31 January 2019

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NEWS

How Tagbanua tribesmen protect the 'mermaids' of Palawan (Philippines)

20 January 2019, INQUIRER.net

Wearing fins from recycled plastic containers, tough Tagbanua tribesmen have become the protectors of the dugong, those gentle marine mammals that have become prey to poachers in Northern Palawan. The dugong (*Dugong dugon*) is legally protected by Republic Act No. 9147 because aside from being occasionally hunted, the mammals often drown after becoming entangled in fishing nets.

Sizable herds of dugong once plied the Philippine archipelago until hunting and habitat loss reduced their number. Today, the dugong is considered critically endangered in the Philippines because of its rarity. Small populations still hold out in Isabela, Mindanao, Guimaras and Palawan, but encounters are extremely rare. The Calamianes Islands in Northern Palawan remain one of the last areas in the country where the giant marine herbivores can be seen regularly.

Guided by expert divers and Tagbanua tribesmen, Best Alternatives Campaign, a movement to promote good environmental and sustainability practices, recently got a chance to interact with the dugong. To successfully conserve the dugong, local government units and communities must stamp out poaching, minimize the threat of accidental entanglement in fishing nets, and most importantly, preserve the integrity of seagrass meadows. Unfortunately, many seagrass habitats are being destroyed by reclamation and pollution. Through the dedicated

efforts of local wardens like Palawan's Tagbanua tribesmen and by protecting the country's remaining seagrass meadows, tomorrow's Pinoys might yet get a chance to swim with real mermaids.
more……..http://seagrasswatch.org/news_Jan2019archives.htm

Chilika Lake possesses 20% of India's seagrass (India)

19 January 2019, The Hindu

Chilika Lake is claimed to have 20% of India's seagrass distribution. According to the Chilika Development Authority, the apex body for the Lake's management, seagrass species such as *Halodule uninervis, Halodule pinifolia, Halophila ovalis, Halophila ovata* and *Halophila beccarii* were recorded during annual monitoring of the Chilika Lake held on Thursday.
CDA Chief Executive Susanta Nanda, reported that seagrass distribution has been estimated over an area of 152 sq. km, an increase from 135 sq km in the last year. Increase in seagrass has been reported against its declining trend throughout the world. Seagrass area increases when the water is clean and will rejuvenate fishing grounds by providing nursery habitat to important fish species.
Another heartening outcome of the annual monitoring was reappearance of sponges. Due to disturbance in habitat, the sponges were not observed in the lake after 1985. But after the recent eviction of large area of prawn gherry in the southern sector of the lake, the sponges are observed abundantly in Patanasi and Kumarpur area. Some of the indicators that emerged during the monitoring established the lake's resilient ecosystem.
more……..http://seagrasswatch.org/news_Jan2019archives.htm

NATURE NOTES: The underwater forests that hold our coastline together (UK)

11 January 2019, Northumberland Gazette

Along the coastline of Lindisfarne lie hidden meadows of long grasses. Lindisfarne boasts the largest seagrass, or eelgrass, meadows in north-east England, with a large intertidal area providing a valuable site for the narrow-leaved (*Zostera angustifolia*) and dwarf eelgrasses (*Zostera noltii*).
As the tide recedes, light-bellied Brent geese, settle on the shining mudflats. These geese – half of the entire world population – have come a long way for this seagrass. Beyond the Brent appear a supporting armada of wigeon. Seagrasses provide essential nutrients for these migratory waterfowl, whose presence each autumn transforms the Reserve. Wading birds, with their slender beaks and long legs, are not shy to make the most of the smorgasbord of invertebrates. Seagrass meadows also provide valuable nursery grounds for many tiny fish, who take shelter in these underwater forests.
As juveniles, codling are low on the food chain but survivors will become sleek muscular predators. The cod, in turn, may find themselves prey to the coast's booming grey seal population or fished commercially, by the area's many local fisheries. So much begins with seagrasses. It is no exaggeration to say that they hold the coastline together; their thick vegetation limits sediment flow and helps to prevent coastal erosion. More importantly still, seagrass meadows capture and store carbon more effectively even than rainforests, reducing the impact of climate change. According to the environmental charity and research platform Project Seagrass, one hectare of seagrass can produce 100,000 litres of oxygen per day, support 80,000 fish and 100million invertebrates.
We are losing one hectare of seagrass per hour worldwide. Its decline driven by a combination of natural causes like storms and disease, and human activity such as climate change, coastal development, pollution, decreased water clarity and physical disturbance. These hidden meadows, teeming with life, are slow to recover from damage. Though vulnerable to climate change they could also play a powerful role in combatting it. We might just be able to save one another.
more……..http://seagrasswatch.org/news_Jan2019archives.htm

Legal Battle Begins in Appeal Challenging US Base's Threat to Rare Okinawa Dugongs (Japan)

08 January 2018, Center for Biological Diversity (press release)

American conservation groups and residents of Okinawa have filed the opening brief in an appeal of a court ruling allowing construction of a U.S. Marine Corps air base in the Japanese island's coastal waters. The brief, filed in the 9th Circuit Court of Appeals in San Francisco, highlights the base's threat to the Okinawa dugong.
Hundreds of thousands of people, including Queen guitarist Brian May, have signed a petition against the project on the White House's "We the People" website. Building the base will involve filling in and paving over hundreds of acres of rich coral and seagrass habitat crucial to the last surviving Okinawa dugongs. The Center for Biological Diversity, Turtle Island Restoration Network and the Japanese co-plaintiffs are represented in the case by Earthjustice, which filed the appeal. The 9th Circuit ruled in 2017 that Okinawa residents deserved a full hearing on their concerns.
Dugongs have long been revered by native Okinawans. The brief argues that a lower court's ruling last year overlooked key procedural and public-participation requirements of the National Historic Preservation Act. The brief notes that the U.S. Department of Defense avoided consulting with any community members or cultural practitioners regarding the airbase's threats to the dugong. Military officials also disregarded evidence that the base will hurt dugongs. Under the U.S. National Historic Preservation Act and international law, the United States must avoid or mitigate harm to places or things of cultural significance to another country.
more……..http://seagrasswatch.org/news_Jan2019archives.htm

DoE receives objections about Barkers plan (Cayman)

06 January 2019,Cayman Compass

An application to remove some 180,000 square feet of seagrass to create a swimming beach for cruise ship tourists off Barkers peninsula received a total of 117 written objections from members of the public, according to the Department of Environment. The coastal works application brought by Adventures in Taste, the company of Handel Whittaker, owns the Calico Jack's beach bar and hopes to move the venue to create a Rum Point-style attraction in Barkers. The proposal is linked to a 21-acre parcel of beachfront land owned by the Dart group. According to Tim Austin, deputy director of the Department of Environment, a hand-signed petition with 365 names and an online petition with 2,678 names were also submitted.

The Department of Environment is required to factor in those objections in its report to the Ministry on the application. Under delegated authority from the National Conservation Council, the DoE's technical review team is tasked with producing a report on the environmental considerations and technical feasibility of any coastal works application. The ministry then presents a report to Cabinet, which has ultimate decision-making authority on such applications. It is legally required to consider the conservation council's advice, but not necessarily to follow it. Mr. Austin said the DoE had filed its report with the ministry, though he could not reveal details at this stage. He acknowledged that the number of public responses was unprecedented for a coastal works application, which typically attract no more than a handful of letters or comments.

The application requests approval for the "removal of seagrass to facilitate swim beaches" over an area equivalent in size to around three football pitches and stretching across a 1,300 foot parcel of beach. It also includes plans for a T-shaped pier stretching 300 feet into the ocean, with a 120-foot dock for tour boats and visiting pleasure craft.

Mr. Whittaker told the Compass in November that he believes the venue can be a "great facility for cruise ship passengers, tourists and locals," that will bring business and opportunity to West Bay.

more……..http://seagrasswatch.org/news_Jan2019archives.htm

Seagrass saves beaches and money

02 January 2019, Phys.Org

Seagrass beds are so effective in protecting tropical beaches from erosion, that they can reduce the need for regular, expensive beach nourishments that are used now. In a recent article in the journal BioScience, biologists and engineers from The Netherlands and Mexico describe experiments and field observations around the Caribbean Sea. "A foreshore with both healthy seagrass beds as well as calcifying algae, is a resilient and sustainable option in coastal defense", says lead author Rebecca James, at the University of Groningen and the Royal Dutch Institute for Sea Research (NIOZ), The Netherlands.

The authors looked at beaches of the Caribbean Sea, where almost a quarter of the Gross Domestic Product is earned in tourism, mainly around the beaches. With the increase of coastal development, the natural flow of water and sand is disrupted, and many tropical beaches have already disappeared. Expensive coastal engineering efforts, such as repeated beach nourishments and concrete walls to protect the coast, have been made to combat erosion. Rising sea-level and increasing storms will only increase the loss of these important beaches."

To find out to what extent seagrass beds are able to hold sand and sediment on the beach foreshores, James and professor Tjeerd Bouma (NIOZ and Utrecht University), conducted a simple but telling experiment. With a portable and adjustable field flume to regulate water motion in a Caribbean bay, they observed when particles on the sea bed started moving. "We showed that seagrass beds were extremely effective at holding sediment in place", James says. "Especially in combination with calcifying algae that "create their own sand", a foreshore with healthy seagrass appeared a sustainable way of combating erosion."

Along the coastline of the Mexican peninsula of Yucatan, the team put their theory to the test. "By looking at beaches with and without protection of healthy seagrass beds, we showed that the amount of erosion was strongly linked to the amount of vegetation: more seagrass, meant less erosion", co-author Dr. Brigitta van Tussenbroek of the Universidad Nacional Autónoma in Mexico says. "At beaches where seagrass beds were destroyed, the researchers saw a sudden strong increase in erosion, resulting in an immediate need of expensive beach nourishments.

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CONFERENCES

OceanObs'19 (16-20 September 2019, Honolulu, Hawaii, USA)

Theme: Connecting Science and Society

The OceanObs'19 conference is a community-driven conference that brings people from all over the planet together to communicate the decadal progress of ocean observing networks and to chart innovative solutions to society's growing needs for ocean information in the coming decade.

As part of the decadal conference series, OceanObs'19 will galvanize the ocean observing community ranging from scientists to end users. OceanObs'19 seeks to improve response to scientific and societal needs of a fit-for-purpose integrated ocean observing system, for better understanding the environment of the Earth, monitoring climate, and informing adaptation strategies as well as the sustainable use of ocean

resources. Overall, OceanObs'19 will strive to improve the governance of a global ocean observing system, including advocacy, funding, and alignment with best practices and to designate responsibility for product definition, including production and timely delivery at the appropriate scales (global, basin, regional, national) to serve user needs. The conference program will be built focusing on a single objective each day to provide adequate time to answer to the proposed questions.

More information:
To get important updates, visit: http://www.oceanobs19.net/#main

The 25th Biennial CERF Conference (Mobile, Alabama on 3–7 November, 2019)

Theme: "Responsive | Relevant | Ready"

CERF2019 endeavors to connect science and society in the collective goals of preserving the coastal and estuarine habitats, resources, and heritage. Through the conference, attendees will discuss the nature of research agendas that are directed at finding and solving problems, and how to engage stakeholders in that process. CERF2019 goal is to balance a natural and social scientific agenda with the food, music, and art emblematic of the central Gulf of Mexico. In keeping with tradition, CERF2019 hopes to create a seriously fun and memorable 25th Biennial CERF Conference.

Special session - Seagrasses: sentinel species in a changing world - a tribute to Dr. Susan Williams

Session co-chairs – Robert Orth and Ken Heck

Seagrasses are key sentinel species whose sensitivity to changing water quality is well known to warn of deteriorating conditions in coastal waters. The past five decades have seen great progress in understanding the biology of seagrasses, the ecology of the world's seagrass meadows and in valuing the many services they provide. During this time there have been paradigm shifts in our understanding of many fundamental processes that underpin the ecology of seagrass meadows. Among them is a revised understanding of the phylogeny and evolutionary history of seagrass lineages, the smaller role played by the consumption of detritus in seagrass food webs, and the larger role of direct consumption of seagrasses in energy flux. Additional advances include convincing evidence that seagrasses can be pollinated by small invertebrates, that microbial-seagrass interactions in the sediments and in the water column are a vast area only beginning to be explored and that individual seagrass clones can cover vast areas and exist for millennia. Other recent advances include a revised understanding of the widely varying dispersal abilities of different seagrass species, as revealed by the much improved ability to genotype seagrass clones and the rapidly advancing knowledge, aided by much trial and error, of how to improve the success of seagrass restoration efforts. We have also seen important advances in valuing the services provided by seagrass meadows, such as their important role as nursery habitat for a variety of economically important finfish and shellfish. In addition, their previously less well known services, such as their functioning as vast reservoirs of blue carbon, is becoming increasingly elucidated, with the implication that the continuing global decline of seagrass meadows has profound implications for earth's climate.

Seagrasses face many emerging challenges associated with our changing climate, including the effects of the alteration of temperatures, pH and dissolved oxygen, as well as the immigration and assimilation of tropical species, whose predatory, competitive and pathological effects on the ecology of seagrasses and their associated biotas may be enormous but which remain unknown and unpredictable.

This session will highlight the most exciting, recent advances in seagrass research by those at the forefront of the field, and is dedicated to Dr. Susan Williams, who, throughout her career, played a leadership role in seagrass ecology and mentored some of its leading practitioners. It will be of interest to researchers and resource managers faced with the challenge of preserving, restoring and managing seagrass resources.

More information:
To get important updates, visit: https://www.erf.org/cerf-2019
Follow on twitter @CERFScience, #CERF2019
Session and workshop proposal deadline: 20 September 2018
Schedule-at-a-Glance: https://www.erf.org/2019-schedule-at-a-glance

SEAGRASS-WATCH on YouTube

Seagrass: Pastures of the sea *http://www.youtube.com/watch?v=66Y5vgswj20* or *http://www.seagrasswatch.org/seagrass.html*
Presentation on what seagrasses are and why they are important (over 49,662 views to date)

Seagrass & other matters

World Seagrass Day http://wsa.seagrassonline.org/world-seagrass-day/

A global campaign for World Seagrass Day: Raising public awareness on the importance of seagrass meadows is central to efforts in the protection and conservation of seagrass meadows worldwide. The international seagrass research and conservation community, together with the undersigned, call on the United Nations to declare a World Seagrass Day to recognize the importance of seagrass meadows to the health and well-being of the planet, as well as the people, communities, flora, and fauna that rely on them. Show your support by signing the petition.

SeagrassSpotter https://seagrassspotter.org/

SeagrassSpotter seeks to expand the number of people studying seagrass from a handful of scientists to hundreds and potentially thousands of 'citizen scientists.'. As part of efforts to build a sustainable monitoring network, and by leveraging the enthusiasm of everyone from fishers to SCUBA divers to people on vacations at the beach, we'll create a more comprehensive picture of seagrass meadows around the globe. This in turn will inspire new scientific research and practical conservation measures that can help protect ocean habitats. Working together with citizen scientists all over the world, we'll accomplish big things for seagrass and other vulnerable marine species, but only with your help.

World Seagrass Association http://wsa.seagrassonline.org

Keep up to date on what's happening with the around the world from the WSA. The World Seagrass Association is a global network of scientists and coastal managers committed to research, protection and management of the world's seagrasses. WSA members come from many countries and include leading scientists in marine and seagrass biology. The association supports training and information exchange and raises global awareness of seagrass science and environmental management issues.

World Seagrass Association on Twitter @Seagrass_WSA

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

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

Dugongs and seagrass are under threat from human activities. By using this Toolkit you should be able to gather information to:

understand better the status of dugongs, seagrass and communities at your research site;
understand threats to dugongs and seagrasses and help find solutions to those threats;
understand the communities that value or may affect dugongs and seagrasses.

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

FROM HQ

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