31 October 2017

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NEWS

Indonesians plant trees to nurse seagrass back to health in Wakatobi (Indonesia)

31 October 2017, Mongabay.com

In Indonesia's Wakatobi National Park, a community-focused tree-planting initiative is helping protect seagrass meadows and foster a new generation of environmentally aware children. Indonesia is an important country for

seagrass conservation. Without seagrass we probably wouldn't have coral reefs as we know them and they'd be much less beautiful for it, said Benjamin Jones, a founding director of environmental charity Project Seagrass.

On the island of Kaledupa in Wakatobi, a joint initiative between Project Seagrass and FORKANI, a local NGO, engaged with communities to understand how to protect and restore seagrass beds. Earlier this year they started planting trees to save seagrass. First, the researchers sought out local opinions on the main risks to seagrass. Sedimentation came back as the winner. Years of turning forest into farmland had increased runoff into rivers, smothering seagrass. Seagrass can capture sediment, but lots of dumping diminishes water quality and clarity, cutting off light needed for photosynthesis.

Following discussions with local residents and a mapping exercise carried out by FORKANI, the best sites to plant trees were identified. Over time, it was hoped the trees would limit sedimentation, rebuild water retention, protect seagrass and provide an additional source of income for farmers. By now, around 4,500 trees have been planted along Kaledupa's riverbanks. But planting trees hasn't been the only work. The project also opened discussions about overfishing, an obvious threat but a sensitive subject to broach with community members.
more……. *http://www.seagrasswatch.org/news.html*

Santa Rosa residents want channels dredged; environmentalists say seagrass threatened (FL, USA)
29 October 2017, Pensacola News Journal

More than 200 Gulf Breeze residents want easier boat access to Santa Rosa Sound, and to get it they're proposing transplanting the seagrass near their Santa Rosa Shores neighborhood. Several area environmentalists, though, object to the project because of the threat posed to the valuable seagrass by moving it from one location to another.

Since the early 1990s, 231 Santa Rosa Shores residents who live on the water have spent nearly $2 million for authorization to dredge 2 acres of seagrass habitat that would increase the depth of neighborhood channels, allowing for boat access to the Sound during low tide. Santa Rosa County secured a permit for the dredging from the Florida Department of Environmental Protection and ty is waiting for the Corps of Engineers to review the application as well as comments made in response to a public notice on the permit.

Frances Dunham, a longtime environmental activist with Santa Rosa Sound Coalition, says the approval of seagrass dredging in the channels outside a series of canals in Santa Rosa Shores is "a terrible project and sets a bad precedent." Transplantation is not satisfactory to Dunham and other environmentalists who say such a process has never been done successfully in this part of the state. Thalassia, one type of seagrass that comprises the majority of the species that would be involved in the transplantation, is difficult to establish in one area.
more……. *http://www.seagrasswatch.org/news.html*

Citizen scientists at Elkhorn Slough aid in sea otter research (CA, USA)
28 October 2017, Santa Cruz Sentinel

A partnership between local researchers and dedicated citizen scientists is researching Elkhorn Slough's rebounding sea otter populations and the strange behavior that might have brought them there. The results of this years-long study, published in the journal Ecology, highlight the power of citizen science.

In 2007, Ron Eby met fellow citizen scientist Robert Scoles after they began volunteering in Elkhorn Slough with Team OCEAN of the Monterey Bay National Marine Sanctuary. They soon saw otters swimming along the remote channels of the slough and witnessed sea otters that would "haul out," or hop up along the shores of the marsh, a surprising behavior for Southern sea otters in the bay. Under the guidance of research scientists like Daniela Maldini, founding member of the California based nonprofit Okeanis, and Kerstin Wasson, a research coordinator at the Elkhorn Slough National Estuarine Research Reserve and adjunct professor in the Department of Evolutionary Biology and Ecology at UC Santa Cruz, they went from jotting down observations to participating in full-blown scientific studies.

When the threats to populations of Southern sea otter along the California coast are abundant, Elkhorn Slough provides a safe haven. Scientists believe that hauling out gives the otters an opportunity to rest, to warm up and allows them to safely care for their young. Eby and Scoles' observations revealed that they would haul out in some spots but not others. According to their hypothesis, quiet places, tucked away from other wildlife — kayakers and duck hunters included — are most attractive to otters in search of a spot to splay out.

According to Brent Hughes, a marine biologist at UC Santa Cruz and a co-author on the study, the role sea otters play in wetland ecosystems is pivotal. Otters eat clams, urchins and other small invertebrates, but have a voracious appetite for small crabs abundantly found in the slough. According to Hughes, these crabs prey on slugs and marine critters called isopods that act like "bulldozers," scooping up algae that often strangles the seagrass it grows on.
more……. *http://www.seagrasswatch.org/news.html*

James River health improving overall, but more work needed, report says (VA, USA)

26 October 2017, Daily Press

A new “State of the James” report issued Thursday gives the river a grade of B-minus for reaching an overall 62 percent of a suite of pollution reduction and habitat and wildlife improvement goals set by state and federal agencies. That’s up a full 10 points since the James River Association issued its first report in 2007, and 3 points over the last one issued in 2015. The report breaks down into 19 indicators in four categories: fish and wildlife (66 percent of the goal), habitat (61 percent), pollution reductions (56 percent), and protection and restoration actions (65 percent). Of the 19 indicators, 14 showed improvement, three stayed the same and two — underwater grasses and shad — declined.

It’s unclear why grassbeds are shrinking now after expanding for nearly two decades, especially as tidal water quality in the river has improved and underwater grasses are flourishing in the Chesapeake Bay itself. Indeed, the Virginia Institute of Marine Science in Gloucester Point announced in April that underwater grass abundance in the bay was the highest they’d ever recorded. This week, Robert “J.J.” Orth, who heads up VIMS’ seagrass monitoring and restoration program, said 2017 numbers for seagrass beds aren’t in yet, but smaller creeks entering the James are showing a lot of underwater grasses while beds along the main stem of the river have declined. Reasons for that decline aren’t clear, he said, but it could be that freshwater species growing there were affected by changes in salinity.

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

Seaweed, debris bring mixed blessings to Volusia, Flagler beaches (FL, USA)

25 October 2017, Daytona Beach News-Journal

High tides and big surf after weeks of hurricanes and other storm activity have churned up the ocean all around Florida and throughout the Caribbean, delivering a mixture of plant bits, roots and seeds from far and wide onto Florida’s beaches, state experts said this week. The finely ground grass, algae and leaves were blamed for the coffee-colored water confronting the Thompsons and other beachgoers.

But, while it might make things at the beach unpleasant for a while, the “brown mattress” covering the beaches, officially known as a wrack line, will help rebuild flattened dunes and restore the beach. The seaweed and plant debris is “nature’s way of rebuilding the beach,” she said. “It provides habitat and foraging opportunities for the birds and insects.”

“Vegetation is like gold for us,” said Jessica Winterwerp, the county’s coastal division director. The seaweed and plant debris is “nature’s way of rebuilding the beach,” she said. “It provides habitat and foraging opportunities for the birds and insects.” The wrack line on local beaches appeared to be a mixture of algal seaweed species and sea grasses, including sargassum, red grapes algae and turtle grass, said Ilami and Irene Arpayoglou, manager of the Indian River Lagoon Aquatic Preserves for the Florida Department of Environmental Protection. The worrisome thing about the seagrass, she said, it’s that they’ve been seeing it in “incredible amounts,” including seeds, roots and mats. “That’s a problem,” she said, because it probably means damage to the beds where the grass was torn out by its roots and washed away.

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Dept backs stand on dugong hunt (Trang, Thailand)

24 October 2017, Bangkok Post

The Department of National Parks, Wildlife and Plant Conservation (DNP) yesterday insisted it did not fabricate evidence of dugong hunting in Trang, as claimed by wildlife advocacy groups. Department director-general Thanya Nethithammakul yesterday said the agency had nothing to gain from framing villagers for dugong hunting, as its duty was to preserve the mammal. Mr Thanya also asked wildlife activists not to point the finger at anybody for the drop in dugong numbers, but instead cooperate with officials to conserve the species and improve the fertility of seagrass.

The DNP chief's comment came after a Trang artisanal fishery network disputed a report released by Mr Thanya last week on the drop in the mammal's population in the province. The report claimed dugong populations are being threatened by a loss of fertility in the seagrass habitat and disturbance due to fishing gear and hunting. Currently, less than 200 dugongs live in Thai waters, of which around 130-150 are found along the coastline of Koh Libong in Trang's Kantang district.

A department source also said the island was a black market where the sale of dugong fangs and bones could fetch up to 10,000 baht per kilogramme while the mammal's meat could fetch 150 baht per kilogramme. The source claimed to have posed as a customer to buy meat believed to belong to dugong. The meat was sent to a Phuket-based marine biological centre which later confirmed it was real dugong meat. Following these claims, fishery network chief Aren Prakong criticised the report, insisting villagers on Koh Libong have been taking part in the preservation of dugong for the past three decades. He said they were disheartened by Mr Thanya's accusation.

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

The hurricane sent foul water from the sewers into Biscayne Bay. What happens now? (FL, USA)
22 October 2017, Miami Herald

If the flooding Hurricane Irma unleashed around Miami-Dade County looked bad onshore, scientists worry the damage to Biscayne Bay could be far more long-lasting, and difficult to fix. During and after the storm, foul stormwater from the mainland and beaches poured into the bay, carrying pollution from oil-stained streets and leaky sewers to areas already struggling with seagrass die-offs and algae blooms. At the troubled north end, where an ongoing die-off has killed half the beds, it spiked up to 10 times higher, a sign that increasing nutrients from pollution are feeding the seagrass-smothering algae. Salinity levels have also plunged in places, leaving water nearly fresh. Oxygen concentrations needed to keep fish alive are also woefully low.

While it's not yet clear precisely what's causing the problems, the likely culprit is the pollution, which over the years has caused the bay to grow less and less healthy, driving away fish and wiping out more than 23 square miles of seagrass meadows. "You're reducing the resiliency of the bay to withstand these types of disturbances," said Chris Kelble, an oceanographer with NOAA's Atlantic Oceanographic and Meteorological Lab. The NOAA team and other scientists are in the midst of performing an ecosystem assessment and expect results in the next few weeks.

NOAA has been sampling water monthly off South Florida since the 1990s and after hurricanes typically looks at issues like algae blooms that might worsen. Earlier this month, they modified their sampling to look more closely at Irma's impacts. In addition to water quality in Biscayne Bay, the assessment will examine seagrass and the condition of juvenile sportfish in the region's lucrative fishing industry, coral near Cheeca Rocks and water quality in the Gables Waterway where leaking septic tanks have long caused problems. While results are preliminary, so far they show chlorophyll elevated in all but the central parts of the bay. The seagrass die-off in the Tuttle basin, coupled with the wider spread die-offs, could also make conditions worse since seagrass help soak up the nutrients.
more……. http://www.seagrasswatch.org/news.html

PH proposes setting up of marine protected areas' network in SEA (Philippines)
21 October 2017, Manila Bulletin

The Philippines is hoping to build stronger ties with other members of the Association of Southeast Asian Nations (ASEAN) through the establishment of a network of marine protected areas (MPAs) in the region that would safeguard migratory species and the habitats critical to their survival. Environment Secretary Roy Cimatu said the proposed establishment of MPA network within the ASEAN is contained in a draft resolution submitted by the Philippine delegation led by the Department of Environment and Natural Resources (DENR) to the secretariat of the Convention on Migratory Species (CMS).

DENR-Biodiversity Management Bureau (BMB) director Theresa Mundita Lim said the MPAs provide safe havens and food for migratory aquatic and bird species. The MPAs also contribute to food security, sustainable livelihood and economic growth, and climate change mitigation and adaptation, she said. At the same time, Lim noted that the establishment of an MPA network would be a proactive step in protecting globally-important marine and coastal biodiversity, particularly since the region faces complex threats from climate change, overexploitation of resources, and pollution from a burgeoning population.

South East Asia hosts 30 percent of the coral reefs, 35 percent of mangroves, and 18 percent of sea grass meadows in the world. Despite these figures, only two percent of the entire region has been designated as MPAs. The draft resolution seeks to conserve at least 10 percent of the regions' coastal and marine areas. Lim believes that more MPAs would address continued losses to biodiversity within coastal and marine ecosystems. This is consistent with goals set for 2020 under the Aichi Biodiversity Targets of the Convention on Biological Diversity.
more……. http://www.seagrasswatch.org/news.html

ODB recorded call from heretofore unidentified dugong in waters surrounding Henoko in August (Okinawa, Japan)
17 October 2017, Ryukyushimpo

In order to study the impacts of replacement facility construction in Henoko, Nago City for Futenma Air Station, the Ministry of Defense's Okinawa Defense Bureau (ODB) is conducting a dugong habitat investigation in the surrounding waters. Due to a dugong's call recorded on August 28 in Ada, Kunigami Village, it came to light that dugong specimen C, which has not been spotted since June 2015, may still be out there.

In order to identify the dugongs' habitats and various behavioral tendencies, the ODB is continuing to monitor the dugongs using aircraft and underwater audio recording equipment. Each specimen cannot be identified based on audio alone, but by observing other dugongs within the same time frame, circumstantially it appears possible that there are only three dugongs in Okinawa, one of them being specimen C.

According to the Environmental Oversight Committee's minutes, around 10:00 a.m. on August 28 some recording equipment underwater in Ada captured a sound thought to be a dugong call. However, since a surveying helicopter observed specimen B in the waters of Kouri at 9:53 a.m. the same day, the ODB has surmised that the dugong call captured was not from specimen B. Based on recordings up to this point, the range of specimen A's habitat is generally limited to the water area of Kayo. Therefore, committee members have indicated the recording in Ada is likely the call of specimen C.

The ODB is taking another angle due to difficulties in identifying specimens based on their calls: "This may be specimen C, but we are not ruling out the possibility that it was specimen A." What seem to be dugong calls were recorded in Ada's waters in the afternoon on August 29 and 30, as well. Director Mariko Abe of the Nature Conservation Society of Japan said, "If specimen C is confirmed I will be delighted, but still the objective of the underwater audio recording equipment is unclear." She mentioned that above collecting weak call recordings to identify specimens, "It is essential to take effective conservation measures."
more……. http://www.seagrasswatch.org/news.html

Trang fishermen deny dugong-hunting claims (Trang, Thailand)
18 October 2017, The Nation

Conservationists and fishermen in Trang province have denied claims that dugong hunters are active in their area. They have demanded that Thanya Netithammakun, who heads the Department of National Parks, Wildlife and Plant Conservation, either substantiate these claims with evidence or provide further explanation. These claims, they said, tarnished their credibility despite their ongoing and serious efforts to protect wildlife and the environment in the area. Earlier, Thanya said dugongs were hunted and killed for their meat, tusks and bones.

Dugong meat is sold as food at Bt150 per kilogram, and tusks and bones are used for amulet making, he said. Thanya also claimed that dugong meat was available on Libong island, upsetting the network of conservation groups and local fishermen in Trang. These locals say that dugong hunting has not existed in their areas since 1993. "We have strongly opposed such hunting. During the past 20 years, we have never seen anyone hunting dugongs in our province's seawaters," a local conservationist said.

He said that local dugong population had been shrinking in recent years only because of illegal fishing tools. According to him, more than five dugongs sustained fatal wounds from fishing tools each year in Trang. If Thanya really had evidence to support his claims, the locals wanted him to take action against those involved in dugong hunting, he said.
more……. http://www.seagrasswatch.org/news.html

Seagrass should be left on the beach as long as possible: ERA (Malta)
18 October 2017, Times of Malta

The Environmental Resources Authority has issued guidelines on how ecologically sensitive beaches should be cleaned, saying that seagrass should be left to accumulate on the beach for as long as possible. "*Posidonia oceanica* provides food and habitat for a variety of species. Even when it washes ashore, it continues to serve important purposes – providing a place where sand collects to help build beaches and dunes and prevent erosion, providing nutrients for coastal systems and areas where birds and other animals forage and find shelter. "*Posidonia oceanica* should therefore, as a rule, be left in place for as long as possible during the year especially when the incidence of rough weather is higher, so as to maintain a healthy sand budget," the ERA said.

The operational guidelines cover a number of issues, such as how and when seagrass can be removed, as well as including sections on ecological, operational and waste management considerations. "The document aims to attain as near a balance as possible between keeping beaches clean for the enjoyment of the public and protecting the ecology of these environmentally sensitive beaches. However, insensitive or incautious cleaning methodologies can be detrimental to the environmental characteristics of beaches," the authority said.
more……. http://www.seagrasswatch.org/news.html

Dept aims for dugong preservation (Thailand)
17 October 2017, Bangkok Post

The Department of National Parks, Wildlife and Plant Conservation plans to strengthen measures for preserving and conserving the dugong population with the local community's participation, saying the plan also includes increasing seagrass habitat which is the main food source for the seacow-like mammal.

Thanya Nethithammakul, chief of the Department of National Parks, Wildlife and Plant Conservation, said dugong populations are being threatened by a loss of fertility in the seagrass habitat, and disturbance due to fishing gear and man-made hunting. The department needs to develop more effective measures to limit the losses and increase their population, he said. He stressed that cooperation from all stakeholders is important for the mammal's conservation and protection in the long run, adding the department will put more focus on local participation and is ready to stop or

suspend any project if there is opposition from locals. He referred to a controversial case against national park authorities regarding a plan to attach tags to dugongs to monitor their travels. Locals had said the project would pose a threat to the rare species as the long-tailed tag or cord might get tangled with fishing gear and cause their death. The project has been suspended by the department.

Songtham Suksawang, director of the National Park Office, said the department plans to increase the dugong population by improving the fertility of seagrass habitats, adding there is evidence of dugong populations having been found in many marine national parks in Chumphon, Phangnga and Phuket decades ago, but none or very few of them are seen now.
more……. http://www.seagrasswatch.org/news.html

More money needed to implement seagrass study findings in Port Stephens | opinion (NSW, Australia)
17 October 2017, Port Stephens Examiner

The allocation of $95,954 in state funds for *Posidonia australis* regeneration creates a public impression that something is being done for the Port's damaged seagrasses. But it's too little, too late and obviously misdirected, when recommendations like aerial monitoring of the Flood Tide Delta in the Outer Port remain unfulfilled.

The proposed replanting of seagrass damaged by outmoded chain swing boat moorings is challenging enough but when it comes to the naturally occurring hydrodynamics of tidal, storm and recurring sand events this replanting becomes somewhat doubtful and even futile. A July 2012 Department of Primary Industries factsheet states: "Damaged *Posidonia australis* plants cease to establish lateral rhizome runners and are very slow to recover, taking up to 50 years to close a gap of 1m following damage".

While it is important that the replacement of chain swing moorings continues, natural sand inundation is much more challenging and rapidly turning seagrass meadows into sandy beaches. This is a natural occurring disaster at this time of migrating sands drifting westward and so far impacting our seagrass meadows of mixed seagrass species and more are expected to follow. A major allocation of state funds is now urgently needed to address the science-based recommendations arising from extensive studies including those conducted by the University of Sydney led by marine scientist Dr Ana Vila-Concejo et al.
more……. http://www.seagrasswatch.org/news.html

Bait and Switch? Scientists Question Use of 'Offsets' in Ocean Projects (Australia)
17 October 2017, News Deeply (blog)

Researchers find that policies in Australia to compensate for the destruction of marine habitats from dredging, port construction and other developments are too poorly managed to prevent a loss of biodiversity. As the ocean becomes increasingly industrialized, governments are starting to rely on a strategy long deployed with mixed results to mitigate the destruction of habitats on land: offsets. The idea is make up for the loss of biodiversity from development by creating or rehabilitating habitat elsewhere. Now researchers have called into question the efficacy of marine offsets after reviewing 42 development projects in Australia. The findings are more than academic. As nations move to mine unique seabed habitats for valuable minerals, offsets are likely be proposed to gain approval of such projects.

The researchers' peer-reviewed study published in the journal Ocean & Coastal Management concluded that ocean biodiversity offsetting in Australia appears to be a poorly managed and opaque process held to standards that are too lax to prevent a net loss of biodiversity. As part of their research, the authors reviewed Australian marine development projects affecting subtidal habitat. The projects included dredging, port and marina development, cable laying, aquaculture and desalination plants. To offset the ecological damage of their projects, the developers were required to, among other things, rehabilitate or enhance developed habitats, manage activities affecting biodiversity, protect or finance research on at-risk habitats and species or create environmental education programs. But the researchers did not find any explicit metrics that would measure success in offsetting biodiversity loss from many of the development projects. In fact, just 14 percent of the offsetting projects could clearly quantify their benefits in relation to a development's negative impact on an ecosystem, raising questions about their design, according to the study.

Most of the biodiversity offsetting projects involved negative impacts on sea grass, which is a protected species in all Australian states and territories. About half of those projects considered biodiversity offsets that involved replanting lost seagrass. That could be because seagrass has been relatively well studied and simple to monitor compared to other species, such as turtles and marine mammals, which have more complex ranges and life cycles that are less well understood.
more……. http://www.seagrasswatch.org/news.html

Conference discusses bid to save dugongs from extinction (Thailand)
16 October 2017, The Nation

A national convention on dugongs and seagrass preservation was held on Monday to find the solution to save dugongs from extinction.

National Park, Wildlife and Plant Conservation Department director-general Thanya Netithammakun headed the conference, which included representatives from the relevant agencies such as the Marine and Coastal Resources Department and the faculties of fisheries from various universities. Thanya pointed out that the changing environment and climate change had severely affected the dugong population worldwide.

There was a strong need for all officers to understand the situation and work together to save dugongs, their habitat and their main food source – sea grass fields. Therefore, he stressed that the outcome of this convention was crucial for dugong conservation in Thailand, where the population of this rare marine mammal was shrinking at a concerning rate. It is believed that there are only about 200 dugongs left in Thai waters, and around 150 of these are in Had Chao Mai marine national park in Trang, where the seagrass field is well preserved and abundant.
more…….. http://www.seagrasswatch.org/news.html

Here's The Painful Truth About Turtle Poaching In M'sia (Malaysia)
09 October 2017, malaysiandigest.com

The discovery of eight turtle carcasses that were brutally mutilated on the beach of Pulau Bum-Bum, Semporna, Sabah, recently, sparked a wave of anguish and worry amongst Malaysians as they vehemently rejected the merciless act. Further investigation into the heinous crime revealed 100 turtle carcasses scattered on the beaches of Kampung Pantau-Pantau, Kampung Amboh-Amboh and Kampung Sampolan, across the island.

Director of the Sabah Wildlife Department Augustine Tuuga stated that the department's intelligence found that foreign vessels come into Sabah waters and are offering poachers, which are mostly sea nomads, cash for their services to illegally hunt sea turtles. Additionally, the fact that it is still legal to collect turtle eggs (at a certain percentage) in the Philippines has sparked a phenomenon whereby traders will enter Sabah and proceed to sell these eggs to interested customers.

While the truth about turtle poaching is saddening to know, the fact that Malaysia is home to four species of sea turtles with each species seeing a decline over the last 10 years is even more heart breaking to fathom. "But there are a few exceptions as the Sabah greens have remained stable and possibly even increased a bit, but all others have decreased substantially," Dr Nicolas Pilcher, Executive Director of Marine Research Foundation (MRF) highlighted. Dr Pilcher points out adult turtles ought to receive the utmost protection from local and foreign poachers, as villagers appear to be collecting turtles and selling them to poachers.

Aside poaching, the dangers that threaten sea turtles are bycatch in fishing practices which often happens by accident, and therefore can be avoided. Dr Pilcher shared that turtles are still killed in gill nets, sting-ray nets and bottom longlines by the thousands. "Many fail to realise that sea turtles are an imperative member of the marine ecosystem. For instance, the green turtles feed on seagrass. When this grass grows too long it becomes unhealthy. So turtles act as the underwater grass cutters and keep that ecosystem healthy. The absence of sea turtles will not only factor into the decline of seagrass productivity and nutrients level, it will also have a substantial impact on coral reefs (stunted growth), overpopulation of jellyfish – which will create a stressful marine ecosystem.
more…….. http://www.seagrasswatch.org/news.html

Sea Shelter A New Marine Conservation Entity for Port Stephens and Hunter Regions (NSW, Australia)
06 October 2017, News Of The Area (press release)

SEA Shelter is a new Port Stephens Not-For-Profit, dedicated to local marine conservation, founded by Marine Biologist Ryan Pereira and his partner Lia Pereira, who are also the owners of Irukandji Shark and Ray Encounters at Bobs Farm. The duo are passionate about preserving the local environment and assisting species that are endangered or threatened.

Sea Shelter will fill a gap in the region where there is minimal rehabilitation available for marine animals, specifically fish. "The Port Stephens region has areas of mangroves, salt marshes, seagrass beds, giant sponge beds, soft corals and tiny sea horse gardens that can benefit from regeneration." Lia believes that Port Stephens and the Hunter is an ecological hotspot in Australia and that Sea Shelter's mission to maintain, assist in attenuation programs or regenerate the habitats already lost is beneficial to the environment.

You can find out more about Sea Shelter and contributing to a positive impact on the Port Stephens environment by visiting seashelter.org.
more…….. http://www.seagrasswatch.org/news.html

Students hop in the bay for learning (USA)
05 October 2017, WJHG-TV

Forty-two science class students took a break from classrooms and textbooks and got in the water. The goal of the hands-on learning was to teach the students the importance of seagrass in the bay.

"It's what we call a keystone species. Literally, you could have 100 of species of marine organisms disappear so it's imperative that we take care and maintain that habitat," said Glenn Faust, a 7th Grade Science Teacher at Surfside Middle School.

The students learned about the seagrass in West Bay and Crooked Creek. They found different types of organisms in the water. The students were excited to use yabby pumps, robots, and filters in their outdoor classroom.
more……. http://www.seagrasswatch.org/news.html

UT Marine Science Institute researchers assess Harvey's impact on seagrass (TX, USA)
05 October 2017, Corpus Christi Caller-Times

Marine scientists harbor little doubt that Hurricane Harvey impacted some of the Coastal Bend's vital fisheries habitats. For the past several weeks, graduate students Victoria Congdon, Christina Bonsell and Meaghan Cuddy, under the guidance of Professor Ken Dunton at the Marine Science Institute in Port Aransas, have withstood jellyfish, high tides and storm debris in their attempt to assess the hurricane's effect on seagrass along the Texas coast. These questions had to be addressed immediately to get the best possible snapshot of a storm's impact on seagrass meadows that carpet thousands of acres of bay bottoms in the region, Dunton said. The students will continue surveying the reaction and recovery of seagrass through November 2018.

The graduate students' research is part of an ongoing study of seagrasses from Galveston to Port Isabel, funded by the National Park Service, the Texas General Land Office, the Coastal Bend Bays & Estuaries Program and the Mission-Aransas NERR. Within days of the storm's passage, Congdon, Bonsell and Cuddy began surveying stretches of the coast that were exposed to hurricane force winds. They researched the Upper Laguna Madre to Aransas and Copano bays. They took samples from 128 data-collection stations that have been in place for years. The student researchers hope to measure the degree to which a storm of this magnitude scours bay floors. They want to know whether this will inhibit regrowth of seagrass. And if so, for how long.

Dunton's team will look beyond the physical disruption of sediments to examine other factors that may affect the stability of seagrass communities in the region. Post-storm sampling has revealed that salinity levels in some areas remain at 9 parts per thousand to about 13 ppt. Normally, the salt content of bay water is 30-35 ppt. Seagrass does not do well when the salinity level is below 15 ppt for prolonged periods, Dunton said. Another concern is turbidity, which can darken the water column enough to keep sunlight from reaching the bay bottom, thereby preventing plant growth. They also will watch to see whether less stable vegetation will take advantage of vacancies left by seagrass swept away by storm surge. In short, these researchers want to record how established seagrass meadows react to such dramatic weather events and, hopefully, document the stages of recovery.
more……. http://www.seagrasswatch.org/news.html

After Irma, Pummeled Everglades Shows Signs of Resilience (FL, USA)
05 October 2017, Gears Of Biz

When Hurricane Irma plowed into Florida's southwestern coast as a powerful Category 4 storm last month, it tore up seagrass beds and left what looked like a trail of ecological apocalypse in its wake. But as scientists go out and assess the damage to the South Florida's ecosystems, they're starting to notice some bright spots.

After doing an aerial flyover of Florida Bay after the storm and spotting enormous racks of dead seagrass, Everglades Foundation wetland ecologist Steve Davis was worried. But when Davis went out on the bay last week, what he saw was quite different. Rather than creating a vast dead-zone, all that detritus appears to have triggered a feasting frenzy. "You're seeing lots of things like shrimp and crabs associated with those [dead seagrass]matts," Davis said. "The fish," particularly tarpon, "were just in heaven eating the shrimp."

While there are likely to be localized regions of severe damage, Jim Fourqurean, a seagrass ecologist and professor at Florida International University, says that overall, Florida Bay might emerge stronger as a result of the storm, owing to Irma's effects on water quality. The bay exchanges very little water with the surrounding ocean, and it also doesn't get nearly as much freshwater from the Everglades' wetlands as it did in the days before human settlement. But during the lead-up to Irma, a huge amount of water was sucked out of the bay, only to be replenished with fresh seawater when the storm plowed back in. "My major professor always said what Florida Bay really needed to be healthy was a good hurricane once in a while to blow all the accumulated organic matter out of the bay," Fourqurean said. "If that hypothesis were true, the bay should be better off next year," except for any areas where the seagrass was totally scoured.
more……. http://www.seagrasswatch.org/news.html

Tide Bites: Hydrogen Sulfide: Bad actor behind seagrass decline? (WA, USA)
04 October 2017, SanJuanIslander.com

Zostera marina is widely distributed in the Salish Sea region of the Pacific Northwest. Recently, however, loss of these plants is commonly reported. While no single culprit has been identified, there is evidence that local increases in Hydrogen Sulfide (H_2S) concentration may kill seedlings before they reach mature plant status. This could result in plant losses at specific locations.

Hydrogen sulfide (H_2S) is also toxic to plants, however eelgrass is somewhat resistant because mature plants develop aerenchyma: tissues functioning as straws, delivering oxygen to the roots during photosynthesis. When this happens, the oxygen reacts with H_2S to produce water and sulfate salt, which is less toxic to these plants. Seedlings and immature plants may not benefit fully from this resistance strategy because they produce less oxygen to react with surrounding H_2S.

Laboratory trials demonstrated that minuscule doses of hydrogen sulfide actually increased photosynthesis and leaf health, but that higher concentrations shut down photosystem II, inhibiting photosynthesis. Even relatively low concentrations of H_2S (400-500 µM) appeared to significantly increase seedling mortality. Seedlings of *Phyllospadix scouleri* (surfgrass), proved more sensitive than *Z. marina*, although the negative response to H_2S was slower. Field sampling was conducted at 85 stations in the San Juan Islands, Bellingham Bay, and the Anacortes vicinity. In locations with healthy meadows, the sediments contained low levels of H_2S (0 to 10 µM) and low percentages of organic matter. Locations with reduced or extirpated eelgrass populations had high levels of H_2S (100 µM to 1mM) and a high percent of organic matter in the sediment. These findings suggest that measuring H_2S concentrations be considered when assessing observed losses of seagrasses in the Salish Sea.
more…….. http://www.seagrasswatch.org/news.html

Studland seahorse species returns after three year absence (UK)
04 October 2017, BUzz

A species of Seahorse has been spotted along Dorset's coast after three years of absence. Since 2008 the Seahorse Trust have monitored the declining spiny and short snouted seahorse across Studland Bay to help protect the species. Only 14 of the species have been sighted in the UK this year, with an absence in Studland for three years.

Studland is well known for it's vast marine and coastal life and is a popular location for many boats to moor along the bay. The sea beds are often damaged due to boat anchors breaking down the seagrass. These species of seahorse have been protected by the Wildlife and Countryside Act 1981 from 2008, preventing the remaining numbers of them from being killed, injured or taken. The trust have been using tagging and head-shots to monitor numbers and each individual seahorse. A non-invasive close range photo is taken to identify each seahorse, and allows them to build a detailed picture of their ecology. Tagging the seahorses also allows the trust to learn about breeding and territory patterns.

To further protect the Bay the seahorse trust have put Studland forward as a Marine Conservation Zone for the third time. The last two recommendations were unsuccessful. They are hoping to find out by December if it will be selected to become a conservation area, and if selected the trust will work to improve the site and encourage environment friendly mooring.
more…….. http://www.seagrasswatch.org/news.html

CONFERENCES

The 13th International Seagrass Biology Workshop (ISBW13) and World Seagrass Conference (11-17 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, visit: *https://www.isbw13.org/*
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 46,931 views to date)

Seagrass & other matters

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.