, were recently found in low to medium amounts around Sarasota County beaches and low amounts in Manatee County beaches, according to state data. Manatees feed on seagrass and become poisoned if the grass is covered in the toxic algae.
more…….. http://www.seagrasswatch.org/news.html

"Brown tide" algae returns to Indian River Lagoon; groups work toward recovery (FL, USA)

12 March 2018, Daytona Beach News-Journal

On a cool morning in early March, dolphins frolicked all across Mosquito Lagoon, chasing schools of fish, while wintering sea birds basked in the sun on sandbars. The panorama thrilled Bob Chew just as much as it did when he and his wife first bought a home on the Indian River five years ago. But the idyllic scene belies the concern that Chew and many others feel about the state of the Mosquito Lagoon in south Volusia County and the rest of the Indian River Lagoon system. The main concern: Algae blooms have returned.

On this morning, Chew was armed with a water quality testing kit purchased by his Mid-Florida Fly Fishers group. With algae blooms returning to the Banana River and Indian River in Brevard County, Chew and others fear it's only a matter of time and warmer weather until the algae begins blooming across the entire lagoon system. As he dropped a secchi disk into the water, the disk revealed the water was clear down to a depth of six feet. And sandy spots on the bottom were easily visible. But many of those bare spots are telltale signs the lagoon system is still in trouble.

Much of the bottom used to be covered in seagrass beds, but a series of virulent algae blooms starting in 2011 caused widespread damage in the lagoon, including the loss of thousands of acres of seagrass and the deaths of hundreds of manatees. Scientists across the lagoon system are still trying to unravel what went wrong and how to fix it.

In Brevard County, between Port St. John and Vero Beach, the volume of the brown tide algae - *Aureoumbra lagunensis* - is near the point it was during a massive fish kill in 2016, said Duane DeFreese, executive director of the Indian River Lagoon Council. The council, with representatives from local, state and federal agencies along the length of the lagoon, oversees the national estuary program. “We are in full brown tide bloom in the Banana River and Sykes Creek and it’s pushed south to Vero Beach,” said DeFreese. One test in the Banana River in late February showed record levels of the brown tide algae. The Reasonable Assurance Plan from Volusia County and the local governments includes potential projects that could improve water quality in the lagoon system. City staff have recommended the city adopt the plan, and undertake the recommended steps to reduce pollution flowing into Mosquito Lagoon.
more……. http://www.seagrasswatch.org/news.html

Seagrass health check results 'encouraging' (WA, Australia)
8 March 2018, The West Australian

Seagrass meadows in Geographe Bay underwent their annual health check last month, with scientists saying the meadows were in “good condition”. Scientists from Edith Cowan University and the Department of Biodiversity, Conservation and Attractions carried out the annual monitoring on the health of seagrass, with seagrass shoot density similar to last year’s results. Lead scientist Kathryn McMahon said scientists had been monitoring eight sites in Geographe Bay since 2012 with seagrass shoot density similar over the past seven years.

The program was initiated by GeoCatch in response to concerns of the potential impact of nutrients on seagrass meadows, with nutrients from the catchment having the potential to impact on seagrass health by enhancing growth of epiphytes and algae that grow on seagrass. Algal epiphyte cover was much lower this year than has been recorded in previous years. Ms McMahon said the main types of epiphytes on the seagrass with high to moderate cover was microalga accumulations but these accumulations were not generally associated with nutrient enrichment.
more……. http://www.seagrasswatch.org/news.html

UF receives nearly $300000 from the EPA (FL, USA)
07 March 2018, WCJB

The University of Florida has received nearly $300,000 to help protect and restore damaged seagrass meadows on the Gulf Coast. The money is from the United States Environmental Protection Agency. The project will focus on mapping seagrass meadows so thye can identify damage caused by boat propellers. The project will be based in Citrus and Hernando Counties, including the Chassahowitzka National Wildlife Refuge and St. Martins March Aquatic Preserve.
more……. http://www.seagrasswatch.org/news.html

Seven in 10 fishermen found to be using illegal nets that endanger marine wildlife (Abu Dhabi, UAE)
06 March 2018, The National

Seven out of 10 nets used by local fisherman are illegal, with the potential to kill marine wildlife, a snap inspection by environment inspectors has uncovered. Officers from the Environment Agency Abu Dhabi swooped on locations used by commercial and recreational fishing boats after the discovery of five dead dugongs, including a pregnant female, on Saadiyat Public Beach last month.

The inspectors, who arrived unannounced, uncovered widespread use of hiyali nets, which are banned under federal law and are easily lost at sea, ensnaring wildlife. They also found 225 private and commercial fishing boats, which the agency describes as being “out of service”. The agency took what it says were “extensive and unannounced inspections” after the drowning deaths of the protected species, in what is believed to be the worst incident of its kind in the UAE.

Working with maritime inspectors from the Critical Infrastructure and Coastal Protection Authority, teams covered about 7,000 kilometres, or 14 per cent of the Abu Dhabi coastline, in just 36 hours. They found three more dead dugongs in Al Dhafra to the west of the capital, and more than 2,000 metres of nylon fishing nets abandoned by fishermen in the water. At least 10 fishing nets, known as gargoor, that did not meet legal requirements were confiscated, with four offences lodged for using nylon nets and unlicensed recreational fishing boats.
more……. http://www.seagrasswatch.org/news.html

CONFERENCES

The 13th International Seagrass Biology Workshop (ISBW13) and World Seagrass Conference (11-17 June 2018, Singapore)

Theme: Under pressure – Seagrass science and conservation in stressful environments

The International Seagrass Biology Workshop (ISBW) is the only international meeting specifically tailored to seagrass scientists, professionals and students. The International Seagrass Biology Workshop (ISBW) provides a good opportunity for the scientists working on various aspects of seagrass ecosystems to come together and discuss their latest findings. The ISBW13 will be held in June 2018 at the National University of Singapore, Singapore, organized by National University of Singapore, National Parks Board, and DHI Water & Environment, Singapore.

More information:
To get important updates on ISBW13, visit: *https://www.isbw13.org/*
Follow on Facebook @ISBW13 and Twitter #ISBW13

The 5th International Marine Conservation Congress (24-29 June 2018, Kuching, Sarawak)

Theme: Make Marine Science Matter!

To conserve the world's oceans we must go beyond science, and use it to inform policy and management, and ultimately to catalyze change. The Society for Conservation Biology's International Marine Conservation Congress (IMCC) brings together conservation professionals and students to develop new and powerful tools to further marine conservation science and policy. With over 700 marine conservation professionals and students in attendance, IMCC is the most important international event for anyone involved in marine conservation.

More information:
To get important updates on IMCC5, visit: https://conbio.org/mini-sites/imcc5/
Follow on Facebook @ IMCC2018 and Twitter #IMCC2018

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 47,826 views to date)

Seagrass & other matters

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

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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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