31 January 2016

IN THIS BULLETIN

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NEWS

Seeing red over dying greens (Malaysia)

29 January 2016, The Star Online

Being too close to the ground can make it hard for people to see the forest for the trees. But step back 500m above sea level, and the situation can become clearer. A drone camera pilot who is compiling a book filled with aerial

photographs of Penang was disheartened when he sent his drone camera 2km out to sea to capture images of Middle Bank.

Based on his images, Warren Tan from Se Vena Networks Sdn Bhd said the thinning pattern seemed more pronounced near the Sungai Pinang river mouth and pointed to the possibility that human pollution flowing out was hurting the seagrass. Tan gave The Star his photographs and video footages, taken at heights of between 2m and 500m above sea level, and hoped environmentalists would be able to use the images to identify the problem.

Penangites had a scare last year because there was talk that this area would be reclaimed, though the plans are shelved for now. Environmentalist and Tanjung Bungah assemblyman Teh Yee Cheu brought several reporters by boat to the spot in April 2015 to document the abundant marine life living there. But more challenges for this second largest seagrass bed in peninsular Malaysia may be on the way. A source has revealed that Penang Sky Cab, the proposed island-mainland cable car ride, may cut across Middle Bank. While the gondolas coasting overhead will not harm the seagrass, the construction of pylons and cable towers are another matter.
more…….. http://www.seagrasswatch.org/news.html

EPA closes in on January stink (Vic, Australia)

28 January 2016, Wyndham Star Weekly

A sewage-like stink which was smelt across eleven Brimbank suburbs in early January was “likely” caused by seaweed and exposed mudflats the Environment Protection Authority believe. An EPA spokeswoman said the smell most likely came from an extreme low tide area along the coastline between Werribee South and Altona Meadows.

EPA Regional Services Executive Director, Damian Wells said an inspection found a large amount of seaweed washed up on the coastline near Altona Meadows. “Low tides had also exposed mudflats containing anoxic sediments caused by years of seagrass build-up and decomposition,” he said. With the prevailing wind conditions, this part of Port Phillip Bay can often see a large build-up of dislodged seagrass and seaweed, called wrack, along beaches. Decomposing wrack can cause odour and recent higher temperatures would have accelerated breakdown and hence more sulphuric odours associated with increased anoxic conditions. Southerly winds may have pushed the odour further inland, which could explain why EPA also received calls from other areas.”
more…….. http://www.seagrasswatch.org/news.html

Phosphorous suffocating WA harbour seagrass: Edith Cowan University study (WA, Australia)

28 January 2015, ABC Online

Seagrass along a stretch of Western Australia's southern coastline has been devastated by land clearing and agricultural development, a study has found. The Edith Cowan University (ECU) study revealed 80 per cent of the seagrass in Oyster Harbour, near the town of Albany, had been wiped out over a 30-year period.

Scientists at ECU's Centre for Marine Ecosystems Research collected sediment by sinking two-metre-long pipes beneath into the seafloor to extract the cores of the seagrass meadow. The cores revealed more than 600 years of the meadow's history. Lead researcher Oscar Serrano said the data revealed between the 1960s and 1980s, an increase in phosphorus deposits at the harbour caused algal blooms, which suffocated the seagrass.

On a positive note, he said the seagrass in Oyster Harbour was recovering. Dr Serrano said the findings could be used by scientists and environmental managers to improve the management of coastal environments and predict changes in their ecosystems. The research has been published in the journal Global Change Biology.
more…….. http://www.seagrasswatch.org/news.html

Genome of the flowering plant that returned to the sea

27 January 2016, Science Codex

An international consortium of 35 labs led by University of Groningen Professor of Marine Biology Jeanine Olsen published the genome of the seagrass *Zostera marina* in the scientific journal Nature on 27 January. The *Zostera marina* genome is an exceptional resource that supports a wide range of research themes, from the adaptation of marine ecosystems under climate warming and its role in carbon burial to unravelling the mechanisms of salinity tolerance that may further inform the assisted breeding of crop plants.

The first step in studying genetic networks and the interaction of ecology and evolution in these plants was to produce and annotate a high-quality genome sequence. It has already revealed a host of unique adaptations. For example, eelgrass has not only lost its stomata (which are used by land plants to 'breathe') but also all of the genes involved in stomatal differentiation. 'The genes have just gone, so there's no way back to land for seagrass', says Olsen. Seagrasses have rearranged metabolic pathways to produce the sulphated polysaccharides, a unique adaptation which is very different from normal plant cell walls and more like that of sea algae. The genes that produce volatile compounds in land plants having disappeared from the Zostera marina genome.

An overarching question for Olsen's team is how quickly eelgrass can adapt to rapid climate change. The fact that *Zostera marina* grows along the coastline from Portugal to Scandinavia is being used as a natural experiment to investigate adaptation to warmer or colder water, as well as to salinity, ocean acidification and light. 'Are the different phenotypes hard-wired in the DNA sequence, by epigenetic changes of the DNA or by plastic responses in differential gene expression through the transcriptome?' At the deeper level, scientists want to understand the reciprocal interactions between ecological and evolutionary processes. This is also the central theme of the Groningen Institute for Evolutionary Life Sciences (GELIFES), home of Olsen's research group.

A better understanding of eco-evolutionary interactions will help in the development of genomics-based, early-warning indicators that foreshadow seagrass ecosystem shifts and tipping points. This is urgent because seagrass meadows are threatened worldwide. Many initiatives have been launched to try and restore degraded meadows but with limited success. The detailed study of the adaptive capacity of seagrass may help conservation efforts. Olsen: 'And the *Zostera marina* genome is one of the few from a plant species that is neither a crop nor being developed for biofuel, so there is a lot to learn from it.'
more…….. http://www.seagrasswatch.org/news.html

Related articles:
http://www.eurekalert.org/pub_releases/2016-01/dgi-sgs012516.php
http://www.newswise.com/articles/seagrass-genome-sequence-lends-insights-to-salt-tolerance

Brown Tide Looms Over Central Florida Lagoons (USA)

26 January 2016, WMFE

Scientists are monitoring brown tide in the Banana River Lagoon and the northern part of the Indian River Lagoon. The brownish color is a sign of low water quality. St. Johns River Water Management District's Ed Garland said it's hard to pinpoint the cause of the algae bloom but phosphorous and nitrogen levels from storm water runoff play a role. If a bloom lasts too long it can kill seagrass. An algal "superbloom" in 2011 destroyed about 47,000 acres of seagrass. The water management district says the Indian River Lagoon has a $3.7 billion annual economic impact on the region.
more…….. http://www.seagrasswatch.org/news.html

Torres leaders disappointed by rare dugong kill reaction (QLD, Australia)

26 January 2016, The Cairns Post

An albino dugong taken by traditional means in the Torres Strait had been killed in the region several years ago. Cairns wildlife activist Colin Riddell last week posted images on social media of an all-white dugong dead on the shore of an unnamed island, believed to have been killed by harpoon. Mr Riddell claimed the animal was killed recently, but Torres Strait mayor Fred Gela said the images were taken about four years ago. He said regardless, the Torres Strait Islander community did not condone the rare animal's death.

Dugongs are listed as a vulnerable species in Queensland's waters, but they may be legally hunted by Aboriginal and Torres Strait Islander people under native title law for personal, domestic or non-commercial communal needs. Cr Gela believed there needed to be greater education within traditional owner groups about the traditional take of the species. Torres Shire mayor Pedro Stephen said it was disappointing the photo of the dead dugong had resurfaced online.
more…….. http://www.seagrasswatch.org/news.html

Related article:
http://www.cairnspost.com.au/news/cairns/hunter-brags-about-eating-rare-albino-dugong-in-torres-strait/news-story/498eb9513ad98a8ecb77cf8983700e94

Stranded dugong slowly recovers under intensive (Indonesia)

23 January 2016, Jakarta Post

Local authorities in East Nusa Tenggara (NTT) have reported that a young male dugong rescued from a beach on Kanawa island, West Manggarai regency, earlier this month, has shown signs of recovery after receiving intensive treatment. Speaking to The Jakarta Post on Friday, NTT Natural Resources Conservation Agency (BKSDA) technical division head Maman Surahman said the protected animal, which was found with several wounds on its body, was now able to swim and regularly consume seagrass and goat milk.

The 120-centimeter-long animal, weighing around 30 kilograms, first appeared in the shallows near Kanawa island on Jan. 3. Nine days later, the same animal was found stranded at a rocky beach in the western part of the island by three foreign tourists, including Jeff Foster, an American marine biologist. While waiting for support from local authorities, the tourists volunteered to take care of the dugong, which was too weak to move at that time. Apart from protecting the dugong from sunlight, they also fed the animal with goat milk bought from local residents once every two hours. A team of veterinarians and officers from several institutions, including the BKSDA, NTT's Komodo National Park and the Bali Safari Marine and Safari Park, were assigned to jointly take care of the dugong. A local resort complex has also agreed to provide the team members with a base camp to carry out their duties.

Nyoman Suartawan, a supervisor from the Bali Marine and Safari Park, said the Gianyar-based park had previously deployed four officers to assist the NTT BKSDA provide intensive treatment to the stranded dugong. As of Friday, he added, the park had left one officer in Kanawa to help local authorities take care of the dugong and educate local fishermen on how to give emergency treatment to a stranded or wounded dugong. Suartawan also confirmed that the recently rescued dugong was in much better shape than it had been last week.
more…….. http://www.seagrasswatch.org/news.html

High Seagrass Levels Contributing to Sarasota Bay's Clean Waters (FL, USA)
21 January 2016, WWSB ABC 7

A new study from the Southwest Florida Management District shows there's been a dramatic increase in the amount of seagrass in the bay. Seagrass levels are important to the bay's overall health, and the wildlife, marine life and residents who depend on it. Officials with the Sarasota Bay Estuary Program say the 50 miles of Sarasota Bay has seen an increase of seagrass over the years from 8500 acres to 13,288 acres today, that's a 36 percent increase.

Mark Alderson, Executive Director of the Sarasota Bay Estuary Program, says that a lot of the success at Sarasota Bay can be attributed to folks doing a much better job treating our wastewater. A seagrass study at Sarasota Bay is done every two years, the last one was done back in 2014. The next study will be done later this year.
more…….. http://www.seagrasswatch.org/news.html

More merciless killings of turtles in Sabah (Malaysia)
21 January 2016, Free Malaysia Today

The turtles, the local daily reported, were seen floating between Laut Silapag and Laut Sanggaban within the Priority Conservation Area, all tied up with nylon ropes and badly decomposed. Turtle expert Dr Juanita Joseph from the University of Malaysia Terengganu said they were most likely Green Turtles, which were a ‘Totally Protected Species’. Dr James Alin of University Malaysia Sabah said it was difficult to bring the culprits to justice. He added the suspects were usually constituted of seaweed farmers and artisan fishermen.

WWF-Malaysia had said its Kudat team was working closely with Sabah Wildlife Department to investigate allegations that seaweed farmers were killing turtles and the Sabah Tourism Minister said they would wait for the conclusion of the investigation first. According to the law, anyone convicted of killing a ‘Totally Protected Species’ will be imprisoned if convicted.
more…….. http://www.seagrasswatch.org/news.html

Hunter Local Land Services offers rebate on moorings for Lake Macquarie boat owners (NSW, Australia)
21 January 2016, Newcastle Star

Boat owners in Lake Macquarie are being encouraged to upgrade their moorings to protect marine life. Hunter Local Land Services has launched a rebate program through which eligible mooring holders can claim a 50 per cent rebate on environmentally-friendly moorings. Officer Brian Hughes said the program aimed to protect valuable seagrass habitat, which was under threat from conventional block and chain moorings. These moorings use heavy chains that drag along the seabed, thereby damaging marine life, Mr Hughes said.

An estimated 114,875 square metres of seagrass has been lost in Lake Macquarie thanks to conventional moorings, including more than 76,000 square metres of *Posidonia australis*, which is now endangered in the area. Environmentally-friendly moorings avoid this damage by using shock absorbers to secure the vessel and prevent mooring tackle coming into contact with the seabed. Through the program, mooring holders can opt for a full replacement or a partial upgrade. Boat owners have until midnight on Friday, March 18 to register their interest.
more…….. http://www.seagrasswatch.org/news.html

Weed at Pindimar makes its return (NSW, Australia)
21 January 2016, Myall Coast News

Pindimar has beautiful scenery and is a lovely place to live with its waterside residences and nature surroundings, but over the last few years there has been a loss to the fragile environment with its deterioration of seagrass. Don Payne, a local of the Pindimar area, has been researching the problem and has taken photos over time to see the loss and now the gain. Recently the seagrass has made a comeback and is slowly growing back which means that the nutrients are returning to the water and the system is healthier.

Over the last decade, sand inundation swallowed the grass and oyster leases and what was a muddy waterfront became a white sandy beach. Don Payne passed on information from an oyster farmer about the three currents that run through the bay and it is these channels that flush the water through.
more…….. http://www.seagrasswatch.org/news.html

Dugong recovered: Sickly but good chances of survival (NSW, Australia)

21 January 2016, Bega District news

Merimbula the dugong has arrived safely on the Gold Coast and is currently being transported to Sea World. Director of marine sciences at Sea World Trevor Long said everything has ran relatively smoothly and the dugong is doing well. The dugong left Merimbula in a RAAF Hercules transporter at around 12.30pm after being captured in Merimbula Lake at around 9am this morning. He was given a police escort to the airport where he was greeted by a huge crowd of people.

The dugong, which has been named Merimbula after the town it was found close to, has been assessed by vets who have said it is in a better condition than what was previously thought. They have said it is on the good side of a poor condition, as at about 400kg it is underweight and possibly suffering from “cold stress syndrome”. This syndrome involves the animal losing skin, usually on the tail, and is often found on manatees that move into colder waters. Over the past two months experts from Sea World and Sydney Aquarium have been monitoring the dugong and Mr Long said when comparing images from four weeks ago to images taken earlier this week it was clear to see the dugong’s condition had deteriorated.

The dugong swam out to sea during attempts to capture him yesterday but returned to Merimbula Lake around 8.30pm last night. The second operation to capture him began at 6am this morning, before workers took to the water at 7.30am. Nets had been set out, but the dugong evaded them again just like yesterday so workers performed a “jump capture” where two people jumped into the water and cast a net over the creature. Sea World don’t plan to keep the dugong for too long but there are certain checks and procedures that they must comply with before it can be released into the wild. The Queensland Environment and Protection Agency has donated a satellite GPS which will be attached to the dugong before it’s release to allow them to keep track of him in the wild. There are only five dugongs in captivity in the world with two of them at the Sydney Aquarium.

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

Marine pollution affects dugong habitat in Riau islands water: Official (Indonesia)

18 January 2016, ANTARA

The habitat of the dugong mammals in Riau Islands Province has been affected by pollution in the Malaka waters, leading to a diminishing population of the sea animals, an official said here on Monday. Head of marine and fishery management department of Marine and Fishery Office of Riau Islands Eddiwan said here on Monday that the dugong has been classified in appendix 1, which labels them as being endangered. Dugongs live in sea grass habitats in a number of areas, including Bintan, Batam and Lingga waters.

Local authorities found some oil spills in the waters, as a result of oil mining in the northern part of the region. Also, sandblasting in the waters near Singapore has impacted the dugong's habitat, he said. Those human activities have driven the mammals to leave their habitat and some were stranded along the coast. Last week, a female dugong measuring 2.5 meter long was stranded at Nongsa water, Batam Island. The local authority has been collecting data about the dugong population in the region. Populations worldwide have become increasingly fragmented and evidence suggested that the numbers are declining because of the degradation of seagrass meadows, fishing pressures, hunting and coastal pollution.

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

Related article:
http://en.tempo.co/read/news/2016/01/18/206737225/Dugong-Faces-Threat-of-Extinction

Seahorses of Britain at risk of dying out as habitat is destroyed (Wales, UK)

18 January 2016, Daily Mail

Britain's seahorses could die out as their habitat is being destroyed by pollution and trawling, experts warn. Scientists from Cardiff and Swansea universities conducted a study of seagrass, a main food source for the two types of seahorse living in UK waters – the spiny and the short snouted seahorses. They found seagrass meadows to be in a 'perilous state', with only two of the 11 sites considered healthy. Nature experts are warning that unless help arrives soon the last colonies will starve and die as their food vanishes.

The fragile plants which the five-inch-long seahorses need to survive are being wiped out by pollution and human disturbances such as speedboats and trawling. Surveys of eleven sites in England, Wales and Ireland found high nitrogen levels in water were affecting the health of seagrass meadows at all but two areas. In the 11 areas studied, even where conditions were good, seagrass faced damage from mooring or anchoring boats, said researchers Benjamin Jones and Richard Unsworth of Cardiff and Swansea universities. The worst performing sites were three areas monitored in Wales and one site in England, according to the research published in the journal, Royal Society Open Science.

Dr Lyndsey Dodds, head of marine policy at WWF-UK, said seagrass is one of our most valuable ecosystems, helping to sustain the marine food chain. Families can help the campaign to save the seahorses and their vital food

from the comfort of the sofa with a new conservation initiative. The citizen-based science project, the Community Seagrass Initiative (CSI), has been set up so volunteers can help analyse thousands of underwater photographs of seagrass via their computer. The idea of the tool 'Zooniverse' is to allow people to get involved with CSI's research, without getting their feet wet. The project covers 191 miles of the coast from Weymouth to Looe in Cornwall.
more…….. http://www.seagrasswatch.org/news.html

Seagrass planting strategy needed to remove fast food option (WA, Australia)

17 January 2016, Science Network Western Australia

Efforts to restore Shark Bay's seagrass meadows by transplanting *Posidonia australis* at the edge of existing meadows are being hampered because resident fish are using the new seagrass as fast food. Local researchers found extensive grazing in the zone between the edge of the existing meadow and 10m out from its edge, but negligible grazing pressure further from the meadow edge. This phenomenon, known as an 'edge effect,' arises because herbivores, like fish, use the existing meadow as a refuge and then venture out and dine on the nearest snack, which in this case happens to be the fledgling seagrass plants.

Shark Bay has one of the largest continuous seagrass meadows in the world, according to UWA Oceans Institute researcher Dr John Statton. These areas provide food for animals like dugongs and sea turtles, habitat for fishes and which buffer beach-eroding wave energy. But as with many areas in WA Shark Bay has lost seagrass cover due to historical coastal development and, more recently, marine heatwaves. Because of the slow growth of the impacted seagrass species, natural recovery has been limited.

The current study, which determined that plants located near the meadow edge were less likely to survive, may assist in planning future restoration activities. These management strategies could include planting in the less vulnerable 30-50m zone, herbivore exclusion with cages, or planting in dense patches. Dr Statton and his colleagues are in the process of systematically assessing the ecological processes that might limit establishing seagrasses in degraded areas. They are primarily investigating a novel approach using seeds, rather than adult cuttings. He says this technique is showing promise and could prove to be a cost-effective method for large-scale seagrass restoration in WA.
more…….. http://www.seagrasswatch.org/news.html

Florida's Green Sea Turtles and Manatees Are No Longer Endangered (FL, USA)

16 January 2016, World Report Now

According to Florida's officials, Florida's green sea turtles and manatees are no longer endangered. This news comes after their alarmingly low numbers have started to increase. In 1991, the manatees have been considered close to extinction and have been offered protection by the Endangered Species Act. Since then, the population increased, going from 1,267 manatees to approximately 6,300. The U.S. Fish & Wildlife Service reported on January 7 that the species is no longer considered endangered, just threatened. Florida's officials have already started reconsidering the boating speed in the areas close to the manatees.

The same thing happened with the green sea turtle population. 198 nests created by the green sea turtles have been discovered by scientists in 2001, in the Archie Carr Wildlife Refuge. When researchers went to see how the green sea turtle population was doing, they discovered no more than 14,152 nests. After the discovery of the increased population, the U.S. Fish & Wildlife Service have decided that this species of turtles should be considered threatened, but in no way endangered. This applies only to the green sea turtles in Mexico's pacific coast and in Florida.

As Florida's green sea turtles and manatees are no longer endangered, many critics rose to question this decision. According to a professor at the Central Florida University, Llewellyn Ehrhart, this decision could lead to the extinction of these species. Erhart said that the decision doesn't make much sense, as the species will need to be considered endangered again and offered more protection, once the people are going to exploit them and their populations are going to decrease.
more…….. http://www.seagrasswatch.org/news.html

The mystery of the Kingdom's dwindling catch (Cambodia)

16 January 2016, The Phnom Penh Post

Cambodia's Fisheries Administration this week revealed that coastal fish yields fell 5 per cent last year. The cause, according to Sihanoukville administration official Nen Chamroeun, was less fishing. However, according to fisherman and environmentalists, Chamroeun has the cause and effect around backwards. Fishermen are fishing less because there are less fish to catch. Brent Crane spoke with Paul Ferber, the founder of Marine Conservation Cambodia, an environmental group that monitors illegal fishing and marine health around Kep

Paul Ferber believes one of the causes of the lower fish yields is the result of land reclamation that's gone on, especially the big port development in Kampot which has destroyed huge areas of seagrass. But the really big

causes of habitat losses are mostly from illegal trawling. It rips seagrass up by the roots, a little bit like a bulldozer going through a forest. Seagrass itself is the major breeding ground for the blue swimmer crab, but it's basically a big juvenile nursery. The shallow areas in Kampot and the ocean in Kep would be – if they were fully protected from trawling – a massive breeding ground allowing fish to flourish and go out to other areas. The areas that haven't been completely destroyed will actually recover quite quickly if trawling is stopped. The areas that have been completely destroyed might take 15 to 20 years. Keep in mind that the Kep government has been making a fairly big effort to tackle this issue, illegal fishing. But it's not an easy issue to tackle. There are just so many boats.
more…….. http://www.seagrasswatch.org/news.html

Summer scholarships for young talent (WA, Australia)

14 January 2016, Science Network Western Australia

Five young West Australian scientists are spending their summer working alongside researchers at Kings Park and Botanic Garden as part of this year's Kings Park scholarship program. The competitive scholarships—each worth $7000—are designed to provide practical research experience.

One of this year's seven successful scholars is Henry Lambert, a UWA zoology and marine science double major who is studying the genetics of seagrass restoration for his summer project. Mr Lambert says understanding the traits of individual seagrass plants can help optimise the success of seagrass restoration projects.
more…….. http://www.seagrasswatch.org/news.html

Kii's IoT platform supports dugong conservation in the Philippines (Philippines)

28 January 2016, PR Newswire

Kii, the leading Internet of Things (IoT) cloud platform provider, is working on an ambitious new 'citizen science' conservation project with local fishermen in the Philippines to help monitor and track the dugong population in the region. Partnering with Smart Earth Network (SEN) and C3 (Community Centered Conservation) who are managing the project, Kii is providing the cloud platform where fisherman, armed with smartphones, can upload geo-located images of the sea mammals via an Android app.

"Traditionally, we have had to track these amazing sea creatures from the air, which is expensive and not entirely reliable," according to Chris Poonian at C3, a non-profit organization. "Using smartphones to monitor endangered species is an innovative and novel approach. This collaborative project is one of the first initiatives of its kind to employ smartphone technology. If successful, these approaches could have important applications for surveys of rare species throughout the world.

Around 30 fishermen have already been handed basic smartphones, supplied by local mobile provider, Cherry Mobile, as part of a trial in the Busuanga region of the country. Once out at sea, the fishermen photograph any dugongs they spot and then upload the images when they are back on land to a central database hosted on the Kii Cloud, using a simple app developed by SEN. The fishermen, many of whom are unable to read or write, are being trained on how to use the smartphones and provided with local charging facilities. Each image will indicate the location of each dugong via GPS, allowing C3 to map the sightings and get a clear idea of the population in the area, timings of sightings, migration patterns, etc, and will enable the team to put together recommendations for future protection areas. The plan is to share the data with other conservationists worldwide, and also with the local Council of Development to help C3 lobby the local government.
Full story: http://www.prnewswire.com/news-releases/kiis-iot-platform-supports-dugong-conservation-in-the-philippines-300210384.html

18 years of protest: Will Japans last 10 Dugongs survive? (Japan)

14 January 2016, Catch News

Dugongs are peaceful grass-eating mammals. This might be one of the reasons they are called "sea cows". But sadly, these creatures, classified as "critically endangered" under the Japan's Ministry of the Environment Red List, are on the verge of extinction. Their home, the Okinawa Island, may soon be turned into a landfill for an extension of a US marine base. The only thing standing in the way of their extinction is an 18-year-long struggle by six Japanese activists.

Every morning at 6AM, the group gathers outside the US Marine Corp camp in Okinawa and attempt to block the entrance using their bodies. The group includes a 93-year-old World War II veteran Muneyoshi Kayoh, also known as Grandpa Kayoh. Joining him is Shin Nishihira, a local diver who is also protesting the marine base expansion - claiming that the landfill will threaten a number of other flora and fauna in the region. The other members include 53-years-old Takuma Higashionna, 69-year-old Hiroshi Ahitomi and 38-year-old Yuri Soma, - who are a part of a citizens group called the Anti-Helicopter Base Council. Another member, Takekiyo Toguchi started a peace candle protest 11-years-ago. The protest takes place every Saturday evening. The membership of the group has swelled over the years. Local politicians and residents have now joined the protest.
Full story: http://www.catchnews.com/social-sector/18-years-of-protest-will-japan-s-last-10-dugongs-survive-okinawa-island-us-air-base-protests-greenpeace-japanese-wildlife-conservation-environment-1452780496.html

Public urged to give design input for Port St. Lucie's Crosstown Parkway project (FL, USA)

11 January 2016, TCPalm

The city is moving ahead with its controversial Crosstown Parkway extension, inviting the public to a workshop Wednesday to provide design input on the city's third east-west thoroughfare.

Attendees will have the opportunity to review the current design, ask questions and submit comments at the at 5 p.m. meeting at the Port St. Lucie Community Center, 2195 S.E. Airoso Blvd., city officials said. They'll also vote on their favorite among four sculptures to adorn four pillars — two at the east end and two at the west end of the bridge over the St. Lucie River. The choices are a bird in seagrass, fish in seagrass, mangrove or just seagrass, said project manager Frank Knott.

Full story: http://www.tcpalm.com/news/st-lucie-county/public-urged-to-give-design-input-for-port-st-lucies-crosstown-parkway-project-28d6f2de-ab67-0269-e0-364909701.html

Hunting for marine secrets (India)

18 January 2016, The Hindu

Underneath the rolling and heaving waves is a world that one forgets exists — a world as vibrant and colourful, diverse, and threatened as what lies above. On the seabed, plants such as marine algae and seagrass provide sanctuary to creatures such as sea sponge, corals, ascidians, sea whips, and Gorgonian fans.

Plumbing the depths of the sea for a fascinating glimpse of the myriad life forms there is 'Kadalarivum Camerayum', an exhibition of photographs and video to be organised by the Friends of Marine Life at Museum auditorium from January 21. To be held in association with the Kerala Union of Working Journalists Thiruvananthapuram district committee, the exhibition will aim at revealing to the people the landscape under the sea and the wondrous world there, and the need to conserve them. It will showcase 100 photographs and 15 minutes of video shot over 12 days of underwater photography in select ecologically sensitive areas in Thiruvananthapuram, Kollam, and Kanyakumari districts.

Robert Panipilla, coordinator, Friends of Marine Life, says the exhibition will highlight the need for resource mapping of 590 km of the State's coastline, at least to a depth of 10 metres, to be followed up by marine biodiversity assessment. This, he says, will prove crucial when infrastructure projects are taken up, for a thorough assessment will help in protecting these ecosystems without confusion over the environmental impact of the projects.

Full story: http://www.thehindu.com/news/cities/Thiruvananthapuram/hunting-for-marine-secrets/article8118691.ece

CONFERENCES

The 13th International Coral Reef Symposium (ICRS) (Hawai'i, 19–24 June 2016)

Theme: Bridging Science to Policy.

The world's major coral reef science meeting, the International Coral Reef Symposium (ICRS), is held every four years. It is the primary international meeting focused on coral reef science and management. The Symposium will bring together an anticipated 2,500 coral reef scientists, policy makers and managers from 70 different nations in a forum to present the latest research findings, case histories and management activities, and to discuss the application of scientific knowledge to achieving coral reef sustainability. ICRS2016 will include a Taxon-specific session on seagrass: Session H, 26 - Integrating seagrass science and management in a coral reef framework

Key Dates

- February 2016 - Authors Notified of Acceptance
- March 2016 - Session Schedule Posted and Presenters Notified of Session Assignments
- April 2016 - Full Scientific Program Schedule Posted
- 16 May 2016 - Registration Cancellation Deadline (Last Day to Receive a Refund)
- 19-24 June 2016 - Meeting

for more information, visit http://sgmeet.com/icrs2016/default.asp

The 12th International Seagrass Biology Workshop (ISBW12) (Wales, 17-23 October 2016)

Theme: Declining seagrasses in a changing world.

The International Seagrass Biology Workshop (ISBW) is the only international meeting specifically tailored to seagrass scientists, professionals and students. The International Seagrass Biology Workshop (ISBW) provides a good opportunity for the scientists working on various aspects of seagrass ecosystems to come together and discuss their latest findings. The ISBW12 will be held from 17-23 October 2016 at Nant Gwytheyrn, Gwynedd, Wales, organized by Project Seagrass and the Seagrass Ecosystems Research Group. The conference email address is ISBW2016@projectseagrass.org.

We as scientists know the devastating effects that humanity is having on our worlds seagrass meadows. Although much work is needed to keep documenting, understanding and highlighting the problems facing seagrass we as a research community need to also provide a voice of optimism about how we can make changes to ensure survival of these precious ecosystems. We must go beyond science, and use it to inform policy and management, and ultimately to catalyze change. We know that there are many examples of this, from stakeholder led management and successful restoration to improvements in water quality and the management of boating activities. We encourage participants to contribute stories of seagrass conservation success in order to strengthen this theme. We also encourage submission of research stories that aim to provide evidence to make future successes.

Let's make ISBW12 a conference that celebrates seagrasses and has a spirit of #oceanoptimism
The workshop therefore has 4 key themes that will form the structure of the sessions held throughout the week. These are:

- Resilience and a changing environment
- Ecosystem services
- Restoration and management
- Raising the profile of seagrass meadows

for more information, visit http://isbw12.org/

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 40,105 views to date)

…seagrass matters blog

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

FROM HQ

Past E-bulletins *http://www.seagrasswatch.org/publications.html#ebulletin*
Frequently Asked Questions *http://www.seagrasswatch.org/faq.html*
Seagrass-Watch Magazine *http://www.seagrasswatch.org/magazine.html*
Virtual Herbarium *http://www.seagrasswatch.org/herbarium.html*
Future sampling dates *http://www.seagrasswatch.org/sampling.html*
Handy Seagrass Links *http://www.seagrasswatch.org/links.html*
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Seagrass-Watch HQ is housed by TropWATER (James Cook University) and supported by private donations.

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