



Seagrass-Watch E-Bulletin

30 November 2018

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.

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NEWS

Dead dugong found in Trang sent to Phuket (Thailand)

27 November 2018, The Thaiger

A dugong has been found dead in the sea off Trang province. The body was sent to Phuket for further examination. Jatupohn Burutpat, director-general of the Department of Marine and Coastal says, the dead dugong was found in the sea near Koh Libong in Trang. It was a female dugong, 2 metres long and weighing 250 kilograms. No severe wounds were found on its body.

Koh Libong and Koh Mook in Trang are an importance place where it is full of seagrass and hope will increase the dugong numbers by 5-10%. "We hope that everyone will do their part to protect dugongs by not supporting illegal fishing and help take care of our environment." Director-General Jatupohn Burutpat said.

[more.....http://www.seagrasswatch.org/news_Nov2018archives.htm](http://www.seagrasswatch.org/news_Nov2018archives.htm)

Six dugongs found dead in Abu Dhabi as rogue fishing put species at risk (AD, UAE)

26 November 2018, The National

Six dugongs have been found dead on the Abu Dhabi coast – with environmental experts blaming illegal fishing practices for putting the protected species at risk. The bodies of the creatures were found washed up from Al Silaa to Ghantoot, by Environment Agency – Abu Dhabi (EAD) rangers who regularly patrol the waters of the emirate. The discovery brings the total number of dugong deaths in the UAE this year to 20 – up from 15 on the same period in 2017.

It is believed the dugongs became ensnared in lengthy and illegal netting after necropsy results indicated the most probable cause of their death was drowning. The environment agency has renewed its call for strict punishments over the use of so-called hiyali nets, which are banned under federal law and are easily lost at sea and can ensnare wildlife. The agency has led crackdowns on rogue fishermen, with inspectors swooping on locations used by commercial and recreational fishing boats after the discovery of five dead dugongs on Saadiyat Public Beach in February. "The Agency will continue to prioritise the protection of dugong habitats and ensure that enforcement of the laws continues to be applied strictly, in partnership with the Critical Infrastructure & Coastal Protection Authority (CICPA)," said Dr Shaikha Salem Al Dhaheri, executive director of Terrestrial and Marine Biodiversity at EAD.

EAD, which has ramped up its inspections recently, has the power to impose harsh fines to anyone found flouting the law. First-time offenders can receive fines of up to Dh50,000 and a jail term term of at least three months, while second-time offenders can be issued fines of up to Dh100,000 as well as a prison term of not less than one year.

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Officials: Seagrass plantings growing, flowering in river (FL, USA)

23 November 2018, Sanibel-Captiva Islander

Efforts to restore lost seagrasses in the Caloosahatchee are proving promising, with planting taking hold, growing and flowering, according to the Charlotte Harbor National Estuary Program (CHNEP). The CHNEP, Calusa Waterkeeper, and Sea & Shoreline Aquatic Restoration have been working with residents and volunteers to replant seagrasses in the tidal Caloosahatchee. The project aims to restore the tidal Caloosahatchee's submerged aquatic vegetation - or SAV - communities.

"Making progress in restoring the seed source for the lost seagrass beds in the tidal Caloosahatchee is a tremendous achievement," Jennifer Hecker, executive director of the CHNEP, said. The species planted are *Ruppia maritima* and *Vallisneria americana*. The Caloosahatchee has historically supported vast seagrass beds. However, much coverage has been lost in recent years due in part to alterations in water flows to the tidal Caloosahatchee.

The project has entailed creating five planting areas covered by herbivore exclusion cages, which protect the seedlings while they are getting established. The sites were selected to be along waterfront residents who wanted to participate. CHNEP and Calusa Waterkeeper staff and volunteers, along with staff from Sea & Shoreline, installed the plantings and cages and have been participating in the ongoing maintenance and monitoring efforts. The exclusion cages are to be removed in the next month or so, with monitoring ongoing for a few more months thereafter. The results of the project will also be used to inform ongoing seagrass restoration efforts.

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The dugong's tears: Madagascar's gentle giants bounce back

19 November 2018, UN Environment (press release)

Life is slow in Andranomavo. But the current of change is running through this tiny community in Madagascar's Nosy Hara Marine Protected Area, one of 20 villages in northern Madagascar embracing incentive-based conservation as a strategy to preserve and restore the region's natural heritage. Nosy Hara is home to over 330 coral species, as well as 270 species of fish, five types of sea turtles, and migrating dolphins and whales. But the undisputed star of the marine protected area is the reclusive dugong. Once there were many, now there are few. But while they might be rare, the dugong are an important part of this vibrant ecosystem, as well as a barometer of its health. These shy herbivores depend on seagrass meadows to survive, each dugong grazing a territory of around 0.4 ha, contributing to nutrient cycling as they stir up sediment, and boosting seagrass growth as they fertilise the seabed with their dung. A healthy dugong population is both a sign of, and a contributor to, a thriving seagrass ecosystem.

Dugong were once a sought-after catch for Madagascar's fishermen, prized not only for their meat, but for medicine, with everything from their bones to their fat used in traditional remedies for a variety of ailments. In parts of Southeast Asia, dugong tears are believed to be a powerful love potion... But their long lifespans, slow breeding rates, and long gestation and nursing periods make dugong populations particularly vulnerable to overhunting. Building community awareness of the important role the dugong plays in the marine environment, as well as the importance of healthy seagrass ecosystems for their own livelihoods, has been a top priority for the Global Environment Facility and UN Environment-backed Dugong and Seagrass Conservation Project and local partner C3 Madagascar.

Damo, 56, is one of 40 conservation ambassadors trained by the project to help spread the message about marine conservation. Her role is also to help monitor the marine protected area and report infractions of regulations on fishing and other activities to park authorities. "I try to tell people not to kill the dugong because if their numbers decrease, there will be no fish," Damo explains. "The fishermen will suffer, they will not be able to make a living." In a community where 80 per cent of the population are fishermen, it's a message that hits home, and one that has helped create the conditions for a slow return of the gentle giants to feeding grounds in Nosy Hara. Alongside her role as a conservation ambassador, Damo is one of 20 women who have taken up duck farming to supplement her income from fishing for shrimp and crabs. "The duck farm gives us an advantage because we don't have to rely so heavily on fishing," she says.

Damo's duck business might seem like a small change at on an international level, but with over 1 million hectares of dugong habitat now under improved conservation management across 30 sites in Madagascar alone—and another 41 projects underway worldwide—these individual changes have the potential to stack up to big wins for the dugong and other species that rely on seagrass globally, including us.

[more.....http://www.seagrasswatch.org/news_Nov2018archives.htm](http://www.seagrasswatch.org/news_Nov2018archives.htm)

Abu Dhabi to study climate change threat facing sea creatures (AD, UAE)

14 November 2018, The National

The impact of climate change on seagrass and the mangrove areas of Abu Dhabi is to be evaluated in a new government partnership with French energy supplier Total. A research agreement has been signed with the Environment Agency - Abu Dhabi will assess the impact of increasing global temperatures on the region's dugong populations. The program aims to explore the relationship between dugongs and their marine environment, before evaluating the impacts of climate change on the seagrass communities of Abu Dhabi. A research study will place a special emphasis on the dugong in order to develop new strategies to protect the species in the future.

"This study is crucial towards enhancing our understanding of Abu Dhabi's extensive seagrass meadows, which support the world's second largest dugong population, as well as over four thousand green sea turtles," said Dr Shaikha Salem Al Dhaheri, executive director of the Environment Agency – Abu Dhabi's Terrestrial and Marine Biodiversity Sector. "This program would help the Agency take focused action on mitigating the impacts of climate change on our local dugong and other seagrass communities and protecting this vital marine ecosystem."

In the Gulf region, seagrasses are exposed to large seasonal variations in water temperature and salinity – meaning that they are probably already living at the edge of their tolerance. The impacts of climate change are expected to put the seagrasses of Abu Dhabi under even more stress, which will, in turn, have a real impact on the dugongs that rely on seagrass for food.

[more.....http://www.seagrasswatch.org/news_Nov2018archives.htm](http://www.seagrasswatch.org/news_Nov2018archives.htm)

Oceans are losing a football field of seagrass every 30 minutes

15 November 2018, Quartz

Seagrasses are flowering marine plants that live in shallow coastal waters almost everywhere in the world. The more than 70 species of seagrass provide an important habitat for thousands of ocean animals, from tiny invertebrates, crabs, and turtles to large fish and birds. Equally if not more important, seagrasses also are natural carbon sinks—even more effective at soaking up heat-trapping carbon pollution than forests on land. They soak up carbon in their leaves, and when they die, they decompose far more slowly than terrestrial plants, so that carbon remains buried for hundreds of years. In addition to the huge potential seagrasses possess for carbon sequestering—and therefore buffering against climate change—seagrasses offer multiple other ecosystem services essential for human livelihoods such as fish nurseries, protection from erosion, water quality management, and nutrient regulation.

But overfishing and coastal pollution have taken a toll on seagrasses, depleting them at an alarming rate. Recent studies from places such as Florida, Singapore, Indonesia and the UK have documented widespread seagrass loss, according to Richard K.F. Unsworth, a lecturer in marine biology at Swansea University in the UK. "The biggest threat to seagrass around the world remains poor water quality," Unsworth said. "Seagrasses are photosynthetic, they need lots of light to grow. The more sediments, nutrients and other pollutants that come down our rivers, the more turbid our coastal seas become and the faster algal competitors of seagrass suffocate these plants."

New research underlined the value of natural ecosystems in fighting climate change. It called for preserving forests, farmlands, grasslands and seagrasses, all of which scrub carbon pollution from the atmosphere. The study, published in *Science Advances*, further found that strengthening these carbon sinks could shrink the country's net annual carbon output by up to 21%. The study further called for curbing water pollution to protect seagrass, restoring lost seagrass, and allowing new seagrass to grow in areas flooded by rising seas.

There are potential solutions to the problems facing seagrass. In Indonesia, for example, "we've just led a project that planted thousands of trees along river banks to stop sediments and nutrients flushing into the ocean, and we're also just commencing projects to plant seagrass in Wales," Unsworth said. But, he added, "conservation is certainly the

best bet, as restoration is unreliable, difficult, and very expensive." The "best example of seagrass hope" comes from Tampa Bay, where locals have radically improved water quality, Unsworth said. Seagrass is more now abundant there than it was in the 1950s, although recent hurricanes may have reversed some of this growth. While much attention in recent years has focused on coral reefs, Unsworth believes that marine conservation must broaden to include seagrasses. Corals may be more exotic and pretty, but one should never dismiss the richness and importance of seagrass, Unsworth said.

[more.....http://www.seagrasswatch.org/news_Nov2018archives.htm](http://www.seagrasswatch.org/news_Nov2018archives.htm)

Research calls for new approach to tropical marine conservation

06 November 2018, EurekAlert (press release)

In an article in *Current Biology*, Dr Richard Unsworth from the University's College of Science, has revealed that people are relying on coral reefs less for their livelihoods as the reefs are increasingly under threat and facing an uncertain future due to increasing rates of climate change and rising global temperatures. Instead, the article shows that people are looking to seagrass meadows as a means for fisheries support, but this is putting these habitats under increasing threat around the world. There is now an urgent need to broaden the focus of tropical marine conservation. Although seagrass is globally widespread, there is evidence of rising levels of degradation due to local water problems and physical disturbance, but these are factors that can be managed at local scales. Unsworth said "With the right support there can be a brighter future for seagrass".

While the decline of coral reefs has garnered a great deal of attention and conservation efforts, Dr Unsworth says that the time is right for the tropical marine conservation community broadened its focus and become more realistic. Conservation efforts, it is argued, can no longer afford to focus exclusively on coral reefs but need to also safeguard seagrass into the future. There is an increasing focus on costly fanciful ideas to save coral reefs, but no recognition of thinking across the broader tropical marine seascape to rationalise where resources could be more efficiently focussed. Dr Unsworth said: "Governments, NGOs and communities need to increase and reprioritise conservation efforts and use their limited conservation resources in a more targeted manner in order to attain sustainable systems. For seagrass, there are practicable conservation opportunities to develop sustainable ways to respond to increased resource use. Targeted action now could restore and protect seagrass meadows to maintain and many ecosystem functions they provide."

The article details the number of ways in which seagrass conservation would benefit people and planet as seagrass meadows play a vital role in a number of key areas.

[more.....http://www.seagrasswatch.org/news_Nov2018archives.htm](http://www.seagrasswatch.org/news_Nov2018archives.htm)

Dugong rescued and set free (India)

06 November 2018, The Hindu

In a joint operation, the Wildlife Institute of India (WII), Tamil Nadu Forest department and Omcar Foundation rescued and released an adult female Dugong, which had got entangled in a fishing net in the Palk Straits at Keezhathottam near Peravurani in Thanjavur district. Local fisherman Balamurugan and five of his colleagues were fishing in the high seas on Thursday when they inadvertently caught a Dugong, weighing about 500 kg. Finding that the marine mammal had got entangled in the net, they pulled it gently to the shore.

Thanks to the 'Friends of Dugong' a capacity building training programme launched by WII involving fishermen in the coastal districts, the fishermen cut a portion of the net so that the mammal could reach the surface and breath till officials arrived. K. Madhu Magesh, Researcher, WII, said officials reached the spot around 4 a.m. and released the mammal back into the sea.

[more.....http://www.seagrasswatch.org/news_Nov2018archives.htm](http://www.seagrasswatch.org/news_Nov2018archives.htm)

Seagrass, protector of shipwrecks and buried treasure (Australia)

02 November 2018, The Conversation AU

For more than 6,000 years, seagrass meadows in Australia's coastal waters have been acting as security vaults for priceless cultural heritage. They've locked away thousands of shipwrecks in conditions perfect for preserving the fragile, centuries-old timbers of early European and Asian explorers, and could even hold secrets of seafaring by Aboriginal Australians.

Seagrass meadows accumulate marine sediments beneath their leaves, slowly burying and safeguarding wrecks in conditions that museum curators can only dream of. It's a process that takes centuries, as mats of seagrass and sediments cover the wrecks and all their buried treasure. Research, carried out by an international team of scientists in Australia, Denmark, Saudi Arabia and Greece, shows that seagrass meadows, hidden beneath our oceans, gradually build up the seafloor over millennia by trapping sediments and particles and depositing those materials as they grow. The organic and chemical structure of seagrass sedimentary deposits is key to its ability to protect shipwrecks and submerged prehistoric landscapes. These structures are extraordinarily resistant to decay, creating

thick sediment deposits that seal oxygen away from archaeological sites, preventing ships' timbers and other materials from rotting away.

Seagrass meadows are under environmental stress due to climate change, storms and human activity. Recent disturbances and losses have exposed shipwrecks and archaeological artefacts that were previously preserved beneath the sediment. Once the protective cover of seagrass is gone, the ships and other sites begin to break down. If you lose seagrass, you lose cultural heritage.

[more.....http://www.seagrasswatch.org/news_Nov2018archives.htm](http://www.seagrasswatch.org/news_Nov2018archives.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.

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 48,702 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](https://twitter.com/Seagrass_WSA)

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

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

Dugongs and seagrass are under threat from human activities. By using this Toolkit you should be able to gather information to:
understand better the status of dugongs, seagrass and communities at your research site;
understand threats to dugongs and seagrasses and help find solutions to those threats;
understand the communities that value or may affect dugongs and seagrasses.

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

FROM HQ

Past E-bulletins <http://www.seagrasswatch.org/publications.html#ebulletin>

Frequently Asked Questions <http://www.seagrasswatch.org/faq.html>

Magazine <http://www.seagrasswatch.org/magazine.html>

Virtual Herbarium <http://www.seagrasswatch.org/herbarium.html>

Future sampling dates <http://www.seagrasswatch.org/sampling.html>

Handy Seagrass Links <http://www.seagrasswatch.org/links.html>

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