31 March 2016

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IN THIS BULLETIN

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NEWS

Link between fossil fuels and Great Barrier Reef bleaching 'clear' and 'incontrovertible', say scientists (Australia)

30 March 2016, The Guardian

Corals in the northern section of Australia's vast Great Barrier Reef – a length of more than 1000 kilometres or so – have become the latest and most famous victims of the third global "mass bleaching" of corals since 1998. "It's pretty confronting," says Professor Terry Hughes, a leading coral scientist who has been spending recent days in a helicopter surveying the reef. Of the 520 reefs he flew over, only four have managed to retain their colour.

As Hughes travelled further north to parts of the reef outside the boundaries of the Great Barrier Reef Marine Park, he saw corals “blitzed” in the Torres Strait. Corals get their striking colours thanks to the zooxanthellae algae that they live with. But when the corals and the algae are stressed, they separate, leaving a bare white skeleton behind. In mass bleaching events, the stress comes when corals bathe for too long in unusually warm ocean waters. This is the point at which the Great Barrier Reef and the world’s fossil fuel industry come into direct conflict.

According to the Bureau of Meteorology, the sea surface temperatures (SST) in the Coral Sea region have been the highest on record for this most recent summer wet season. The BoM’s ocean temperature record goes back to the year 1900. SSTs overlapping the northern parts of the reef have been the highest of any summer (December to February) on record. Hughes said that in 1998, 2002 and this current GBR bleaching event, the areas of the reef that bleached matched “perfectly” the areas with unusually high SST. The record warm oceans that have been stressing the corals in recent weeks are part of a long-term trend of warming ocean temperatures around the globe, including the waters off Australia. The cause of that warming trend is the extra heat being retained by the earth’s climate system thanks to the burning of fossil fuels like coal, oil and gas that add greenhouse gases to the atmosphere and the oceans.

Current and previous governments at state and federal levels, have increased investments to cut the amount of nutrient-rich waters and pollution running into the reef from farms and development along the coast. But scientists, including the government’s own, have been warning for years now that the most important threat to the reef is from climate change.
more…….. http://www.seagrasswatch.org/news.html

Related articles:
Parts of Great Barrier Reef 'fried' by coral bleaching: Terry Hughes (The Australian)
http://www.seagrasswatch.org/news.html
Great Barrier Reef in grip of worst bleaching event (The Sydney Morning Herald)
http://www.smh.com.au/environment/great-barrier-reef-in-grip-of-worst-bleaching-event-20160328-gnsqrc.html
Northern part of reef 'fried': expert (SBS)
http://www.sbs.com.au/news/article/2016/03/29/most-pristine-parts-great-barrier-reef-fried-expert
Great Barrier Reef coral bleaching at 95 per cent in northern section, aerial survey reveals (ABC)
http://www.abc.net.au/news/2016-03-28/great-barrier-reef-coral-bleaching-95-per-cent-north-section/727933
Coral bleaching comes to the Great Barrier Reef as record-breaking global temperatures continue (The Conversation AU)
http://theconversation.com/coral-bleaching-comes-to-the-great-barrier-reef-as-record-breaking-global-temperatures-continue-56570

Florida's mass fish kill is a nightmare to behold (USA)
28 March 2016, MNN

Words cannot describe the immense loss of life unfolding along a 50-mile stretch of Florida's Indian River Lagoon. More than 30 species of fish, estimated in the hundreds of thousands, have started floating to the surface and washing up along shores. In some places, the normally idyllic waterways are being replaced with thousands of rotting fish.

Why the sudden die-off? Thanks to El Nino, parts of Florida received triple the amount of water that's normal for January, leading to massive torrents coursing through urban environments and picking up synthetic fertilizers and other pollutants. This potent mix helped feed a toxic algae bloom, resulting in a "brown tide" that robbed oxygen from the water and effectively suffocated marine life.

While fish kills are not uncommon in Florida, they're generally more prevalent during the warmer months. Both the timing and magnitude of the Indian River Lagoon kill is raising alarms all over the state. The news is particularly troubling to conservationists working to prop up manatee populations. A dramatic drop-off in water oxygen levels doesn't just kill fish, but also vital food sources such as seagrass. With the lagoon's dire state no longer hidden beneath its surface, residents are now faced with changing their own habits to help restore the waters and give marine life a chance to rebound.
more…….. http://www.seagrasswatch.org/news.html

Related articles:
Another crisis for Indian River Lagoon (Daytona Beach News-Journal)
http://www.news-journalonline.com/article/20160326/OPINION/160329654?Title=Another-crisis-for-Indian-River-Lagoon

Big seagrass die-off in Florida Bay, officials and others beg for speedier Everglades cleanup (USA)
26 March 2016, KeysNet

Florida Bay will die and may take the Florida Keys with it unless state and federal agencies hasten Everglades restoration, frustrated residents and environmental groups fumed Wednesday.

Commissioners meeting in Key Largo were considering approval of a resolution urging a faster pace on Everglades projects. After calls to demand stronger and more extensive measures -- primarily creation of a large freshwater-storage area south in the agricultural area south of Lake Okeechobee -- commissioners agreed to a rewrite. If a water storage area were created there, such water could be released south during dry periods to keep the bay's salinity down -- needed for a healthy bay. There are no active plans for that Okeechobee storage area, speakers said, and consideration of several critical projects has been pushed back to 2022.

Florida Bay now is experiencing a major seagrass die-off south of the mainland, described as the worst since a devastating 1987-90 seagrass kill that triggered a massive algal bloom and a worrisome drop in fish numbers. Current conditions -- a dry 2015 summer that increased bay salinity, followed by the wettest South Florida winter on record -- make another major algal bloom highly likely, speakers said. High Florida Bay salinity and seagrass die-offs could signal "essentially the collapse of the entire ecosystem," Caroline McLaughlin of the National Parks and Conservation Association said. Commissioners and speakers pointed to a healthy Florida Bay as a critical element of the Keys economy. A sick bay could destroy recreational and commercial fishing, and pose a threat to survival of the coral reef, speakers said.
more…….. http://www.seagrasswatch.org/news.html

Saving the Worlds Seagrass Meadows Isn't Just a Pipefish Dream (UK)

25 March 2016, Newswise

Saving seagrass isn’t just a pipefish dream. Seagrass meadows are a global resource providing a myriad of ecosystem services including significant support for global fisheries. The ecological value of seagrass meadows is irrefutable, yet loss continues at an accelerating rate.

Researchers from Swansea University and Cardiff University who help run the marine conservation charity Project Seagrass (www.projectseagrass.org) explain the options available that can be used to assist environmental managers and practitioners in taking practical actions to help stem the loss of seagrass meadows. Poor water quality is the biggest global concern facing seagrass, and action at a catchment level is a means of dealing with this. They provide information about how changing water quality is not a simple task, but also illustrate how case studies show that improvement can be enhanced through the cumulative result of simple actions across industries, catchments, jurisdictions and communities. Reducing the impact of boats, stopping the spread of invasive species, developing science-industry partnerships, and promoting sustainable exploitation of seagrass associated species are also explained as key ways of enhancing the long-term resilience of seagrass meadows.

Seagrass conservation also requires more long-term investment backed up by improved policy and legislation to support local and regional management of these systems as part of connected seascape. Critically improved education and widespread awareness raising is needed so that the hundreds of millions of people living in close vicinity to seagrass meadows understand their importance and sensitivity. They conclude their article by discussing how overlapping strategies may be required to secure a future for seagrass. Community empowerment, funding injection and the use of evidence based science, can support the protection of seagrass meadows for ecosystem service provision now and in the future.
more…….. http://www.seagrasswatch.org/news.html

Workshop on dugong conservation held (India)

24 March 2016, The Hindu

Gulf of Mannar Marine National Park has sensitised stakeholders to conservation of dugong, the seagrass-eating mammal, in Palk Bay and Gulf of Mannar. The Park, which had taken up a study on Species Conservation Action Plan (SCAP) for Dugong, organised a one-day workshop to educate stakeholders in the region on conservation of the marine mammal.

The workshop was organised under Tamil Nadu Biodiversity Conservation and Greening Project, Deepak S. Bilgi, Wildlife Warden, Gulf of Mannar Marine National Park, said. The Park would develop a module to create awareness among the stakeholders, especially the fisherfolk, of the need to conserve the species and its habitats, he said. Officials from the departments of Fisheries, Forest, Coastal Security Group (CSG), Indian Coast Guard (ICG), Naval detachments and Wildlife Crime Control Bureau attended the workshop.

As part of the conservation project, the Park had completed sea grass mapping from Rameswaram to Adhiramapattinam near Point Calimere in the Palk Bay. A boat survey had also been done to assess dugong population in the region.
more…….. http://www.seagrasswatch.org/news.html

Related article:
County wants bay projects fast-tracked (KeysNews.com)
http://keysnews.com/node/73859

DNR study sees seagrass recovering in Puget Sound (USA)

22 March 2016, The Bellingham Herald

Critical eelgrass beds are showing signs of recovering in parts of Puget Sound, including Hood Canal, according to the state Department of Natural Resources. A new DNR report found sites with increased eelgrass outnumbered sites with declining eelgrass between 2010 and 2014. The rebound was most pronounced in lower Hood Canal.

Eelgrass had been on the decline in Puget Sound previously, and seagrass meadows still are globally in decline. In 2014, eelgrass covered some 24,300 hectares of Puget Sound — slightly above the 2016 target set by Gov. Jay Inslee's Results Washington initiative to track eelgrass coverage in Washington.

As the steward of state-owned aquatic lands, DNR officials believe its land management, aquatic restoration and derelict vessel programs contribute to protecting seagrasses, but questions remain about why recent years have been relatively good for seagrass growth in Puget Sound.

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

Aggie prof hopes to save dugong species (USA)

21 March 2016, Texas A&M The Battalion

It is a large, elephant-like creature whose looks inspire giggles more than concern, but the dugong may be endangered if scientists don't take action now. Christopher Marshall, an associate professor at Texas A&M Galveston, is studying and raising awareness for dugongs, also known as "sea cows."

Marshall is studying dugongs in the Arabian Gulf from the country of Qatar. The issue is that nobody has really looked at these animals in 30 years and many biologists in Qatar don't even know that they have these animals in their water. It is believed the dugongs that live in the Arabian waters are the second largest group of the animals in the world.

This sizable dugong population is highly important to the survival of the species but faces several threats, namely the destruction of seagrass and incidental bycatch. Marshall said incidental bycatch occurs when a sea animal, in this case a dugong, gets caught in a fisherman's net. Another threat to dugongs is the extermination of their habitat. Seagrass is essential for dugongs, as it is their main source of food and a crucial component of their habitat, but it is in danger of being vastly reduced. "The coastal waters around Qatar and Bahrain are also starting to be modified, which will potentially deplete the vast seagrass meadows that they feed upon," said Josh Cullen, a graduate student working with Marshall.

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

Dugongs chained and caged by Indonesian fishermen for tourist dollar (Indonesia)

18 March 2016, AsiaOne

Photos and a video have emerged showing sea animals chained up inside underwater cages near the remote island of Kokoya, Indonesia. Divers swimming in the area came across two cages that trapped two dugongs on the seabed. The divers believe the trapped marine mammals are a mother and her calf, and that they had been caught by local fishermen hoping to profit by allowing tourists to take photos with them, The Sun reported.

One of the divers, Delon Lim, told the news website that the mother and baby were being held in separate cages and that the animals were being used to attract tourists. Lim later told animal welfare website The Dodo that while the baby was allowed to swim inside its cage, the mother's movement was restricted by a huge rope. The scars on the mother's tail and the wear and tear on the rope suggest that the animals had been restricted and trapped for several weeks. Lim and a fellow diver tried to convince the fishermen to free the dugongs.

The video drew the attention of animal welfare authorities who arrived on the island the following day only to find the dugongs still trapped. According to The Sun, they were finally set free later that day.

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

Boat mooring chains scour Rottnest seagrass releasing CO2 (WA, Australia)

15 March 2016, Phys.Org

Seagrass covering 48,000sqm has been scoured from the sands of Rottnest Island by almost 900 mooring chains used by recreational boats according to research from Edith Cowan University and Universitat Autònoma de Barcelona. The research published in the journal Nature Scientific Reports surveyed the 'scars' created by mooring chains in the bays around one of Western Australia's iconic tourist destinations. Dr Oscar Serrano led the research with Professor Paul Lavery and Professor Pere Masque from the Edith Cowan University (ECU) and the Universitat Autònoma de Barcelona (ICTA-UAB and Department of Physics UAB), and said the movement of the chains scraped seagrass off the seafloor.

Efforts to preserve seagrass meadows by using seagrass friendly mooring lines in some areas is resulting in the recovery of seagrass in some areas of the Island however overall seagrass covers is decreasing. That's because the size of mooring scars in Stark Bay on the Island's north coast has increased about 500 per cent from 2,000sqm in 1980to 9,000 sqm today due to erosion of the already scarred areas by wave action.

The destruction of the seagrass meadows has important implications for the ecosystems of Perth's favourite marine playground. As part of this project, core samples were taken in the scarred areas and where seagrass still existed. Those samples showed on average more than 75 per cent of carbon absorbed in those seagrass meadows was lost increasing atmospheric carbon dioxide. Dr Serrano said it is important steps are taken to protect the seagrass meadows around Rottnest Island and the rest of Australia.
more…….. http://www.seagrasswatch.org/news.html

Related article:

Relax, the damage to Rottnest's seagrass isn't as bad as we thought (Australian Geographic)
http://www.australiangeographic.com.au/news/2016/03/relax,-the-damage-to-rottnest%E2%80%99s-seagrass-isnt-as-bad-as-we-thought

Asia-Pacific Analysis: Saving the sea grass meadows

15 March 2016, SciDev.Net (blog)

Fringing the coastal waters of Australia, Indonesia, the Philippines, mainland Asia and the Pacific islands are the seagrass meadows of the oceans. They are akin to grass meadows on land and nurture many forms of sea life, playing a significant role in the ecological balance of our planet. Today, seagrass areas are “among the most threatened ecosystems on earth with an estimated disappearance rate of 110 square kilometres per year since 1980,” marine scientist Hilconida Calumpong tells SciDev.Net.

Calumpong, a science professor at the Silliman University in the Philippines, is a member of the UN-mandated World Ocean Assessment (WOA) group of marine scientists that studied the state of the world’s oceans for five years (2011-2015). The most intense destruction is in the China-Korea-Japan region where the highest decline of 80-100 per cent of all species is reported. The decline is associated with heavy coastal development and extensive coastal reclamation. The destruction of one species of seagrass meadows is intense in South-East Asia due to aquaculture, fisheries and heavy watershed siltation, notes Calumpong.

The UN has recognised the gravity of the destruction and organised the First Integrated World Ocean Assessment in 2011 to mitigate the problem. However, there is no specific date for the next WOA. We think there is urgent need for action now, both at local and national government levels, and from the United Nations perspective, without waiting for the next WOA. The WOA report admits that some problems – such as those flowing from climate change and acidification – can only be dealt with at a global level. As one of the 25 experts from the Asia-Pacific working with WOA 2011-2115, Calumpong says the experience has made her realise how small she is as a scientist and how huge “the challenge to act as a family of nations so that humans can survive as a species”.
more…….. http://www.seagrasswatch.org/news.html

Trang fishermen asked to help slow-moving male dugong (Thailand)

12 March 2016, Phuket Gazette

A senior marine official has urged Trang fishermen to help a male dugong believed to be entangled in a dragnet. Kongkiat Kittiwattanawong, the head of Phuket Marine Biological Centre's Rare Sea Animal Division, said the animal was spotted during the division's latest annual survey of the seagrass zone off the province. He told fishermen to alert officials if the animal was injured.

According to an annual aerial survey that concluded on Wednesday, Thailand's dugong population is growing, with at least 15 more sea cows counted in the Trang Sea. Twelve pairs of dugong mothers and calves were found – a positive sign that efforts to conserve the last and largest dugong herd in Thailand have made progress. Fishermen in the area have co-operated by not using dangerous fishing gear. Still, at least one dugong was found entangled in seine fishing net near Koh Libong. This year's survey started on March 3 and was made up of 10 gyroplane trips – which counted rare marine life including sea turtles, dolphins, whales and dugongs. Mr Kongkiat led the survey with support from other Thai and Japanese researchers.

The survey were first conducted in 2010 and reported a peak of dugong deaths – 13 cases – in 2012. Last year, six dugong deaths were reported, mostly because of hazardous fishing gear, Mr Kongkiat said. He added that PMBC aimed to keep the death rate under five a year. The center must boost local people's awareness about hazardous fishing gear and rubbish in the ocean to minimize threats to marine life and invite the public to participate in conservation efforts, he said.
more…….. http://www.seagrasswatch.org/news.html

How to keep seagrasses as happy as a clam (Mauritania)

10 March 2016, Science News

Clamming up could help underwater seagrass meadows better withstand drought, heat waves and climate change. Breakdown of a symbiotic bond between seagrasses off the West Africa coast and tiny lucinid clams can exacerbate damage in hard times, researchers say March 10 in Current Biology. So protecting meadows may mean worrying just as much about the partnership as the seagrasses themselves, says coauthor Tjisse van der Heide of Radboud University Nijmegen in the Netherlands.

Clams can play a role in easing one risk to seagrass: debris breakdown that goes toxic. Their own dead leaves plus floating bits of dead stuff and waste, including runoff from nearby land, snag in a seagrass meadow's expanse of swaying leaves. Sea-bottom microbes that break down the rain of debris release sulfides, which can poison the plants. In 2012, van der Heide and colleagues proposed that in some seagrass communities, especially in the tropics and subtropics, clams burrowing among the plant roots help detoxify sulfides. The Loripes clams and other species in the lucinid group benefit from oxygen that plant roots give off, and the sulfides from debris breakdown nourish symbiotic bacteria in the clams. As the bacteria feast, they leak sugars that nourish their clam, and the toxic sulfides are turned into harmless sulfates, lowering the toxic risks to seagrasses.

Not every seagrass meadow has lucinid clams, but intertidal meadows at Banc d'Arguin in Mauritania do. The clam density there can average 1,500 to 2,000 small clams per square meter in the top 10 centimeters or so of mud. At low tides, mats of seagrasses lie exposed to air for hours at a time. During the severe drought of 2011, the hot, thirsty air desiccated swaths of the meadow. Dying plants faltered in oxygenating the clams and their bacteria, causing a cascade of effects that weakened the detoxification process.

As drought-stricken seagrasses and clams failed to provide each other with benefits, a feedback loop of increasingly worse performance for both partners accelerated their demise, van der Heide and his colleagues propose. That's the scenario they draw from satellite data on the meadow during the drought. Comparing seagrass patches that died with patches that survived, van der Heide and his colleagues propose that maintaining the clam partnership made a difference. Of 32 plots of meadow, the half where seagrasses survived the drought had nine times as many clams as the dead zones. These survival spots also averaged only about a quarter of the toxic sulfides.

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

Hopes high that new boat mooring design will conserve Lake Macquarie seagrass species (NSW, Australia)

08 March 2016, ABC Online

It is hoped a New South Wales Government rebate scheme will entice boat owners to help conserve seagrasses in Lake Macquarie, by purchasing ecologically sustainable moorings. Nine years ago, Port Stephens resident Des Maslen invented the Seagrass-Friendly Mooring System. The device looks like a corkscrew of sorts, and is drilled into the seafloor. A rope then attaches to a buoy, which boats connect to. Mr Maslen said his design of mooring negated the need for a heavy chain, which had traditionally scoured the seafloor and impacted on grass species.

A $30,000 grant from the Recreation Fishing Trust to Hunter Local Land Services has allowed the organisation to offer a 50 per cent rebate to boat owners who take up the eco-friendly moorings.

Mr Maslen had worked in a number of environmentally-focused jobs for years when he decided to take action to help conserve seagrass. Mr Maslen's eco-friendly mooring has a rod made of carbon steel which is screwed into the seabed. A rope is then attached to the top of the rod, which protrudes above the seabed and the rope connects to a buoy on the surface, to which boats attach. The mooring cannot be used on a rocky seabed, or in a silty estuary. Brian Hughes, estuary and marine officer at Hunter Local Land Services, said conserving the marine environment was the priority.

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

UA Professor to Aid Park Service in Mapping of Florida Bay (FL, USA)

07 March 2016, UA News

A University of Alabama faculty member is mapping Florida Bay in Everglades National Park. Dr. Michael Steinberg, associate professor in New College and geography, and Brad Bates, a graduate assistant to Steinberg, are developing an accurate map of the channels and flats to help ensure the conservation of the bay. The map is crucial to slowing the habitat damage caused by boats and other external, man-made forces, Steinberg said. The Bonefish and Tarpon Trust commissioned and funded the map to help the National Park Service. According to Steinberg, the trust contacted him because of his cartography lab at UA as well as past research with the trust.

Steinberg also said that the park hopes to use the map to institute "pole and troll" zones in Florida Bay to avoid excessive boat traffic. Steinberg said turtle grass is a major part of the habitats that are being destroyed. Turtle grass can take seven years to grow back. In that time, the bottom of the bay can undergo severe changes in the absence

of the grass to hold the sand in place. Bates said that prop scars from boat motors also play a part in the destruction of the grass beds.

Steinberg also cited the connection between the environment and the economy of the Florida Keys as a major factor in the importance of the map and preserving the ecosystem of Florida Bay. Ground-truthing is the process of going to the site and "see what you're seeing," as Steinberg put it. He said they do ground-truthing as a means of verifying the satellite images of the bay. By going to the site and performing the ground-truthing, Steinberg said they learned more about the importance of these areas to the animals and the humans that call Florida Bay home.
more…….. http://www.seagrasswatch.org/news.html

Human Activities Threaten Sea Turtles (Tanzania)
28 March 2016, AllAfrica.com

Increased human activities along the country's Indian Ocean coast poses a grave threat to sea turtles, an expert has warned. The problem is acute along the Tanga, Pangani and Bagamoyo coastline where vast number of the marine animals are found. Hamis Abdallah, a wildlife expert at the Saadani National Park said overfishing was to blame for the falling number of the turtles in their natural habitats. He expressed his concern during a briefing to Arusha-based journalists who visited the game sanctuary recently, stressing efforts must be made to protect the threatened creatures which also attract tourists, nature lovers and scientific researchers. He added that besides overfishing, there were increased human activities along the coast such as settlements and destruction of coral reefs, among others.

Mr. Abdallah was particularly critical of bad fishing techniques involving the use of dynamite which tended to kill or scare away the turtles which, according to him, are illegally harvested for food. He warned that the situation was worrying because the sea turtles breed along the sands on the shore which has seen increased human activities, at times thronged by tourists, fishermen or sometimes turned into playing grounds by the neighbouring communities. According to the existing legislation,any person found to be involved in illegal harveting or deliberate destruction of the threatened or endangered marine creatures faces an imprisonment of three to four years.

Sea turtles, also known as marine turtles inhabit the tropical and sub-tropical seas throughout the world, including Tanzania, and ecologists say they are a fundamental link in the marine ecosystem. Experts say they help maintain the health of sea grass beds and coral reefs that benefit commercially valuable species such as shrimps lobsters and tuna. However, conservation activists globally say nearly all species of sea turtles are classified as endangered and slaughtered for their eggs, meat, skin and shells. Along the Tanga coastline, their number is reported to have dropped tremendously due to illegal harvesting, especially long the shoreline within Mkinga, Muheza and Pangani districts.
Full Story: http://allafrica.com/stories/201603280017.html

The brand new remote sensation: NASA studies our oceans from afar
10 March 2016, The Corsair

Over 100 students filed into Science 120 last Thursday, March 3, for the International Ocean-Colour Coordinating Group (IOCCG) and NASA seminar: "Using Remote Sensing to Study Oceans." Four lecturers of various research backgrounds united to discuss how data gathered from satellites and aircraft is being used to monitor and study their common interest: the ecology of our oceans.

Heidi Dierssen, an associate professor and head of the Coastal Ocean Laboratory for Optics and Remote Sensing in the Department of Marine Sciences and Geography at the University of Connecticut, is using color data from remote sensors to evaluate sea grass. Working with the NASA's Jet Propulsion Laboratory, they built sensors that can penetrate deep enough to map the color of the bottom of the water where the seagrass grows. Using aircraft equipped with this technology, they are able to find and monitor seagrass fields.
Full Story: http://www.thecorsaironline.com/lifestyle/2016/03/10/studying-our-oceans-from-afar/

Unusual algae in Tauranga Harbour (New Zealand)
03 March 2016, Scoop.co.nz

Bay of Plenty Regional Council scientists are working on identifying a blue-green algae that has bloomed near Ōmokoroa in Tauranga Harbour. The algae, which looks like fine, green cotton wool, is growing amongst seagrass in an area of approximately 20 hectares in the upper reaches of Mangawhai Bay, on the eastern side of the Ōmokoroa Peninsula.

We don't know at this stage if it's likely to be harmful to people or what's caused the bloom, so we suggest people avoid contact with it for now as a precautionary measure," said Regional Council Coastal Scientist Rob Win. Mr Win said the bloom is likely to have occurred in response to unusually warm water temperatures in the harbour over summer and the high number of swans around Ōmokoroa.

Mr Win said that the algae accumulates gas bubbles (from high rates of photosynthesis) around its filaments, causing algae clumps to rise to the surface and form large conspicuous floating mats.
Full Story: http://www.scoop.co.nz/stories/AK1603/S00135/unusual-algae-in-tauranga-harbour.htm

Seagrass Awareness Festival (FL, USA)
01 March 1, 2016, Splash Pensacola Beach

The importance of seagrasses has been getting a lot of attention in the media lately, so to learn more about seagrasses, marine creatures that live in seagrasses, and how to protect them come out to the 16th Annual Seagrass Awareness Celebration alongside the Gulf Breeze Rotary Gumbo Cook-off.

This year, activities will include: live marine life in touch tanks, “eat a seagrass bed,” make a shark tooth necklace, seining, games, fishing, marine creatures, marine debris, arts and crafts, food, displays, boating and water safety, kayaking and more! Join participating groups from the Navarre Beach Marine Science Station, the NB Sea Turtle Conservation Center, the Pensacola Recreational Fishing Association, Florida Department of Environmental Protection, UF/IFAS Fl. Sea Grant and 4-H Extension, UF/IFAS Master Gardeners, Navarre Beach Kayaks, the Environmental Education Coordination Team, Escambia County Marine Resources, the League of Women Voters and more!

Do your part to protect seagrasses
While boating:
* If you run aground in a seagrass bed, turn off your engine, tilt up the engine and walk or pole your boat out of the shallow water.
* Be safe and know water depths and locations of seagrass beds by studying navigational charts.
* Seagrasses are usually found in shallow water and appear as dark spots on the water. Wear polarized sunglasses (to reduce glare) to help locate these areas.
* Always choose to use a pump-out station.
* Stay in marked channels.

At home:
* To reduce pollution from entering our waterways, keep a buffer of plants along your shoreline. This will also help to protect your property from erosion and slow flood waters during storm events.
* To save money, plant native plants that don’t require lots of fertilizers and pesticides.
* Avoid seagrass beds when planning for dredging activities or pier construction.
* Maintain septic tanks.

In your community:
* Families and children can get out and snorkel these areas! Many sites are easy to access from public parks.
* Get involved with local organizations that promote nature protection.
* Working together, we can tell other community members what we have learned about seagrasses at the seagrass awareness festival.
* Don’t litter!
Full story: http://www.splashpensacolabeach.com/news/2016-03-01/Features/SEAGRASS_AWARENESS_FESTIVAL.html

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
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 40,734 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 E- Bulletin is compiled by Len McKenzie & Rudi Yoshida.