31 December 2016

IN THIS BULLETIN

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NEWS

Training programme for 'Friends of Dugong' (India)

29 December 2016, The Hindu

Ramanathapuram Forest department, which is implementing ‘Save Dugong’ project in the Palk Bay, has launched a capacity-building training programme for ‘Friends of Dugong’, the fishermen volunteers drawn from five coastal districts. Addressing the participants after launching the programme at Karankadu near here on Wednesday,

Collector S. Natarajan said the fishermen played a vital role in protecting and conserving marine species and biodiversity, and they had greater responsibility in protecting dugongs, which faced the threat of extinction.

He said the department was working out a scheme to provide cash award to the fishermen who inadvertently caught dugongs and released them back into the sea without causing any harm to them. The fishermen who helped the department save and protect the marine mammals would also be rewarded. The department was developing an App to help fishermen save the mammals, the Collector said.

Wildlife Warden, Gulf of Mannar Marine National Park, Deepak S. Bilgi, who organised the training programme, said 'Save Dugong' project was being implemented under Tamil Nadu Marine Biodiversity Conservation and Greening Project with special focus on the Palk Bay. The department had selected about 70 'Friends of Dugong' from 10 fishing hamlets each in the five districts for the training. The programme aimed at making the volunteers the mouthpiece to educate other fishermen on marine conservation, he said,
more…….. http://www.seagrasswatch.org/news.html

Growing problem for local seagrass (Singapore)
29 December 2016, The Straits Times

Most of Singapore's seagrass have not been sexually reproducing for at least three to four years, and worried scientists are working to find out what is wrong. A lack of sexual reproduction - creating new plants through flowers and seeds - could lead to decreased genetic diversity in seagrass populations here, making them more vulnerable to mass die-offs. This would harm the environment in many ways, as seagrass meadows are up to 30 times as effective as rainforests at storing carbon, and are key feeding grounds in Singapore waters for sea animals such as dugongs.

Like much of the country's natural heritage, seagrass meadows have been in decline for decades, with around 40 per cent of the original cover lost to coastal development. Since 2007, scientists and volunteers have regularly monitored them to check on their health. As an aside to their actual survey work, they would frequently see seagrass producing fruits and flowers. Dr Siti Maryam Yaakub, 35, led many of these trips, and said that because Singapore is a tropical country, seagrass should flower and bear fruit all year round. But around three to four years ago, the senior marine ecologist at environmental consultancy firm, DHI Water and Environment, started noticing that most of the flowers and fruits had simply stopped appearing. Seagrass populations can grow by cloning themselves, but Dr Siti said this growth could mean all the new seagrass are equally vulnerable to stressors like disease, and without seeds it would be much harder for new plants to return.

Ms Samantha Lai, a PhD candidate at the Experimental Marine Ecology Lab at the National University of Singapore (NUS), said there was already one such case on the shores of Pulau Semakau. In 2009, a seagrass meadow off the island suddenly died, and aside from a few scattered patches of seagrass, the area remains barren, she said. Ms Lai said environmental factors were also to blame, but added that one of the consequences of not having enough sexual reproduction "is not having enough seedlings or seeds to help the recovery of Semakau". This is the aim of their current research, which involves NParks in collaboration with NUS and DHI. Dr Karenne Tun, director of the National Biodiversity Centre (Coastal and Marine) at NParks, said the three-year research project, which ends in the middle of 2018, intends to better understand the dispersal patterns of seagrass, in addition to assessing how resilient they are when faced with various stressors.
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Dugong conservation project makes waves
27 December 2016, UNEP

Popularly known as "sea cows", dugongs are an endangered species. They are affected by fishing activities, coastal pollution, killed for their meat, or injured by boats. They feed exclusively on seagrass in shallow coastal areas of the Indo-West Pacific. The Dugong and Seagrass Conservation Project focuses on the dugong range states of Indonesia, Madagascar, Malaysia, Mozambique, Solomon Islands, Sri Lanka, Timor-Leste and Vanuatu. It seeks to work with local communities to help them understand the benefits of conserving dugongs and their habitat.

The Dugong and Seagrass Conservation Project is funded by the Global Environment Facility, a catalyst for action on the environment, to the tune of nearly US$ 6 million, and supported by UN Environment, the Dugong Memorandum of Understanding of the Convention on Migratory Species, national governments, and conservationists from across the world. It runs from January 2015 to December 2018, and is the first coordinated global effort to conserve dugongs and seagrass.
more…….. http://www.seagrasswatch.org/news.html

Hessian bags key to re-growing seagrass and saving Adelaide's coast line (SA, Australia)
23 December 2016, ABC Online

The answer to sand carting and coastal erosion issues for many councils in South Australia may lie just below the surface of the ocean. Seagrass beds have been found to help reduce damage from waves created during wild

weather; they are also one of the greatest carbon storage habitats in the world. But the rich meadows just off the coastline of Adelaide are facing their biggest threat yet — man. Since monitoring of the meadows began in the 1950s, Associate Professor Jason Tanner said more than 6,000 hectares had been destroyed.

As the subprogram leader of ecosystem, mitigation and rehabilitation for the South Australian Research and Development Institute (SARDI), Associate Professor Tanner has dedicated his professional life to re-establishing the meadows. Over the past 15 years, with the help of the Adelaide and Mount Lofty Ranges Natural Resources Management Board, he has been trialling and narrowing down treatment options. Associate Professor Tanner said developments in sewage treatment and stormwater run-off had helped curb the losses but the challenge now was to find ways for regrowth.

At first he and his team tried growing and planting seagrass into the beds of sparse areas, but their efforts were not successful. Then one of the team's divers noticed hessian bags used to stabilise a transplant patch were actually growing seagrass — and a solution was found. Associate Professor Tanner said coastal damage could be minimised long term if council funds used currently for sand carting were diverted to a seagrass regeneration project.
more…….. http://www.seagrasswatch.org/news.html

Citizen Science Supports Protection in the Moreton Bay Hope Spot (QLD, Australia)
22 December 2016, National Geographic

The Moreton Bay community is a model example of how robust citizen science programs help ignite support and ongoing passion for marine protected areas. Moreton Bay achieved Hope Spot status this past November and offers a model of citizen engagement and responsible marine stewardship. A mecca for marine biodiversity, the Moreton Bay Hope Spot in Southeast Queensland, Australia, hosts a diversity of species within its matrix of mangroves, mud flats, seagrass, coral reefs, and sand islands. The subtropical location invites habitat for marine life such as dugongs and sea turtles, as well as seasonal visits from manta rays, humpback whales and grey nurse sharks.

In the last 150 years, Moreton Bay has been exploited for coral mining, sand mining, whaling and seafood. And given its proximity to a major city, it faces increased pollution from coastal development and land based run-off. Yet, Moreton Bay has a long history of grassroots activism. In the 60's, the community campaigned against plans for a canal estate and mining which decades later, resulted in the creation of the Moreton Bay Marine Park, declared in 1993. The backbone of the community, consisting of local conservationists, scientists, tourism groups and educators, is still at the heart of Moreton Bay.

Over the past decade, citizen science has grown rapidly and is increasingly recognized as an important and credible tool for managing natural resources while empowering local communities. According to a research paper led by Chris Roelfsema, geography professor at The University of Queensland, "Citizen science can encourage collaboration, support a diversity of increased scientific knowledge and offer an improved knowledge platform for management decisions." Roelfsema, who uses satellite imagery to observe coral reefs and seagrass, has a passion for citizen science and is a member of The UQ Underwater Club (UniDive) where he organizes a number of citizen science projects. Citizen science projects in the region provide community-based training, resources and databases for surveying and photographing marine life. The future growth potential of citizen science in Moreton Bay enables cost-effective, community-driven opportunities to foster scientific knowledge and innovative natural resources management of the marine environment. The volunteers involved in marine conservation in the Moreton Bay Hope Spot are a shining example to individuals and organizations around the world, and with hope, will inspire further action and effort to protect the ocean.
more…….. http://www.seagrasswatch.org/news.html

Environmentalists worry Osprey ditching off Okinawa may affect dugong habitat (Japan)
15 December 2016, The Japan Times

Environmentalists voiced concern Wednesday after a U.S. Marine Corps MV-22 Osprey aircraft ditched the previous day off Okinawa in waters inhabited by the endangered dugong. The Osprey from the Marine Corps Air Station Futenma in Ginowan crash-landed Tuesday evening in shallows off Camp Schwab, a Marine base in Nago located on the eastern coast of Okinawa Island. At least three dugongs have been confirmed as inhabiting the waters off Okinawa's main island, two of which often appear around the accident site, according to a survey by the Defense Ministry's Okinawa Defense Bureau.

Shinichi Hanawa of a local environmental conservation network said the accident site has abundant seagrass that dugongs rely on for food. The activists are also worried about the noise generated by Ospreys as dugongs are sensitive to sound. The U.S. military has deployed 24 MV-22s at the Futenma base. Hideki Yoshikawa of the Save the Dugong Campaign Center said dugongs typically feed in coastal areas at night. Mariko Abe of the Nature Conservation Society of Japan echoed the concern, saying, "Military drills shouldn't be conducted in (dugong) habitat areas."
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Haribon Foundation working to conserve PH seagrasses (Philippines)

15 December 2016, The Manila Times

The Haribon Foundation is working to conserve a critical but often overlooked part of the marine ecosystem, the Philippines' seagrass meadows, through the Strengthening the Marine Protected Areas (MPA) to Protect the Marine Key Biodiversity Areas in the Philippines (MKBA) Project in Lanuza Bay, Surigao del Sur. The Philippines has 18 seagrass species spread across the entire country. Some of the more extensive seagrass beds are found in Caluya in Antique; Northern Palawan; the Polillo Islands in Quezon; Hinatuan and Cortes in Surigao del Sur; and Cateel Bay in Davao Oriental. They can live as deep as 15 meters (or 50 feet) like those found on the coast of Baler, Aurora and Polillo Island.

The main threat to seagrasses is reclamation, Haribon Foundation explained. Because they are often perceived as having no direct benefit to humans, seagrass beds are often either dug up or covered to allow construction of industrial and tourism infrastructure. Seagrass beds can also be destroyed by improper mangrove reforestation and restoration. Without proper guidance and information, mangrove reforestation projects encroach on seagrass beds. The planted mangrove seedlings may either die from space and nutrient competition or kill or reduce the seagrass beds. Haribon stressed that if mangrove reforestation projects are seen doing this, they should be reported to the nearest office of the Department of Environment and Natural Resources (DENR), the Bureau of Fisheries and Aquatic Resources (BFAR), or local government unit.

Haribon's MBA-MKBA project aims to assist local government units in properly managing seagrass meadows, and is supported by the Global Environment Facility of the United Nations Development Programme (UNDP) and the Biodiversity Management Bureau of the DENR. Together with its local partner, the Lanuza Bay Development Alliance, Haribon will assist the local government units and communities by establishing and strengthening MPAs and MPA network in Lanuza Bay over the next four years.

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New marine conservation zones proposed (Northern Ireland, United Kingdom)

14 December 2016, Farming Life

Environment Minister Michelle McIlveen has announced that four Marine Conservation Zones (MCZs) have been designated in Northern Ireland's in-shore region. The new zones, Rathlin, Waterfoot, Outer Belfast Lough and Carlingford Lough have been proposed through Designation Orders using powers that were made available through the Marine Act (Northern Ireland) 2013. MCZs conserve the diversity of rare and threatened habitats and species in the waters, and in addition to protecting nationally important marine wildlife they also protect geological features.

In developing the Marine Conservation Zones, the Department gave full consideration to the need to protect marine biodiversity while supporting sustainable activities including fisheries. Following designation there is a duty on all public authorities to manage activities that could impact on the achievement of the Conservation Objective for the MCZs. There will be a presumption of sustainable use within an MCZ so long as the conservation objectives of a site can be furthered or least hindered. However, specific activities which pose a significant risk to a protected feature may have to be managed.

The four Marine Conservation Zones were designated on December 12. The protected features for the Waterfoot zone includes the seagrass (*Zostera marina*) beds on subtidal (sublittoral) sand.

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Marine Biologist Suggests Conservation Of Bahamas' Seagrass Habitats (Bahamas)

09 December 2016, Bahamas Tribune

New research on the Caribbean spiny lobster has led to one international marine biologist advocating the conservation of the Bahamas' seagrass habitats, as findings indicate the underwater gardens are responsible for nearly $20m in local lobster production. Dr Nicholas Higgs, Deputy Director of the Marine Institute at Plymouth University, England, said that the "high productivity" of local lobster production is largely due to their consumption of lucinid clams, which are found in the seagrass beds in Bahamian waters. According to Dr Higgs, a stable isotope analyses of the tissues of Caribbean spiny lobsters indicate that the creatures obtain "about a fifth" of their diet from lucinid clams and that in some lobster populations "that figure almost doubled".

The significance of those clams, specifically the Tiger Lucine clam, Dr Higgs said, is that they make their own food with the help of chemosynthetic bacteria - organisms that synthesise organic compounds using the energy derived from organic or inorganic materials - living in their gills. Dr Higgs said the study shows that "seagrass habitats and chemosynthetic productivity should be reconsidered in conservation and environmental management going forward".

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Dugongs bouncing back around Cairns (QLD, Australia)

10 December 2016, The Cairns Post

An aerial survey of dugong populations south of Cairns has shown the sea cows are slowly recovering after cyclone Yasi destroyed much of their primary food source. Seagrass meadows have been making a comeback across North and Far North Queensland after being badly damaged in the Category 5 storm, and fresh dugong trails have recently been spotted in Cairns' Trinity Inlet. Last week, a James Cook University aerial survey found evidence the dugongs, listed as vulnerable in Queensland, were once again breeding in waters south of Cairns.

The dugong population north of Cairns was less impacted by the cyclone, and is considered more healthy than that along the more urbanised coast. Marine biologist Mark Hamann, of JCU's Centre for Tropical Water and Aquatic Ecosystem Research, said surveys immediately after the 2011 cyclone showed massive seagrass destruction and no evidence of breeding. The seagrass loss would have affected dugongs because if they don't get enough food, they don't breed. As seagrasses have recovered, dugong surveys have found the calving rates have resumed." Associate Professor Hamann said.

Associate Professor Hamann said marine debris, boat strikes, and climate change remained the biggest threats to dugongs in Queensland, and dismissed suggestions traditional hunting was having a major impact. In October, Leichhardt MP Warren Entsch, Environment Minister Josh Frydenberg, and Indigenous Affairs Minister Nigel Scullion announced a government crackdown on illegal and "cruel" hunting of dugongs and sea turtles. They flagged moves to -introduce more "no-take" zones. In June, the Gunggandji Traditional Use of Marine Resources Agreement was signed, with traditional owners agreeing to cease turtle and dugong hunting around Green Island, Michaelmas Cay and Fitzroy Island.

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Volunteers to collect seeds and flowers from underwater seagrass meadows (QLD, Australia)

08 December 2016, ABC Online

CQUniversity is looking for volunteers to gather seeds and flowers in a meadow — the only catch is it is underwater. The waters off the coast of Gladstone in central Queensland are home to five of the world's 60 species of seagrass. But coverage has diminished over the last 10 years and researcher Emma Jackson is working to find the best way to rebuild seagrass meadows.

Dr Jackson is researching the revegetation of seagrass areas, and her research currently focuses on the best way to grow the plants from seed. Dr Jackson's work has already identified how to germinate the seeds, and the next step is to discover the best growing conditions to nurture the sprout into a healthy plant.

Volunteer seagrass seed collection is happening on Monday at Lilley's Beach, a sensitive foreshore area near Gladstone, only accessible by four-wheel drive at low tide. Dr Jackson and her colleagues will be guiding volunteers through how to collect seed without damaging the meadow. Local residents who would like to be part of the volunteer team can contact the CQUniversity Gladstone Marina Campus on 07 4970 7277.

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More eelgrass plantings (NY, USA)

08 December 2016, Long Island Advance

Almost two months after the community came together to thread discs filled with eelgrass and its seeds, Cornell Cooperative Extension of Suffolk County recently went out and dove into the Great South Bay to plant them. After initially planting the first batch on Nov. 30, this second trip that the crew ventured on had hopes to finish the planting of the eelgrass and essentially help save the bay.

Steve Schott, marine botany and habitat restoration specialist, and his team, along with the advisement of Brookhaven Town and cooperation with Fire Island National Seashore, geared up in their black, sleek wetsuits and set out to plant the small round threaded burlap "tortillas" in hopes they will grow and reproduce on their own. To plant them, Kim Manzo, eelgrass program educator, said that they use large, cookie cutter-type rings that are pushed into the ground to level out the sediment as the burlap discs are planted 1-2 inches below the surface.

The National Oceanographic and Atmospheric Administration conducted the last survey, noting the loss of eelgrass, in 2002, so Schott said they are long overdue to get an idea on the magnitude of loss. Schott believed that because of the inlet that was created due to Superstorm Sandy in 2012, the bay is now the perfect home, once again, for the eelgrass that once dominated the area. He said that if the breach were to be closed, this project that he and his team worked on would essentially be a waste.

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Sea turtle from Malaysia reaches Puerto Princesa (Philippines)

06 December 2016, ABS-CBN News

A huge Green Sea Turtle was found stranded in a fish trap in one of the villages here, Tuesday. Residents who discovered the sea turtle immediately coordinated with the Palawan Council for Sustainable Development (PCSD) to ensure that the turtle will be properly rescued and released back into the wild.

The Wildlife Traffic and Monitoring Unit of PCSD identified the animal as an adult male Green Sea Turtle that is four-feet long and three-feet wide. Based on their estimate the turtle weighs between 80 and 100 kilograms. The sea turtle's tag showed that the turtle came from the Turtle Islands Park in Sandakan, Sabah, Malaysia. The government intends to bring the sea turtle to Honda Bay where it will be released back into the wild.

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CSA and NOAA case study on oil spill effects on seagrass (USA)

06 December 2016, Your Oil and Gas News

CSA Ocean Sciences Inc. (CSA) is pleased to announce the recent online publication in Marine Pollution Bulletin senior authored by Dr. Mark Fonseca, CSA Vice President - Science. Dr. Fonseca worked in collaboration with NOAA staff from both the NOAA National Centers for Coastal Ocean Science and the NOAA Fisheries Restoration Center/Damage Assessment, SW Region to research and draft the article “Susceptibility of seagrass to oil spills: A case study with eelgrass, Zostera marina in San Francisco Bay, USA.”

Since the MC-252 oil spill in the Gulf of Mexico, there has been renewed interest regarding the impact of oil on ecosystem health. This paper summarizes existing literature on seagrass response to oiling, including both field and laboratory studies, which revealed inconsistent responses of seagrasses to oil exposure. Dr. Fonseca and his collaborators added a case study to examine the potential oiling impacts to eelgrass (Zostera marina) from the 2007 Cosco Busan event in San Francisco Bay. Neither long-term integrators of seagrass response (seagrass shoot densities and percent elongation of rhizome internodes) or a short-term indicator (seagrass photosynthetic efficiency) had consistent relationships to local shoreline cleanup assessment team (SCAT) oiling categories. It was concluded that seagrasses lag behind other coastal ecosystems in our understanding of their tolerance to oiling and dispersants and that conclusive studies examining the influence of degree and duration of oil exposure on seagrasses remain lacking.

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Traditional hunting gets headlines, but is not the big threat to turtles and dugongs (Australia)

06 December 2016, The Conversation AU

Recent calls for a ban on legal traditional hunting of dugongs and marine turtles imply that hunting is the main threat to these iconic species in Australia. The science indicates otherwise. While more is being done to address traditional hunting than any of the other impacts, the main threats to their survival often pass unnoticed.

The Torres Strait supports the largest dugong population in the world and a globally significant population of green turtles. Archaeological research shows that Torres Strait Islanders have been harvesting these species for more than 4,000 years and the dugong harvest has been substantial for several centuries. Our research shows that the Torres Strait dugong population has been stable since we started monitoring 30 years ago and that the harvest of both species is sustainable. The situation for dugongs is very different in the waters of the Great Barrier Reef south of Cooktown. The Great Barrier Reef Outlook Report classifies the condition of the dugong population in this region as poor.

The draft Recovery Plan for Marine Turtles in Australia evaluated 20 threats to the 22 populations of Australia’s six species of marine turtle. Climate change and marine debris, particularly “ghost nets” lost or abandoned by fishers, are the greatest risks for most stocks. Modelling indicates that the southern Great Barrier Reef stock of the green turtle, which live and breed south of Cooktown, is increasing. Nonetheless, both green turtles and dugongs died in record numbers in the year after the extreme floods and cyclones of the summer of 2010-11. Dugongs stopped breeding in the Great Barrier Reef region south of Cooktown. Thankfully, our current aerial survey indicates that dugong calving has resumed as inshore seagrass habitats recover. There is no evidence that the 2011 losses significantly affected green turtle numbers.

Traditional owners are the first managers of our coastal waters, with cultural practices extending back thousands of years. They have the most to lose from any loss of turtles and dugongs. It is therefore in their best interests, and the government’s best interest, to work in partnership to protect and sustainably manage these species.

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

The loss of biodiversity in some marine habitats (Marianas)

05 December 2016, Marianas Variety

Researchers with the University of British Columbia are studying the impact of ocean acidification on coral reefs, mussel beds, kelp forests, and seagrass meadows that form the homes of thousands of marine species. The researchers were able to test their predictions against real-world data from two sites: a coral reef near Papua New Guinea and a group of seagrass beds in the Mediterranean.

In the case of the coral reef, “the diversity and complexity of marine life in the area decreased as acidification increased. Despite predictions that the seagrass beds would fare well under increased levels of carbon dioxide, no increases in biodiversity was observed.”

In the Pacific Northwest, Christopher Harley of the University of British Columbia said “the number of medium to large-sized edible saltwater mussels is likely to decrease as the chemistry of our oceans changes, and this is bad news for the hundreds of species that use them for habitat.” Researchers said “the more complex responses are those of seagrass beds that are vital to many fisheries species. These showed the potential to increase the number of species they can support, but the real-world evidence so far shows that they’re not reaching this potential.” This “highlights a need to focus not only on individual species, but on how the supportive habitat that sets nature’s stage responds and interacts to climate change.”

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

Last dugong found dead in the Gulf? (Thailand)

04 December 2016, Pattaya Mail

The carcass of a male dugong found in the sea between Thalu and Mun islands off Rayong province on November 25 may be the last of this mammal in the Gulf of Thailand, said Mr Poommet Chumchart, a veterinarian attached to the marine and coastal resources research and development centre, said on Friday. He disclosed that he found bruises all over the body of the dugong, but no trawl net traces or traces that it might have been attacked with external force. The veterinarian suspected that the 2.63 metre long adult dugong might have been struck with a hard object before its death, but he could not figure out what was the hard object. He went on saying that closer examination found traces of seagrass in the stomach of the dead dugong, suggesting that the animal was grazing before its death.

From the record of dugongs collected during the past three decades, Mr Poommet said that the dead dugong was codenamed DU-391 or the 391st dugong ever registered. Divers from the centre will examine the seagrass coastline to find out the traces of seagrass grazing which is unique for each individual dugong. If there are now traces of seagrass graving, it will raise the hope that there are still some dugongs left in the sea, said the vet.

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Scientists just discovered there are 'bees' in the oceans (Mexico)

03 December 2015, ScienceAlert

For the first time, researchers have found evidence that underwater ecosystems have pollinators that perform the same task as bees on land. Just like their terrestrial cousins, grasses under the sea shed pollen to sexually reproduce. Until now, biologists assumed the marine plants relied on water alone to spread their genes far and wide. But the discovery of pollen-carrying ‘bees of the sea’ has changed all of that.

Over several years from 2009 to 2012, researchers from the National Autonomous University of Mexico filmed the spring nocturnal wanderings of crustaceans among beds of turtle seagrass, *Thalassia testudinum*. Looking through the videos, they spotted more invertebrates visiting male pollen-bearing flowers than those that lacked pollen – just like bees hovering around pollen-producing plants on land. The concept was so new, they invented a new term to describe it: zoobenthophilous pollination. Before that, researchers had never predicted that animals were involved in pollinating marine plants.

Wondering if the invertebrates were actually pollinating the seagrasses, or just feeding on it, lead researcher Brigitta van Tussenbroek and her team added an assortment of tiny crustaceans to an aquarium of turtle-grass. In minutes, pollen had appeared on the female flowers, compared with no transfer in the control tank that didn’t have crustaceans in it. The take home message was clear: tiny crustaceans were carrying pollen from flower to flower, helping to fertilise them. In the wild, they think this happens in addition to pollination via water currents. So far, the researchers have only shown this relationship with turtle-grass, which have large flowers. It’s yet to be seen if the other 60-odd species of seagrass also rely on ‘sea bees’ to carry their pollen.

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

Great Barrier Reef report to UN shows the poor progress on water quality (Australia)

02 December 2016, The Conversation

The Australian and Queensland governments have delivered their progress report to the UN on the Reef 2050 Plan to ensure the long-term survival of the Great Barrier Reef. The report focuses on water quality, and managing pollution runoff, but only deals in a superficial way with the other preeminent issue for the reef - climate change. It shows recent progress on water quality has been slow, and ultimately we will not meet water quality targets without major further investments.

The progress report claims some success in managing water quality through improved practices in sugarcane cultivation under the SmartCane program, and in rangeland grazing. But actual reductions in sediment and nutrients loads to the reef over the last two years have been very small, as shown in the Reef Report Card 2015. This contrasts with the first five years of Reef Plan (2008-2013) where there was modest progress. The positive news out of the Report Card was that grain cropping and non-banana horticulture were doing well, but these are the industries we have little robust data on. And there's been little progress towards adequate management practices in sugarcane and rangeland grazing as well as gully remediation in the large dry tropics catchments of the Burdekin, Fitzroy and Normanby.

However the specific actions and funding promised in this area over the next five years fall far short of the real requirements to meet water quality targets on the reef, set out in the Reef 2050 Plan and the Reef Water Quality Protection Plan. The best estimate is that meeting water quality targets by 2025 will cost A$8.2 billion. Other estimates suggest we'll need at least A$5-10 billion over the next ten years. There is thus almost no chance the targets will be reached at the nominated time.

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Dugong GPS confirms close-to-shore swimming, raises questions over shark nets (QLD, Australia)

01 December 2016, ABC Online

Queensland scientists have used GPS technology to confirm long-held suspicions that migrating dugongs swim close to the shore, with the research raising questions over whether shark nets need to be removed from their paths. The team from James Cook University monitored 29 dugongs over a three-year period, tracking their movements in the seagrass as well as during their migration between Hervey Bay and Moreton Bay in south-east Queensland.

Professor Helene Marsh said of the four that completed the 300-kilometre journey, three stayed close to the shore, within five kilometres of the coast. Professor Marsh said specially designed harnesses were attached to the dugongs' tails, allowing researchers to record the mammal's position hourly. Professor Marsh said the findings demonstrated why dugongs were so vulnerable to shark nets.

Thirty-nine dugongs were found drowned in shark nets in Queensland from 1989 to 2011. The problem had diminished however since the replacement of shark nets with drumlines at most locations in the Great Barrier Reef, and the opening of dugong protection areas from the 1990s onward. The New South Wales Government is trialling the use of shark nets along Lighthouse Beach at Ballina, in response to shark attacks in the area. Professor Marsh was concerned it would lead to an increase in the number of dugongs being killed.

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

Data from tagged green turtles now being analysed (UAE)

14 December 2016, gulfnews.com

Marine experts in the UAE may soon be able to identify critical marine habitats after gathering data from turtles they have tagged to study their migration and feeding patterns for the Gulf Green Turtle Conservation Initiative. The conservation initiative, launched in May 2016, is a public-private partnership that aims to safeguard the marine environment of the Arabian Gulf and the surrounding sea.

Since its launch, Emirates Wildlife Society in association with WWF has successfully tagged 24 green turtles off the beaches of the UAE and Oman with satellite transmitters. Marine experts are in the process of studying the data and identifying critical marine habitats to conserve endangered marine species. Eng Mariam Mohammad Saeed Hareb, assistant undersecretary of Environmental Affairs and Nature Conservation Sector at the Ministry of Climate Change and Environment, said the conservation of the UAE's ecosystems is pivotal in the country's quest to preserve its natural and cultural heritage.

The turtles tagged in the waters around Bu Tinah Island, Ras Al Khaimah, as well as Ras Al Hadd and Ras Al Jinz enabled marine experts to record observations such as post-nesting female turtles in Oman that have been showing interesting movement patterns across the region. One particular female has travelled fast in a northward direction feeding offshore off the Fujairah coast, highlighting the important ecological connectivity between the Oman Sea and

the Arabian Gulf. With additional funding, experts aim to provide a comprehensive analysis of the ecology needs of green turtles and enable the identification of the marine habitats critical to their survival by 2020.
more…….. http://www.seagrasswatch.org/news.html

CONFERENCES

Coastal & Estuarine Research Federation 24th Biennial Conference (CERF2017) (Providence, Rhode Island, USA, 5-9 November 2017)

Theme: Coastal Science at the Inflection Point: Celebrating Successes & Learning from Challenges

The CERF 2017 scientific program offers four days of, timely, exciting and diverse information on a vast array of estuarine and coastal subjects. Presentations will examine new findings within CERF's traditional science, education and management disciplines and encourage interaction among coastal and estuarine scientists and managers. Additionally, the Scientific Program Committee plans to convene special sessions and workshops that promote intellectually stimulating discussions. Join us and over a thousand of your colleagues to network, celebrate our work, learn from each other and grow within our amazing profession.

for more information, visit http://www.erf.org/cerf-2017-biennial-conference

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

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

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

More information:
To get important updates on ISBW13, register your interest here: *https://goo.gl/forms/TIIhDGhEx71m0tcj1*
Follow on Facebook @ISBW13 and Twitter #ISBW13

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 43,771 views to date)

…seagrass matters blog

World Seagrass Association blog http://wsa.seagrassonline.org/blog/
Keep up to date on what's happening around the world from the WSA with regular updates from WSA President Dr Richard Unsworth and *notes from the field* by Dr Siti Yaakub.

FROM HQ

Past E-bulletins *http://www.seagrasswatch.org/publications.html#ebulletin*
Frequently Asked Questions *http://www.seagrasswatch.org/faq.html*
Seagrass-Watch 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.