



# Seagrass-Watch e-Bulletin

Le Morne, Mauritius

**30 June 2021**

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## NEWS

### **Vital Seagrass Restoration Needs Real Estate to Thrive (Ireland)**

30 June 2021, by Kevin O'Sullivan, SanJuanIslander.com

Some of Ireland's most important seagrass beds are being damaged by the spread of an alien invasive seaweed, the environmental group Coastwatch has warned. Seagrass beds in Kilmore Quay in Co Wexford, Bantry Bay in Co Cork and at Fenit beach in Tralee Bay, Co Kerry, have been damaged by the species known as *Sargassum muticum*.

In the worst affected-area, a large *Zostera marina* seagrass meadow, straddling St Patrick's Bridge near Kilmore Quay, is being progressively killed off, Coastwatch director Karin Dubsy confirmed. The damage in Co Wexford was at an important Natura 2000 site, which includes the Saltee Islands special area of conservation. "The invasive seaweed has had time to form a blanket over seagrass and displace it in patches, while both still coexist in other places, but seagrass is losing the battle," Ms Dubsy pointed out.

As an emergency measure, Coastwatch was removing the seaweed by hand using trained volunteers when it becomes accessible by wading or by snorkelling at low tide. Fortunately, laboratory tests on *Sargassum* samples from the site confirmed its suitability as soil conditioner and fertiliser. As a consequence, local farmers were taking it and applying it to their land, she said. "Volunteer removal has been slow but with good results. More help is urgently needed, both for the sake of the seagrass and as sargassum is starting to break off and will spread further," Ms Dubsy said. Ms Dubsy believed that as the damage was occurring along foreshores, it was the responsibility of the Department of Housing, Local Government and Heritage to curb this invasive species but she had been told there was a lack of legal clarity on this.

more.....<https://www.irishtimes.com/news/environment/vital-seagrass-beds-being-overwhelmed-by-invasive-alien-seaweed-coastwatch-warns-1.4608204>

### **Salcombe Distilling Co. supporting seagrass regeneration (United Kingdom)**

29 June 2021, by Bethany Whymark, The Drinks Report

UK gin maker Salcombe Distilling Co. has partnered with the Marine Conservation Society to help protect and regenerate ocean forests. From June until 31 December 2021, the Devon-based distillery will donate 1 per cent of profits from sales of its Start Point and Rosé Sainte Marie gins and its New London Light non-alcoholic spirit to the society's seagrass project.

Simultaneously, Salcombe Distilling Co. says it will be working hard to reduce its own carbon footprint. This will include implementing carbon-neutral shipping, eradicating plastics from product packaging and dispatch, and using 100 per cent renewable energy across its sites. Howard Davies, co-founder of Salcombe Distilling Co., said the brand's donation pledge would help to protect up to 2sqm of seagrass for each bottle sold, providing 'a real and tangible benefit'.

Katherine Sharp, corporate partnerships manager at the Marine Conservation Society, said: "We are thrilled to be working with Salcombe Distilling Co. again to help raise awareness of the issues facing our oceans. "As passionate supporters of our work and a sustainable, environmentally focused company, we are pleased they have chosen to support our project on carbon capture and sequestration through seagrass protection and re-seeding."

more.....<https://www.thedrinksreport.com/news/2021/18578-salcombe-distilling-co-supporting-seagrass-regeneration.html>

### **FIU researchers making waves in fight to save Biscayne Bay (FL, USA)**

24 June 2021, by Jonathan mendez, Islander News.com

The Biscayne Bay ecosystem has shown signs of gradual deterioration. In August 2020, many animal species died, including lobsters, eels, and rays. Their decaying bodies released a putrid odor which covered much of the city. Subsequently, algal blooms collected as a white foam layer on the surface of the water. The FIU Institute of Environment rushed to the scene to uncover the problem. Researchers deployed sensors, took water samples and monitored the bay, looking for vital clues.

In the future, we may see the continued use of sensors to monitor the oxygen and nutrients in the bay. The sensors send the data to a central computer, and other devices of artificial intelligence will be able to monitor and investigate

trouble spots. This information would be made publicly available to residents, and hopefully guide legislators into making more well-informed policies regarding the bay. To combat fish kills, seagrass deaths, and algal blooms, communities must take action. These actions include: reducing sewage leaks, turning septic tanks into centralized wastewater treatment, cleaning stormwater, and minimizing fertilizer use.

And some communities have begun taking action. The City of North Bay Village signed an understanding with FIU to explore ways to help the bay, including methods of restoring seagrass beds. The Miami Dade County mayor created a new position, "chief bay officer," to advise city legislators about the status of the bay, while also acting as a liaison between the country and other stakeholders. And in February, the city of Coral Gables passed a resolution to curb the amount of fertilizer entering the bay. Overall, action must be taken in the bay now to be able to preserve it as a social, cultural, and environmental monument in Miami.

[more.....https://www.islandernews.com/news/miami/fiu-researchers-making-waves-in-fight-to-save-biscayne-bay/article\\_bde723cc-d444-11eb-b4e1-cb89838b717a.html](https://www.islandernews.com/news/miami/fiu-researchers-making-waves-in-fight-to-save-biscayne-bay/article_bde723cc-d444-11eb-b4e1-cb89838b717a.html)

### **NC Seagrass Decline Comes With Significant Economic Losses, Study Finds (NC, USA)**

23 June 2021, by Celeste Gracia & Laura Pellicer, WUNC

Declining seagrass along the North Carolina coast could cost millions of dollars, according to a new study from Duke University and North Carolina State University. The study, which was conducted through funding by the Albemarle-Pamlico National Estuary Partnership (APNEP), conservatively estimates that with a 5% loss of seagrass over the next decade, the state could lose \$8.6 million.

A state report released earlier this year showed seagrass in the Albemarle-Pamlico estuary decreased by almost 6% between 2006 and 2013. It declined fastest in areas close to land and rivers that are most affected by pollution.

Researchers for the study analyzed how coastal erosion from seagrass decline stacks up to losses for residential property values along developed shorelines. The study found this property value drop to be "substantial" — representing more than 25% of total economic losses.

[more.....https://www.wunc.org/environment/2021-06-23/nc-seagrass-decline-comes-with-significant-economic-losses-study-finds](https://www.wunc.org/environment/2021-06-23/nc-seagrass-decline-comes-with-significant-economic-losses-study-finds)

### **Seagrass dump brings sea change to Cottesloe Beach (WA, Australia)**

21 June 2021, by Jon Bassett, PerthNow

Cottesloe Beach's freshest seaweed dump is unlikely to pong after its annual arrival on the usually pristine shore. Significant mounds of seagrass, known as wrack, smelled of sulphur when it rotted in unseasonably warm conditions about the same time last year. But UWA coastal oceanography professor Charitha Pattiaratchi said it was unlikely to occur again.

Prof. Pattiaratchi said there were smaller seaweed deposits last week, whereas last year brought large mounds because of currents and wind stoked by the remnants of a tropical cyclone. Prof. Pattiaratchi said wrack would help protect the beach by "dampening" the erosion effect of waves as it depleted over winter and decomposition would redistribute it into Perth's nutrient-poor waters.

A Town of Cottesloe spokeswoman said some of the seaweed could be moved to allow beach access but it would not be removed entirely because it had "significant ecological benefits to the marine and beach system".

[more.....https://www.perthnow.com.au/community-news/western-suburbs-weekly/seagrass-dump-brings-sea-change-to-cottesloe-beach-c-3106867](https://www.perthnow.com.au/community-news/western-suburbs-weekly/seagrass-dump-brings-sea-change-to-cottesloe-beach-c-3106867)

### **Mermaid Gin Supports Spectacular Seagrass (England, UK)**

18 June 2021, Bar Magazine

Mermaid Gin, from The Isle of Wight Distillery, has committed to support the restoration and protection of the Solent strait's internationally important seagrass meadows. Part of the '#WilderSolent' initiative run by Hampshire & Isle of Wight Wildlife Trust, the activity will see the Distillery positioned as a marine champion of the Solent – a busy stretch of water that runs between the Isle of Wight and the English mainland – and an ambassador for seagrass.

"Through our Net Zero initiative, we're already supporting seagrass meadows abroad, but wanted to also have impact locally. The Solent's very dear to us all at the distillery, so we're delighted to be part of the #WilderSolent initiative." In addition to financial support, the distillery team will take part in the Hampshire & Isle of Wight Wildlife Trust 'Marine Ambassador' training scheme, where staff will have the opportunity to become Solent 'Marine Champions'. This will involve actively supporting activities such as intertidal and seagrass surveys and beach clean-ups.

Dr Tim Ferrero, Senior Marine Biologist at Hampshire & Isle of Wight Wildlife Trust commented "Enabling seagrass to restore to its historical levels needs a multi-faceted approach. Our Solent Seagrass Restoration Project is one part of the puzzle but equally as important is increasing awareness and support for this incredible marine species. This

partnership will help inspire others and create a movement of businesses and individuals acting for seagrass, as well as other marine wildlife living in these waters. Together we will create a Wilder Solent”.

[more.....https://barmagazine.co.uk/mermaid-gin-supports-spectacular-seagrass/](https://barmagazine.co.uk/mermaid-gin-supports-spectacular-seagrass/)

### **DENR must restore mangroves, seagrasses in Manila Bay instead of planting coconut trees — fishers (Philippines)**

16 June 2021, by Gaea Katreena Cabico, Philstar.com

An organization of fisherfolk called on the government to restore mangrove forests and seagrass beds instead of planting coconut palms along the shore of Manila Bay. The Department of Environment and Natural Resources led the planting of coconut palms along the baywalk area in Roxas Boulevard as part of the agency’s “continuing activities and efforts for the clean-up and rehabilitation of Manila Bay.” But fishers’ group Pambansang Lakas ng Kilusang Mamamalakaya ng Pilipinas (PAMALAKAYA) said that while it is natural for coconut trees to grow in coastlines, the palms have “nothing to do with” addressing the bay’s environmental degradation.

Rehabilitation efforts must focus on restoring mangrove forests and seagrasses, which are vital to the bay’s ecosystem and biodiversity, PAMALAKAYA said. Mangroves and seagrasses serve as pollution filter, flood defense of coastal communities and habitats of fish. “The DENR has completely lost touch with the reality by ridiculously envisioning a tropical paradise in Manila Bay when small fisherfolk and coastal residents actually need restoration of fishery resources for their livelihood and food security,” Fernando Hicap, PAMALAKAYA national chairperson said. “Mangrove reforestation and seagrasses restoration are more relevant to the Manila Bay rehabilitation than the costly yet futile beach nourishment project,” he added.

[more.....https://www.philstar.com/headlines/2021/06/16/2105936/denr-must-restore-mangroves-seagrasses-manila-bay-instead-planting-coconut-trees-fishers](https://www.philstar.com/headlines/2021/06/16/2105936/denr-must-restore-mangroves-seagrasses-manila-bay-instead-planting-coconut-trees-fishers)

### **Protecting Perth's sunken forests (WA, Australia)**

15 June 2021, Particle

European settlers built Perth around the Swan River, or Derbal Yaragan in Noongar language. The river is sacred to the Dreamtime spirit, the rainbow serpent Waugal. But beneath the water’s surface, it’s important for a different reason. Thick forests of the seagrass *Halophila ovalis* cover over 403 hectares. Seagrass forests keep the estuary alive. But humans are changing the world’s climate. This impacts every living thing, including the seagrass forests. Edith Cowan University ecologist Chanelle Webster has been tracking how seagrasses manage after heavy storms. Storms can change the salt content of estuary water, which endangers the local plants and animals

“We expected that seagrass populations have different salt tolerances. Depending on where they grow in the estuary, the salt concentration changes regularly,” says Chanelle. “Populations closest to the river mouth would be more exposed to freshwater and be more resilient to lower salt levels such as after rainfall.” But even resilient seagrasses could still die out if storms push beyond their salt tolerance. “We found that seagrass populations close to the ocean, where salinity is generally more stable, were not able to recover over 22 months. If we’re expecting more intense and more frequent storms, these populations could be lost and cause a decline in estuary health.”

Finding seagrass species that can resist salinity changes and storms will protect parts of the estuary. We could replant seagrasses downstream after storms to help populations recover. We might also build flood barriers in estuaries to maintain the salt concentration. “We’re most concerned about this in summer when the seagrass is fruiting. This is when both the plants and the juveniles are most vulnerable to environmental changes,” says Chanelle. Sheltered seagrass reservoirs could repopulate the estuaries when summer storms hit. With more research and community action, there might be other ways to protect the seagrass.

[more.....https://particle.scitech.org.au/earth/protecting-perths-sunken-forests/](https://particle.scitech.org.au/earth/protecting-perths-sunken-forests/)

### **Human-generated noise can contribute to deplete Seagrass *Posidonia* populations (Spain)**

15 June 2021, Phys.Org

When exposed to human-made noise, seagrass *Posidonia* reveals permanent severe lesions in their sensory organs that sense gravity, which threatens their survival. This is the main conclusion of a recent study of the Laboratory of Applied Bioacoustics (LAB) of Universitat Politècnica de Catalunya BarcelonaTech (UPC) published in Nature Communications Biology. These new findings demonstrate that plants have the physiological ability to perceive sounds, and just as importantly, reveal that commonly encountered sources of noise in the ocean can contribute to deplete their populations.

Seagrasses are higher plants adapted to marine environments, developing vital ecosystems consisting of complex networks that are thousands of years old, anchored in soft bottom areas. Seagrasses present starch grains in its roots that function as invertebrate statocysts, which are sensory organs responsible of sensing gravity and processing sound vibration. In addition, its rhizomes, which act as storage organs, provide a considerable amount of starch grains, a guarantee of energy provision to the plants.

This study, lead by Marta Solé, a senior researcher at the LAB-UPC, reports morphological and ultrastructural changes in seagrass after exposure to sounds in a controlled environment. Low-frequency sounds produced alterations in *Posidonia oceanica* root and rhizome statocysts, and the nutritional processes of the plant were affected by a decrease in the number of rhizome starch grains. In addition, a degradation in the specific fungal symbionts of *Posidonia* roots was observed. Fungus improves the nutrient status of the plant (e.g. mineral nutrition, water absorption) in exchange for carbon provided by *Posidonia*, which is necessary for fungal growth and reproduction. This sensitivity to artificial sounds revealed how sound can potentially affect the health status of *Posidonia*. Moreover, these findings address the question of how much the increase of ocean noise pollution may contribute in the future to the depletion of seagrass populations and to biodiversity loss.

[more.....https://phys.org/news/2021-06-human-generated-noise-contribute-deplete-seagrass.html](https://phys.org/news/2021-06-human-generated-noise-contribute-deplete-seagrass.html)

Related article

Human noise contributes to reducing posidonia populations (29 June 2021, Explica)  
<https://www.explica.co/human-noise-contributes-to-reducing-posidonia-populations.html>

### **Charlotte Harbor seagrass lost 3 decades of recovery in 2 years (FL, USA)**

14 June 2021, Reporter Erika Jackson, Wink News

Seagrass in Charlotte Harbor has lost three decades worth of recovery growth in just two years. Marine life there relies on the harbor's seagrass for food and shelter.

Scientists with the South and Southwest Florida Water Management Districts say the seagrass in Charlotte Harbor is dying at an alarming rate. Overall, 23% of the seagrass has died since 2018, more than 4,500 acres. In the area near Ponce De Leon Park, 50% of the seagrass is gone. "Lately, we had hurricane Irma, we had that prolonged red tide events, we have seen a really massive macroalgae bloom," Nicole Iadevaia, Research and Outreach Manager at Coastal and Heartland National Estuary Partnership, said. "We need to continue to not use fertilizer during the wet season following local guidelines," Eric Milbrandt the marine lab director at Sanibel-Captiva Conservation Foundation said.

If we don't take care of our underwater backyard, the sea life will suffer at best or die at worst. The Southwest Florida Water Management District found that seagrass is also dying in Lemon Bay. It is down about 12% since 2018 which is a loss of nearly 350 acres.

[more.....https://www.winknews.com/2021/06/14/charlotte-harbor-seagrass-lost-3-decades-of-recovery-in-2-years/](https://www.winknews.com/2021/06/14/charlotte-harbor-seagrass-lost-3-decades-of-recovery-in-2-years/)

### **Capturing Ireland's Blue Carbon Potential (Ireland)**

14 June 2021, Irish Tech News

This month the Marine Institute will launch a funding call for a major programme of research in the area of Blue Carbon. Funding of up to €1.6m has been earmarked for the call to support a large-scale research project to run from 2021 to 2026.

Launched in June 2020, Ireland's Programme for Government recognised "the enormous Blue Carbon potential that the ocean has to offer in tackling climate change". The government tasked the Marine Institute with a collaborative research initiative, aimed at investigating the climate-change mitigation potential of Blue Carbon, and working towards creating an inventory that will assist the EU in meeting Ireland's climate-change objectives. In order to prepare the ground for such a large-scale research programme, the Marine Institute commissioned a synthesis report to review existing knowledge on Blue Carbon habitats and their role as carbon sinks in Ireland. The report, 'Blue Carbon and Marine Carbon Sequestration in Irish Waters and Coastal Habitats', was published in May 2021.

The Marine Institute report points out that Ireland's tidally influenced coastal wetlands comprise approximately 160 square kilometres of salt marsh and seagrass beds. "In Irish coastal regions, we can aim to improve water quality to help seagrass beds to function optimally, and keep on capturing and storing carbon. Looking ahead, I believe that Ireland will need an appropriate management framework, led by the government, to enhance the protection of these habitats in relation to carbon sequestration," said Dr Grace Cott, Assistant Professor at the UCD School of Biology and Environmental Science

[more.....https://irishtechnews.ie/capturing-irelands-blue-carbon-potential/](https://irishtechnews.ie/capturing-irelands-blue-carbon-potential/)

### **Marine researchers on high alert as red tide blooms in Bay Area waters (FL, USA)**

12 June 2021, by Justin Matthews, FOX 13 Tampa Bay

Low to medium levels of red tide detected in Hillsborough and Pinellas County waters can be dangerous to manatees if they ingest the toxins from the algae. "When the organism dies it then sort of sinks to the bottom and accumulates on leaf blades, on seagrass, so manatees come along and eat the seagrass, and as they do that they're ingesting this red tide toxin," said Dr. James Powell, the executive director of the Clearwater Marine Aquarium Research Institute. Dr. Powell says manatees can also inhale the toxins on windy, choppy days.

Powell says the gentle giants can be treated by being placed in captivity until they recover or by helping them get to safer water during red tide blooms. "Sometimes we can just sort of go out there and tend to them, bring them into shallow water, sometimes we'll put like, floatation devices around them like water wings, manatee water wings, just to keep them afloat so they don't sink down and potentially drown," Powell shared.

So far this year, 13 manatees, mainly off the coast of Cape Coral, have died from being in areas where red tide was detected, according to the Fish and Wildlife Commission. That's more than the total manatee deaths in all of 2020 where nine died from red tide in areas between Tampa Bay and Marco Island. Back in 2018, when the toxic algae bloom was bad, 288 manatees died.

[more.....https://www.fox13news.com/news/marine-researchers-on-high-alert-as-red-tide-blooms-in-bay-area-waters](https://www.fox13news.com/news/marine-researchers-on-high-alert-as-red-tide-blooms-in-bay-area-waters)

Related articles

*Suncoast congressman urges 'endangered' status for manatees (15 June 2021, WWSB)*

<https://www.mysuncoast.com/2021/06/14/suncoast-congressman-urges-endangered-status-manatees/>

*Scientists Sounding Alarm Over Unusually High Number Of Manatee Deaths (15 June 2021, CBS Miami)*

<https://miami.cbslocal.com/video/5681889-scientists-sounding-alarm-over-unusually-high-number-of-manatee-deaths/>

*Florida's Manatees Are Dying in Worrying Numbers (14 June 2021, Smithsonian)*

<https://www.smithsonianmag.com/smart-news/floridas-manatees-are-dying-worrying-numbers-180977991/>

## **University of WA researcher to take deep dive into rising sea levels (WA, Australia)**

11 June 2021, by Jon Bassett, PerthNow

A University of WA researcher is taking a deep dive into how natural barriers could protect against rising sea levels. Oceans Institute oceanographer Arnold van Rooijen has a \$160,000, 18-month Prospect Fellowship from Andrew and Nicola Forrest's Forrest Research Foundation to investigate how reed and seagrass beds, coral reefs and mangroves could combat forecast sea level rises.

"We aim to get enough data so you could put somewhere like Cottesloe Beach into a computer model, maybe make changes like adding or taking away seagrass offshore, and use it to tell you what the effect may be on this actual beach," he said. Over the next two years, Dr van Rooijen will use a 54m-long wave tank at the university's Coastal and Offshore Engineering Laboratory in Shenton Park to generate swells that, scaled down, will replicate those rolling in to beaches and pass over models of natural barriers. The results will be fed into a supercomputer to create representations of each barriers' effects on waves hitting beaches, coasts and rivers around the world, which could be used by governments, ecologists and planners.

"In practice, we will often need a combination of natural barriers with more traditional hard structures because we are not going to solve the problem of coastal erosion by simply planting seagrass," he said. "But having both will always bring other benefits like creating habitats, improved water quality or carbon storage if coral, seagrass or reeds are used or restored."

[more.....https://www.perthnow.com.au/community-news/western-suburbs-weekly/university-of-wa-researcher-to-take-deep-dive-into-rising-sea-levels-c-2997133](https://www.perthnow.com.au/community-news/western-suburbs-weekly/university-of-wa-researcher-to-take-deep-dive-into-rising-sea-levels-c-2997133)

## **The Sarasota Bay Estuary Program: Citizen Scientists Needed (FL, USA)**

11 June 2021, SRQ Magazine

Water conditions and the health of seagrass beds in the Sarasota Bay area have been changing rapidly, and there is a pressing need to gather more information about the amount of algae growing in our bays. Volunteers will help monitor macroalgae by snorkeling in an assigned area, estimating the coverage of seagrass and macro algae, and collecting samples. The Eyes on Seagrass survey will take place over a two week window from July 12 - July 24. Volunteers can pick any time during this window. The survey will take about one hour. Training and gear distribution will be held over three days.

[more.....https://www.srqmagazine.com/srq-daily/2021-06-11/17290\\_The+Sarasota+Bay+Estuary+Program%3A+Citizen+Scientists+Needed](https://www.srqmagazine.com/srq-daily/2021-06-11/17290_The+Sarasota+Bay+Estuary+Program%3A+Citizen+Scientists+Needed)

## **Spiny pay-off from seagrass project (England, UK)**

11 June 2021, Divernet

A rare sighting off Cornwall of a long-snouted seahorse has been reported by a marine-biologist scuba diver working on the seagrass restoration project in Plymouth Sound. Mark Parry, development officer of the Ocean Conservation Trust (OCT), came up with underwater video footage showing the long-snouted or spiny seahorse (*Hippocampus guttulatus*) in the seagrass. The species was once common along the South Coast but largely disappeared with the destruction of the seagrass meadows that provided it with a nursery habitat.

Today the seahorses are known to exist only in isolated spots such as Studland Bay in Dorset, along with the short-snouted seahorse (*Hippocampus hippocampus*), the only other British species. According to the Seahorse Trust seahorses can also be found along the UK's west coast and all around Ireland, with some sightings on the UK east coast.

Work on England's biggest seagrass-planting programme began in Plymouth Sound National Marine Park in late April. The OCT has been leading the LIFE Recreation ReMEDIES project through which a team of diving volunteers are helping to plant 16,000 seagrass seed bags and 2200 seedling bags as a boost for the marine environment. The four-year project aims to plant four hectares of seagrass meadows in Plymouth and another four in the Solent Maritime Special Area of Conservation.

[more.....https://divernet.com/2021/06/11/spiny-pay-off-from-seagrass-project/](https://divernet.com/2021/06/11/spiny-pay-off-from-seagrass-project/)

*Related article*

*Rare seahorse spotted along UK coast (15 June 2021, Yahoo! News)*

<https://news.yahoo.com/rare-seahorse-spotted-along-uk-161721459.html>

### ***Plymouth students set off on 124km trek in aid of seagrass (England, UK)***

*09 June 2021, by Sophie Squires, Free Radio*

Four students from the University of Plymouth are embarking on a 124km hike to Falmouth to raise awareness of the plight facing our coastal seagrass meadows. The team are raising money for the Ocean Conservation Trust, to support their long running campaign to protect these underwater ecosystems.

The group have spent the last four years together at university and went on multiple hikes together along the South West Coastal Path. They say more than their love of being outdoors, their love for the marine environment is what really brought them together - which led to this idea. The team hope that on their trek they can raise awareness of their importance, as well as how we can bring back healthy and resilient seagrass beds. So far, they have raised more than £2,000 for the Ocean Conservation Trust.

[more.....https://planetradio.co.uk/greatest-hits/plymouth/news/plymouth-students-trek-in-aid-of-seagrass/](https://planetradio.co.uk/greatest-hits/plymouth/news/plymouth-students-trek-in-aid-of-seagrass/)

### ***Algae blooms in Matlacha Pass (FL, USA)***

*09 June 2021, by Stephanie Byrne, Wink News*

Friends Boone and Sue McAfee were out on Matlacha on Wednesday looking for fishing spots but instead, the two ended up finding foul-smelling water. It's not just noticeable from the fishing pier. A bird's eye view of the water shows it is milky with mat algae on the bottom of the Matlacha Pass. The algae in this case is likely feeding on nutrients from septic tanks and the Peace River, not Lake Okeechobee releases.

Dr. Rick Bartleson, a research scientist with the Sanibel-Captiva Conservation Foundation, tests the water quality at Matlacha Pass and has found different types of algae in the water. "The algae is covering up the seagrass beds, the seagrass beds were part of what made the estuary function," Bartleson said. That means less food for marine life while the marine life fights for oxygen in some portions of the pass. "When it goes anoxic or hypoxic, it basically destroys the ecosystem," Bartleson said.

In the meantime, people hope the clumps go away soon. "Clean it up. Let's get it clean so we can go fishing."

[more.....https://www.winknews.com/2021/06/09/algae-blooms-in-matlacha-pass/](https://www.winknews.com/2021/06/09/algae-blooms-in-matlacha-pass/)

### ***Seagrass restoration trial begins in Falmouth Harbour (England, UK)***

*09 June 2021, by Katy Stickland, Yachting Monthly*

Falmouth Harbour Commissioners is taking steps to protect the Flushing seagrass bed and is seeking feedback from sailors. The seagrass bed at Flushing is being given extra protection, as part of moves by Falmouth Harbour Commissioners to preserve this important marine habitat. Falmouth Harbour sits within the Fal and Helford Special Areas of Conservation (SAC) designated due to the presence of 6 features. Seagrass and maerl are an important part of some of these features.

Harbour authorities removed 11 swinging moorings, which were laying over the bed, at the start of the 2021 sailing season. Swinging moorings can cause abrasion on the seabed, where the chain comes into contact with the bottom. A seagrass regeneration area has now been established at Flushing, marked with two new Advanced Mooring Systems (AMS) also known as eco moorings.

Scientists from the University of Exeter will be monitoring the seagrass under the new moorings to measure how the plant regenerates. To assist with this, harbour users are being asked not to anchor or use equipment that impacts on the seagrass regeneration area.

[more.....https://www.yachtingmonthly.com/news/seagrass-restoration-trial-begins-in-falmouth-harbour-78647](https://www.yachtingmonthly.com/news/seagrass-restoration-trial-begins-in-falmouth-harbour-78647)

## **Cayo Costa dock use at center of controversy (FL, USA)**

09 June 2021, by Paulette LeBlanc, Pine Island Eagle

Whether Cayo Costa State Park visitors will continue to be able to access the barrier island's south side via ferry remains in limbo. A vote before the Acquisition and Restoration Council that has been set for June 11 in Tallahassee has been postponed while the Florida Department of Environmental Protection considers comments concerning its proposed new management plan, which some say should include a measure to ban commercial vessels from using the dock at the narrow south end of the island known as the Narrows, causing damage to existing marine life and sea-grass beds.

Captiva Cruises, which was awarded the contract to be Official Concessionaire to Cayo Costa State Park, in September 2013, says its service is environmentally safe and was awarded the contract as part of the state's goal to increase public access to the island, which is accessible only by boat. A local environmental group says otherwise and is looking to stop commercial access to the dock. According to Save Cayo Costa advocate Margi Nanney, large twin-engine commercial boats bring people from all over surrounding areas to the dock at the Narrows, causing damage. She emphasized the importance of sea grass beds to marine communities as well as that the Pine Island Aquatic Preserve is home to, not only manatees, but migrating fish.

The dock in question was allowed by the state, said Captiva Cruises co-owner Bob Rando, adding the rebuild of the south dock was intended to improve ferry service and increase passenger access to the island, as part of the mission in its DEP contract. A permit was issued, according to DEP permitted regulations, to reconstruct the state dock and Innovative Marine was hired by Captiva Cruises to do that after being selected as the exclusive concessionaire.

[more.....https://www.pineisland-eagle.com/2021/06/09/cayo-costa-dock-use-at-center-of-controversy/](https://www.pineisland-eagle.com/2021/06/09/cayo-costa-dock-use-at-center-of-controversy/)

Related article

'Save Cayo Costa' group wants DEP to hear their concerns about public dock (11 June 2021, WZVN-TV)  
<https://abc-7.com/news/2021/06/11/save-cayo-costa-group-wants-dep-to-hear-their-concerns-about-public-dock/>

## **Researcher dedicates life's work to ocean's secret weapon against climate change (FL, USA)**

07 June 2021, by Angela Nicoletti, FIU News

Around the golden hour of a summer's evening, the shallow seagrass meadows of South Biscayne Bay transform, appearing almost magical. James Fourqurean can tell you all about it. To recognize the beauty of seagrasses, to be completely taken by them, comes from a sense of deep appreciation. For Fourqurean — an FIU professor of biological sciences and director of the Institute of Environment's Coastlines and Oceans Division — that appreciation stems from nearly 40 years spent researching seagrass ecosystems around the world.

Fourqurean's extensive knowledge makes him one of the foremost experts on seagrass ecosystems and Blue Carbon. Fourqurean and his students are currently focused on South Florida, which is one of the largest seagrass ecosystems in the world. Their work has an added layer of complexity when it comes to calculating how much CO<sub>2</sub> is being stored versus released. A monitoring tower is set up above seagrass beds in the Everglades. Among the first projects measuring the CO<sub>2</sub> coming out of seagrass ecosystems, it is also a part of the Institute of Environment's Florida Coastal Everglades Long-term Ecological Research (FCE-LTER) Program. The tower takes real-time measurements of CO<sub>2</sub> concentrations in the wind and then streams the data back to the lab. Regardless of what they find, Fourqurean knows seagrasses are desperately needed.

Most people will never experience the golden hour when seagrasses turn the water to champagne. Most people simply don't think about seagrass. If they see a sandbar, they probably won't know it was once a place where seagrasses grew. But Fourqurean is keeping watch. As he tells his students, the seagrasses can recover. It all comes down to stewardship. And that stewardship begins with a recognition of all the benefits seagrasses bring to our coastal communities — and beyond.

[more.....https://news.fiu.edu/2021/researcher-dedicating-lifes-work-to-oceans-secret-weapon-against-climate-change](https://news.fiu.edu/2021/researcher-dedicating-lifes-work-to-oceans-secret-weapon-against-climate-change)

## **Indian River Lagoon's health receives failing grade (FL, USA)**

04 June 2021, by Greg Pallone, News 13 Orlando

"Every year Marine Resources Council grades the health of the lagoon," Marine Resources Council executive director Leesa Souto said. And 2021's grade doesn't bode well for the struggling ecosystem. "It was a 58," said Souto. "We gave it an F plus." A failing grade far below the 80 it takes to meet the state's target for health through Florida's Water Quality Monitoring Program.

Souto says there's no improvement in seagrass coverage, which is estimated to be growing in less than 1% of the lagoon. "We are witnessing the horrors of the manatees starving to death because there's no seagrass for them to eat," said Souto. Souto says years of poor planning are to blame.

With some 1,000 people moving to Florida daily, she says there's been pressure to develop and build homes. She adds communities don't have the resources to go back and repair what's already been built. "Human behaviors, [www.seagrasswatch.org](http://www.seagrasswatch.org)



polluting, wastewater, stormwater infrastructure failures," she said. The Marine Resources Council says state monitoring programs must be expanded to include toxins like herbicides and pesticides, which fuel the deadly algae blooms.

[more.....https://www.mynews13.com/fl/orlando/news/2021/06/04/indian-river-lagoon-s-health-receives-failing-grade-](https://www.mynews13.com/fl/orlando/news/2021/06/04/indian-river-lagoon-s-health-receives-failing-grade)

Related article

*Indian River Lagoon Health Receives Failing Grade (04 June 2021, BollyInside)*  
<https://www.bollyinside.com/news/indian-river-lagoon-health-receives-failing-grade>

## **Manatees are on the move again. How one named Gar ended up on Hilton Head Island (FL, USA)**

04 June 2021, by Karl Puckett, Hilton Head Island Packet

Manatees are returning to South Carolina waters. For five years, biologists with the Florida-based Clearwater Marine Aquarium Research Institute have been tagging rescued manatees in an effort to study migration habits outside the state of Florida. One is a go-getter named Gar. Monica Ross, a senior research associate at the Marine Aquarium, said Friday she wasn't expecting the 9-foot-long manatee to leave Florida, much less make it to South Carolina's Hilton Head.

On Jan. 18, Gar was rescued south of Jacksonville, Fla., suffering from cold stress. After recovering, he was released Feb. 16 at Orange City, Fla. Ross figured the small adult, 5- to 7 years old with scars on his back, might go next door to Georgia. "Then he took off and barreled right through Georgia and settled in on Hilton Head, so it was a nice surprise," Ross said. Orange City to Hilton Head is 285 miles. Gar is still on the island. Gar's far-flung journey illustrates that manatees ignore state lines, traveling great distances using diverse habitat. In short, they go where the eating is good.

With manatees on the move to summer coastal haunts, biologists with the SCDNRC and U.S. Fish and Wildlife Service are reminding residents and visitors to be on the lookout for — and be kind to — the slow-moving marine mammals, which are susceptible to boat propeller strikes. SCDNR staff encourage anyone to report sightings and provide photographs (if possible) of live manatees online. Photographs of scars on manatees' backs and tails are particularly useful, because they can often be used to identify previously known individuals. However, manatees should never be approached to obtain pictures. In addition to reporting sightings, coastal residents and visitors can help manatees by staying alert while on the water and avoiding harmful interactions.

[more.....https://www.islandpacket.com/news/local/community/beaufort-news/article251895188.html](https://www.islandpacket.com/news/local/community/beaufort-news/article251895188.html)

## **World Environment Day: Public called on to log seagrass lawns and meadows (Ireland)**

04 June 2021, by Kevin O'Sullivan, The Irish Times

Coastwatch is launching a national campaign to assess the state of Ireland's sea-grass populations. Coinciding with World Environment Day (WED), the environmental group is seeking the help of the public – as citizen scientists – in conducting research at key coastal locations with a view to informing their restoration, especially in helping to arrest biodiversity loss. Members of the public are asked to confirm that known seagrass meadows remain, and help Coastwatch in their search for new meadows.

Seagrass has featured in its annual Coastwatch survey for a decade. A verification and mapping exercise in 2019 supported by the Marine Unit of the Department of Housing confirmed new sites not on official maps and extended the known range of the sublittoral seagrass meadows formed by *Zostera marina* species notably in Kilmore Quay, Co Wexford.

Dublin City Council is the first local authority in Ireland to put seagrass protection and restoration into its biodiversity action plan. It has worked with Coastwatch on environmental projects including a successful monitoring of *Zostera noltii* beds at Sandymount and Merrion Gates. Coastwatch has called on politicians to back seagrass protection and restoration.

[more.....https://www.irishtimes.com/news/environment/world-environment-day-public-called-on-to-log-seagrass-lawns-and-meadows-1.4584460](https://www.irishtimes.com/news/environment/world-environment-day-public-called-on-to-log-seagrass-lawns-and-meadows-1.4584460)

## **Sea & Shoreline Plants One-Millionth Seagrass Plant to Save Sea Life (FL, USA)**

04 June 2021, PRNewswire

Today, Florida aquatic restoration company Sea & Shoreline announced the planting of their one-millionth seagrass/SAV plant in honor of World Environment Day on June 5th. Reaching this monumental milestone, Sea & Shoreline, a carbon negative company, has planted more plants in fresh, brackish, and marine environments than any other company in the world. The company's one million plants, rooted in waterways across Florida, equate to over 130 acres of seagrass/SAV plantings. To put it into perspective, the ground cover is larger than The Magic Kingdom at Walt Disney World (107 acres) and equal to 95 football fields - over three times the amount of NFL team stadium fields (30) in the United States.

The company's dedicated efforts to create thriving aquatic environments are timely and critical as federal officials have declared an unusual mortality event for Florida's manatee population. More than 700 manatees have died in Florida so far this year, more than double the average. An immediate need for seagrass/SAV replenishment, their primary food source, will save sea life according to state veterinarians\* and the Florida Fish and Wildlife Conservation Commission. \*\*

In addition to enhancing environmental ecosystems with seagrass/SAV and educating communities and governments on how it saves sea life, Sea & Shoreline's services remedy many factors that corrupt aquatic environments. Since its inception in 2014, Sea & Shoreline has completed over 150 projects including oyster and coral reef restorations; berm and bank stabilizations; and dredging to remove muck and pollutants, allowing sunlight to reach seagrass and other underwater plants so they may flourish.

[more.....https://www.prnewswire.com/news-releases/sea--shoreline-plants-one-millionth-seagrass-plant-to-save-sea-life-301305818.html](https://www.prnewswire.com/news-releases/sea--shoreline-plants-one-millionth-seagrass-plant-to-save-sea-life-301305818.html)

### ***Environmental groups petition governor to help IRL (FL, USA)***

03 June 2021, by Josh Whitener, Hometown News

The Brevard Indian River Lagoon Coalition, Clean Water Coalition of Indian River County, the Indian River Lagoon RiverKeeper, Pelican Island Audubon Society, Alliance of Fishing Guides, St. Lucie Conservation Alliance, Brevard Surfriders, and others have added their organization's names to a petition to Governor DeSantis to declare a state of emergency for the Indian River Lagoon (IRL). After incidents like a massive sewage leak in Titusville, resulting algae blooms have severely weakened the ecosystem in the waterway. Reports for months have linked widespread manatee fatalities as part of a diminished habitat. As blooms increase nutrients in the water sea grass and other life die off, leaving a limited food supply.

The request to declare of a state of emergency for the lagoon includes the following: "immediate, long-term financial assistance to convert septic systems to sewers, an upgrade all sewerage treatment plants to Advanced Wastewater Treatment (AWT) as a step towards 'toilet to tap' systems and to fund infrastructure for stormwater treatment and mitigation, along with muck removal." The petition also adds to ban the use of glyphosate herbicide and other hazardous fertilizers that contribute to contaminating the water. It also requests the full recommendations of Gov. DeSantis's Blue-Green Task Force, a five member appointed committee who work to protect state waterways and resources.

Many local businesses rely on the health of the IRL for a number of reasons including tourism, seafood for local restaurants and markets, and recreational activities. As summer months approach, the risk for more frequent and widespread algae blooms will increase. Marine Resources Council, a local nonprofit that helps to maintain and enhance the quality of the IRL, recently issued the latest IRL Report Card with an F+ grade.

[more.....https://www.hometownnewsbrevard.com/news/environmental-groups-petition-governor-to-help-irl/article\\_41e9dcf4-c3c0-11eb-b5a7-3f638a4c336b.html](https://www.hometownnewsbrevard.com/news/environmental-groups-petition-governor-to-help-irl/article_41e9dcf4-c3c0-11eb-b5a7-3f638a4c336b.html)

### ***Jet skis in Torbay 'damaging seagrass beds and rare seahorses' (England, UK)***

03 June 2021, by Colleen Smith, Devon Live

Fears that jet ski racers are causing damage to Torbay's protected seagrass beds have been backed by wildlife experts. However, Torbay Council has brushed aside the fears after receiving complaints from members of the public this week saying "this is unlikely since jet skis are shallow draughted and not deep enough to be anywhere near the seagrass." But The Seahorse Trust, which has spent hundreds of hours studying the rare short-snouted Torbay seahorse (*Hippocampus hippocampus*) disagrees.

Neil Garrick-Maidment, Executive Director and Founder, The Seahorse Trust said: "Unfortunately, jet skis pose a considerable risk to seahorses in the Torquay area. "At low tide in the Torre Abbey area where the water is very shallow, jet skis can lead to direct damage as their wash causes scour through the seagrass which washes out the root system and anything living in it. "Across the entirety of the area, noise from jet skis poses a serious threat as it puts seahorses and other marine species such as seals under immense threat. This stress can drive seahorses to abandon their breeding sites and may even lead to sickness and death."

Torbay Council added: "Jet skis are permitted inside the 5kt area as long as they are travelling at less than 5kts. "If vessels are travelling at over 5kts inside the 5kt area these should be reported immediately to the harbour office who will despatch the patrol boat to investigate. "

[more.....https://www.devonlive.com/news/devon-news/jet-skis-torbay-damaging-seagrass-5486388](https://www.devonlive.com/news/devon-news/jet-skis-torbay-damaging-seagrass-5486388)

### ***Researchers restore 14 acres of seagrass to save dugongs in the Gulf of Mannar (India)***

03 June 2021, by S Godson Wisely Dass, The New Indian Express

In order to conserve endangered dugongs, researchers at Gulf of Mannar Marine Biosphere Reserve along with other marine experts have restored 14 acres of degraded seagrass on the sea bed of the Gulf of Mannar region over [www.seagrasswatch.org](http://www.seagrasswatch.org)

the past 10 years. The conservation of dugongs assumes significance as numbers of the mammal have drastically fallen over the years with only 250 remaining in India, according to the Wildlife Institute of India (WII).

Researchers attached to the Suganthi Devadason Marine Research Institute (SDMRI) affiliated to the Manonmaniam Sundaranar University said that the restoration of seagrass beds through rehabilitation projects was the only way to conserve the dugongs which are the flagship animal for the Gulf of Mannar and Palk Bay. The destructive practice of bottom trawling to catch fish at the shallow waters had greatly depleted the seagrass meadows in the Gulf of Mannar region. Apart from destructive fishing practices, there are other factors such as pollution, coastal development, elevated sea surface temperature, sea level rise and sedimentation that also threaten the survival of seagrasses, said another researcher.

The SDMRI researchers said that manual transplantation of seagrass sprigs (shoots), was found to be the best choice for seagrass restoration in the Gulf of Mannar, through various experiments. Accordingly, the mature seagrass sprigs with intact roots are attached to a biodegradable jute twine and the twine is tied to a one square metre PVC quadrat, which is immediately taken underwater and fixed at the earmarked restoration site, they said. It costs about Rs 8 to Rs 10 lakh per acre for planting, monitoring and maintaining. A total of 14 acres of degraded seagrass area has been restored in the Gulf of Mannar and Palk Bay from 2011 to 2020 with a success rate of 85-90 percent.  
[more.....https://www.newindianexpress.com/states/tamil-nadu/2021/jun/03/researchers-restore-14-acres-of-seagrass-to-save-dugongs-in-the-gulf-of-mannar-2311186.html](https://www.newindianexpress.com/states/tamil-nadu/2021/jun/03/researchers-restore-14-acres-of-seagrass-to-save-dugongs-in-the-gulf-of-mannar-2311186.html)

### ***Our Coast: Restoring seagrasses (China)***

03 June 2021, by Zhao Ying, CGTN

Dugongs are avid lovers of seagrass, giving it the nickname of "sea cows." The Guangxi Hepu Dugong National Nature Reserve in south China's Guangxi Zhuang Autonomous Region is the only nature reserve named after them in China. The seagrass beds there used to be their ideal habitat. Human activities such as digging for peanut worms and sea snails in the wetland, and water pollution all posed threats to the seagrass bed ecosystem and jeopardized species feeding on seagrass like dugongs and sea turtles. According to staff in the reserve, dugongs have not been seen there for 18 years.

The nature reserve started seagrass surveys in and around the reserve's water area since the 1990s to keep an updated record of seagrass beds. The reserve's senior engineer Liu Mengling has been involved in the survey for the past 15 years and has a passion for sea and marine life. Her team has worked on seagrass restoration in hopes that dugongs might come back to the region one day. Watch the video to learn about her story.

China's coastline stretches for 18,000 kilometers and is home to abundant marine life such as Bryde's whales, Chinese white dolphins, and sea turtles. This series focus on the species living along the coastline of China and the survival challenges they face, tell the stories of frontline conservationists, and discuss feasible measures for biodiversity and ecological protection.

[more.....https://news.cgtn.com/news/2021-06-03/Our-Coast-Restoring-seagrasses-10MGBiapW24/index.html](https://news.cgtn.com/news/2021-06-03/Our-Coast-Restoring-seagrasses-10MGBiapW24/index.html)

### ***Seagrass Restoration Efforts Underway In St. Andrew Bay (FL, USA)***

02 June 2021, by Robbie Gaffney, WFSU

Seven acres of seagrass will be transplanted from one area of St. Andrew Bay to another as part of a \$2 million-dollar restoration project. The money comes from the National Fish and Wildlife Foundation. Historically, the West Bay portion of St. Andrew Bay had nearly 4,000 acres of seagrass but lost 50% due to man-made impacts from 1953 to 1992. Since then, the area has recovered 40% of its seagrasses, leaving 10% or roughly 500 acres barren.

"We're planting seagrass in a patchy structure, something like a chessboard or checkerboard. We're actually putting in plots of seagrass rosettes, groups of small plants over a broad area," Florida Fish and Wildlife Conservation Commission's Kent Smith says. Smith says once seagrass takes root, the plant will grow to fill in the gaps. Afterward, he hopes the seagrass will expand outside the project area. As for the parts of West Bay where workers will remove seagrass, Smith says they will do it in a way that mitigates any potential impacts.

The historic loss of seagrass has affected the animals who depend on the grass as a food source and habitat. "It would be like saying, 'Okay, we're going to take away half of the vegetables at your grocery store,' and that would support essentially half of the people that could actually get the foodstuff that they would need at that location," Smith says. Workers will begin transplanting seagrass next week.

[more.....https://news.wfsu.org/wfsu-local-news/2021-06-02/seagrass-restoration-efforts-underway-in-st-andrew-bay](https://news.wfsu.org/wfsu-local-news/2021-06-02/seagrass-restoration-efforts-underway-in-st-andrew-bay)

## **Florida summer fertilizer ban begins June 1. Here's what you need to know (FL, USA)**

01 June 2021, by Max Chesnes, TCPalm

The Treasure Coast's annual summer fertilizer ban goes into effect in each county June 1 to protect water quality in the Indian River Lagoon and St. Lucie River. All businesses and residences are prohibited from using fertilizer containing nitrogen and phosphorus between June 1 and Sept. 30.

The ban coincides with Florida's wet season, when rain is more likely to wash fertilizer into ditches and creeks leading to the lagoon and river, where algae gorges on it. The resulting blooms can kill seagrass and marine animals that depend on seagrass beds. Manatees, which feed on seagrass, are starving this year at a record rate. At least 749 died between Jan. 1 and May 21, according to Florida Fish and Wildlife Conservation Commission data. The record was 830 for all of 2013.

To find a ban-compliant fertilizer, look for three numbers on the fertilizer bag and pick one with zeroes for the first two numbers, such as "0-0-16." The first number represents the percentage of nitrogen, the second the percentage of phosphorus. The third is potassium, which isn't part of the ban. Most ordinances allow the use of "yard waste compost, mulches or other similar materials that are primarily organic in nature," but that doesn't include organic fertilizers containing nitrogen and phosphorus. Residents, businesses and lawn companies also have to keep an eye on grass clippings and leaves: They can be washed into stormwater drains and can dump excess nutrients harmful to the Indian River Lagoon and St. Lucie River.

[more.....https://www.tcpalm.com/story/news/local/indian-river-lagoon/2021/06/01/florida-summer-rainy-season-fertilizer-ban-water-quality-indian-river-lagoon-st-lucie-river/7471023002/](https://www.tcpalm.com/story/news/local/indian-river-lagoon/2021/06/01/florida-summer-rainy-season-fertilizer-ban-water-quality-indian-river-lagoon-st-lucie-river/7471023002/)

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As toxic algae looms, Sarasota County calls to reduce use of fertilizer (03 June 2021, Sarasota Herald-Tribune)

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## **One man's battle to preserve the 'lungs of the Mediterranean' (Spain)**

01 June 2021, by Graham Keeley, Euronews

Famous for its stunning beaches and Luna-like landscapes, the Spanish island of Formentera owes much of its beauty to the *Posidonia oceanica*. Also known as Neptune's grass, its importance lies in the way it preserves the marine environment and combats climate change. One hectare of seagrass can soak up as much carbon dioxide as 15 hectares of rainforest, according to a Unesco report published in March by Carlos Duarte, a marine biologist from the King Abdullah University in Saudi Arabia.

Enter Manu San Felix, a marine biologist, who has spent nearly three decades campaigning to save the *Posidonia*. San Felix says nearly 30 per cent of the *Posidonia* in the Mediterranean has been destroyed, citing data that appeared in a 2015 study in Nature. The study found that 1.5 per cent of seagrass is destroyed every year and almost 29 per cent of *Posidonia* has been lost since 1879. To protect *Posidonia* meadows across the Mediterranean, the Spanish government has banned owners of boats from laying anchors in certain areas off the islands in the Balearics. "The problem is one of repetition. Some years ago, only about 400 yachts would come to Formentera or Ibiza but now there are about 4,000 each year so the impact is big," says San Felix. "Their anchors can destroy large swathes of the grass."

To provide a free and easy solution, he developed an app for boat owners. *Posidonia* Maps alerts them if the seagrass is below their vessels so they do not lay anchor in that spot and destroy the grass below. The app has charted out the banks of the grass around Formentera, an island that attracts the rich and famous in their yachts every summer. San Felix plans to launch another map for the grass around all the Balearic Islands this summer and will follow this with a more ambitious map for the entire Mediterranean later.

[more.....https://www.euronews.com/green/2021/06/01/one-man-s-battle-to-preserve-the-lungs-of-the-mediterranean](https://www.euronews.com/green/2021/06/01/one-man-s-battle-to-preserve-the-lungs-of-the-mediterranean)

## CONFERENCES

### ***The 14<sup>th</sup> International Seagrass Biology Workshop (ISBW14) (Annapolis, USA Summer 2022)***

#### **Theme: " Signs of Success "**

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 an excellent opportunity for the scientists working on various aspects of seagrass ecosystems to come together and discuss their latest findings.

The ISBW14 Chesapeake Bay will be held in Summer 2022 at the Graduate Annapolis Hotel, Annapolis, Maryland. This will be the first time ISBW has been hosted in the U.S.A. and the iconic Chesapeake Bay is the logical setting. Chesapeake Bay is an iconic estuary with a strong scientific and management history. The resurgence of seagrasses (including brackish water submersed aquatic vegetation) in the bay is the largest documented in the world, and clearly a "sign of success" to inspire seagrass scientists globally.

#### **More information:**

To get important updates, visit: <https://isbw14.org/>

Follow on

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### ***14<sup>th</sup> International Coral Reef Symposium (ICRS 2020) (Virtual, 19-23 July 2021).***

#### **Theme: Tackling the Challenging Future of Coral Reefs**

The ICRS is the leading global conference on coral reef science, management and conservation, sanctioned every 4 years by the International Coral Reef Society (ICRS). For the first time in its history, an ICRS will be held in Europe. ICRS 2020 will be the key event to develop science-based solutions addressing the present and future challenges of coral reefs, which are globally exposed to unprecedented anthropogenic pressures. The five-day program will present the latest scientific findings and ideas, provide a platform to build the essential bridges between coral reef science, conservation, politics, management and the public, and will promote public and political outreach.

Key Themes which include seagrass ecosystems:

Theme 3: Ecosystem functions and services

Theme 6: Unexplored and unexpected reefs

Theme 9: Global and local impacts

Theme 10: Organismal physiology, adaptation and acclimation

#### **More information:**

To get important updates, visit: <https://www.icrs2020.de/>

## SEAGRASS-WATCH PUBLICATIONS:

### ***Seagrass ecosystems of the Pacific Island Countries and Territories: A global bright spot***

*L.J. McKenzie, R.L. Yoshida, J.W. Aini, S. Andréfouet, P.L. Colin, L.C. Cullen-Unsworth, A.T. Hughes, C.E. Payri, M. Rota, C. Shaw, P.A. Skelton, R.T. Tsuda, V.C. Vuki, R.K.F. Unsworth*

Seagrass ecosystems exist throughout Pacific Island Countries and Territories (PICTs). Despite this area covering nearly 8% of the global ocean, information on seagrass distribution, biogeography, and status remains largely absent from the scientific literature. We confirm 16 seagrass species occur across 17 of the 22 PICTs with the highest number in Melanesia, followed by Micronesia and Polynesia respectively. The greatest diversity of seagrass occurs in Papua New Guinea (13 species), and attenuates eastward across the Pacific to two species in French Polynesia. We conservatively estimate seagrass extent to be 1446.2 km<sup>2</sup>, with the greatest extent (84%) in Melanesia. We find seagrass condition in 65% of PICTs increasing or displaying no discernible trend since records began. Marine conservation across the region overwhelmingly focuses on coral reefs, with seagrass ecosystems marginalised in conservation legislation and policy. Traditional knowledge is playing a greater role in managing local seagrass resources and these approaches are having greater success than contemporary conservation approaches. In a world where the future of seagrass ecosystems is looking progressively dire, the Pacific Islands appears as a global bright spot, where pressures remain relatively low and seagrass more resilient.

[https://www.seagrasswatch.org/mckenzie-et-al\\_2021b-2/](https://www.seagrasswatch.org/mckenzie-et-al_2021b-2/)

### ***Seagrass ecosystem contributions to people's quality of life in the Pacific Island Countries and Territories***

*L.J. McKenzie, R.L. Yoshida, J.W. Aini, S. Andréfouet, P.L. Colin, L.C. Cullen-Unsworth, A.T. Hughes, C.E. Payri, M. Rota, C. Shaw, R.T. Tsuda, V.C. Vuki, R.K.F. Unsworth*

Seagrass ecosystems provide critical contributions (goods and perceived benefits or detriments) for the livelihoods and wellbeing of Pacific Islander peoples. Through in-depth examination of the contributions provided by seagrass ecosystems across the Pacific Island Countries and Territories (PICTs), we find a greater quantity in the Near Oceania (New Guinea, the Bismarck Archipelago and the Solomon Islands) and western Micronesian (Palau and Northern Marianas) regions; indicating a stronger coupling between human society and seagrass ecosystems. We also find many non-material contributions historically have been overlooked and under-appreciated by decision-makers. Closer cultural

connections likely motivate guardianship of seagrass ecosystems by Pacific communities to mitigate local anthropogenic pressures. Regional comparisons also shed light on general and specific aspects of the importance of seagrass ecosystems to Pacific Islanders, which are critical for forming evidence-based policy and management to ensure the long-term resilience of seagrass ecosystems and the contributions they provide.

[https://www.seagrasswatch.org/mckenzie-et-al\\_2021a-2/](https://www.seagrasswatch.org/mckenzie-et-al_2021a-2/)

## SEAGRASS-WATCH on YouTube

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

<https://www.seagrasswatch.org/podsnmore/>

Presentation on what seagrasses are and why they are important (over 52,544 views to date)

**Global distribution of seagrass meadows** [https://www.youtube.com/watch?v=OPbmam\\_sitk](https://www.youtube.com/watch?v=OPbmam_sitk)

Presentation on new scientific paper examining the global distribution of seagrass meadows by McKenzie, Nordlund, Jones, Cullen-Unsworth, Roelfsema and Unsworth <https://doi.org/10.1088/1748-9326/ab7d06>

## SEAGRASS & OTHER MATTERS

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

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

**SeagrassSpotter** <https://seagrassspotter.org/>

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

**World Seagrass Association** <http://wsa.seagrassonline.org>

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

**World Seagrass Association on Twitter** [@Seagrass\\_WSA](https://twitter.com/Seagrass_WSA)

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

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

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

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

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

## FROM HQ

**Past E-bulletins** <https://www.seagrasswatch.org/ebulletin/>

**Frequently Asked Questions** <https://www.seagrasswatch.org/faq/>

**Educational Videos** <https://www.seagrasswatch.org/education/>

**Magazine** <https://www.seagrasswatch.org/magazine/>

**Virtual Herbarium** <https://www.seagrasswatch.org/herbarium/>

**Future sampling dates** <https://www.seagrasswatch.org/upcomingevents/>

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