



Seagrass-Watch E-Bulletin

31 October 2018

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NEWS

Endangered Dugong population on the decline, Forest Dept. says 'NO' (India)

31 October 2018, The Echo of India

Alarmed over sharp decline in visibility and large scale destruction of habitats post tsunami, the Wildlife Institute of India (WII), Dehradun in association with the Forest Department, Andaman and Nicobar Islands, for the first time is undertaking a survey to ascertain the exact population of Dugongs. The five-year project of the Ministry of Forest and Environment started last year under Compensatory Afforestation Fund Management and Planning Authority. The first phase will focus on population estimate of the rare mammal, identification of feeding grounds, identify effects of fishing and tourism besides sensitizing fishermen while the second phase of the project will focus attention on reclamation of feeding habitats for these endangered mammals besides working extensively on population revival studies.

The herbivorous marine mammal is usually found in calm, sheltered, nutrient-rich waters less than five metres deep, generally in bays, shallow islands and reef areas that are protected against strong winds and heavy seas which contain extensive sea grass beds, say forest department officials. These conditions make the Gulf of Mannar, Palk Bay, Gulf of Kutch and Andaman and Nicobar Islands ideal for Dugongs. According to the Forest Department, the population of Dugong in the A & N Island is found to be stable, while their number in other States of the country is on

the decline due to fisheries related activities, pollution and habitat degradation. The Gol has initiated the assessment of Dugongs distribution, habitat and risks due to fisheries and other anthropogenic related activities in India following the standardized Dugong catch/incidental catch survey developed by UNEP/CMS Dugong MoU Secretariat with the help of Wildlife Institute of India (WII), Dehradun.

Once sighted in a number of regions, the visibility of these endangered mammals has witnessed a sharp decline due to poaching, habitat loss and degradation, disease, chemical pollutants, hunting, and incidental entanglement in fishing nets. Change in fishing technology over the years has also been a prime reason as mechanized boats replacing the non-mechanized boats for fishing in the shallow water has resulted in degrading of the sea rass beds and destroying Dugong habitats.

[more.....http://www.seagrasswatch.org/news_Oct2018archives.htm](http://www.seagrasswatch.org/news_Oct2018archives.htm)

Are we losing one of our biggest CO2 sinks?

31 October 2018, EurekAlert (press release)

In a new study spanning coastal areas of the Northern Hemisphere, a coordinated researcher network led by MSc Emilia Röhr, Assoc. Prof. Christoffer Boström from Åbo Akademi University and Prof. Marianne Holmer from University of Southern Denmark explored the magnitude of organic carbon stocks stored and sequestered by eelgrass (*Zostera marina*) meadows--the most abundant seagrass species in temperate waters.

On average, eelgrass meadows stored 27.2 tons of organic carbon per hectare, although the variation between the regions was considerable (from three to 265 tons per hectare). Hotspots for carbon sequestration were identified especially in the Kattegat-Skagerrak region, and southern parts of the Baltic Sea where the organic carbon stocks were over eight times higher, than in the Archipelago Sea of Finland. The high carbon storage capacity of eelgrass meadows urges for protection and restoration of this unique ecosystem. Especially in the areas with the highest carbon stock capacity, they deserve recognition as part of global carbon marketing programmes.

"Terrestrial forests are well known for their capacity to store carbon (green carbon), while the so-called blue carbon stored and sequestered by coastal vegetated ecosystems, such as mangroves, saltmarshes, macroalgae and seagrasses, have received much less attention", says Röhr. "Although these cover only 0.5 % of the seafloor, their carbon storage capacity accounts for more than 55 % of the carbon stored by photosynthetic activity on Earth."

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What large-scale restoration success can look like: Seagrass restoration in Virginia's coastal lagoons (VA, USA)

15 October 2018, MEAM

The system of barrier islands, coastal bays, and salt marshes along the Atlantic coast of Virginia's portion of the Delmarva Peninsula represent some of the most natural, unspoiled coastal habitat along the US East Coast. However, during the 1930s, this region underwent a dramatic ecological shift. Seagrasses, primarily *Zostera marina*, were once very abundant in these coastal bays. In the 1930s, eelgrass underwent a massive decline attributed to a wasting disease pathogen *Labyrinthula* sp. The decline was pandemic, affecting not only populations in the coastal bays but also populations on both sides of the Atlantic. In August 1933, this region was affected by one of the most destructive hurricanes to influence the area in the twentieth century, contributing to the decimation of seagrasses in the bays. Seagrasses were essentially absent in these bays until the late 1990s.

One of the most notable consequences of the loss of seagrass habitat in the coastal bays was the immediate collapse of a previously productive commercial bay scallop fishery, which is dependent on seagrasses as primary habitat. Almost certainly this loss of seagrass habitat resulted in declines in production of other commercially and ecologically important species.

In 1969, a professor at the Virginia Institute of Marine Science (VIMS), Robert Orth began studying seagrasses in Chesapeake Bay. In 1997, he discovered several small natural seagrass patches in one of the coastal bays, and the following year, he initiated a seagrass restoration program using test plots of adult transplants of eelgrass. The success of those test plots led to the initiation of experiments with eelgrass seeds in 1999 and 2000. The success of using seeds in restoring the seagrass was significant, as using whole plants would have been logistically impossible and very expensive. Harvesting and distributing seeds was a viable alternative since eelgrass seeds could be collected easily and in large numbers based on our research in Chesapeake Bay. Because of the initial success using seeds, in 2001 the team initiated an annual large-scale seed-based restoration effort that continues today. The restoration efforts using seeds have resulted in one of the most successful seagrass restoration projects in the world today. Since 2001, in collaboration with The Nature Conservancy (TNC) staff and many volunteers working with TNC at the Virginia Coast Reserve, over 72 million seeds have been collected and distributed into 536 individual plots that ranged from one-half to one acre in size. The plants in these plots have grown, flowered, and produced seeds that have spread naturally to new areas, such that by 2018 these coastal bays now have almost 9,000 acres of seagrass where 20 years ago there were none.

With the return of seagrasses to these bays, many of the important ecosystem services these beds once provided have also returned. Fish and invertebrates are now once again abundant in the meadows. Water is clearer inside the beds as the plants filter out particles and sequester carbon. And more recently, efforts by VIMS scientists are now underway to bring back the bay scallop.

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New Blue Plan to preserve more of Singapore's marine landscape (Singapore)

13 October 2018, *The Straits Times*

Conservationists have drawn up an extensive new plan to preserve more of Singapore's marine landscape - from mangroves and seagrass meadows to coastal forests and coral reefs. The third iteration of the Blue Plan makes six recommendations, including improved laws to protect marine environments, formalised management systems for these areas, and sustained funding for long-term research and monitoring programmes. It also advocates for better coordination between agencies and researchers, further measures to protect Singapore's remaining marine habitats and the inclusion of information about such habitats in the school curriculum.

More than 100 people contributed to this edition of the Blue Plan, including biologists, geographers, environmental lawyers and representatives from non-governmental organisations. The 220-page plan was presented to Second Minister for National Development Desmond Lee on Saturday morning (Oct 13) at the National University of Singapore (NUS). Mr Lee is also Minister for Social and Family Development. Mr Lee said that apart from funding marine research, the Government will work to expand outreach and education efforts to help Singaporeans better appreciate the country's biodiversity.

One of those who worked on this year's Blue Plan is Ms Samantha Lai, a PhD candidate at NUS. The 29-year-old, who specialises in seagrass research, wants stronger legislation to protect the environment. For example, she hopes that Environmental Impact Assessments can be made legally mandatory for proposed developments.

[more.....http://www.seagrasswatch.org/news_Oct2018archives.htm](http://www.seagrasswatch.org/news_Oct2018archives.htm)

Battle to save seagrass (Spain)

09 October 2018, *Gulf Times*

Pere Palacio guides his dinghy carefully alongside the motor yacht in Es Calo bay in the north east of Mallorca and peers at a display unit that allows him to follow the path of the anchor. On behalf of the local government in the Balearic Islands, Palacio checks that boats aren't anchoring in Neptune grass, also known as *Posidonia oceanica*, which is vital to the health of the Mediterranean Sea.

Posidonia oceanica only grows in the Mediterranean and is one of the most common seagrasses in the region – it grows from Croatia to Cyprus, from Egypt to Tunisia, from Sardinia to Spain. "In the past 50 years, stocks have gone down by 34 per cent," says Maria del Mar Otero, a marine biologist who works for the IUCN's Mediterranean programme. The dangers to seagrass depend very much on the region, says Otero. Anchors, sewage and fishing, as well as the construction of harbour facilities, all threaten the plants. The introduction of foreign species of algae in the Mediterranean has also been a problem. Climate change is also increasingly affecting seagrass meadows.

In order to protect their growth, the Balearic region issued a decree this year, placing 650 square kilometres of seagrass meadows under increased protection. Tackling illegal anchoring was already a priority before the decree was issued, as the heavy anchors rip up seagrass in huge clumps when they depart. Five boats, like that of Palacio, patrol the seas every day in Mallorca. They carried out more than 17,000 checks on boats and yachts between May and the end of August and boats were told to move on around 2,800 occasions. On Mallorca, authorities are not just trying to stop the destruction of Neptune grass. Scientists are also trying to plant it. A seagrass meadow covering an area of 50 by 50 metres has been planted since the beginning of the year. Patience is necessary.

[more.....http://www.seagrasswatch.org/news_Oct2018archives.htm](http://www.seagrasswatch.org/news_Oct2018archives.htm)

The death of British seahorses: Beautiful creatures are dying out at popular seaside spots (UK)

10 October 2018, *Daily Mail*

Native seahorses have all but disappeared from a popular British seaside spot because pleasure boats' anchors keep churning up their breeding grounds. The bay in Dorset is the only place where both species of the sea creatures - the spiny and short-snouted varieties - found in our waters have been recorded together.

A conservation charity has found just one dead spiny seahorse in the bay this year however, an alarming drop from 10 years ago when 40 were recorded. Experts from The Seahorse Trust blame the decline on anchors from visiting pleasure boats churning up the delicate seagrass beds in Studland Bay, which provide a breeding ground for the creatures.

The trust has now made an application to the government to make the area, the size of six football pitches, a protected Marine Conservation Zone. This will ban boat anchors being used and reverse damage to the habitat. A decision by the government's department for environment, food and rural affairs (Defra) is expected in the next few months. If successful, a committee would be set up to protect the site and measures could be introduced including environmentally-friendly moorings which pleasure boats would be expected to use.

[more.....http://www.seagrasswatch.org/news_Oct2018archives.htm](http://www.seagrasswatch.org/news_Oct2018archives.htm)

Near miss on net ban: Mississippi fishermen win one battle with the CCA (USA)

04 October 2018, National Fisherman

In mid-September, Mississippi fishermen were prepared for a showdown at the state Commission of Marine Resources, facing a proposal that would have set a one-mile commercial finfish net exclusion zone around Cat Island. The proposal was ultimately denied in a draw with a 2-2 vote. Proponents of the net ban included the region's sport fishermen backed by the Coastal Conservation Association (CCA). The accusations of taking too many fish were quickly deflected, so the CCA narrowed its focus on protecting seagrass growing around Cat Island.

"Cat Island is a sensitive area with essential habitat characteristics that demand protection," said F.J. Eicke, chairman of the CCA. "Many of our members have expressed concern that placement of nets close to the shorelines of Cat Island will endanger the submerged aquatic vegetation that is so prevalent near the shorelines." Mississippi Commercial Fisheries United countered by seeking out independent research showing that there was no significant damage caused to sea grass by haul seining. In fact, there was research that showed the types of seagrass affected by haul sign nets actually tended to grow back thicker.

During the public comment period for the proposal, 1,040 people signed a petition in support of the net ban. The CMR received 30,487 signatures on a petition opposing the ban. Mississippi Commercial Fisheries United even suggested making sustainable changes to the fishery as well, offering to make the fishery limited entry to slow the pace.

[more.....http://www.seagrasswatch.org/news_Oct2018archives.htm](http://www.seagrasswatch.org/news_Oct2018archives.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.