31 January 2018

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IN THIS BULLETIN

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NEWS

World's oceans in 2017 were the hottest on record 'by far' as a result of increased greenhouse gases (United Kingdom)

31 January 2018, Daily Mail

The world's oceans in 2017 were the hottest on record 'by far', a new study has found. The research shows that Earth's oceans have gradually become hotter over the past 60 years as a result of man-made global warming, scientists said. If allowed to continue, ocean warming will lead to rising sea levels, stronger storms, and unstable marine habitats susceptible to widespread disease.

The research involved an updated analysis of the of the top 6,000 feet (1.800m) of the world's seas undertaken by experts at Beijing-based institutions the Institute of Atmospheric Physics (IAP) and the Chinese Academy of Science (CAS). While the study found that the world's ocean temperatures have risen as a whole since the 1950s, the Atlantic and Antarctic Oceans experienced the most warming. Researchers looked at sea temperature data collected by a number of research institutions since the 1950s. They discovered that during the 1990s, the heating effect of global warming began to accelerate. Ocean temperatures in 2017 beat those of the previous hottest year on record, 2015.

The oceans in the upper 2,000 metres (6561.7 feet) were 1.51 x 10^22 Joules (unit of energy) warmer than the second warmest year of 2015, and 19.19×10^22 Joules above the 1981-2010 climatalogical reference period. Accord to the NOAA, between 1901 through to 2015, sea temperature rose at an average rate of 0.13°F (0.07°C) per decade. The researchers said that man-made global warming triggered by greenhouse gases is responsible for our heating waters.
more…….. http://www.seagrasswatch.org/news.html

Can Seagrass Save Shellfish From Climate Change? (CA, USA)
30 January 2018, WPSU

The impacts of climate change aren't a far-off possibility for the Pacific shellfish industry. Acidifying seawater is already causing problems for oyster farms along the West Coast and it's only expected to get worse. That has one Bay Area oyster farm looking for ways to adapt. It's teaming up scientists who are studying how the local ecosystem could lend a helping hand.

Hog Island Oyster Company's natural habitat is on the mudflats of Tomales Bay, about 50 miles north of San Francisco, where the oyster operation is located. Like a lot of oyster farmers, Terry Sawyer buys baby oysters from hatcheries in Oregon and Washington. But starting a decade ago, the hatcheries began having mysterious die-offs. Scientists eventually identified the main culprit: acidifying seawater.

Sawyer found some help by opening up his oyster farm to a team of scientists. The water's acidity is monitored with real-time equipment, part of a network run by UC Davis's Bodega Marine Lab. Hog Island is also opening its own oyster hatchery in Humboldt Bay to improve the reliability of the supply chain. The oyster farm is also assisting with cutting-edge scientific research, focused on how oysters could get a boost from native plants in Tomales Bay.

On a sunny morning, a team of scientists is scuba-diving in a shallow part of the bay, surrounded by thick, green seagrass, waving in the current. This seagrass is a glimmer of hope for oyster farmers. Plants, whether it's a forest or lawn, take up carbon dioxide and use it for photosynthesis. The seagrass pulls the carbon out of the water, which makes it slightly less acidic. Essentially, seagrass are creating this little bubble of seawater around them that's more friendly for animals that might be threatened by ocean acidification, says Kristy Kroeker, professor of marine biology at UC Santa Cruz. Kroeker is trying to find out if the seagrasses could act as a buffer, protecting the oysters nearby. She plants mesh bags of baby oysters in the seagrass bed, which she'll be watching in the months to come. So far, the results look promising.
more…….. http://www.seagrasswatch.org/news.html

Related article
Can Seagrass Save Shellfish From Climate Change? (WPSU Penn State)
http://radio.wpsu.org/post/can-seaweed-save-shellfish-climate-change
The Lowly Seagrass That Could Save Your Oysters From Climate Change (KQED Science)
https://ww2.kqed.org/science/2018/01/29/could-lowly-seagrass-save-the-100-million-oyster-biz-from-climate-change/

Trainee forest range officers from Assam, West Bengal and Maharashtra participate in turtle walk in TN (India)
29 January 2018, Times of India

Trainee forest range officers from the states of Assam, West Bengal and Maharashtra participated in a turtle walk with wildlife officials from the Gulf of Mannar Marine National Park in Ramanathapruam district of Tamil Nadu in the early hours of Monday. The 32 trainee officers, 32 of them from these states, training at Kundal Academy in Maharashtra, have come down to the Gulf of Mannar Marine National Park for a three- days training.

In the last two days, the trainee officers were briefed on dugong conservation as dugong is flagship marine species of GoMMNP. On the second day, they were taken to Kurusadai Islet near Mandapam where they were briefed upon island conservation, especially coral reef protection. They have also been taught how to book wildlife offenders especially in coastal environment. On the third day, they were taken out on a turtle walk to have a hand-on-experience of turtle conservation.
more…….. http://www.seagrasswatch.org/news.html

Florida Manatee Count Hits Record High On East Coast (FL, USA)

27 January 2018, Brevard Times

Manatees on Florida's East Coast hit a new record high of 3,731, topping last year's record high of 3,488, according to the Florida Fish and Wildlife Conservation Commission. A team of 15 observers from 10 organizations counted 3,731 manatees on Florida's east coast and 2,400 manatees on the west coast of the state. FWC reported a preliminary count of 6,131 manatees in Florida during the 2018 statewide aerial survey which is conducted annually in late January. This year's statewide count is down from last year's record count of 6,620. However, it is still the third-highest count since record-keeping began in 1991.

Florida's west coast saw a drop from 3,132 in 2017 to 2,400 in 2018, the lowest count since 2010. But the 2018 west coast count remains the seventh-highest on record. Florida's manatee count has exceeded 6,000 manatees for the last four years, which is more than double the count 15 years ago. As a result of the manatee comeback, the U.S. Fish and Wildlife Service removed the manatee from the Endangered Species List because studies showed that it is unlikely the manatee population will fall below 4,000 for the next 100 years.

Many Brevard County waterfront property owners, boaters, and anglers blame the increased manatee population for the Indian River Lagoon's plight. Citizens for Florida's Waterways (CFW) contends that the manatee boom is putting too much pressure on the seagrass and nutrient load in the Indian River Lagoon. That's because an 800 to 1,200-pound adult sea cow can eat up 10% to 15% of its body weight daily in aquatic vegetation which mostly consists of seagrass. According to a U.S. Fish and Wildlife Manatee Recovery Plan, manatees sometimes graze on seagrass which leaves the possibility for regrowth - but manatees also "root" seagrass - meaning the entire plant is pulled and the underwater sediment is disturbed. Based on those consumption rates and grazing method, CFW calculated that an average manatee can consume and/or destroy around 3 acres of seagrass a year, depending on the density of the seagrass per acre. In 2014, the Florida Department of Environmental Protection addressed the effect of the increased manatee population on the nutrient load in the Indian River Lagoon: the 25 to 109 tons of TN and 2 to 7 tons of TP contributed by manatees only account for about 1.7% to 6.7% of TN loads and 0.7% to 3.0% of TP loads entering the Indian River Lagoon system. CFW President Bob Atkins concludes that seagrass loss is worse [from manatee consumption] than he had calculated and free nutrients are not as bad.

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Related article

Aerial survey finds fewer manatees in Florida waters (TCPalm)

https://www.tcpalm.com/story/news/local/indian-river-lagoon/health/2018/01/26/aerial-survey-finds-fewer-manatees-florida-waters/1066875001/

Dredging drama? (SA, Australia)

25 January 2018, Coastal Leader

The Kingston District Council will spend an additional $105,000 on completing this season's dredging. This summer there has been a significant buildup of seagrass, creating an increased need for more dredging than past years.

The proposal to take $105,000 out of the Capital Works Program savings was presented at the council meeting on Friday, with the motion unanimously passed. The additional $105,000 will allow for the significant amount of seagrass to be removed from the Kingston coastline, providing a safer experience for the public. As well as the grant, the Kingston District Council had to apply for a dredging licence from the Environmental Protection Authority.

Seagrass can cause issues if levels are not maintained properly. While the dredging is being conducted, the water can be shaken up, and oxygen levels can reach dangerously low levels. The Kingston District Council went through a process wherein it tested the water before dredging started, and will continue to test throughout the stages of dredging. Dredging has been paused until further notice, as the water levels are currently at a dangerously low level.

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

Shark Charities See Surge in Donations 'Because Trump'

24 January 2018, EcoWatch

President Trump might have an affinity for elephants, but not so much for another threatened and iconic species: sharks. As adult film actress/Trump's alleged ex-mistress Stormy Daniels claimed in a recent interview with In Touch Weekly, the Donald is "terrified" of the big predators, never donates to shark charities and hopes that "all the sharks die." But in the few days since the bizarre anti-shark opinions came to light, shark conservation charities have seen a surge in donations specifically mentioning Trump.

Tabloid fodder aside, Trump really does seem to dislike sharks, as seen in his tweets from 2013 and 2014. He also controversially ate shark fin soup in Vietnam during his trip to Asia in November. But sharks are some of the ocean's most misunderstood creatures. The apex predators maintain the species below them in the food chain and serve as an indicator for ocean health. Oceana explained, "as predators, they shift their prey's spatial habitat, which alters the feeding strategy and diets of other species. Through the spatial controls and abundance, sharks indirectly maintain

the seagrass and corals reef habitats. The loss of sharks has led to the decline in coral reefs, seagrass beds and the loss of commercial fisheries."

Unfortunately, 25 percent of shark species are listed as endangered, threatened or near threatened by extinction due to threats that include bycatch and the brutal practice of shark finning. Conservationists said Trump's comments about sharks were "ignorant," but "Anything that focuses attention on the plight of sharks worldwide is valuable, so I guess in that way the president did good service."
more……. http://www.seagrasswatch.org/news.html

Could 'assisted evolution' save the Great Barrier Reef? (Australia)

23 January 2017, ABC

It's a race against time to save the Great Barrier Reef. Rising temperatures are killing coral at an alarming rate and scientists worry it could die off completely unless something is done quickly. Yesterday, the Federal Government committed $60 million to the task, a move welcomed by many in the scientific community. Environmental groups say the grants are a "band aid" solution and won't make a meaningful impact on the reef.
Listen to Audio here*…….* http://www.seagrasswatch.org/news.html

Two Greeks on Forbes 30 Under 30 Europe list (Greece)

23 January 2018, Kathimerini

A 24-year-old Greek innovator who devised a way to utilize washed-up seagrass has made it onto this year's prestigious Forbes list of 30 European entrepreneurs under the age of 30 who are shaking up their respective sectors in 2018. Stavros Tsompanidis is the founder of PHEE, a company based in the western port city of Patra that manufactures gift boxes and accessories from dead Neptune grass (*Posidonia oceanica*), hailed by Forbes as being one of the "first to turn this plant into a useful product."

PHEE was founded by the University of Piraeus financial management graduate, who is CEO and head of marketing, and Nikolaos Athanasopoulos, an engineer from the University of Patra who is the company's production manager, back in 2015. Today, PHEE manufactures a series of sustainable and attractive products using PHEE-board, an innovative cellulose-based material made of seagrass with multiple applications. Among PHEE's best-sellers are its cell phone cases, luxury gift boxes and beach tennis paddles, while it recently launched an eyewear line in cooperation with Zylo, another Greek startup that produces wooden frames and is based on the island of Syros.

"This distinction represents a small moral victory for the team, for everything we have accomplished so far, but also gives us a sense of responsibility," Tsompanidis was quoted by the ANA-MPA news agency as saying in response to the award. "We want to keep trying to make seagrass known globally by promoting the principles of recycling and the reuse of materials that are found in abundance all around us."
more……. http://www.seagrasswatch.org/news.html

Marine park controversy continues following five-year review in South Australia (SA, Australia)

23 January 2018, ABC Online

It's been five years since 83 marine sanctuary zones were implemented in South Australia, and despite ongoing controversy and a lack of conclusive results, proponents maintain it is a step towards fish sustainability "thousands of kilometres" away. The SA Marine Parks Five-Year Status Report, released Monday, concluded insufficient time had passed to detect changes in the size of fish, abundance or diversity of biota within the zones — all with the exception of Cape de Coudecic where rock lobsters had increased in size and abundance.

The zones are contained within 19 marine parks that stretch across SA's coastline. The report indicated that biodiversity and ecosystem function was being maintained in the sanctuary zones, with some of the most critical including islands off the Eyre Peninsula and the West Coast.

Professor Gillanders, from the University of Adelaide School of Biological Sciences, said the purpose of marine parks was also to contribute to replenishing stocks outside the zones, including areas that were commercially fished. SA Abalone Association president Jonas Woolford said opposition remained strong among regional communities and any spill over would only benefit certain species. Mr Woolford also said charter fishing boats had been affected by the sanctuary zones and had not been replaced by nature-based tourism. He agreed the preliminary report had simply established a baseline, pointing out that it should have been established before the sanctuary zones were implemented.
more……. http://www.seagrasswatch.org/news.html

Climate impacts marine species: Crabs go from blue to mud (WA, Australia)

22 January 2018, PerthNow

Perth anglers may soon be hauling in catches of mud crab as the climate continues to warm, according to a team of Murdoch University researchers. Mud crabs are normally found in warmer waters hundreds of kilometres north of the metropolitan area but in coming decades they could populate greater Perth waterways including the Peel-Harvey, Swan-Canning and Leschenault estuaries, according to Dr Christopher Hallett.

Dr Hallett is lead author on a paper published in the journal Regional Environmental Change and his team's research examines how climate change will impact marine species including algae, seagrass, crabs and fish in south- west Australian estuaries. "Warming marine waters will enable some species to move more easily between estuaries and thrive," he said. "If these waters continue to warm as they are, you'll have temperatures in winter that allow those species to survive. We're talking really tropical species, like mud crabs and coral crabs.

However, he said those benefits would be a silver lining to a raft of potential problems in our streams, rivers and estuaries created by climate change. "Our estuaries are particularly vulnerable to long-term warming and drying trends because they tend to be shallow, have weak tidal influence and variable seasonal river flows, and, in many cases, are periodically closed by sand bars," Dr Hallett said. "In the Swan-Canning Estuary for example, seagrass mortalities have been reported due to warmer temperatures. Warmer waters also mean higher salinities, less oxygen and potentially dangerous algal blooms." The researcher said reducing domestic water use and the use of fertilisers would help protect WA's estuaries, while oxygenating vulnerable areas and covering spots prone to evaporation are other options that could be explored.

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

Scientists, volunteers rescue about 1000 cold-stunned sea turtles (FL, USA)

19 January 2018, United States Geological Survey (press release)

On the icy cold shores of Florida's St. Joseph Bay, a team of volunteers and wildlife experts have rescued an estimated 1,000 cold-stunned sea turtles since January 2 in what is believed to be Florida's second-largest mass cold-stunning event of the 21st century, according to U.S. Geological Survey research biologist Margaret Lamont.

Lamont has been coordinating the turtle rescues in cooperation with the Florida Fish and Wildlife Conservation Commission. About 50 people – about 30 volunteers from the Florida Coastal Conservancy, employees of the U.S. Fish and Wildlife Service, Eglin Air Force Base, the Florida FWCC, Gulf World Marine Park, and two more USGS scientists – have taken part in the rescues Jan. 2-7, when about 700 turtles were rescued, and Jan. 17-19, when about 300 more were brought in. So many cold-stunned turtles have been rescued from the bay's waters and mud flats that Gulf World, where the turtles are taken to rest and recover, is full and can only take in injured animals, she said. The vast majority of the turtles rescued were threatened green turtles (Chelonia mydas), but the teams also brought in endangered Kemp's ridleys (Lepidochelys kempii), threatened loggerheads (Caretta caretta) and one endangered hawksbill (Eretmochelys imbricata).

When water temperatures drop below 50 degrees Fahrenheit (10 degrees Celsius), cold-blooded sea turtles' metabolisms slow so much that they become unable to swim or even lift their heads above the water to breathe. Without warmth or help, they drown. Every winter, when strong cold fronts sweep through the Florida Panhandle, volunteers and scientists rescue about 30 to 40 cold-stunned turtles. In 2010, a statewide cold snap led to the rescue of about 1,700 turtles, the largest such rescue in this century, Lamont said. This winter, so many animals have needed rescuing because the back-to-back cold spells have lasted so long. St. Joseph Bay is home to a dense population of overwintering sea turtles, Lamont said. "It's perfect habitat for them. It has some of the most pristine seagrass beds in Florida where they can feed, cut through by deep channels where they can escape from predators," she said. In cold weather, turtles normally leave the shallows for deeper water that doesn't turn cold so quickly – but if the cold lasts long enough, even those depths can fall below 50 degrees.

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

Global campaign on reef awareness to make a splash (Singapore)

20 January 2018, The Straits Times

Welcome to the International Year of the Reef (IYOR), a global campaign that aims to get people thinking about the world's marine habitats. For the land-bound, underwater habitats, such as coral reefs or seagrass meadows, are often "out of sight, out of mind". As a result, they remain a mystery to many people. The IYOR hopes to change that. The National Parks Board (NParks) and marine conservation groups have lined up activities that anyone can take part in. Exhibitions on Singapore's marine biodiversity are being planned for March and April at The Seletar Mall and the Asia Dive Expo at Suntec City respectively. There will also be workshops and talks on seagrass meadows, marine trash and turtle ecology.

Singapore may wear a concrete crown but it is laced with a necklace of blue. The Republic is home to many different types of marine habitats - from colourful coral reefs in the south, to mangroves in the east and north-west, to

seagrass meadows, rocky shores and sandy beaches on other parts of the coast. And they sustain a surprising amount of life. Dolphins and endangered sea turtles have recently been spotted in Singapore's waters. Hungry dugongs munching through local seagrass meadows have also left their mark. There are more than 250 species of hard coral in Singapore, which make up about a third of hard coral species found worldwide. More than 100 species of reef fish can also be found in coral here. The 12 seagrass species in Singapore make up more than half the total number recorded in the Indo-Pacific region.

The International Coral Reef Initiative has declared that coral reefs are now one of the most threatened ecosystems on the planet as a result of both climate change and local human-induced pressures, such as run-off from industries. In addition, land reclamation and development has also put Singapore at risk of losing other marine habitats, such as mangroves and seagrass meadows. A study found that development involving filling the island's coastal waters with sand for almost five decades has killed 1.6 sq km of seagrass - nearly half of the country's total. Losing these habitats will mean losing more than just the loss of colourful coral, plants and animals. Marine habitats also provide an array of ecosystem services that benefit humans. That tiny Singapore has such a variety of marine habitats and lifeforms despite its busy port and history of intense land reclamation is something to cherish.
more…….. http://www.seagrasswatch.org/news.html

UN Environment Chief warns this is make-or-break year for Great Barrier Reef (Australia)
19 January 2018, ABC Online

The head of the United Nations Environment Agency warns that this generation could be the one to destroy reefs like the Great Barrier Reef. This year has been named International Year of the Reef, and the UN Environment Chief Erik Solheim is in Australia to inspect the Great Barrier Reef and urge political leaders to do more to protect it. He says the world's coral reefs are in a "make or break" situation, and Australia needs to to more to prevent the effects of climate change from destroying the reef.
Listen to the audio at…….. http://www.seagrasswatch.org/news.html

Rising Ocean Temperatures Threaten Carbon-Storing Seagrass
17 January 2018, Eos

A new model predicts that as ocean temperatures rise, carbon-storing seagrass may disappear and even go extinct in some ecosystems. If rising ocean temperatures cause these seagrass ecosystems to fail, the loss will only expedite the global warming that did them in, scientists say. So, how exactly will the world’s seagrasses fare in the face of climate change? Thanks to a newly made model, researchers now have answers.

“We can see that the coasts of Australia, Polynesia, and Hudson Bay will lose seagrass if ocean temperatures rise 1.5°C,” said Orhun Aydin, a spatial statistician and product engineer at the Environmental Systems Research Institute (ESRI) in California. Aydin and his coauthor Kevin Butler, a product engineer at ESRI, developed their model from publicly available data on seagrasses and their environments from the U.S. Marine Cadastre. They identified key environmental conditions involved in seagrass abundance and modeled how these would change with increased temperatures. Then they scaled up their model to encompass the global ocean, using the Ecological Marine Units data set, which provides 3-D maps of ocean ecosystems around the world.

The researchers looked at five environmental conditions affected by rising ocean temperatures: salinity, dissolved oxygen, nitrate, phosphate, and silicate concentrations. They compared ocean ecosystems using these parameters and grouped similar environments. They then cranked up the model’s thermostat and predicted how each ecosystem type would likely change with each 0.1°C increase in ocean temperature. “We found an increase of 1°C was the tipping point,” said Aydin. Changing patterns in seagrass occurrence reveal themselves at 1°C and are exacerbated at 2°C and beyond, he explained. For example, the Gulf of Mexico, a current seagrass hotbed, will be preserved as a haven for underwater meadows. But some places, such as Australia and Polynesia, will become increasingly unsuitable for seagrass. Other places will become more suitable for growth, Aydin continued. For instance, if ocean temperatures rise 1.5°C, the frigid Arctic Ocean off the north coast of Siberia could become suitable for seagrass.
more…….. http://www.seagrasswatch.org/news.html

Artificial oyster reefs bringing Queensland waterways back to life (QLD, Australia)
13 January 2018, ABC Online

Communities have taken the lead in two new projects to bring oysters and, hopefully, fish back to popular Queensland tourist spots. More than 100 years ago, oysters were so plentiful around south-east Queensland that entire reefs were dredged up to supply oyster saloons interstate.

Kerry Jones from the Kabi Kabi First Nation said oysters had been important for indigenous culture and trade, but much of that was lost when oysters were removed. Bryan Walsh from the Noosa Parks Association said the oysters were completely fished out of the Noosa River. "Historically this system was absolutely abundant in shellfish, fish anything you care to name, the dugong even came up here to graze on seagrass beds," Mr Walsh said. But like many large-scale clearing operations, it could not last.

Communities in Noosa and Bribie Island decided to bring back the oyster reefs to see if they could entice fish back to the holiday spots. A group including the Noosa Parks Association, Noosa Biosphere and researchers decided to install artificial oyster reefs in several locations in the Noosa river. The reefs were made from large bags of coconut mesh filled with oyster shells. The plan was for the sausages to attract baby oysters, or spats, which would then grow and take over the infrastructure, to make a natural reef. Not long after the installation, the Noosa researchers saw an increased number of fish. Further south, at Bribie Island, three kinds of oyster reefs have been installed in Pumicestone Passage, including one made from oyster shells collected from local restaurants. Another reef was made from live oysters, which were grown off pontoons by Bribie Island locals. The final reef was a plastic system developed in the Netherlands, made from biodegradable potato starch. It will be a few months before either project can tell whether the baby oysters have taken to their new homes, but researchers said other communities should also look at oyster reefs.
more……. http://www.seagrasswatch.org/news.html

2017: Australia's third-hottest year on record (Australia)
10 January 2018, Spatial Source

Australia experienced its third-warmest year on record in 2017, and the first-ever recorded instance of two back-to-back bleaching events on the Great Barrier Reef. The Bureau of Meteorology released the startling data in the Bureau's annual climate statement.

Speaking at the event, Dr. Karl Braganza, Head of Climate Monitoring at the Bureau of Meteorology, said that 2017's national mean temperature was 0.95 °C warmer than the 1961–1990 average. "Despite the lack of an El Niño—which is normally associated with our hottest years—2017 was still characterised by very warm temperatures. Both day and night-time temperatures were warmer than average; particularly maximum temperatures, which were the second-warmest on record," he said. "Seven of Australia's ten warmest years have occurred since 2005 and Australia has experienced just one cooler than average year—2011—in the past decade."

The warmest months of 2017 were March, July, August, October and December — which all ranked in top ten mean temperatures for those month, meaning they were recorded across the average of day and night time temperatures. The daytime temperatures over the year were the second warmest on record, at 1.27 degrees above the 1961-1990 average. All capital cities recorded warmer than average temperatures, with the exception of Perth, posting close to average data. Sea surface temperatures for the oceans around Australia were well above average in 2017.
more……. http://www.seagrasswatch.org/news.html

Orphaned baby dugong rescued but had 'nowhere to go' (QLD, Australia)
09 January 2018, Central Telegraph

An orphaned baby dugong that was found stranded on a Townsville beach at the weekend has been put down after State government officials admitted there was nowhere for it to go. Staff from the Department of Environment and Science said they followed "expert advice" from a number of vets and organised the euthanasia of a juvenile dugong that became stranded on Sunday.

Rangers from Queensland Parks and Wildlife Service were assisted by members of the public with the attempted rescue of the dugong calf after it was found washed up on Pallarenda beach. It was taken to the Reef HQ aquarium for temporary care. A DES spokesman said despite a number of attempts to refloat the dugong calf, the animal continued to beach itself and its mother was not seen in area. "As the animal could not survive in the wild without its mother … the department has liaised with vets to decide the best outcome for the animal in relation to its welfare," he said. "Unfortunately in this situation, experts determined the dugong should be euthanised to prevent further suffering.
more……. http://www.seagrasswatch.org/news.html

Red tide, boat collisions part of third deadliest year for manatees
08 January 2018, Naples Daily News

A red tide bloom was one of the contributing factors to the third-deadliest year on record for manatees in Florida, according to a state report recently released. The Florida Fish and Wildlife Conservation Commission says there were 538 overall deaths in 2017, which trails only 2013 (830) and 2010 (766). In terms of significant contributing factors around that area, besides boating, red tide definitely contributed to this higher number of mortalities in general in 2017, said Michelle Kerr, with FWC's manatee management program.

The manatees are effected through red tide by ingesting seagrass, where the toxin has built up. Katie Tripp, with Save the Manatee Club, said the red tide impact was noticeable but less than in past years, when hundreds of carcasses washed ashore. Red tide is a harmful algal bloom because it releases a neurotoxin that causes fish, marine mammal and sea turtle kills while also causing respiratory issues in humans. Manatees suffering from red tide may lose the ability to remain upright and have difficulty breathing and lack of coordination.

Lee was second in the state in overall deaths at 78, trailing Brevard County's total of 111. Lee was No. 1 in the state for boat-related manatee deaths in 2017 for the seventh year in a row and the 10th time in the past 11 years. Collier County had four boat-related kills and 11 overall recorded deaths, according to FWC records. The number of boat deaths was 106. Biologists counted 6,620 manatees in February 2017, which is a baseline number and not an actual population estimate. The counts are done during extremely cold conditions, when manatees are most likely to congregate in warm-water creeks and refuges like the Florida Power and Light plant along the Orange River just outside of Fort Myers.
more…….. http://www.seagrasswatch.org/news.html

Scientists fear climate change is affecting Great Barrier Reef green sea turtles
09 January 2018, ABC Local

Scientists fear climate change is affecting Great Barrier Reef green sea turtles, a species whose gender is determined by temperature. In a US and Australian Government-funded study of the northern reef, east of Cooktown, fewer than one per cent of hatchlings were found to be male.
Listen to the audio at…….. http://www.seagrasswatch.org/news.html

CONFERENCES

The 13th International Seagrass Biology Workshop (ISBW13) and World Seagrass Conference (11-17 June 2018, Singapore)

Theme: Under pressure – Seagrass science and conservation in stressful environments

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 ISBW13 will be held in June 2018 at the National University of Singapore, Singapore, organized by National University of Singapore, National Parks Board, and DHI Water & Environment, Singapore.

More information:
To get important updates on ISBW13, visit: *https://www.isbw13.org/*
Follow on Facebook @ISBW13 and Twitter #ISBW13

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 47,410 views to date)

Seagrass & other matters

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 *http://www.seagrasswatch.org/publications.html#ebulletin*

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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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