



Seagrass-Watch E-Bulletin

30 June 2018

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NEWS

Boat strike kills dugong in Exmouth Gulf (WA, Australia)

27 June 2018, *The West Australian*

A dugong has died after being struck by a boat in the Exmouth Gulf. The dead dugong, which was lactating, was found in the gulf in early June and removed by Parks and Wildlife staff. A necropsy found it had died from a catastrophic blunt force trauma to the skull, caused by a small watercraft.

Wildlife officer Peter Carstairs said it was important vessels were operated at a responsible speed and manner. Mr Carstairs said dugongs were often victims of vessel strikes and were occasionally seriously injured by propellers because they were slow-moving. Dugongs are common in marine parks from the Gascoyne to the Kimberley.
[more.....www.seagrasswatch.org/news_May2018archives.htm](http://www.seagrasswatch.org/news_May2018archives.htm)

'Magical' and 'captivating' underwater creatures (USA)

26 June 2018, Mat-Su Valley Frontiersman

Seahorses don't come to mind when one thinks of the Chesapeake Bay. But they're in there among all the other more famous creatures like rockfish and blue crabs. One species of seahorse lives in the bay: the lined seahorse. This type of seahorse is found from Florida through New England and grows to be up to 5 inches long, coming in a variety of colors, including brown and yellow. They have a limited ability to change color.

The seahorses live in seagrass beds. As seagrass growth has struggled in recent years, the seahorses undoubtedly struggle with habitat loss. But, some recent studies suggest seagrasses are coming back to the bay. The volume of bay grass reached a record high of nearly 60,000 acres in Maryland in 2016, representing a 10 percent increase from 2015 and surpassing the state's 2017 restoration goal of 57,000 acres a full year ahead of schedule, according to previous reports.

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Local scientists weigh in on if this summer will be like 2016 (USA)

27 June 2018, WPEC

Right now, as more than a billion gallons of water from Lake Okeechobee is being released into the St. Lucie estuary, local scientists fear this summer could be like two years ago. Mark Perry, the Executive Director for Florida Oceanographic Society, said there is a large bloom in Lake O, but it's not quite as big as what's been seen in the past.

Dennis Hanisak, a research professor at Harbor Branch, is constantly monitoring the water quality. The flushing in of freshwater is killing the wildlife. He said, seagrass will get distressed in a couple of days. They'll start dying that first week. The longer it goes the bigger problem it comes. And the freshwater lets the algae thrive. So Perry said even just giving the water a longer break from releases will help a lot.

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Dugong Mascot to Join Courthouse Rally Against U.S. Military's Threat to Endangered Marine Mammal (Japan)

26 June 2018, Center for Biological Diversity (press release)

A large dugong mascot will join American and Japanese conservationists for a courthouse rally Thursday against a U.S. military base that could wipe out Okinawa dugongs, among the world's most endangered marine mammals. The rally will precede a key hearing in a historic lawsuit that aims to halt construction of the base, which would fill in and pave over some 125 acres of rich coral and seagrass habitat crucial to the handful of surviving Okinawa dugongs.

Inside the courthouse a federal judge will hear the suit, which was filed by the Center, Turtle Island Restoration Network, and Japanese conservation groups and Okinawan residents under the U.S. National Historic Preservation Act. Dugongs are ancient cultural icons for the Okinawan people.

Thursday's hearing follows a landmark 2017 ruling by the 9th Circuit U.S. Court of Appeals that affirmed the right of conservation groups to sue to compel the U.S. military to fully consider the base's impacts. The plaintiffs are represented by Earthjustice. Dugongs have long been revered by native Okinawans and even celebrated as "sirens" that bring friendly warnings of tsunamis. The dugong is listed as an object of national cultural significance under Japan's Law for the Protection of Cultural Properties. Under the U.S. National Historic Protection Act and international law, the United States must avoid or mitigate harm to places or things of cultural significance to another country.

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Seagrass can recover from fish farm waste (Cyprus)

26 June 2018, The Fish Site

Moving fish farms away from beds of *Posidonia oceanica* has allowed colonies of this ecologically important seagrass species to recover, according to new research. The study, undertaken by a team of academics from the Marine and Environmental Research (MER) Lab in Cyprus and the University of Plymouth, looked at the health of a number of seagrass meadows off Cyprus and its results have been published in the latest issue of the journal Marine Environmental Research.

When farming of sea bass and sea bream began around Cyprus in the mid-1990s, cages were moored directly above seagrass beds, but as production expanded they were moved into deeper water further away from the meadows. This study involved monitoring the health of seagrass meadows near fish farms that had been moved into deeper waters, as well as near a decommissioned fish farm site. Results showed that declines in the meadows were most pronounced at a site that was the most distant from mariculture activities but close to other anthropogenic pressures and the results suggest that moving fish farms away from *P. oceanica* has helped ensure recovery of the meadows.

Consequently, Professor Jason Hall-Spencer, one of the co-authors of the paper, believes the study has reached some fundamentally important – and very positive – conclusions. This is a very good news story as it shows that sensible management of aquaculture practices, based on sound science, has helped marine life recovery. We can farm food sustainably, and boost the blue economy, at the same time as securing healthy coastal ecosystems.
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Eelgrass restoration in Upper Newport Bay may help reduce acid in seawater promoting better ocean environments (CA, USA)

25 June 2018, OCRegister

Since 2012, more than 3,000 students and community volunteers have helped plant beds of the underwater grasses, and water sensors recently retrieved by Orange County Coastkeepers, a Costa Mesa-based nonprofit environmental group, from the bottom of Upper Newport Bay show beds there are getting more dense. That has scientists from the University of California excited because eelgrass might be a way to lower the acidity in seawater by cleaning carbon from the water and releasing oxygen, also helping the atmosphere.

The sensors are monitoring oxygen levels, temperature and salinity within the eelgrass beds in Upper Newport Bay and in areas where the grasses haven't been restored. By protecting eelgrass in bays, researchers say, there is greater fish production in offshore reefs. If more eelgrass continues to grow, researchers hope it can make a difference in the ocean's water quality and the effects of climate change.

The efforts have faced some hurdles. Eelgrass beds have been uprooted by passing boats or paddle boarders. Because they grow in shallow waters, seagrasses are especially vulnerable to land-based activities such as coastal development, boating and fishing. Although the grasses are resilient and recover from natural disturbance, they may not be able to adapt quickly enough to the rapidly changing environmental conditions caused by humans, said Katie Nichol, marine restoration director for Orange County Coastkeeper.

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Why We Need Seagrass (USA)

25 June 2018, JSTOR Daily

Seagrass meadows are not only vital habitats for a variety of marine life, they are also a vital link between land and sea, improving water quality and helping protect fragile shorelines. One of the primary functions of seagrass meadows is simply to provide habitat; from enormous sea cows to tiny invertebrates, a tremendous number of species live in or depend on seagrass habitats. But the benefits of seagrass are not limited to species that directly interact with it.

Marine scientist Ken Heck and colleagues, writing in *Ecosystems*, describe ways in which seagrasses are at the center of vast web of carbon and nutrient exchange spanning from the land all the way to coral reefs and into deep ocean trenches. Extremely productive environments, seagrasses produce a lot of carbon through photosynthesis. They also produce seeds that float and can drift all the way down into the deep ocean where they become an important source of food for other organisms.

Once abundant across the world's coastlines, seagrass meadows are increasingly under threat. Although they were once abundant across the world's coastlines, seagrass meadows are increasingly under threat. Along with mangroves, seagrass meadows have become a highly vulnerable shallow water habitat. According to oceanographer Carlos Duarte in *Environmental Conservation*, the threat results almost exclusively from human actions. Seagrasses can only survive in a narrow range of depth and light levels. Unfortunately, seagrass is often buried by sediment or nutrient runoff, ripped up to make navigation channels or docks, or drowned by climate change. Seagrass is a very difficult environment to restore, so once gone, these underwater meadows will have a hard time coming back.

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Volunteers create vast, underwater meadows of seagrass on Va. Shore (VA, USA)

22 June 2018, Delmarva Daily Times (USA)

Each spring when the tides and emergence of a special seed converge, volunteers gather on the docks in Oyster. Donning wetsuits and snorkels, they boat to a shallow site in South Bay, where they gather seeds from a vital plant

absent from Virginia's seaside for decades. With their help, The Nature Conservancy, Virginia Institute of Marine Science and University of Virginia's Eastern Shore laboratory have spread more than 70 million eelgrass seeds into the Shore's coastal bays since the project launched in the early 2000s. The 500-plus acres they planted have spread, covering nearly 7,200 acres in South, Spider Crab, Hog Island and Cobb Island bays in vast, underwater meadows.

It is the world's largest successful seagrass restoration project and is providing a model for what can happen when water quality is restored, said Bo Lusk, coastal scientist at TNC's Virginia Coast Reserve. Eelgrass was hit hard in the 1930s by a slime mold that weakened and killed many of the plants. A powerful 1933 hurricane decimated remaining beds, leaving Virginia's coastal bays without a surviving seed source for years. But in the 1990s, a small patch of emerald shoots appeared in a seaside bay. At the same time, VIMS professor Robert Orth was developing a revolutionary method for reviving the species. To spread the plant, workers simply scatter seeds from the bow of a boat each fall, when they are ready to germinate. In 2008, volunteers joined forces with The Nature Conservancy, redoubling their efforts to collect and spread seeds.

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UN Environment, Partners Launch Pacific Marine Climate Change Report Card (USA)

21 June 2018, IISD Reporting Services

The UN Environment Programme (UNEP, or UN Environment) and partners have launched the first-ever Pacific marine climate change report card, which details climate change impacts on marine and coastal biodiversity, and outlines actions being taken in the region and further responses required. The 'Pacific Marine Climate Change Report Card 2018,' which was produced for the Commonwealth Marine Economies (MEP) Programme and released to coincide with World Oceans Day on 8 June 2018, enhances understanding of climate change impacts on the region's marine environment, recommends management options and provides guidance for building climate resilience.

The report card highlights the need to reduce specific impacts on seagrass, mangroves and coral reefs, underscoring their value. It notes that, for example, in Melanesia, services provided by these ecosystems are valued at around US\$151.4 billion for seagrasses, US\$145.7 billion for coral reefs, and US\$109 billion for mangroves. In addition, seagrass habitats and mangrove forests act as carbon sinks, absorbing and storing blue carbon over the long term, as well as natural carbon capture and storage (CCS) habitats, due to their high below-ground root biomass which traps organic carbon for thousands of years. Mangroves are also being used in carbon credit schemes.

The report urges recognizing and accounting for diversity among Pacific islands in climate change and sustainable development planning. It calls for flexible management systems that connect terrestrial and marine systems, link government and industry, provide long-term planning solutions, and address habitat destruction and pollution. The report card also emphasizes: engagement of social and cultural groups; community involvement in research and knowledge collection, decision making and project outputs; and use of traditional knowledge. The supporting issue papers highlight potential responses, such as: developing future Pacific climate projections for use at local scales; building resilience to avoid climate impacts on coral reefs, mangroves and seagrass; supporting assessments on the status of and future projections on seagrass and mangroves to support adaptation planning; and assessing the ways in which fisheries' livelihoods can be diversified on some Pacific islands.

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There's now an app for mapping seagrass, the oceans' great carbon sink (UK)

14 June 2018, Mongabay.com

The launch of an online crowdsourcing database for seagrass hopes to breathe new life into efforts to conserve the underwater flowering plants, which act as both important habitats for marine species and a major store of carbon dioxide. Patchy mapping of seagrass meadows has hampered efforts to protect the plants from threats such as coastal development, sedimentation, coral farming and sand mining, according to Richard Unsworth, a marine biologist at Swansea University in the U.K. and co-founder of environmental charity Project Seagrass.

The group on June 4 launched SeagrassSpotter, a collaborative initiative that allows anyone with a camera to upload images of seagrass sightings and tagged locations from anywhere in the world. The online tool also provides species information to help ordinary users identify the seagrass they find. The platform is accessible via website or mobile app for Android and iOS. The more people that get involved the more likely we are to develop a better understanding of the world's seagrass, Unsworth told Mongabay.

When you visit marine parks and places with seagrass, its conservation is commonly not included or just there as a token inclusion. The focus is always on coral reefs, even though often the majority of the fishing effort is on nearshore shallow seagrass. Funding for projects by NGOs largely ignores seagrass or when budgets are stretched, they always pull the seagrass component first, Unsworth said. Having met with fisheries officers, park managers and local government officials over many years, my overwhelming opinion is that seagrass is not considered to be of much importance.

To date, SeagrassSpotter has collected more than 1,000 records of seagrass around the U.K. and northern Europe. Globally, the group hopes to obtain at least 100,000 records by engaging people from around the world to collect data about seagrass in their locality. All collected data will be freely available to the public. If people don't know where seagrass is and why it's of value, Unsworth said, then they won't take action to preserve it."

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Related article

Richard Lilley: Help us put seagrass meadows on the map (09 June 2018, The Scotsman)
<https://www.scotsman.com/news/opinion/richard-lilley-help-us-put-seagrass-meadows-on-the-map-1-4752019>

Groups working together to replant seagrasses in the Caloosahatchee (FL, USA)

14 June 2018, Island Reporter

The Charlotte Harbor National Estuary Program and Calusa Waterkeeper are working with partners - including Johnson Engineering and Sea & Shoreline Aquatic Restoration - local residents and volunteers to replant seagrasses in the tidal Caloosahatchee River.

The project is to restore the Tidal Caloosahatchee River's submerged aquatic vegetation communities. The species planted are *Ruppia maritima*, commonly known as *Ruppia*, and *Vallisneria americana*, commonly known as tape grass. The Caloosahatchee River has historically supported vast seagrass beds. However, much of the coverage has been lost in recent years due in part to alterations in water flows to the Tidal Caloosahatchee River.

The project will entail creating five planting areas covered by herbivore exclusion cages to protect the seedlings while they are getting established, in five locations on the north and south shores of the Caloosahatchee River between the Interstate 75 and US 41 bridges. The sites were selected to be along waterfront residents who wanted to participate in the project. CHNEP and Calusa Waterkeeper staff and volunteers, along with staff from Johnson Engineering and Sea & Shoreline, will install the plantings and cages, as well as participating in the ongoing maintenance and monitoring efforts.

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US House Republicans probe green group lawsuits against Defense Dept (USA)

13 June 2018, WSAU News

Republicans in the U.S. House of Representatives on Wednesday sought information from the Defense Secretary about lawsuits filed by nonprofit environmental groups against his department, as they probed possible foreign influence on such groups. "We are interested in environmental litigation by U.S. based 501(c) organizations against the Department of Defense and its negative impact on our national security," House Natural Resources Committee Chair Rob Bishop and oversight subcommittee Chair Bruce Westerman wrote in a letter to Defense Secretary James Mattis. While some of these lawsuits "represent sincere and justified concerns about the effect of federal actions on the environment," they said "foreign adversaries" can use those lawsuits as a tool to "reduce U.S. defense capabilities."

The House Committee on Natural Resources is monitoring several environmental groups and "will seek inquiry as appropriate," a committee spokeswoman said in an email. The lawmakers cited a lawsuit by the Center for Biological Diversity that aimed to block the relocation of a Marine Corps air station in Japan because of its potential harm to a marine mammal, the Okinawa dugong. A court hearing on that case is scheduled for June 28.

Peter Galvin, co-founder of the Center for Biological Diversity, said in an email that House Republicans are targeting green groups' international connections at a time when they should be investigating the Trump administration. "So they're going to ignore the Trump connections with the Russians and go straight to investigating efforts to save endangered wildlife like the Okinawa dugong? It's an anti-wildlife agenda in search of a wild conspiracy theory," Galvin said.

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NABARD officials review project to rehabilitate marine life (India)

13 June 2018, The Hindu

A team of officials from the National Bank for Agriculture and Rural Development (NABARD) on Wednesday completed its two-day review of a project aimed at rehabilitating marine life habitats in the Gulf of Mannar. The review, which was assisted by marine biologists from the Suganthi Devadason Marine Research Institute (SDMRI), was conducted for sanctioning a second tranche of the ₹24.74-crore project.

The project was started in 2015 and is scheduled to be completed in 2020. Controlling the erosion of Van Island, which was on the verge of submersion, was one of the top priorities of the project. Further, in Kariachelli and Vilanguchelli islands, seagrass and coral-reef rehabilitation were also taken up under the project. To enhance the

population of seagrass which has been depleting due to practices like bottom trawling, it was tied to a frame and placed underwater. The officials were satisfied with the progress.

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No-anchoring zones could be introduced in Studland Bay under plans to protect seahorses (UK)

13 June 2016, *Bournemouth Echo*

NO-ANCHORING zones could be introduced in a bay popular with boat owners under plans for a new marine conservation zone (MCZ) to protect rare seahorses and other sealife. Studland Bay, which is home to the spiny seahorse and the short-snouted seahorse, has been recommended as one of 41 MCZs across the UK.

Dense seagrass meadows, which thrive in the area, provide shelter for the seahorses, with Studland being the only known place in the UK where the spiny seahorse breeds. However, it is also a very popular location for recreational boaters. During the height of summer, more than 100 boats visit the bay. The majority of these anchor up, ripping out the delicate seagrass. The Department for Environment, Food and Rural Affairs (Defra) has set out three options for management of the site to prevent further damage.

The cheapest option would not impose restrictions on anchoring but would require the replacement of the current moorings with eco-moorings, which are designed to have very little impact on the seabed. The second option would involve the introduction of no-anchoring zones in areas of seagrass and the installation of eco-moorings. Outside of the seagrass areas, mooring restrictions would be lifted. The third, and most costly, option would introduce no-anchoring zones over areas of mapped seagrass and remove all moorings from the seagrass areas. However, this would lead to a number of boats being displaced from the area. A six-week consultation period has been launched so views can be gathered on the proposed MCZs.

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Seagrasses can offset climate change (Singapore)

13 June 2018, *The Straits Times*

Found in coastal waters all over the world, apart from at the poles, seagrasses play a part in mitigating climate change by burying carbon under the seabed for up to thousands of years. Such carbon, stored in coastal ecosystems like seagrass meadows, is often referred to as blue carbon. And this potent ability to mitigate climate change is helping to drive conservation efforts for seagrass, said Dr Siti Yaakub, a marine ecologist at the environmental consultant company DHI Water & Environment.

While much of the world's seagrass has been lost, there is a silver lining. Recent research done by local scientists, including Dr Siti, and Australian collaborators found seagrasses in parts of South-east Asia - including Malaysia, Thailand, Indonesia and Singapore - are very genetically diverse. This means they are resilient to stressors like climate change, disease and all kinds of anthropogenic stressors (such as land reclamation, which destroys the habitat for seagrasses)."

One question that marine ecologists cannot answer for sure is how much seagrass there is overall, especially in South-east Asia. "There are pockets (of research done) in South-east Asia, where there's a lot of information, but for the vast region, it's a big data gap, a big black hole of no information," Dr Siti said. To help plug this, more than 200 seagrass researchers, students and managers from non-profit organisations have gathered in Singapore for the World Seagrass Conference and the 13th International Seagrass Biology Workshop (ISBW) to share their research and engage the public.

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Swimming with the mermaids in Northern Palawan (USA)

09 June 2018, *Rappler (Philippines)*

This gentle marine mammal living the simplest of lives is one of the best caretakers of our seagrass habitats and the animals that live in them,' says dugong conversationist Dr Teri Aquino, aboard a double-decked dive boat in Calaut Island in Northern Palawan. Accompanied by Gregg Yan, with an underwater photographer, Danny Ocampo and expert guides from the Tagbanua tribe, they'd hope to enjoy some downtime with a dugong. There are around 30 dugongs in this area, explained the guide Dodong Valera. If lucky, they'll see the largest and friendliest of them all, Aban. The spotter finally gave the signal: target sighted! Excitedly, they slid gleefully into a vast expanse of seagrass.

Sizable herds of dugongs once plied the Philippine archipelago until hunting and habitat destruction reduced numbers. Populations still hold out in Isabela, Mindanao, Guimaras and Palawan, but encounters are extremely rare. Dodong signals them to keep at least five meters away from the obliviously grazing bull, crunching on clumps of *Halophila ovalis*, which unlike most types of sea grass, has small round leaves instead of flowing grass blades.

Dugongs wolf down up to 40 kilograms a day, keeping hectares of seagrass pruned and productive. Danny starts filming.

As the animal ambled closer, he noticed fighting scars on its hide. This is Aban, confirms Dodong with a nod. Owing to its good nature and natural curiosity, generations of divers have swam and photographed the scarred, three-meter long dugong, who seems perennially surrounded by colorful golden trevally. Though dugongs are protected by law nationwide, they still get accidentally entangled in fishing gear and drown. The once-vast seagrass meadows they depend on for food are being destroyed by coastal reclamation and pollution. By protecting not just dugongs – but the seagrass meadows that support these creatures – tomorrow’s Filipinos might too get a chance to come face to face with the real mermaids of the sea.

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Related article

Gregg Yan Encounters The Legendary Sea Creature, 'Dugong' (20 June 2018, pageone.ph)
<http://pageone.ph/gregg-yan-encounters-the-legendary-sea-creature-dugong/>

FGCU researchers monitor dying seagrass in Estero Bay (FL, USA)

08 June 2018, NBC2 News

Southwest Florida's coastal waters are at risk because of what's happening on dry land. NBC2 went along with researchers at Florida Gulf Coast University trying to map out dying beds of seagrass in Estero Bay. In only a few feet of water, college students struggled to see the bottom.

Dr. James Douglass led the team of student researchers near the Bonita Beach Dog Park and said it was the lowest amount of seagrass that he had ever observed in the areas where they monitor seagrass, and also the highest amount of seaweed that's harmful algae that's increased by nutrients. Douglass explained seagrass needs light, but pollution from sewage, septic tanks and runoff from yards and roads helps algae and seaweed thrive, covering the sun's rays.

But Douglass said there is hope. Tampa Bay helped clean the water and bring back seagrass beds. Without similar change, he believes, the lack of seagrass could lead to Estero Bay becoming a murky, algae-covered mess. Students like Jessica Miller, a Florida native, are keen on learning what they can do to improve the situation. "It makes me sad because even in my lifetime I've seen a huge change in water quality and seagrass cover and all kinds of stuff," Miller said. "And even when I talk to my grandparents, my parents, they've seen bigger change, so I don't want that downward spiral to keep happening."

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Right-strangled triangle: saving Indonesian seagrass (Indonesia)

08 June 2018, Geographical

The seagrass meadows found in the Indonesian part of the Coral Triangle are believed to be the most biodiverse in the entire oceans. They provide vital food and shelter for marine wildlife, and are an important store of carbon, which, if released, would further accelerate the process of climate change. But new research has revealed that up to 90 per cent of seagrass meadows in Indonesia have been severely degraded over the past five years.

The ecological value of seagrass meadows is irrefutable, yet the loss of these systems in Indonesia is accelerating, says Dr Leanne Cullen-Unsworth, a research fellow at Cardiff University and director of the marine environmental charity, Project Seagrass. Seagrass meadows in Indonesia are mostly ignored in the conservation arena. As a result, they're often not monitored, poorly researched and largely unmanaged, leading to a "tragedy of the seagrass commons".

Thanks to human activities such as coastal developments, land reclamation, seaweed cultivation, overfishing, garbage dumping, and sediment run-off, these meadows find themselves endangered right across the archipelago. This loss of seagrass is a terrible problem as the habitats in Indonesia have a major significance for daily food supply and general livelihoods. Without seagrass as a fishery habitat many people in Indonesia would not be able to feed their families on a daily basis. Dr Richard Unsworth, a marine ecologist at Swansea University, believes that these trends are likely having similar effects in regional neighbours such as the Philippines, Cambodia and Sri Lanka.

With the acceleration of these detrimental activities, the loss of vast areas of valuable seagrasses is certainly a potential outcome, along with the uniquely high biodiversity that these meadows contain, with only the few species capable of withstanding the dramatic loss of their habitats able to survive. Unsworth points out that examples such as Tampa Bay, Florida, show that improving water quality can help meadows recover, but emphasises that this process can take decades. A more optimistic example comes from Wakatobi, on the Indonesian island of Sulawesi, where Unsworth and Cullen-Unsworth have supported a local NGO's project to preserve river banks, thereby reducing runoff into threatened seagrass meadows. 'So far this has been a huge success, and the project has spread to other areas,' says Unsworth.

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Government's \$500m Great Barrier Reef package may have limited impact amid climate change (Australia)

04 June May 2018, ABC News

At the end of April a \$500 million package to help the Great Barrier Reef was announced by the Federal Government. It didn't take long for questions to be raised about the decision to give \$444 million in funding to the Great Barrier Reef Foundation, a small charity with a revenue of only \$8 million in 2016. The funding will be split between improving water quality, supporting reef restoration science, increasing crown-of-thorns starfish control, community engagement and reef monitoring. But there is no acknowledgement of what scientists argue is the biggest threat facing the reef: climate change.

While the funding is a step forward for addressing local pressures on the reef like water quality, it must go hand in hand with national and global emissions reductions, according to Russell Reichelt from the Great Barrier Reef Marine Park Authority (GBRMPA). The funding was not designed to work on its own, said Dr Reichelt, who chairs the GBRMPA. "The real solution in the long run is to address rising greenhouse gas concentrations in our atmosphere," he said. "But we're still left with things that will happen inevitably now, because of the amount of greenhouse gases already in the atmosphere. So there was never a greater imperative that we look for ways to relieve local pressures."

However, some scientists have expressed concern that the funding is targeting some local measures that have not yet been proven effective. Research fellow Jon Brodie from the ARC Centre of Excellence for Coral Reef Studies wrote in *The Conversation* that "one concern with the package is that it seems to give greatest weight to the strategies that are already being tried — and which have so far fallen a long way short of success".

Echoing these sentiments, CEO of the Australian Institute of Marine Science Paul Hardisty said the \$500 million was a good start, but emissions also needed to be addressed. But Dr Hardisty said that didn't mean we should stop funding other local reef protection measures. By relieving other pressures on the reef such as poor water quality and crown-of-thorns starfish, the reefs of the future will have a better shot at surviving — no matter that form they take.

[more.....www.seagrasswatch.org/news_May2018archives.htm](http://www.seagrasswatch.org/news_May2018archives.htm)

Santa Rosa County dredging plan is not environmentally sound, federal agency says (FL, USA)

01 June 2018, Pensacola News Journal

A federal agency says a current Santa Rosa County proposal to dredge channels in Santa Rosa Sound to give nearby residents better boat access fails to meet environmental standards. The U.S. Army Corps of Engineers issued its opinion in an eight-page letter sent to the county earlier this month. It marks the latest chapter in an issue dating to the early 1990s on whether Santa Rosa Shores residents should be allowed to create three navigation channels to serve the subdivision while transplanting native seagrass to a nearby section of the Sound.

The Corps says the county's application for a permit on behalf of approximately 230 Santa Rosa Shores residents is not in compliance with Environmental Protection Agency's standards for the impact on the underwater habitat. However, the Corps' ruling is not final, and it does give the county time to modify its plan. The letter asks the county to address issues of incomplete information from previous Corps requests dating to 2014 and 2016, analysis that fails to consider available alternatives for dredging and unanswered questions on the need and purpose of the project.

The 231 Santa Rosa Shores residents want to dredge 2 acres of seagrass to increase the depth of the neighborhood channels, allowing for boat access to the Sound during low tide. With the seagrass currently in the channels, the water level is too low for neighborhood boaters to navigate to and from the Sound. The neighborhood's residents don't want to upset the ecological system in the Sound, and request narrowing the channel and relocating the seagrass to an adjacent site.

But the transplant plan doesn't sit well with other environmental scientists, including Ken Heck, a research scientist and marine biologist at the Dauphin Island Sea Lab and the University of South Alabama. Heck, who submitted comments on previous permit applications related to this project, said the seagrass, or turtle grass, "is the best of the best" and the most significant of its kind in the Gulf of Mexico and the Caribbean. Heck added the seagrass has been declining dramatically in the Gulf of Mexico, but Santa Rosa Sound retains a healthy population and that status would be jeopardized with transplanting. They propose to plant another species, but it doesn't provide the same kind of habitat, Heck said. Destroying that because people like to get a boat on a plain more quickly doesn't seem to be a good trade off.

[more.....www.seagrasswatch.org/news_May2018archives.htm](http://www.seagrasswatch.org/news_May2018archives.htm)

SEAGRASS-WATCH on YouTube

Seagrass: Pastures of the sea <http://www.youtube.com/watch?v=66Y5vgswj20> or <http://www.seagrasswatch.org/seagrass.html>

Presentation on what seagrasses are and why they are important (over 48,285 views to date)

www.seagrasswatch.org

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.