30 November 2020

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IN THIS BULLETIN

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NEWS

Blue carbon a gamechanger in WA's struggle to curb greenhouse gas emissions (WA, Australia)

30 NovNovember 2020, by James Liveris, ABC Pilbara

Carbon capture in vegetated coastal ecosystems could sequester millions of West Australian greenhouse gases as it closes in on its net zero emissions target by 2050. Mangroves, seagrass meadows and salt marshes are being packaged as highly effective carbon sinks which could be traded as carbon credits, also known as blue carbon. What is more, WA is home to Australia's largest coastline which spans for more than 20,000 kilometres and is native to these habitats.

With WA providing more than three million hectares of blue carbon ecosystems collectively, that would store 412 million tonnes of carbon dioxide and sequester about 1.3 million tonnes annually. These figures stated in a scientific report provided by UWA come at a pertinent time as emissions growth in WA is expected to continue in the short to medium term, according to the Environmental Protection Authority. The blue carbon strategy provides an investment opportunity for major resource companies that have publicly vowed to reduce their emissions.

University of Western Australia Oceans Institute Research Associate, John Statton, said the ecosystem-based approach to aquaculture and carbon farming was a win-win situation. "We are constructing large earthen ponds to establish seagrass within the ponds and mangroves around the perimeter. The restoration and maintenance of mangroves and seagrass would take place in areas such as the Gascoyne, Pilbara, and the Kimberley.
more……https://www.abc.net.au/news/2020-11-30/blue-carbon-a-gamechanger-in-wa-greenhouse-gas-struggle/12921138

Studland Bay management: RYA calls for voluntary approach

27 November 2020, by Katy Stickland, Yachting Monthly

Sailors have until 15 December to respond to a call for evidence over management plans for Studland Bay, which could see all sailing and watersports banned. The RYA is calling for a voluntary approach to the management of Studland Bay in Dorset. The UK Government has issued a call for evidence over management plans for the site.

Studland Bay was designated a Marine Conservation Zone (MCZ) in 2019 due to its seagrass beds and its resident long-snouted seahorse population. Due to its location and sheltered conditions, Studland Bay is a popular anchorage for recreational boaters and many of the businesses in the area rely on its welcoming reputation for income.

There have been several proposed protective measures put forward for the site by the Marine Management Organisation (MMO) which cover anchoring, mooring and general use of the zoned areas. The measures range from an increase in environmental monitoring to a complete ban of all watersports, sailing and boating activity in the area. The RYA submitted their recommendations for the introduction of voluntary protective measures, including a joint management and engagement approach that would give autonomy to boat owners and enable them to understand and promote protection amongst their peer group. The Boat Owners Response Group (BORG), which promotes the right of navigation, anchoring and mooring for boaters in the context of MCZs, is calling for 'objective, science based conservation management' of Studland Bay. Jon Reed from BORG said there is little research on the impact of anchoring in eelgrass, with much of the scientific data using the more fragile Mediterranean seagrass *Posidonia oceanica* as the reference model for predictions about Studland Bay. 'We are simply asking for objective science, based on observation of actual conditions in Studland Bay, linked to background data on the specific eelgrass species present,' stressed Reed.'
more……https://www.yachtingmonthly.com/news/could-yachts-be-banned-from-studland-bay-75076

Land clearing rejection good news for our Reef and threatened marine wildlife (QLD, Australia)

26 November 2020, Mirage News

The Federal Environment Minister's decision to reject a proposal to clear land in Far North Queensland will benefit the Great Barrier Reef, the Australian Marine Conservation Society (AMCS) say. Minister Sussan Ley used her powers under the Environment Protection and Biodiversity Conservation (EPBC) Act to refuse plans to clear almost 2,000 hectares of forest for grazing at Kingvale Station on the Cape York Peninsula on the grounds of unacceptable impacts on threatened species and habitats.

"Land clearing on this scale would have had significant water quality impacts on Princess Charlotte Bay in the far north of the Great Barrier Reef, so we are pleased Minister Ley has knocked this destructive project back," said AMCS reef campaigner Elise Springett. "Our forests act as natural filters for sediments and nutrients, ensuring not too much flows out into Reef habitats including seagrass meadows where we find threatened species like dugongs and turtles. "Sediment pollution, which is an issue in grazing dominated catchments, smothers seagrass and suffocates inshore corals.

“The Reef 2050 Water Quality Improvement Plan includes water quality targets crucial for our Reef to avoid an ‘in danger’ rating from the World Heritage Committee. The catchment within which Kingvale is situated (the Normanby catchment) has a target for sediment reduction so this decision will make a real difference. AMCS was one of a number of conservation organisations who made submissions opposing approval of the project across several years.
more…….https://www.miragenews.com/land-clearing-rejection-good-news-for-our-reef-and-threatened-marine-wildlife/

We know how to manage stormwater runoff into the Indian River Lagoon (FL, USA)

23 November 2020, by Dave Botto, Florida Today

The Indian River Lagoon is one of the most valuable coastal wildlife habitats in Florida. It is an estuary of national significance and has been internationally featured as one of the most diverse estuaries in North America. Currently, it does not meet federal water quality standards and is designated an impaired estuary. The Lagoon is being badly damaged by pollution, which produces algae blooms that kill seagrass. We know that major sources of Lagoon pollution include nutrient and sediment runoff from developed property. Roofs, streets, parking lots, fertilized lawns, driveways and walkways quickly carry these pollutants to the nearest storm drain and out to the Lagoon. Impervious surfaces such as these do not let rainwater infiltrate into the soil as nature intended. The resulting stormwater runoff from the entire watershed carries these pollutants into the IRL.

A good way of making that change is a well-known stormwater management concept called "Low Impact Development/Design." LID is a globally proven approach to the site design and development of land that minimizes impervious surfaces and maintains natural areas and tree canopies. It holds stormwater on site to infiltrate and recharge our coastal aquifer. It treats rainwater as an asset rather than a liability. This prevents seagrass loss and reduces flooding. It is a significant change from the old ways of development but can be less expensive, reducing development costs overall. LID reduces the need for costly stormwater infrastructure and large, ineffective retention ponds. It is a sustainable and reliable approach that works for developers, homeowners, and the lagoon.

The Marine Resources Council (MRC), in partnership with 22 other Florida organizations, has sent letters to state officials and all local governments in the six counties on the Lagoon asking for immediate action to rewrite outdated stormwater rules and establish LID as the new development standard.
more…….https://www.floridatoday.com/story/opinion/2020/11/23/how-manage-stormwater-runoff-into-lagoon/6389736002/

Inaugural Victorian Marine and Coastal Awards recognise marine and coastal advocates

24 November 2020, Australasian Leisure Management

The inaugural Victorian Marine and Coastal Awards has celebrated the dedication of those who enhance and protect Victoria’s coastal and marine environments. Victorian Minister for Energy, Environment and Climate Change, Lily D’Ambrosio virtually presented 11 awards on behalf of the Victorian Marine and Coastal Council to a diverse range of individuals and groups. Minister D’Ambrosio congratulated all the winners and finalists for their “tireless work and dedication to protecting and preserving our precious marine and coastal environment.

Among the award winners was the Yarram Yarram Landcare Network acknowledged for biodiversity and ecosystem conservation through its Corner Inlet Broadleaf Seagrass Restoration Project. The project successfully addressed the impact of Purple Sea Urchins on broadleaf seagrass meadows which provide crucial food and habitat for fish populations at the Corner Inlet between Wilsons Promontory and Ninety Mile Beach.

The Victorian Government has invested more than $70 million in marine and coastal programs since 2014 and has recently announced a further $16 million as part of the upcoming Victorian Budget 2020/21. The Victorian Marine and Coastal Awards build on the legacy of the former Victorian Coastal Awards. For a full list of the award winners click here
more…….https://www.ausleisure.com.au/news/inaugural-victorian-marine-and-coastal-awards-recognise-marine-and-coastal-advocates/

Hijo Estate coastline now a Marine Protected Area (Philippines)

21 November 2020, by Ace June Rell S. Perez, SunStar

To protect and preserve the rich marine biodiversity within its coastline, the Hijo Resources Corporation (HRC) and the local government unit (LGU) of Tagum City, through its City Environment and Natural Resources Office (Cenro), inked a memorandum of agreement (MOA) declaring the Hijo Estate coastline as a Marine Protected Area (MPA). The Hijo Estate coastline, located in Barangay Madaum, Tagum City, is part of the Davao Gulf.

The MOA, which was signed on October 27, 2020, signifies the shared responsibility of both parties in actively protecting and conserving the marine life nesting in the Hijo coastline. The collaboration also involved the Department of Science and Technology (DOST). Cementing HRC’s commitment to the environment is its sustainability arm - The Trinity Project. Led by HRC Chief Executive Officer (CEO) Rosanna Tuason Fores and

Director for Sustainability Harry Morris, the project aims to rejuvenate corals, seagrass and mangroves in the Davao Gulf, which benefits directly the communities surrounding it.

According to Morris, they are working on repairing first the three important marine elements in the Davao Gulf (corals, seagrass, mangroves), then enhance and protect the existing marine life. One of the ways to repair and enhance the marine elements is the deployment of artificial reef structures with attached coral fragments to attract different marine species that were once abundant in the area. Seagrass planting on the ocean floor and mangrove planting in the shoreline were also conducted. Since its start in 2015, different fish species have returned and seagrass meadows have grown and will become a safe environment for dugongs.
more…….https://www.sunstar.com.ph/article/1877612/Davao/Local-News/Hijo-Estate-coastline-now-a-Marine-Protected-Area

This student-designed robot could help put a stop to global warming (Scotland, UK)

19 November 2020, by Tom Howard, Red Bull Australia

Edinburgh Uni's Niall McGrath and Isobel Harris, plus seven other engineers, are the NTT wildcard winners for the Red Bull Basement 2020 Global Workshop. When Niall McGrath, the Project Director of ROBOCEAN, came across a group of people called Project Seagrass it piqued his interest. As someone with a lifelong interest in environmental issues, Project Seagrass's plan to restore large areas of former seagrass meadows around the UK sounded good. As an engineering student, the plan to ask volunteers in local communities to collect and sow every single one of one million seeds by hand sounded like an idea that needed refining.

"We were chatting to the guys at Project Sea Grass," says Niall. "And they distribute their seeds in these little hessian bags, 50 seeds per bag, and they anchor it to the sea floor and hope that one of the seeds takes root. One of the primary advantages of this bag is crabs cannot get in and eat the seeds." The idea with ROBOCEAN is to remove the bag from the equation so the seed germination process is more efficient. But how to keep the crabs away? "Recently I found out about this octopus gel from a marine biologist guy in Edinburgh I was chatting to," he says. "And basically crabs are scared of octopus because they're natural predators, and they predate crabs historically so they have a deep-rooted fear of them. There's this theory that if we make the seeds smell like octopus the crabs will stay away."

Niall, Isobel and their team want to build a prototype, but making robots costs money. With the Red Bull Basement winnings, they can build a prototype. A prototype would enable them to test the robot on a 5 x 5 meter test site, work out exactly how much it needs to weigh, work out exactly what the gel flow rates needs to be, and work out exactly how fast it can move, among many other finer details. But perhaps more important, says Niall, would be "the support we'd get to help us develop the idea."
more…….https://www.redbull.com/gb-en/robocean-climate-change-fighting-robot

This Invisible Ecosystem Helps Fight Climate Change

19 November 2020, by Erika P, Science Times

Seagrasses are the invisible ecosystem underwater that is often confused with seaweeds. Experts say that seagrasses might be protecting the Earth from climate change. According to the UN representative from the Republic of Seychelles, Ronald Jumeau, seagrasses are the world's forgotten ecosystem. They are often overshadowed by the colorful coral reefs and mangroves. But seagrasses are the most productive natural habitats on both land and sea.

Seagrasses are underappreciated but essential, Smithsonian's Tennenbaum Marine Observatories Network director Emmett Duffy said. They once grew only on drylands but when the largest dinosaurs were in their heyday, they drifted to the sea. They have changed little since then. But their most notable underwater adaptation include aquatic pollination and leaves that can survive saltwater. These adaptations have made it possible for seagrass to cover over 116,000 square miles of the ocean floor of every continent, except for Antarctica. Researchers refer to the seagrass as ecological engineers that have not only greened the ocean floors but also shaped them, according to Smithsonian Magazine.

Leading international seagrass expert Carlos Duarte said that on the bank of the Red Sea, a "scintillating sound when you lie in seagrass meadows" can be heard. He said that for some marine animals, this might serve as their guidance on where they left their larvae. However, like many plants, they are also in decline, just like the coral reefs and tropical rainforests. There have been international efforts to save the seagrasses on the ocean floor. Fisheries and the environment greatly rely on them, so it is important to protect this invisible ecosystem.
more…….https://www.sciencetimes.com/articles/28322/20201119/invisible-ecosystem-shape-lives-earth-what.htm

Related articles
Prairies of the Sea (19 November 2020, Smithsonian Magazine)
https://www.smithsonianmag.com/science-nature/seagrass-ocean-secret-weapon-climate-change-180976235/

Jupiter rejects plan for 'historic yacht' dock space at Pelican Club, citing seagrass concerns (FL, USA)

18 November 2020, by Sam Howard, Palm Beach Post

The question of whether to allow a new slip for a "historic yacht" along premier waterfront real estate came down to a matter of seagrass for town officials. A representative for Pelican Club landowner Charles Modica said there was no evidence of seagrass where the slip would be, east of the Loxahatchee River bridge. A town planner countered by saying the nearby area could be ripe for the stuff to grow as it disappears in other places locally and around the globe. Jupiter Town Council members sided with their staff, voting 5-0 against the proposal to change the banquet hall's marina by adding the slip on the landward side of the dock.

Calling the application an "extremely measured request," Donaldson Hearing, a land planner working on the application, told council members that Modica is open to installing protective measures for seagrass around the dock, which juts out in the shape of an upside-down L into the river from Jupiter Inlet Village. But Hearing said the question of seagrass was largely an "emotional response" to the issue, not one supported by facts. But Jupiter principal planner Martin Schneider told council members that the landward side of the dock has “historically been suitable for seagrass bed propagation.” At least one of Modica's seagrass surveys failed to take place between June and September, the required season for monitoring, Schneider said. More recent surveying determined there was seagrass about 30-40 feet south of the proposal area, he said.

Town staff recommended denying the application. Jupiter's Planning and Zoning Commission — including members who also lead the Jupiter Inlet Foundation, which advocates for protection of environmental resources such as seagrass — voted last month also to recommend denial. "We really have to do everything we can to protect our environment," Councilman Jim Kuretski said Wednesday. "The applicant had an option. There was an outer dock. If they really wanted to get another boat in there, they could go outward (not landward)."
more……https://www.palmbeachpost.com/story/news/local/jupiter/2020/11/18/jupiter-rejects-plan-have-historic-yacht-pelican-club-seagrass-issue/6338261002/

Underwater museum: how 'Paolo the fisherman' made the Med's strangest sight (Italy)

17 Nov 2020, by Giorgio Ghiglione, The Guardian

Paolo Fanciulli became a fisherman in the Tuscan village of Talamone at 13 and still plies the waters at the age of 60 in his small boat, the Sirena. But in the past decade, his job has become harder, as trawling near the coast has been destroying the marine ecosystem. The impact is devastating. “The nets are weighed down with heavy chains to be dragged on the sea bottom, so they uproot all the Posidonia, the seagrass that is key to the Mediterranean ecosystem because sea bream, lobsters and red gurnards lay their eggs there,” he says.

While Italian law bans trawling within three nautical miles of the coast, it’s so profitable that it’s not uncommon for boats to carry on illegally at night. Fanciulli noticed the effects of trawling as early as the 1980s: the damaged ecosystem was affecting his catch and having an impact on his livelihood. So, along with some other local fishermen and activists from Greenpeace, he blocked a commercial port in Tuscany in protest. It was the beginning of a struggle that has made him something of a local celebrity. It also earned him enemies, he says: threats from local mafia soon made it impossible for him to sell his fish at the market. He turned instead to what he describes as “pascaturismo”, or fishing tourism: he takes visitors out on his boat, giving them a chance to catch fish and learn about the ecological threat of trawling.

It wasn’t enough to stop illegal fishing, however. In 2006, a desperate Tuscan government dropped concrete blocks into the sea in an effort to disrupt the trawlers. Fanciulli says they didn’t work, and he got permission from Arpa, the agency for environmental protection, to drop an additional 80 blocks at his own expense. He began to wonder: what if, instead of dropping concrete blocks into the water, he dropped art? Via word of mouth, contributions from tourists and online crowdfunding, Fanciulli persuaded artists including Giorgio Butini, Massimo Lippi, Beverly Pepper and Emily Young to carve sculptures from the marble. Then he took them out to sea and lowered them in. The underwater sculptures create both a physical barrier for nets and a unique underwater museum.
more……https://www.theguardian.com/environment/2020/nov/17/underwater-museum-how-paolo-the-fisherman-made-the-meds-strangest-sight

Endangered Dugong Rescued from Village in Konawe (Indonesia)

17 November 2020, English Tempo

The Southeast Sulawesi natural resources conservation agency (BKSDA) on Monday mobilized a rescue team to the Bahaba village located in the Konawe Islands Regency to evacuate an endangered dugong confined by locals.

The evacuation process of the 130cm female dugong was initially hampered by a heated argument between the evacuation team and the villagers who were persistent to preserve the 50-kilogram marine mammal on their own.

Fortunately, the locals were willing to hand the protected animal to the BKSDA team after being made aware of the laws that protect the species and the risks of trying to keep the animal in the village confined.

According to the BKSDA report, the dugong's physical condition as it was rescued was quite deplorable. The mammal sustained scratch marks on its back and a serious injury was also seen in its tail fin and belly. The protected marine mammal will be treated before it is deemed fit to be reintroduced to its habitat.
more……https://en.tempo.co/read/1406135/endangered-dugong-rescued-from-village-in-konawe

Pilot's new lessons for 'nursery for fish' (Wales, UK)
11 November 2020, by Roger Ratcliffe, Big Issue North

Seagrass meadows in the UK are in danger of disappearing. More than 90 per cent of seagrasses have vanished from our coastline since Victorian times, mostly because of industrialisation and damage from boats. Also blighted have been many salt marshes, mussel reefs and oyster beds. "And yet we continue to trawl the seabed and destroy anything that's left," said Richard Unsworth of Swansea University. "We need to reverse this. We spend a lot of time arguing about fishing quotas but the underlying problem is that we're devastating the biodiversity that supports the fish. It's no longer about catching too much fish – it's about destroying our seabeds."

Unsworth is director of a charity called Project Seagrass, which hopes to restore now-barren seabeds by planting new sea meadows. A pilot scheme has involved collecting seeds from Porthdinllaen on the Llŷn Peninsula of North Wales and planting them at Dale Bay on the Pembrokeshire coast. The experimental sea meadow is the size of a couple of rugby pitches, but Unsworth hopes its success will lead to planting on a much bigger scale along the Welsh and west coasts of the UK.

The pilot scheme by Project Seagrass, with backing from the World Wildlife Fund, Sky Ocean Rescue and Pembrokeshire Coastal Forum, involves separating the seeds at an aquarium in Swansea, then mixing them with sand and putting them into small hessian bags which are then tied to the sea floor with biodegradable sisal rope. Project Seagrass is building on work done in Chesapeake Bay, the largest estuary in the US, where over the last few decades a large area of sea floor has been replanted. The next phase in the UK will be to try to vastly upscale the planting with the use of an underwater seed planting machine, and Unsworth hopes to establish 30 square kilometres of seagrass over the next decade.
more……https://www.bigissuenorth.com/news/2020/11/pilots-new-lessons-for-nursery-for-fish/#close

Fraser Coast pregnant dugong killing shows 'total lack of respect', Butchulla traditional owners say (QLD, Australia)
11 November 2020, by Eliza Goetze, ABC Wide Bay

The killing of a pregnant dugong on Queensland's Fraser Coast amid efforts to preserve local populations of the vulnerable species has angered traditional owners — the Butchulla people. The Queensland Parks and Wildlife Service (QPWS) is investigating the animal remains at Walkers Point on the Burrum River, after it was reported by a member of the public on November 4. A Department of Environment and Science (DES) spokesman described the case, where the dugong's young was discarded on the beach, as "particularly callous".

Butchulla Native Title Aboriginal Corporation director Kate Doolan said the killing showed a "total lack of respect" for wildlife and the local Indigenous people. "All the meat was taken and the offal was left on the beach, as well as the dugong's baby, which was soon to be born," she said. "It makes me feel sad for the mother because she's lost her baby. Ms Doolan said it was not clear if the culprits were other First Nations people who were not from Butchulla country. "But if they are doing traditional hunting, they should know cultural protocol to seek permission before hunting," she said.

Ms Doolan said dugongs were "very important" to the Butchulla as a traditional source of food and oil and were sometimes used for ceremonial purposes. But she said the way the dugong's remains were left on the beach was at odds with ceremonial treatment of dugongs, which would be performed in private.
more……https://www.abc.net.au/news/2020-11-11/dugong-killed-at-burrum-heads-fraser-coast/12860122

World's Largest Seagrass Restoration Project Is a Success Off Virginia Coast (VA, USA)
11 November 2020, by Sandy Allen, Our Community Now at Colorado

A seagrass restoration project off the coast of Virginia has grown to become the largest of its kind in the world. Led by William & Mary's Virginia Institute of Marine Science, with help from The Nature Conservancy, more than 70 million eelgrass seeds were spread over a 494-acre plot by marine scientists and volunteers. The original plantings have since increased to a whopping 9,000 acres.

The successful project, which began as an experiment, is located in southeast Virginia on the southern end of the Eastern Shore. This area hasn't had seagrass since the 1930s when it was wiped out by disease and a hurricane.

While it has taken more than 20 years for the project to get to this stage, scientists have gotten to observe and research it from the beginning. They were able to document details and lay the foundation for other marine restoration projects in other parts of the world. Water quality and animal life also improved in the area. This amazing project proves the resilience of marine environments when given the time and means to recover. It's an important factor in the fight against climate change.

Marine ecosystems like mangroves, seagrass beds, kelp forests, and salt marshes are crucial to the environment because of their potential to absorb CO2 and nitrogen. Seagrass helps marine animals and the environment in a wide variety of ways. It can capture carbon 35 times faster than tropical rainforests. This is important because of the unlimited potential in using seagrass as a carbon offset. Currently, seagrass covers 0.2% of the ocean floor, so the possibilities really are immense.
more…….https://ourcommunitynow.com/news-local/worlds-largest-seagrass-restoration-project-is-a-success-off-virginia-coast

Related articles
Seagrass Meadows Restored Off Eastern Shore (05 November 2020, WVTF)
https://www.wvtf.org/post/seagrass-meadows-restored-eastern-shore#stream/0
Seagrass: Another Vital Carbon-sequestering Ecosystem Threatened by Climate Change (23 November 2020, The Revelator)
https://therevelator.org/seagrass-climate-change/
U.Va. researchers successfully restore marine seagrass meadows off Virginia's eastern shore (28 November 2020, The Cavalier Daily)
https://www.cavalierdaily.com/article/2020/11/u-va-researchers-successfully-restore-marine-seagrass-meadows-off-virginias-eastern-shore

The beach is back at Geographe (WA, Australia)
10 November 2020, by Emma Kirk, Busselton Dunsborough Mail

For the first time in 23 years Geographe residents have a sandy beach after works were carried out to remove seagrass wrack from the area. Seagrass wrack has unnaturally accumulated on either side of the Port Geographe Marina groynes since it was first developed in 1997 creating an odour and covering the beach up to heights of 12-feet.

The beach became clear of seagrass when the DoT pushed the wrack into the water in August this year, before the winter storms ended. However the work carried out did not clear all the wrack and the City of Busselton engaged contractors to form another dune system. Port Geographe Action Group member Peter Macorra said by November 1, the current and tides cleaned the beach up.

Residents are now calling on the DoT, which is responsible for the amenity, to implement a winter seagrass work plan to push the wrack into the water from the start of July each year. Mr Macorra said when the seagrass was pushed into the water before a storm front occurred it would move naturally.
more…….https://www.busseltonmail.com.au/story/7005142/the-beach-is-back-at-geographe/?cs=801

Indigenous knowledge influences seagrass restoration (WA, Australia)
10 November 2020, Mirage News

Scientists from The University of Western Australia have partnered with Indigenous rangers in Shark Bay to develop a seagrass restoration program that combines traditional ecological knowledge with genetically informed science. Senior Research Fellow Dr Elizabeth Sinclair from UWA's School of Biological Sciences and Oceans Institute said there was increasing recognition of the value provided by Indigenous rangers to restoring damaged seagrass systems.

Bianca McNeair, a Malgana Traditional Owner, said the Malgana people are the custodians of Gathaagudu (two-waters). "We combine culture, knowledge of the environment and science to look after the waters, land and people," MsMcNeair said. The Malgana people are saltwater people, living around the water for the majority of their existence and have inhabited Shark Bay for more than 30,000 years. "Today, much of their land is 'sea country', with their cultural heritage preserved under the extensive seagrass meadows that thrive in the shallow waters," Dr Sinclair said.

During the collaboration, UWA's Professor Gary Kendrick, Dr John Statton and Amrit Kendrick held a series of training workshops, in which several restoration methods were trialled including transplanting adult plants and assisting the recruitment of dispersing wire weed seedlings. The Malgana people now have six new Rangers who are being trained in seagrass restoration methods, with the genetic data informing where seed and plant material should be collected for restoration activities.
more…….https://www.miragenews.com/indigenous-knowledge-influences-seagrass-restoration/

Drones being used for Es Trenc Posidonia study (Majorca)
09 November 2020, Majorca Daily Bulletin

Drones are being used to take high-resolution images of beach-dune ecosystems with *Posidonia* in the Es Trenc-Salobrar de Campos Nature Park.

The regional environment ministry says that this is a pilot project for identifying the most suitable means of managing these ecosystems. Analysis of sediment, beach profiles and 3D modelling will aid understanding of factors influencing *Posidonia* meadows and of how the banks of *Posidonia* are formed on the beach. The results will be used for restoration activities in the future and for guiding efforts to develop more sustainable management methods.

Part of the so-called Posbemed Two project, the studies at Es Trenc will allow the development of strategies for enhancing the value of the *Posidonia* dune and beach environment and the integration of these strategies into an overall coastal strategy.
more……https://www.majorcadailybulletin.com/news/local/2020/11/09/74585/drones-for-mallorca-posidonia-sea-grass-study.html

Study to examine Seychelles' seagrass meadows, a powerful carbon sink (Victoria, Seychelles)
08 November 2020, by Daniel Laurence, Seychelles News Agency

A scientist from Oxford University is expected to start a mapping exercise in Seychelles next year in areas containing seagrass meadows as part of a project to collect data on their carbon uptake capacity. The local consultant for the project, Jeanne Mortimer, told SNA that the "scientist will reach Seychelles in February and will first provide training on how to map areas to those that will be involved in the project."

The mapping exercise will demarcate areas around the most populated island of Mahe, Praslin and La Digue containing seagrass meadows. It will later cover other islands including Desroches, Amirantes, Cosmoledo, Astove, Alphonse and Farquhar. The project costs around $1 million and is being spearheaded by the Seychelles Conservation and Climate Adaptation Trust (SeyCCAT).

Mortimer, who has a great passion for the livelihood of sea turtles, said that seagrass meadows play an important role in our ecosystem as it also acts as a food source for sea turtles. Annike Faure, a representative from SeyCCAT's coastal wetlands and climate change project, said: "The project's aim is to collect data of the carbon sequestration capacity for seagrass in the Seychelles." Faure said that "under the Paris Climate Agreement, Seychelles has to report a 'Nationally Determined Contribution' regarding carbon emissions every five years. It was only in 2013 that a way of measuring it was developed. Before that, we could not claim it as a nature-based solution and include it in our report."
more……http://www.seychellesnewsagency.com//articles/13828/Study+to+examine+Seychelles%27+seagrass+meadows%2C+a+powerful+carbon+sink

Related article
Seychelles: Study to Examine Seychelles' Seagrass Meadows, a Powerful Carbon Sink (08 November 2020, AllAfrica.com)
https://allafrica.com/stories/202011090626.html

Green Pulse Podcast: Looking under the sea for a nature-based solution (Singapore)
06 November 2020, The Straits Times

Dr Siti Maryam, a marine ecologist at the environmental consultant company DHI Water & Environment, joins us in this podcast about an ocean-based solution to tackling climate change: Seagrass. Seagrass meadows can be found in Singapore waters, and a 2015 study had found that the seagrass meadow at Chek Jawa on offshore Pulau Ubin contained about 138 metric tonnes of carbon per hectare of seagrass -- equivalent to emissions from 69,000 taxi rides between Marina Bay and Changi Airport.

Yet, these habitats face many threats from human activity, including land reclamation and poor water quality. How can these stores of blue carbon be better protected and restored? Tune in to find out. They discuss the following points:
1. How do you differentiate seagrass from seaweed and other algae?
2. How do seagrass meadows function as a nature-based solution?
3. What are the threats faced by seagrass meadows around the world?
4. What are solutions for restoring seagrass meadows?
more……https://www.straitstimes.com/singapore/environment/green-pulse-podcast-looking-under-the-sea-for-a-nature-based-solution

National Park Service seeks input on Crab Island activities to better manage businesses (FL, USA)
05 November 2020, by Tony Judnich, Northwest Florida Daily News

Regular visitors to Crab Island have grown used to the summertime party spot being referred to as “the wild West” by local government officials. The island, which actually is a submerged sandbar, stands in unincorporated Okaloosa County and within the Choctawhatchee Bay portion of Gulf Islands National Seashore, which is managed by the National Park Service. While crowds continue to flock to Crab Island during the warmer months, problems stemming from its popularity have caused growing concern among NPS and local officials in recent years.

“The Crab Island area has become a highly popular recreational site, drawing hundreds of boats and numerous floating commercial services such as restaurants, water taxis, and mobile small craft vendors which traverse and anchor within the sandy and seagrass portions of the sandbar,” NPS officials said Monday in a statement. “The popularity of the sandbar has led to issues of concern, including life-threatening accidents and fatalities, damaged seagrass beds and diminished water quality.”

NPS officials now are seeking public input on a proposed “commercial services strategy” that aims for better management of commercial operations at Crab Island. The strategy includes performing a comprehensive review that will determine which commercial activities are necessary and appropriate.
more…….https://www.nwfdailynews.com/story/news/local/2020/11/05/officials-seek-public-input-commercial-activities-crab-island-party-spot/6152416002/

Sea and Shoreline is Helping Saving Florida's Marine Life with Seagrass (FL, USA)
05 November 2020, by Ariel Chates, SRQ Magazine

One company dedicated to reversing the damages of our reliance on fossil fuels, is Sea & Shoreline of Ruskin, Florida. Started in 2014 by Jim Anderson, Sea & Shoreline aims to restore the seagrass habitats of Florida’s waters. His basic philosophy is, “The environment is very forgiving and if we as humans can recognize our mistakes and are willing to change, the environment will take over from there.”

Their pilot project began in Crystal River, after noticing a significant decline in water quality. Local residents banded together to clean up their waters by contracting with Sea & Shoreline to dredge up the harmful plants and plant new, healthy seagrass. What started as a small dream for renewal in a three-acre plot, has now grown to a full-scale operation covering forty-six acres of restoration, Sea & Shoreline’s largest project to date. A nursery at their Ruskin aquaculture facility grows different species and strains of seagrass collected throughout the state that acts as a “genetic library,” where they can source the needed seagrasses for different projects. The team at Sea & Shoreline also restores oyster and coral reefs, and helps fix “scars” created by boat propellers in seagrass beds. These scars grow bigger with the tides and can wipe out the entire seagrass bed further harming the eco-system.

These projects might not be front-page news, but they are a vital part of rebuilding the natural lifecycle of our marine habitats that have been injured over the years. Seagrass loss is a huge issue not only in Florida but globally. Ryan Brushwood, Lead Biologist on Sea & Shoreline’s Aquatic Science Team hopes their efforts can, “try to reverse the negative impacts that humans have made while also giving back some positives.”
more…….https://www.srqmagazine.com/srq-daily/2020-11-05/15464_Sea-and-Shoreline-is-Helping-Saving-Floridas-Marine-Life-with-Seagrass

If No One Will, I Will: Captain Smith (Fiji)
05 November 2020, by Shalveen Chand, Fiji Sun

If no one will do it, I will, says Suva Harbour environment advocate and professional diver Johnathan Smith. A few days ago he started a campaign to raise funds to build or buy a vessel that will be specifically outfitted and used for harbour and coastal clean-up.

Captain Smith also dives in the Suva Harbour and has over the years displayed shocking images of what lies on the seafloor. “The seafloor is lined up with all kinds of rubbish, from tyres, to ropes, fishing lines and a lot of other rubbish.” Captain Smith said once the clean-up is done, the next step would be to start planting coral and seagrass to revive the marine ecosystem in the Suva Harbour.

He said the funds collected would also go towards awareness programmes which would deter the dumping of litter into the ocean. And while he is collecting funds through the GoFundMe portal on the worldwide web, Mr Smith continues to clean-up the seafloor with every dive he makes.
more…….https://fijisun.com.fj/2020/11/05/if-no-one-will-i-will-smith/

SCCF team takes SFWMD members on tour of estuary (FL, USA)
04 November 2020, Sanibel-Captiva Islander

On Oct. 22, Sanibel-Captiva Conservation Foundation Marine Lab Director Dr. Eric Milbrandt and Environmental Policy Director James Evans took members of the South Florida Water Management District out on the Caloosahatchee estuary to see first-hand the impacts of high volumes of freshwater discharges from Lake Okeechobee. SCCF’s scientists explained the impacts that the freshwater releases are having on the ecology of the estuary and how the high-level flows can lower salinity levels and impact the health of seagrasses and oysters.

The group discussed the current limitations of the water management system and the need for additional storage, treatment and conveyance south into the Everglades and Florida Bay to reduce damaging flows to the estuaries. The freshwater plume from the Caloosahatchee River currently stretches six miles offshore. In addition to discussing the

current ecological conditions, the group also talked about the value of SCCF's oyster and seagrass restoration efforts under way and explored opportunities for future restoration projects to enhance habitat and improve water quality.

The U.S. Army Corps of Engineers is continuing to release water to the Caloosahatchee and St. Lucie rivers as Lake Okeechobee is still slowly rising. An average flow of 4,000 cubic feet per second is being released to the Caloosahatchee, and an average of 1,800 cubic feet per second will be sent to the St. Lucie. The releases are being conducted to lower lake levels, which the Army Corps tries to maintain between 12 feet and 15 feet for flood protection and water supply to farms and urban areas, as well as water for natural systems like the Caloosahatchee and Everglades.
more……https://www.captivasanibel.com/2020/11/04/sccf-team-takes-sfwmd-manager-on-tour-of-estuary/

New maritime regulations in French waters (France)
03 November 2020, by Rory Jackson, Superyacht News

In 2019, French authorities announced the "framework decree" AP 123/2019, which set out the general rules for stopping the anchorage of vessels within particular areas of French waters. After a year of exchanges between various associations, including ECPY, and the French authorities, a series of three local decrees have been announced that prohibit anchoring in specific areas. The three local decrees that have just been published, and are now applicable to the superyacht community.

According to ECPY, other decrees as expected soon for the departments of Var, Bouches du Rhône and Pyrénées Orientales. As for the Var, we already know the *Posidonia* prohibited zones, notably from Saint-Cyr sur mer in the west to Théoule (Pointe de l'Aiguille). "All these decrees, whether promulgated or in the process of being promulgated, create a line, along the coast, approximately following the *Posidonia* seabed, and beyond, which anchoring is forbidden for vessels over 24m everywhere, except in the Alpes-Maritimes, for ships over 20m, east of the Var river (Nice airport)," explains ECPY.

Posidonia is a seagrass found growing in the Mediterranean Sea between the shoreline and 25m depth, and is believed to be one of the most important sources of oxygen provided to coastal waters. Many scientists assert that *Posidonia* meadows are decreasing due to coastal activity, including the discharge of nutrient-rich waters, rainwater full of sediments and boating activities, such as anchoring. The hope is that progression of the law changes will not a constitute a total ban on yachts being in the protected areas, provided they are moored in such a way that does not disturb or damage the seagrass.
more……https://www.superyachtnews.com/business/new-maritime-regulations-in-french-waters

Damning report into Palma bay treatment plant discharges (Majorca)
01 November 2020, Majorca Daily Bulletin

The Guardia Civil's Seprona division, responsible for investigating potential crimes related to the environment, has delivered a damning report to the Palma court of instruction that is considering allegations of "irregular discharges" from treatment plants into the bay of Palma. The report analyses the impact of discharges on the seabed and on *Posidonia* seagrass meadows as well as disciplinary proceedings for these. The conclusion is one of institutional passivity.

The Seprona investigation has involved dives to assess damage caused by untreated discharges from plants operated by the Palma municipal services agency, Emaya. Between 1989 and 2012, there was an estimated reduction of 205 hectares in the *Posidonia* meadows in the western section of the bay, which is where the Torrent Gros outfall is located. This impact continued. Dives by members of the Guardia Civil's subaquatic unit in 2019 established that there had been "significant degradation of the seabed, especially around the spills' infrastructure". For example, at a depth of fifteen metres there was only an accumulation of dead plants.

With regard to possible disciplinary proceedings as a consequence of spills of waste water in the western part of the bay, Seprona observes that there is no record of any having been initiated. The regional environment ministry's directorate for territorial organisation started "no disciplinary proceedings" against Emaya for spills into the sea. The report adds that this directorate sought cooperation with Emaya to find solutions to incidents and deficits in documentation in order to "legalise the discharge into sea by the Torrent Gros outfall". The report states that the directorate was "perfectly aware that insufficiently treated waste water discharges cause serious damage to *Posidonia* ", which is now protected under regional legislation.
more……https://www.majorcadailybulletin.com/news/local/2020/11/01/74201/damning-report-into-palma-bay-treatment-plant-discharges.html

Government leak reveals destruction of marine wildlife (Scotland, UK)
01 November 2020, by Rob Edwards, The Ferret

Scotland has failed to meet a ten-year-old target to prevent damage to precious marine wildlife, according to a leaked Scottish Government report seen by The Ferret. The report reveals that "priority" seabed habitats meant to be

protected around the coast have declined in five large areas since 2011. Seagrass, flame shells, seaweed beds and tubeworm reefs have been destroyed by the fishing industry and pollution, it says. Campaigners warn that these habitats are now “perilously close” to being wiped out after a “decade of decline”. They accuse ministers of breaking promises made a decade ago to prevent the marine environment from being harmed. Experts describe the declines as “shocking” and “tragic” and call for damaged habitats to be restored.

The leaked report is called a “Scottish Overall Assessment 2020” and examines the state of six vital habitats in 11 marine regions around Scotland. It is a draft dated October 2019 compiled by scientists from the government’s NatureScot, formerly Scottish Natural Heritage, and Marine Scotland. The report’s main conclusion is that the marine habitats in five regions have shrunk between 2011 and 2019. “The target of no loss…has not been achieved in the Moray Firth, West Highlands, Outer Hebrides, Argyll and Clyde regions,” it says. Losses have been particularly severe in the Argyll marine area. Since 2011 it has lost 53 per cent of its flame shell beds and 35 per cent of its serpulid tubeworm reefs, known as aggregations, as well as unspecified areas of seagrass and horse mussel beds. The Sound of Barra in the Outer Hebrides has lost 27 per cent of its seagrass beds, partly because of the construction of the causeway connecting Eriskay and South Uist in 2001. A summary table from the report lists the five areas in red for having failed to meet the target. There is “insufficient data” to judge whether Scotland’s six other marine regions have met the targets or not, it adds.

The report blames the declines on dredging, trawling, anchoring, overfishing and engineering works. It also fingers climate change, ocean acidification and pollution from fish farms and other sources, as well as diseases and storms. The Scottish Government says it is “working towards a full assessment” of the state of Scotland’s seas that will be published “in due course”.
more…….https://theferret.scot/marine-wildlife-destruction-government-leak/

Annual seagrass survey is one way to keep Sarasota Bay's estuary clean (FL, USA)
01 November 2020, by Alia Court, Sarasota Herald-Tribune

Sarasota County and Sarasota Bay Estuary Program’s annual Seagrass Survey returns Nov. 6-15, offering the opportunity for citizen scientists to gather data on the health of the county’s bays. The survey relies on volunteers to help report information on seagrass conditions, which are crucial to the balance of our ecosystem.

Improving our local seagrass beds can lead to a heathier ecosystem, resulting in long-term sustainability. A monitoring system, where the public is engaged, can help governments detect changes, trends and status of seagrass species, then act on what we learn to keep our bays healthy. By helping us collect this important data, you are helping maintain the health and beauty of our community, and everything that makes it special.

Participants will document the current state of seagrass beds and report their findings using the Survey123 application right on their smartphones. You can see your results pooled with what was found by all other participants on the Sarasota Water Atlas at sarasota.wateratlas.usf.edu.
more…….https://www.heraldtribune.com/story/opinion/columns/2020/11/01/sarasota-bays-seagrass-first-line-defense-marine-ecosystem/6102200002/

CONFERENCES

The 14th International Seagrass Biology Workshop (ISBW14) (Annapolis, Maryland, 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 2021 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
Facebook @ISBW14, twitter @ISBW14 , Instagram @isbw14 #isbw14

14th International Coral Reef Symposium (ICRS 2020) (Bremen, Northern Germany, 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 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 51,907 views to date)

Global distribution of seagrass meadows *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

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/

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.