29 February 2020

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

Griffith University, GCWA: Study Protects Blooming Seagrass (QLD, Australia)

26 February 2020, Dredging Today

A landmark study into the light sensitivity of Gold Coast seagrass meadows has pinpointed how much light these vital sea life breeding and feeding grounds need to grow and thrive, Gold Coast Waterways Authority (GCWA) reports. The study, undertaken by Griffith University on behalf of GCWA, looked at the impacts of light levels on growth and survival rates of seagrass meadows.

Griffith University project lead, Professor Rod Connolly, said that the research team assessed a range of data points including solar strength, cloud cover, wind speed and direction, boating traffic in areas being studied, water depth, distance from ocean inlets and time of day.

GCWA's Chair, Ms Bún said that the inclusion of light sensitivity thresholds adds to other measures GCWA is undertaking to improve seagrass protection including undertaking seagrass surveying and mapping prior to dredging programs commencing and regular water quality monitoring during dredging campaigns.
more…….https://www.dredgingtoday.com/2020/02/26/griffith-university-gcwa-study-protects-blooming-seagrass/

Related article
Light study protects blooming underwater meadows (27 February 2020, Mirage News)
https://www.miragenews.com/light-study-protects-blooming-underwater-meadows/

Saving Mozambique's seagrass (Mozambique)

26 February 2020, UN Environment

"People can't think of Inhaca without thinking about seagrass," says Salamao Bandeira of Maputo's Eduardo Mondlane University, knee-deep in the shallow waters on the seaward side of Maputo Bay, as he points at the shores of Inhaca Island. Nearby, residents are submerged waist-deep in the sea, taking advantage of the low-tide to fish or hunt for clams and crabs in the seagrass. Indeed, seagrass helps sustain life here in the Maputo and Inhambane bays of Mozambique. The shrimps, sea cucumbers, clams and crabs found among these underwater meadows are a source of food and employment for local communities, says Bandeira.

But experts warn that destructive shellfish harvesting—along with the flooding and sedimentation from rivers emptying into the bay—are destroying seagrass beds at a rapid rate. Research indicates that 86 per cent of seagrass meadows have been lost in the northwest of Maputo Bay alone — putting local culture, jobs and food security at risk. Eduardo Mondlane University, with the support of the Government of Mozambique, wants to reverse this trend by identifying and restoring seagrass sites in Inhambane and Maputo bays. Nearby communities will also learn non-destructive fishing practices and draft a local seagrass management plan under the project.

The proponents foresee immediate benefits from the implementation of the project. With more seagrass comes more space for shellfish to grow, which could give a boost to the local fisheries businesses and improve food security for the communities. Tourists may also increasingly start visiting the bays, attracted to the wide array of marine life supported by seagrass. Other environmental advantages of this project include protecting unique species like the dugong. Successful implementation of the project will also help Mozambique achieve its commitments under Sustainable Development Goal 14.2 on sustainably managing and protecting marine and coastal ecosystems.
more…….https://www.unenvironment.org/news-and-stories/story/saving-mozambiques-seagrass

Related article
Mozambique: Saving Mozambique's Seagrass (26 February 2020, AllAfrica)
https://allafrica.com/stories/202002260976.html

Dugong discovery: Large population found off Qatar (Qatar)

20 February 2020, Al Jazeera America

The waters off Qatar are home to the world's second-largest population of dugongs, sea mammals that eat underwater grass. Usually, they like to move alone, or in a small group. But there is a phenomenon happening off Qatar that does not occur anywhere else in the world.
more…….https://www.aljazeera.com/news/2020/02/dugong-discovery-large-population-qatar-200220090601596.html

Number of dugong in Gujarat may be more than estimated (India)

19 February 2020, Outlook India

There's good news for wildlife enthusiasts, especially marine, that dugongs, feared to have gone extinct along the Gujarat coast, might be there in decent numbers. It was earlier estimated to be around a dozen or so. According to a fresh assessment, the number of dugong along the Indian coasts could be 250-350, said a senior government official

on the sidelines of the 13th Convention on Conservation of Migratory Species of Wild Animals (CME COP13) at the Mahatma Mandir.

With the support of Gujarat, Tamil Nadu and the Andaman and Nicobar Islands governments and the Indian Coast Guard, the National Dugong Recovery Programme was launched by the Union Environment Ministry a few years back, said K Shivakumar, Head of Department of Endangered Species Management, Wildlife Institute of India (WII). "We thought the population of this endangered marine mammal had declined in Gujarat. But then we had a live sighting and a lot of foraging sites were discovered along the Gujarat coast, raising the hopes," Sivakumar said. "In India, dugong is considered a holy as Lord Krishna"s cow. It also works like a marine sanitation worker and feeds on seagrass".

The WII is training the forest officials to come out by 2021 with a new estimate of dugong, which is listed in Schedule 1 of the Wildlife (Protection) Act, 1972, and declares its habitats as protected areas. These areas are the Gulf of Mannar National Park, the Gulf of Kutch National Park and the Mahatma Gandhi National Park in the Andaman & Nicobar Islands.
more…….https://www.outlookindia.com/newsscroll/number-of-dugong-in-gujarat-may-be-more-than-estimated/1738982

Related articles
Number of dugong in Gujarat may be more than estimated (20 February 2020, Daijiworld)
http://www.daijiworld.com/news/newsDisplay.aspx?newsID=676196
Indicators hint rise in number of Dugongs in Guj and other (20 February 2020, Devdiscourse)
https://www.devdiscourse.com/article/science-environment/881047-indicators-hint-rise-in-number-of-dugongs-in-guj-and-other

Why seagrass is so important to our environment (UK)
19 February 2020, BBC News

Seagrass not only provides a habitat for many marine animals but it can also store carbon from the atmosphere at a rate 35 times greater than tropical rainforests making it useful in tackling climate change. But the plant is also under threat.

In some tourist resorts it is regarded as a nuisance - spoiling the image of pristine white sandy beaches - and is often removed. But now a project in the Maldives which is vulnerable to rising sea levels could help change this.
more…….https://www.bbc.com/news/av/science-environment-51460320/why-seagrass-is-so-important-to-our-environment

Port Everglades kicks off expansion. Critics worry coral could be damaged (FL, USA)
19 February 2020, WLRN

Port Everglades and local elected officials marked the first step in a $437 million expansion to make way for expected massive new cargo ships with a celebratory press conference on Tuesday. The work will extend the port channel by more than six football fields, widen turns and deepen parts of the port to 55 feet. But environmentalists say not so fast, fearful that coral damage that occurred at a PortMiami dredge completed in 2015 could be repeated at Port Everglades.

The Fort Lauderdale project, first pitched in 1996 and approved by the U.S. Army Corps of Engineers in 2015, was challenged by Miami Waterkeeper after the Corps said it planned to use the same safeguards to protect coral and nearby seagrass that it used at PortMiami. Waterkeeper sued and in 2017 the Corps agreed to delay the dredge while it took a look at new information.

To address damage allowed under its permit, port officials said they plan to replant more than 100,000 nursery-grown coral branches over existing reefs and in new artificial reefs. They also plan to obtain mitigation credits in West Lake Park nearby, and restore seagrass beds. In addition to planting coral and restoring seagrass, deputy port director David Anderton said the Corps has also changed how sediment is hauled offshore by boats called spider barges. At PortMiami, sediment stirred up during the dredge and spilling as the barges moved to an offshore dump site were blamed for smothering more than 90 percent of nearby coral. Over the last year, he said officials from agencies working on the project have focused on minimizing the sediment by writing limits into contracts and better understanding how the sediment moves through water.
more…….https://www.wlrn.org/post/port-everglades-kicks-expansion-critics-worry-coral-could-be-damaged#stream/0

Abu Dhabi and United Nations extend partnership to protect dugongs and birds of prey (Abu Dhabi, UAE)
19 February 2020, The National

The Secretariat of the Convention on Migratory Species (CMS) and Environment Agency Abu Dhabi (EAD) have extended their decade long partnership for the conservation of species like the dugong, marine turtles and many migratory birds in the region. Following the signing of a partnership agreement on the opening day of the 13th Meeting of the Conference of the Parties to the Convention, which takes place in India until 22 February 2020, the CMS Office - Abu Dhabi will continue its UAE operations for another four years.

Dr Shaikha Al Daheri, secretary general of EAD said the partnership has given the UAE a strong and clear voice on the international stage. Dugongs, affectionately known as sea cows because of their reliance on seagrass for food, have been protected under UAE law since 1999. While previous work was centred on the dugongs themselves, the focus will now be on assessing the seagrass ecosystem that supports them, said Lyle Glowka, head of CMS Office – Abu Dhabi. A new €4.7 million project, funded by the International Climate Initiative (IKI) of the German government, will aim to evaluate all the ecosystem services provided by seagrass beds. The collected information will be used to create better conservation policies and to stimulate local people to protect seagrass beds. The IKI Seagrass Ecosystem Services Project will run until 2022 in five dugong range states.

The development of “a coordinated approach to conservation and monitoring of dugongs in the Gulf” will be another key priority, said Mr Glowka, explaining that of the four countries, the UAE is the only one which carries out regular monitoring surveys and has a “robust data set”. “We know a lot has changed in the marine environment since then,” said Mr Glowka, explaining that threats to dugongs include the destruction of their habitat and the accidental entanglement in fishing nets. Among the achievements of CMS Office – Abu Dhabi is an interactive online tool for dugong researchers which has been used in over 100 countries. The organisation also works to protect endangered migratory birds of prey.
more…….https://www.thenational.ae/uae/environment/abu-dhabi-and-united-nations-extend-partnership-to-protect-dugongs-and-birds-of-prey-1.980986

Related articles
UN Agency Honours UAE for Protecting Migratory Species (18 February 2020, IDN-InDepthNews)
https://www.indepthnews.net/index.php/sustainability/oceans-seas-and-marine-resources/3317-un-agency-honours-uae-for-protecting-migratory-species
UAE has the second largest population of dugong in the world: say experts (06 February 2020, Gulf News)
https://gulfnews.com/uae/uae-has-the-second-largest-population-of-dugong-in-the-world-say-experts-1.69536116

Geographe Bay seagrass research yields positive results (WA, Australia)
17 February 2020, Busselton Dunsborough Mail

Each year, scientists and divers from Edith Cowan University and the Department of Biodiversity, Conservation and Attractions monitor the seagrass at eight sites across the Bay as part of the "Keep Watch" project. The project was officially launched in 2012 and is coordinated by GeoCatch and funded by Water Corporation.

Although results from this year's three-day sampling exercise are yet to be fully assessed, Edith Cowan University associate professor Kathryn McMahon said the Bay's seagrass meadows appear to be in overall good condition. Shoot density in the Vasse Diversion Drain has increased by 17 per cent, while sites in Dunsborough and Forrest Beach showed increases of between 8 and 11 per cent. Algal epiphyte load varied across the Bay, ranging from low at Vasse Wonnerup and Forrest Beach, to high at Buayanyup, the Vasse Diversion Drain and Port Geographe.

Associate professor McMahon said the ongoing monitoring of Geographe Bay's seagrass was important as declines in seagrass health and extent have been observed in other areas of WA. GeoCatch chairperson Dr Felicity Bradshaw said the organisation was particularly interested in ensuring that land-based activities, such as nutrient run-off from urban and rural areas, were not impacting on the Bay.
more…….https://www.busseltonmail.com.au/story/6635148/geographe-bay-seagrass-research-yields-positive-results/?cs=1435

Unique reproductive trait for seagrass (Australia & USA)
04 February 2020, Science Daily

Seagrasses have long been known as some of Earth's most remarkable organisms -- descendants of flowering land plants that have re-colonized the ocean by developing traits that allow them to grow, pollinate, and release seeded fruits while fully immersed in salty seawater. Now, research by a joint Australian-U.S. team reveals that one group of seagrasses, Australian species of the genus *Posidonia*, have evolved yet another remarkable adaptation for ocean survival: a winged seed whose shape harnesses the force of underwater currents to hold it on the seafloor for rooting.

Winged seeds are commonly used by land plants for dispersal by wind, with the helicopter-like seeds of maple and ash trees a familiar example. So when Dr. Robert "JJ" Orth of William & Mary's Virginia Institute of Marine Science first noted the wing-like structure on *Posidonia* seeds during Australian fieldwork in the mid-1990s, his initial thought was that it served a similar function. But years of painstaking research showed the opposite. The researchers' path to discovering the wing's true function began when Dr. Marion Cambridge of UWA's Oceans Institute suggested a third hypothesis -- that the wing keeps the seed at the sediment surface until it can grow anchoring roots. To test this hypothesis, the team carefully measured the surface area of the seeds, gauged the flow of currents around seeds placed in a flume, and used these data to build a computer model of the relevant hydrodynamic forces. In sum, the team's research shows that evolution has engineered the *Posidonia* wing to push the seed against the seafloor, like the downforce generated by the wing on the rear of a race car.

Further support for the team's hypothesis comes from their comparison of wing width in the seeds of Australia's three *Posidonia* species. *Posidonia coriacea*, which lives in the most wave-swept areas, has the widest wing, while the other two species -- *australis* and *sinuosa* -- live under calmer conditions and have smaller wings. This correlation extends all the way to the quiet waters of the Mediterranean, where a relict population of the same genus (*P. oceanica*) has seeds with barely any wing at all.
more……https://www.sciencedaily.com/releases/2020/02/200214134719.htm

Related articles
Unique reproductive trait for seagrass revealed (16 February 2020, News-Medical)
https://www.news-medical.net/news/20200216/Unique-reproductive-trait-for-seagrass-revealed.aspx
Research reveals unique reproductive trait for seagrass (16 February 2020, Phys.Org)
https://phys.org/news/2020-02-reveals-unique-reproductive-trait-seagrass.html

In Malaysia, Science Is Key to Dugong's Recovery—and Survival (Johor, Malaysia)

14 February 2020, by Polita Glynn & Nathan Fedrizzi, The Pew Charitable Trusts

In the waters off the east coast of southern Malaysia, scientists have been tracking a decline in population of dugongs (*Dugong dugon*). Now, experts say that fewer than 100 dugong remain off the coast of the state of Johor, a decline they attribute to habitat degradation and fishing-related fatalities, such as net entanglements and boat strikes.

Louisa Ponnampalam, chair and co-founder of the Malaysia-based MareCet Research Organization, learned that dugongs' vocalizations are highest near the feeding grounds at Tinggi Island, mother-calf pairs are mainly distributed off the southwest of Sibu Hujong Island, and large herds aggregate around the extensive seagrass meadows off the west of Sibu Tengah Island. These findings helped her to pinpoint critical habitat areas that need protection including Ponnampalam's field site around the Sibu-Tinggi Islands in Johor, which Johor's state government in 2016 proposed establishing the Johor Dugong Sanctuary. If created, the sanctuary would encompass about 150,000 hectares and would be the first of its kind in Malaysia.

From 2014 to 2018, Ponnampalam and her team conducted numerous surveys—aerial, acoustic, feeding ecology, seagrass meadows (a primary dugong habitat), and habitat contaminant levels—and using bioacoustics, the team discovered vocal hotspots—areas of frequent dugong vocalizations—off the southwest of Tinggi Island, where the chirps and trills of dugongs were heard continuously throughout the day and twilight hours.

Although dugongs are protected from trade and hunting in Malaysia under the Fisheries Act of 1985, their critical habitats, including seagrass beds, remain largely unprotected, except for areas within marine parks. Ponnampalam is hoping that broader habitat protection will help the population survive in a future that includes escalating threats from pollution, coastal development, boat strikes, intensifying fishing activities, and entanglements. The proposed sanctuary could also serve as a model for other Southeast Asian governments interested in establishing similar conservation measures and would be a driver for continued monitoring of dugong populations.
more……https://www.pewtrusts.org/en/research-and-analysis/articles/2020/02/14/in-malaysia-science-is-key-to-dugongs-recovery-and-survival

Seychelles' Aldabra Atoll Given Special Designation Due to Rare Dugong Population (Seychelles)

13 February 2020, AllAfrica

The Seychelles' remote atoll of Aldabra has been listed as an Important Marine Mammal Area (IMMA) alongside other areas which are key habitats for various threatened species, said the Seychelles Islands Foundation (SIF). According to SIF, Aldabra was selected by scientists at the Marine Mammal Protected Areas Task Force because it is an important habitat for the only known remaining population of dugongs in the Seychelles archipelago.

The chief executive of SIF, Frauke Fleischer-Dogley, said, "We are delighted with Aldabra's sixth international designation which specifically recognises the importance of Aldabra's protected habitats for endangered marine mammals in the region." "Being the only area in Seychelles that is home to probably a resident dugong population, this designation provides us with new impetus to survey the population to understand its migratory patterns and size, a long-standing SIF project". She added that the expected "knowledge to be acquired will allow us to implement new measures to better protect and conserve the dugong populations here."

Aldabra has extensive seagrass beds inside its lagoon as well as on the outer reef flat. These seagrass beds are considered to be near-pristine due to little human impact and strict protection of the atoll. Aldabra Atoll is one of the most remote and difficult places to access, even for citizens of the island nation. The area is a special nature reserve protected by the Seychelles Islands Foundation (SIF), and only conservation officers, scientific researchers and a few very carefully selected visitors are allowed on the ring of coralline islands with its shallow central lagoon.
more……https://allafrica.com/stories/202002130343.html

New Deakin study finds sea urchins major culprits in CO2 emissions (Vic, Australia)

13 February 2020, Mirage News

Native sea urchins pose a much greater threat to local ecosystems than first thought, with new Deakin research showing the spiky critters are responsible for releasing trapped carbon dioxide back into the atmosphere. The new study into the impact of seagrass loss caused by urchin overgrazing shows how the destruction of seagrass root systems can potentially lead to erosion and increase the risk of climate change, by eliminating a "globally important carbon sink".

Lead author on the study, Dr Paul Carnell from the Centre for Integrative Ecology within Deakin's School of Life and Environmental Sciences, said the full damage of urchins on underwater ecosystems had been underestimated. Using aerial and sonar mapping, as well as 3D reconstructions and soil carbon measurements, Dr Carnell and his team spent three years monitoring the impact of urchin overgrazing on a 27,000 sqm seagrass meadow in South Gippsland's Nooramunga Marine and Coastal Park. "We found overgrazing of seagrass resulted in erosion of up to 50 cm of topsoil – causing the loss of up to 8100 cubic metres of carbon-rich sediment," Dr Carnell said. "Our study shows large-scale loss of seagrass by urchin grazing can reduce sedimentary carbon stocks by up to 46 per cent. In this case, seagrass loss potentially released more than 100 tonnes of CO2 equivalents in this one area alone.

Dr Carnell said sea urchin culling was now being carried out in Nooramunga by Parks Victoria, with urchin fishing permits also being issued by the Victorian Fisheries Authority to further control the population. "The problem was originally identified by local fishers who were concerned about the impact overgrazing would have on their activities. Given that seagrass restoration is extremely expensive, protecting existing habitats is vital, not just for carbon storage, but also for the range of ecosystem services they provide, like fisheries," Dr Carnell said.
more……https://www.miragenews.com/new-deakin-study-finds-sea-urchins-major-culprits-in-co2-emissions/

Plastic contaminates every blade of seagrass (Scotland, UK)

12 February 2020, by Joanne Oakley, Olive Press

Plastic contaminates every blade of seagrass a study of ocean habitats has found. The study carried out in the Orkney seagrass beds found that every blade of seagrass examined had microplastic flakes, fibres or fragments sticking to it.

Orkney's seagrass beds were measured for the presence of microplastics by taking samples of seagrass and of the small creatures that live on the blades, like sea snails and worms, as well as sediment from the seabed. The water above the seagrass bed contained more than twice the average amount of microplastics found in bare sediment containing no grass. While the average number of microplastics found in the sea snails and other grazing creatures matched the number found on the seagrass blades. Suggesting that seagrass grazers may be exposed to more microplastics than organisms living in the sediment.

This microplastic pollution is now common in marine environments, especially those vulnerable to high pollution such as rivers and estuaries. A follow up study will look at this issue of microplastic pollution on a larger scale as 'the impact of microplastics on marine creatures and environments isn't fully understood'. Angela Capper, co-author of the study published in Marine Pollution Bulletin, went on to say:"It is concerning, however, that such a sensitive habitat is sequestering such high concentrations of microplastics. The species that live in seagrass beds, and in particular the larval and juvenile fish, will be vulnerable to any negative impacts associated with microplastics".
more……https://www.theolivepress.es/spain-news/2020/02/12/plastic-contaminates-every-blade-of-seagrass/

Related article
Microplastics sticking to Orkney's seagrass beds (06 February 2020, Phys.Org)
https://phys.org/news/2020-02-microplastics-orkney-seagrass-beds.html

Bradenton Beach plans growth, additions to living shoreline (FL, USA)

11 February 2020, by Ryan Paice, The Anna Maria Islander

The Bradenton Beach Community Redevelopment Agency has its sights set on building upon the living shoreline projects it began last year. CRA members voted to allocate $5,000 to hire Ruskin-based Sea & Shoreline, a contractor that helps preserve ecosystems by planting seagrasses in Florida waterways and in the shoreline adjacent to the Historic Bridge Street Pier.

Carter Henne, president of S&S, said S&S grows seagrass on a farm on the Little Manatee River in Hillsborough County. The contractor proposed to transplant grasses to the shoreline. In the process, a cage is placed over the area so marine life, such as manatees, is deterred from eating the seagrass until it is anchored and grows enough to sustain damage caused by hungry marine life. Henne said the cage is shallow so it has no impact on boats, but is sufficient to cover a section of new seagrass. Commissioner Jake Spooner, also a CRA member, moved to direct city attorney Ricinda Perry to facilitate the seagrass project by coordinating with city staff and the contractor.

Chiles added he is trying to schedule a meeting with Gov. Ron DeSantis, R, to discuss giving state seagrass mitigation credits to municipalities using the practice of seeding clams since clams promote seagrass growth by oxidizing the seabed and removing toxins from the water. He said DeSantis could administratively certify the practice.
more…….https://www.islander.org/2020/02/bradenton-beach-plans-growth-additions-to-living-shoreline/

Storm Ciara 'turns sea red' in Cornwall (England, UK)
Pirate FM

Gales of up to 80mph battered the Duchy's coastline along with heavy downpours. The severe weather triggered an amber warning from the Met Office as well as flood alerts across the whole Cornish coast. Rame Peninsula Beach Care says mud has been gushing from the steep-sided valleys and washing out to sea.

"Roads and streams all over the Rame Peninsula have regularly been running with red, gushing floods of mud from our steep-sided valleys and it all washes out to sea to settle on the protected seagrass beds in the bay - already assessed to be in 'unfavourable' condition. "Seagrass is not only a crucial habitat for juvenile fish, but is also (if healthy) a much more effective carbon store even than trees (hence ongoing efforts to harvest seagrass seeds and plant/ restore it around the UK coast)."
more…….https://www.piratefm.co.uk/news/latest-news/3041273/storm-ciara-turns-sea-red-in-cornwall/

Funding boost for ocean conservation (UK)
10 February 2020, The Ecologist

The Ocean Conservation Trust is constructing a seagrass cultivation laboratory at the National Marine Aquarium. The three-year LIFE Recreation ReMEDIES project aims to protect vital seagrass meadows located in Special Areas of Conservation (SACs) around the UK's South and East coast. The project will provide environmentally friendly moorings, voluntary codes, targeted training and habitat restoration, and it hopes to restore eight hectares of beds that have been lost due to the impact of unsustainable water use. The five project areas set to benefit include Plymouth Sound & Estuaries in the South West, the Solent Maritime, the Isles of Scilly, Fal & Helford.

The Ocean Conservation Trust will be cultivating up to 25,000 plants a year in its laboratory at the National Marine Aquarium to restore up to four hectares of lost seagrass meadows in the Plymouth Sound, and work has already started following the first seed collection. The lab is expected to open for public viewing at the end of March and will allow Aquarium visitors to see the plant cultivation in action whilst learning more about the importance of seagrass.

As part of the ReMEDIES projects, the Ocean Conservation Trust will be providing educational programmes to schools located within the project area and working with the Royal Yachting Association to develop behaviour change in recreational water users.
more…….https://theecologist.org/2020/feb/10/funding-boost-ocean-conservation

Related articles
Pioneering seagrass farming project launched (12 February 2020, The Fish Site)
https://thefishsite.com/articles/pioneering-seagrass-farming-project-launched
£2.5m bid to help save at-risk River Blackwater and Crouch habitats (12 February 2020, Braintree and Witham Times)
https://www.braintreeandwithamtimes.co.uk/news/north_essex_news/18227360.2-5m-bid-help-save-at-risk-river-blackwater-crouch-habitats/
New £2.5 million project launched to protect critically endangered seagrass in The Solent (25 February 2020, Isle of Wight County Press)
https://www.countypress.co.uk/news/18258957.new-2-5-million-project-launched-protect-critically-endangered-seagrass-solent/

Government report disputes Palma faecal spills claims (Spain)
09 February 2020, Majorca Daily Bulletin

A report by the regional environment ministry has not found an association between spills of faecal water in the bay of Palma and environmental damage. Specifically, a connection is not made between these spills and destruction of *Posidonia* seagrass.

This report has been delivered to the court of instruction in Palma which is overseeing the case of a possible crime against the environment. Those under investigation in the case, who include Palma's councilor for the model of the city, Neus Truyol, are due to appear in court this week and to make statements. Truyol, who was the president of the Emaya municipal services agency from June 2015 to June 2019, is scheduled to appear on Friday.

The ministry's report concludes that it is impossible to establish a link between levels of contamination in the bay with spills. There is no register with sufficient historical data which enables a correlation to be made. The conclusions are, in part, at odds with reports presented by the Guardia Civil's environmental protection division, Seprona.
more…….https://www.majorcadailybulletin.com/news/local/2020/02/09/62405/government-report-disputes-palma-mallorca-faecal-spills-claims.html

Koh Libong: A haven for Thailand's threatened dugong population (Thailand)

04 February 2020, by Jamie Fullerton, CNN

For much of 2019, Thailand's biggest internet celebrity was Marium the infant dugong. She went viral after being rescued in April in Thailand's Krabi province, where she'd been spotted by local residents, drifting near a beach, skeleton-skinny and alone. Only 200-250 dugongs live in Thai waters, with the species listed as vulnerable to extinction. The vets, determined to save the rare creature, moved Marium to Koh Libong: an island in the Andaman Sea. The water's abundance of seagrass has resulted in around 70% of Thailand's dugongs living around the island.

For many Koh Libong residents, dugongs were a big part of life long before Marium showed up. Off Koh Libong, where dugong-watching boat trips are offered and various dugong spotting platforms have been erected, the creatures regularly seek out vessels to give them friendly nudges. Having flippers not equipped to move their bodies without water buoying them, they regularly get stranded on Koh Libong during low tide. Locals have set up messaging app groups where they report sightings of the beached animals to each other, then mobilize teams to carry them to the ocean. Human-dugong relations weren't always so friendly on the island. Locals used to eat the creatures, which were easy to spear because they approached boats. When dugongs became legally protected, the islanders largely took them off the menu. Myths such as dugong tears being useful for casting love charms, and their teeth bringing luck, became less prominent. Now evidence of dugong hunting around the island is rarely found, and causes uproar when uncovered.

Marium's former carers hope that her death will not have been in vain. Despite the good intentions of the Koh Libong residents, dugongs, still face many dangers in Thailand. At least 21 dugongs have been found dead in Thai waters in 2019: a record high since records began in the country. Most of the deaths were caused by fishing nets. Thailand's government has made noises about positive change since Marium's death, with a conservation plan dubbed 'The Marium Project' awaiting cabinet approval. Varawut Silpa-archa, Thailand's natural resources and environment minister, said he wanted the country's dugong population raised to 400. Change could involve banning fishing equipment dangerous to dugongs in zones around in the country beyond Koh Libong's waters. For now, though, close to the helpful humans living on Koh Libong remains the safest place for a Thai dugong to be.

more……https://edition.cnn.com/travel/article/dugongs-thailand-koh-libong/index.html

Related article

Koh Libong: A haven for Thailand's threatened dugong population (05 February 2020, Gooruf)
https://gooruf.com/asia/news/2020/02/04/koh-libong-a-haven-for-thailands-threatened-dugong-population/

New initiative to protect seagrass ecosystem that supports millions of people (UAE)

06 February 2020, WAM Emirates News Agency

Five countries have come together to protect and restore seagrass ecosystems that serve millions of people in those countries. Representatives from Indonesia, Malaysia, Philippines, Thailand, and Timor-Leste have joined hands with leading researchers and conservation experts to launch the new effort for these crucial ecosystems.

Globally, these ecosystems support nearly three billion people who rely on seagrass ecosystem services for food, income, protection from extreme weather, and valuable cultural significance. To identify sustainable strategies for protecting and restoring these crucial ecosystems, the project will work closely with local communities in all five countries to design and implement monitoring and assessment programmes, policy recommendations, and new start-up businesses that enhance conservation. The project is led by the Convention on Migratory Species, CMS, Memorandum of Understanding on the Conservation and Management of Dugongs and their Habitats Throughout their Range (Dugong MOU), which began the work of planning the project in 2017. The project is part of the International Climate Initiative, IKI, supported by the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, BMU, based on a decision adopted by the German parliament.

The event took place from 28th to 30th January in Manado and was hosted by Rumah YAPEKA, a non-profit conservation and community development organisation, with the support of the Indonesian Ministry of Maritime Affairs and Fisheries. YAPEKA Executive Director Akbar Ario Digdo explained that the project aligns with key priorities for local communities. "In Indonesia, our food security depends on the health of our seagrass," he said. "This project gives us an opportunity to work together with experts and regional networks to exchange knowledge about how to live in harmony with seagrass ecosystems. "The clear tone of this project is community-based, focusing on participatory planning and incorporating traditional knowledge. We feel honoured being chosen as the host for the official start of this important project," Digdo explained.

more……https://www.wam.ae/en/details/1395302821892

Related articles

UAE- New initiative to protect seagrass ecosystem that supports millions of people (06 February 2020, MENAFN)
https://menafn.com/1099664576/UAE-New-initiative-to-protect-seagrass-ecosystem-that-supports-millions-of-people

Florida Measure Would Protect Gulf Coast Waters—and Economy (FL, USA)

06 February 2020, by Holly Binns, The Pew Charitable Trusts

Along the west coast of Florida, where the land meets the Gulf of Mexico, lies an unsung economic juggernaut: the Gulf's largest seagrass bed, where fishing, scalloping, and recreational activities form the backbone of coastal economies. Now, state lawmakers have a chance to protect a large portion of this bed, which is also vital to the ecological health of the Gulf and a coastal way of life.

Florida Representative Ralph Massullo (R-Lecanto) and Senator Ben Albritton (R-Wauchula) are sponsoring companion bills—HB 1061 and SB 1042, respectively—to create the Nature Coast Aquatic Preserve, encompassing more than 400,000 acres of seagrass along the coasts of Pasco, Hernando, and Citrus counties. If approved, this would be the 42nd aquatic preserve in a state system designed to maintain water quality and biological value—that is, a fully functioning ecosystem—while still allowing traditional activities such as boating and fishing.

For each preserve, the state also develops a management plan—with input from local governments, citizens, and other stakeholders—that is overseen by the Florida Department of Environmental Protection. The goal is to maintain the preserve's biological, scientific, and aesthetic value for future generations to enjoy while allowing and improving access for activities ranging from snorkeling to fishing. State lawmakers should act now to safeguard Florida's future and secure protections for this region's fishing and tourism businesses.
more…….https://www.pewtrusts.org/en/research-and-analysis/articles/2020/02/06/florida-measure-would-protect-gulf-coast-waters-and-economy

What is going on with our seagrass? (FL, USA)

06 February 2020, by Betty Staugler, YourSun

For the last several years, many anglers have expressed concern for the health of area seagrasses. Seagrasses in Charlotte Harbor are monitored in two ways. Since 1982, the Southwest Florida Water Management District has conducted aerial surveys to determine seagrass acreage within Charlotte Harbor. In this way, researchers can estimate seagrass resources across a very large area in a short amount of time. New aerial photos were just taken in December of 2019. The aerial surveys to date have not shown any huge trends in seagrass acreage.

In contrast, a monitoring program conducted by the FDEP Charlotte Harbor Aquatic Preserves describes both where seagrasses grow, and how much seagrass is there. Fifty, permanent underwater transects have been monitored annually in Charlotte Harbor since 1999. The CHAP conducts their monitoring once a year in the late summer to early fall, when seagrasses are at their peak abundance for the year. Their data has shown some changes along the deep edge of the seagrass bed, and they have also documented an increase in macroalgae in several locations. In 2019, trained citizen science volunteers surveyed 26 sites in upper Charlotte Harbor using methods similar to the CHAP. In April, volunteers documented a large macroalgae bloom on the east side of Charlotte Harbor.

Studies indicate that nitrogen is generally the nutrient that seems to control macroalgae growth rates throughout the year. One of the biggest challenges when nutrient levels increase is identifying where the increase is coming from. Regular water monitoring programs cannot get to that detail without including some sophisticated and often costly sampling. If the bloom is being driven from nutrients coming from the adjacent land, we need to know. Determining what nutrient sources are contributing to macroalgae growth will enable resource managers to implement appropriate corrective action.
more…….https://www.yoursun.com/coastal/boatingandfishing/what-is-going-on-with-our-seagrass/article_ba288d7a-46f6-11ea-80f3-9b6ebc9c7d86.html

Lack of fresh water again threatening bay (FL, USA)

05 February 2020, by Kevin Wadlow, KeysNews.com

Florida Bay could be threatened by a new seagrass die-off unless a rare wet winter brings enough rain, a leading environmental group warns. Salinity levels in some Florida Bay basins already have risen to exceed ocean salinity, which scientists fear could trigger another collapse of the seagrass environment critical to wildlife and fishing, staff with the Everglades Foundation said last week.

Everglades restoration and its goal to increase freshwater flows to Florida Bay gained momentum over the last year but concern is growing over a recent plan to limit the amount of fresh water released from the Lake Okeechobee agricultural area, according to the Everglades Foundation. As part of Super Bowl LIV activities in Miami-Dade last weekend, the Miami Super Bowl Host Committee worked with conservation groups to create "Ocean To Everglades," an initiative to raise awareness of Florida's unique marine ecosystems. Everglades Foundation Chief Executive Officer Eric Eikenberg said advocates planned to use the South Florida Super Bowl to persuade visiting state and federal officials to release more water to the south. Water reaching Florida Bay through the Everglades provides the critical difference between historically brackish water and excessively salty water that kills seagrass.

The last major Florida Bay seagrass die-off took place in 2015, following an earlier die-off in the late 1980s to early 1990s. In 2015, said Davis, “It was an open wound. Seagrass peeled off the bottom,” causing oxygen deprivation. “Millions of fish died in the marina at Flamingo” in Everglades National Park, said Steve Friedman, commodore of the Florida Keys Fishing Guides Association. “They couldn’t get away fast enough.” Hurricane Irma in 2017 added another blow to bay recovery.
more…….https://keysnews.com/article/story/group-lack-of-fresh-water-again-threatening-bay/

Related article
Corps hashing out freshwater delivery plan (19 February 2020, Key News)
https://keysnews.com/article/story/corps-hashing-out-freshwater-delivery-plan/

Ninth Circuit Hears Fight Pitting Planned US Base and Okinawa's Dugong (CA, USA)
03 February 2020, by Matthew Renda, Courthouse News Service

The dugong once thrived along the shores of Okinawa, playing a cultural role with archaeological excavations revealing ancient societies used the butterfly-shaped bones that form the creature’s spine as talismans or props in various rituals of the hunt. In the traditional folklore of the people of Okinawa, a fisherman captures a dugong that promises to save the fisherman’s life if he is released. The fisherman complies and the dugong tells him of an imminent tsunami. When the fisherman returns to the village, he is able to use this knowledge to save himself, his family and his entire village.

The animal’s retreat away from the island’s shores prompted Japan to list the dugong as a national natural monument in 1972, around the time when the United States returned the island of Okinawa to Japanese control. Okinawa has functioned as a critically strategic island for the United States Armed Forces since the end of World War II and continues to host about 26,000 armed personnel. Tensions often arise between Okinawans and American military personnel and the Pentagon agreed to remove its main facility from the densely populated Ginowan City to a more remote part along the east coast of the island, prompting the proposal of the Futenma Replacement Facility. Locals say the construction of the replacement facility on the less populated shores of Henoko Bay will damage the seagrass beds and coral reefs so necessary to the survival of the dugong.

In Japan, the local Okinawa government and various organizations have taken the matter to court, only to be repelled. The Supreme Court of Japan ruled current Okinawa Governor Takeshi Onaga could not revoke the permission of his predecessor to allow the Pentagon to proceed. Nevertheless, the two sides were in court in San Francisco on Monday, with the environmental organizations trying out a novel legal theory that uses the protections afforded by the National Historic Preservation Act rather than the more traditional avenue of the Endangered Species Act.
more…….https://www.courthousenews.com/ninth-circuit-hears-fight-pitting-planned-us-base-and-okinawas-dugong/

Related articles
Dugong Defenders to Rally Today at SF Hearing on US Airbase's Threat to Endangered Animals (03 February 2020, Ctr Biological Diversity)
https://biologicaldiversity.org/w/news/press-releases/dugong-defenders-to-rally-today-at-sf-hearing-on-us-airbases-threat-to-endangered-animals-2020-02-03/
Activists call for dugong protection, halt of Okinawa base construction (03 February 2020, SFBay)
https://sfbayca.com/2020/02/03/activists-call-for-dugong-protection-halt-of-okinawa-base-construction/

Rampant fish bombings despite Semporna tragedy (Sabah, Malaysia)
02 February 2020, by Sherell Jeffrey, Daily Express

Fish bombing is still happening despite the deaths of three divers off Semporna last July. It calls into question what Sabah Parks that collects a conservation fee and MMEA, especially, are doing about this unchecked destruction of Sabah’s marine ecosystem. Data collected by a group of divers over the past six months recorded no less than 80 incidences. “There’s way too many bombs going off. And this report is based on information gathered from just slightly 100 divers,” said Sabah Shark Protection Association Founder, Aderick Chong, in a statement, Saturday.

Chong noted that the response from the authorities in the chat group have been very positive but there is little that they can do. “I founded the Ara Dinawan Research, Education and Conservation Centre (ADRECC) last year to do some ground works for corals, sharks and turtles. “We are propagating corals, growing seaweed for turtles and sea grass. We also want to rescue sharks from the fishing communities and educate them. We hope a bright future for our marine ecosystem which is the drawing factor for divers and tourism industry. ADRECC Co-Founder Jeffrey Tsang said the statistics shows that fish bombing is still going on, with many happening within Sabah Parks.
more…….http://www.dailyexpress.com.my/news/146842/rampant-fish-bombings-despite-semporna-tragedy/

CONFERENCES

The 14th International Seagrass Biology Workshop (ISBW14) (Annapolis, Maryland, USA on 09–14 August 2020)

Theme: " Signs of Success "

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 an excellent opportunity for the scientists working on various aspects of seagrass ecosystems to come together and discuss their latest findings. The ISBW14 Chesapeake Bay 2020 will be held in August 2020 at the Graduate Annapolis Hotel, Annapolis, Maryland. This will be the first time ISBW has been hosted in the U.S.A. and the iconic Chesapeake Bay is the logical setting. Chesapeake Bay is an iconic estuary with a strong scientific and management history. The resurgence of seagrasses (including brackish water submersed aquatic vegetation) in the bay is the largest documented in the world, and clearly a "sign of success" to inspire seagrass scientists globally.

More information:
To get important updates, visit: https://isbw14.org/
Follow on
Facebook @ISBW14
twitter @ISBW14
Instagram @isbw14 #isbw14

14th International Coral Reef Symposium (ICRS 2020) (Bremen, Northern Germany, 5 – 10 July 2020).

Theme: Tackling the Challenging Future of Coral Reefs

The ICRS is the leading global conference on coral reef science, management and conservation, sanctioned every 4 years by the International Coral Reef Society (ICRS). For the first time in its history, an ICRS will be held in Europe. ICRS 2020 will be the key event to develop science-based solutions addressing the present and future challenges of coral reefs, which are globally exposed to unprecedented anthropogenic pressures. The five-day program will present the latest scientific findings and ideas, provide a platform to build the essential bridges between coral reef science, conservation, politics, management and the public, and will promote public and political outreach.

Key Themes which include seagrass ecosystems:
Theme 3: Ecosystem functions and services
Theme 6: Unexplored and unexpected reefs
Theme 9: Global and local impacts
Theme 10: Organismal physiology, adaptation and acclimation

More information:
To get important updates, visit: https://www.icrs2020.de/program/session-program/

20th International Conference on Shellfish Restoration (Nelson Bay Golf Club, Nelson Bay, NSW Australia, 17th – 20th March 2020)

With shellfish restoration efforts and research growing globally each year, this conference will provide an exciting opportunity to progress the science and practice of shellfish reef restoration by providing a forum to share ideas, experiences and advances from leaders in diverse fields from around the globe. The conference will provide you with an excellent opportunity to network with colleagues from all corners of the globe, have direct access to research, management and policy experts and be introduced to the newest ideas in the shellfish restoration space whilst enjoying a special part of the New South Wales marine estate.

The four day conference bring speakers from The UK, USA and all over Australia to explore themes of monitoring, ecosystem services, living shorelines, stakeholder engagement and so much more

More information:
Register now to secure your spot!
https://willorganise.eventsair.com/2020-international-conference-on-shellfish-restoration/

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 50,969 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*

****

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