

# Seagrass-Watch E-Bulletin



**31 January 2015**

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## IN THIS BULLETIN

NEWS .....	1
Research team spots many dugongs off the coast (Qatar) .....	1
New Harbor Branch program will replace seagrass in Indian River lagoon (USA).....	2
Great Barrier Reef faces prospect of UNESCO 'in danger' listing unless Government delivers improvements (Australia) .....	2
Stop reclaiming Penang Strait to save ecosystem, urges DAP man (Malaysia) .....	2
Seagrass has signs of new growth (Australia) .....	3
UVI researchers studying invasive seagrass (Virgin Islands).....	3
NASA, NOAA Find 2014 Warmest Year in Modern Record (USA) .....	4
3-D seagrass model shines leaf-level light on photosynthesis (WA, Australia).....	4
Where's all the seagrass? (NSW, Australia) .....	4
Forestry staff scrap dugong tracking (Thailand).....	5
Microchips to be removed from three dugongs off Trang (Thailand).....	5
Dugong saved by quick-thinking locals and holidaymakers (Australia).....	5
Trang fishers oppose dugong tagging (Thailand).....	5
DEIA report lacks scientific data, says environmental activist (Malaysia) .....	6
Hannah watches the seagrass grow (Australia).....	6
Abbott's dredge pledge has catch says environmental group (Australia).....	6
Queensland Election 2015: Labor will seek legal advice to overturn approval for dredge spoil dumping in Great Barrier Reef Marine Park (Australia) .....	7
Sea turtles use magnetic fields to find their birth place, researcher believes (Australia) .....	7
The dugong dilemma (Qatar) .....	7
Ship Collision Spills Tonnes of Oil in Singapore Strait (Singapore) .....	7
Robot looks like a fish to ride with marine life (Switzerland) .....	8
Government demands environment data on Abbot Point dredging (Australia) .....	8
GALLERY .....	9
CONFERENCES .....	9
Coastal & Estuarine Research Federation 23rd Biennial Conference (CERF2015) (Portland, Oregon, USA, 8-12 November 2015) .....	9
SEAGRASS-WATCH on YouTube .....	9
...seagrass matters blog.....	9
World Seagrass Association blog <a href="http://wsa.seagrassonline.org/blog/">http://wsa.seagrassonline.org/blog/</a> .....	9
FROM HQ.....	10
Past E-bulletins .....	10
Frequently Asked Questions .....	10
Seagrass-Watch Magazine .....	10
Virtual Herbarium .....	10
Future sampling dates.....	10
Handy Seagrass Links .....	10

Please note: links to sources were active on date of publication. Some sources remove links periodically.

## NEWS

### **Research team spots many dugongs off the coast (Qatar)**

31 January 2015, Gulf Times

ExxonMobil Research Qatar (EMRQ) and the General Directorate of Natural Reserves Private Engineering Office have completed a one-day field mission to locate live dugongs off the west coast of Qatar, as part of ongoing data

collection efforts to better understand the distribution, abundance and behavior of the Qatar dugong population. These efforts fall under a tri-party agreement signed in 2014 by ExxonMobil Research Qatar, Qatar University and Texas A&M University Galveston, with in-kind support from the General Directorate of Natural Reserves - Private Engineering Office and the Ministry of Environment.

The field mission earlier this month, resulted in video and photographic documentation of the dugongs as they traveled and fed in the area, and is the first time that live animals have been documented as part of current research efforts. The large group of dugongs sighted off the coast included approximately 300-500 individual dugongs, many of them mothers and calves.

To date, more than 14 stranded (dead) animals have been reported under the project, indicating that the population is experiencing real threats in Qatari waters. Subsequently, future work will focus on collecting data to inform management efforts centered on the protection of this iconic marine mammal species.

*more..... <http://www.seagrasswatch.org/news.html>*

### ***New Harbor Branch program will replace seagrass in Indian River lagoon (USA)***

*29 January 2014, Palm Beach Post*

The fourth annual Love Your Lagoon dinner on Feb. 6 will buy attendees more than just a meal. Money from that event will start a new program at Florida Atlantic University's Harbor Branch Oceanographic Institute that will replace dwindling seagrasses in the Indian River Lagoon.

Katha Kissman, president and CEO of Harbor Branch, said that the lagoon lost 60 percent of its seagrass in 2011-2012 because of massive algae blooms. This project aims to reverse that by creating a seagrass nursery at the Harbor Branch facility, which is a research community of marine scientists, engineers, educators and other professionals focused on ocean science. The grasses would then be transplanted into particular areas of the lagoon.

Each year, Kissman said, they try to use money from the dinner to pay for a different program at Harbor Branch. Last year, the dinner paid for the institute to bring in seven Indian River Lagoon Research Fellows, each of whom has been there during the past year. The seagrass replacement program grew out of the research that Jacob Berninger, one of the fellows, has been working on in the past year. Berninger has been collecting vegetative fragments, cultivating them in outdoor tanks and successfully transplanting them at a restoration site.

*more..... <http://www.seagrasswatch.org/news.html>*

### ***Great Barrier Reef faces prospect of UNESCO 'in danger' listing unless Government delivers improvements (Australia)***

*29 January 2015, Courier Mail*

A critical part of the plan to prevent UNESCO listing the Great Barrier Reef as "in danger" is in a shambles, with scientists saying Government efforts to stop agricultural run-off have failed. The assessment comes as Federal Environment Minister Greg Hunt is expected to release a crucial State Party Report on the Great Barrier Reef early next week. It is expected to show UNESCO that Australia's efforts to stop Reef damage are sufficient that the World Heritage Area should not be listed in danger alongside sites in Iran, Yemen and Afghanistan. Mr Hunt will return from Europe on Saturday after his second tour of lobbying UNESCO's World Heritage Committee. It will decide in June if the Reef is to be listed.

A senior State Government scientist said Queensland efforts to cut coral-killing agricultural run-off were ineffective and showed no meaningful cut to pollution. He said a major problem was that in removing red and green tape, the Government had replaced legal requirements with a voluntary scheme.

Environment Minister Andrew Powell said the Government was spending \$35 million a year to improve water quality and help producers. Mr Powell said the latest Great Barrier Reef Report Card showed that the annual average Reef pesticide load had been cut by 28 per cent. WWF spokesman Sean Hoobin said it was notable that Mr Powell avoided claiming that Queensland programs had achieved cuts to pollution because there was no evidence to support such a claim.

*more..... <http://www.seagrasswatch.org/news.html>*

### ***Stop reclaiming Penang Strait to save ecosystem, urges DAP man (Malaysia)***

*27 January 2014, The Malaysian Insider*

The strait which separates Penang island from the mainland must be protected from reclamation projects, a lawmaker says, as one of Malaysia's most developed states wrestle with overdevelopment. Teh Yee Cheu, DAP assemblyman for Tanjung Bungah, said today there was an urgent need to review the entire process as the area across the eastern coast featured some unique island-like sandbanks covered with seagrass and home to a rich biodiversity.

Known as Middle Bank, the area spanning an estimated 125 acres on the channel has been listed in the Penang Structure Plan as being earmarked for development. The RFP called for a consultancy report on reclamation at the Middle Bank and "any associated civil and infrastructure construction" there. It even required a report on "linkage" to Penang island and mainland Butterworth, ostensibly referring it to a set of bridges between Jelutong and a reclaimed island, and from there to the mainland.

Middle Bank was last year reportedly found to contain an array of living species, including sea anemones, hermit crabs, cockles, clams, sea urchins, fan shells, sea cucumber and even octopus. There are also at least four distinctly different genera of sea grass, making it a unique biological habitat. It is understood that Middle Bank is among just a handful of sea grass beds along the Straits of Malacca. The other major one in Malaysia is at Pulau Besar in Johor where mammals like the dugong and creatures such as the seahorse are also known to thrive, and which is also threatened by reclamation.

When contacted, state executive councilor for the environment, Phee Boon Poh, said any reclamation plan over the Penang Channel would first have to undergo rigorous environmental assessment. He said this includes the study of the hydro flow system of the channel to determine the impact any such project would have on the tides and currents of the sea there. He added that Middle Bank had been earmarked for development since the administration of former chief minister Tun Dr Lim Chong Eu whose tenure was from 1969 to 1990. It was then also included in the Structure Plan of 1997.

[more..... http://www.seagrasswatch.org/news.html](http://www.seagrasswatch.org/news.html)

### **Seagrass has signs of new growth (Australia)**

20 January 2015, Port Stephens Examiner

Concern for the health of the Port's waterways is not shared by seagrass experts from the Department of Primary Industry. In response to the Examiner's article last week on fears of declining seagrass in the Port, Tim Glasby, principal research scientist at the DPI's Marine Ecosystems Unit, said while there was evidence of it occurring, there were also signs of new growth.

Dr Glasby said scientists were not sure of the causes for the *Zostera* decline, but suspects it might be heavy rainfall. "We are starting to do experiments to examine the tolerance of *Zostera* to low salinity, due to heavy rainfall, and in particular to repeated events over short periods," he said. "Heavy rainfall can potentially kill the grass in shallow water by decreasing the salinity, but it can also kill *Zostera* in deeper water by turning the water brown and hence reducing light levels. "*Zostera* that grows closer to the ocean is less likely to be affected by freshwater inputs, which might explain why we have not seen reductions east of Nelson Bay marina." Dr Glasby said the seagrass could re-establish from fragments of plants or from seeds. "One of the triggers for germination of seeds is low salinity and low water temperatures, which is why *Zostera* is well adapted to germinate after heavy rainfall, particularly in winter."

[more..... http://www.seagrasswatch.org/news.html](http://www.seagrasswatch.org/news.html)

### **UVI researchers studying invasive seagrass (Virgin Islands)**

19 January 2015, Virgin Islands Daily News

An invasive species of seagrass is taking over the waters of St. Thomas and St. John, and researchers are trying to figure out what - if anything - eats it. It seems to be spreading quickly, according to University of the Virgin Islands Marine and Advisory Service coordinator Howard Forbes Jr. The new species is *Halophila stipulacea*, and while it is smaller than the native seagrasses, it is taking over and pushing out the native species. This is a problem because many underwater creatures depend on the native grasses for food and protection and scientists are worried about what could happen to the island's ecological systems if the native seagrasses disappear.

*Halophila stipulacea* is native to the western Indian Ocean and is thought to have spread into the Mediterranean and Caribbean seas in ship ballasts. The way the grass reproduces is through fragmentation. If a piece breaks off, it starts growing a new plant. Every time a boat drops anchor in the seagrass it damages the grass, breaks off pieces, and then it spreads and starts to grown new colonies.

UVI Marine and Environmental Sciences graduate students Sam Mitchell and Jess Keller recently wrapped up a study of the invasive sea grass as a part of the capstone project for their degrees. Their study revealed evidence that local animals eat the invasive sea grass, but the rate of consumption is not sufficient to prevent its expansion, according to UVI. Researchers are asking the public to help out by calling in to report sightings of the invasive grass, so they can keep tracking its spread. Boaters are asked to avoid anchoring in seagrasses. This will limit damage to native seagrasses and discourage the growth of non-native seagrasses.

[more..... http://www.seagrasswatch.org/news.html](http://www.seagrasswatch.org/news.html)

## **NASA, NOAA Find 2014 Warmest Year in Modern Record (USA)**

16 January 2015, NASA Press Release 15-010

The year 2014 ranks as Earth's warmest since 1880, according to two separate analyses by NASA and National Oceanic and Atmospheric Administration (NOAA) scientists. The 10 warmest years in the instrumental record, with the exception of 1998, have now occurred since 2000. This trend continues a long-term warming of the planet, according to an analysis of surface temperature measurements by scientists at NASA's Goddard Institute of Space Studies (GISS) in New York. In an independent analysis of the raw data, also released Friday, NOAA scientists also found 2014 to be the warmest on record.

Since 1880, Earth's average surface temperature has warmed by about 1.4 degrees Fahrenheit (0.8 degrees Celsius), a trend that is largely driven by the increase in carbon dioxide and other human emissions into the planet's atmosphere. The majority of that warming has occurred in the past three decades. While 2014 temperatures continue the planet's long-term warming trend, scientists still expect to see year-to-year fluctuations in average global temperature caused by phenomena such as El Niño or La Niña. These phenomena warm or cool the tropical Pacific and are thought to have played a role in the flattening of the long-term warming trend over the past 15 years. However, 2014's record warmth occurred during an El Niño-neutral year.

The GISS analysis incorporates surface temperature measurements from 6,300 weather stations, ship- and buoy-based observations of sea surface temperatures, and temperature measurements from Antarctic research stations. This raw data is analyzed using an algorithm that takes into account the varied spacing of temperature stations around the globe and urban heating effects that could skew the calculation. The result is an estimate of the global average temperature difference from a baseline period of 1951 to 1980. NOAA scientists used much of the same raw temperature data, but a different baseline period. They also employ their own methods to estimate global temperatures. The agency shares this unique knowledge with the global community and works with institutions in the United States and around the world that contribute to understanding and protecting our home planet.

[more..... http://www.seagrasswatch.org/news.html](http://www.seagrasswatch.org/news.html)

## **3-D seagrass model shines leaf-level light on photosynthesis (WA, Australia)**

16 January 2015, Phys.Org

West Australian scientists have developed a three-dimensional computer model of seagrass canopies to investigate the effect of canopy structure and reduced light on photosynthesis. The study found canopy density affects how seagrass meadows will respond to reduced light conditions, caused by a combination of self-shading and suspended sediments introduced during infrastructure development and dredging.

Co-author and Edith Cowan University research fellow Dr Kathryn McMahon says the study aimed to see if it was possible to build a seagrass canopy model for a complex seagrass like *Amphibolis griffithii*, found in the south of West Australia. The new model accounts for variables including wave action, stem and branch length, the underwater motion of leaves, their position in the layered canopy, and their changing exposure to sunlight. The model revealed the relationship between light levels, canopy density and canopy-scale photosynthesis is complex and non-linear.

Co-author and Environmental Computer Science Ltd director Dr John Hedley says further studies should consider the effect of canopy structure and density on photosynthesis, and these effects should be considered when assessing, predicting and monitoring impacts from coastal developments. Dr McMahon says seagrass meadows provide important ecosystem services, and are a great reflector of the health of our oceans.

[more..... http://www.seagrasswatch.org/news.html](http://www.seagrasswatch.org/news.html)

## **Where's all the seagrass? (NSW, Australia)**

15 January 2015, Port Stephens Examiner

The health of the Port's vast waterways is under threat of severe deterioration, according to a growing number of longtime users. The problem of disappearing seagrass was first noticed some years ago on the northern side of the Port and is now impacting the southern end. There are differing theories as to why the seagrasses, which once flourished and are so vital for the sustainability of the Port's unique marine life, are in decline. The problem now spans both sides of the Port - from Swan Bay, Myall River, North and South Pindimar, Tahlee, Karuah to Tanilba Bay, Mallabula Point, Lemon Tree Passage, Tilligerry Creek, Cromartys Bay, Soldiers Point, Salamander Bay and Corlette.

The problem according to Don Payne, a prominent campaigner and fisherman from Pindimar, lies with the dumping of sand into the waterway, which makes its way into the Port's estuary, lakes and river systems. With five generations of oyster-growing in Port Stephens, Robert Diemar from Nelson Bay fears the seagrasses will be wiped out before too long. "The problem is a combination of factors ... the sand movement is one reason, another is the increase in the number of native black swans," Mr Diemar said. He believes the swans, virtually non-existent on the southern side a few years ago, have migrated from the north after that area was ravished of all its seagrass. Both men believe that

unless governments begin working alongside fisheries and interested parties the health of the Port's most alluring tourist attraction will deteriorate.

*more..... <http://www.seagrasswatch.org/news.html>*

### **Forestry staff scrap dugong tracking (Thailand)**

*13 January 2015, Bangkok Post*

The decision was made Monday during a meeting between senior environment officials and local fishermen, who raised concerns over possible harm to dugongs after they are tagged. The fishermen, who are keen on conserving dugongs, say the study could disturb or even injure the animals. Some dugongs have already been tagged.

On Thursday, officials and fishermen will look for the the tagged dugongs off the Trang coast to remove the devices from them, said Issama-el Bensa-ard, a member of Trang's fishermen club. They will then find new ways to conserve the dugongs, which are mainly found near Libong and Muk islands, he said.

Earlier, fishermen handed protest letters to environmental authorities, including National Resources and Environment Minister Gen Dapong Ratanasuwan, after learning about the project, initiated by the Marine and Coastal Resources Centre. Researchers are using the technology to help them monitor dugongs' behaviour, their habitats and migration routes in a project worth nearly 2 million baht.

*more..... <http://www.seagrasswatch.org/news.html>*

### **Microchips to be removed from three dugongs off Trang (Thailand)**

*12 January 2014, The Nation*

Officials have agreed to remove microchips from three wild dugongs after fishermen protested over the move, saying cables for the tags make it more difficult for the sea cows to feed on marine grass and increases their risk of getting caught. "We would like to apologise for what happened," Chonlatid Suraswadi, head of the Marine and Coastal Resources Department, said yesterday.

Had Chao Mai National Park officials implanted microchips in the three dugong - which belong to a vulnerable species - in the middle of last month to study their behaviour and demarcate safety zones for them. The Local Fishermens' Club based in Trang lodged a complaint with the National Parks, Wildlife and Plant Conservation Department, describing the tagging as a form of torture.

The National Parks Department wanted the tags to be removed by today, but the Marine Department plans to hold a meeting today with the team in charge of handling the removal to determine the best method. The team has been set up by the National Parks Department, while the Marine Department will provide support in the form of boats and veterinarians. In collaboration with Japanese researchers, the Marine Department had a plan to set up underwater recorders to track dugongs' sounds next month.

*more..... <http://www.seagrasswatch.org/news.html>*

### **Dugong saved by quick-thinking locals and holidaymakers (Australia)**

*09 January 2015, Fraser Coast Chronicle*

A distressed dugong was on its way back out to sea last night thanks to some quick-thinking locals and holiday-makers in Pialba. Maryborough's Amanda Waterson and her family were holidaying at the Pialba Caravan Park when they saw a crowd gathering around the beached 3m sea cow about 4pm yesterday. Parks and Wildlife rangers were called and within minutes the Watersons were among the dozens of helpers who had pitched in to keep the female dugong watered. Ms Waterson said the rescuers had to dig a "big ditch" to float the dugong and after about 45minutes, she was swimming out to sea.

*more..... <http://www.seagrasswatch.org/news.html>*

### **Trang fishers oppose dugong tagging (Thailand)**

*07 January 2015, Bangkok Post*

A group [of] Trang province fishermen has called for the scrapping of a project to tag endangered dugongs with satellite-trackable markers, fearing they might harm the animals. More than 30 fishermen on Wednesday took turns in voicing their disapproval with the Marine and Coastal Resources Research Centre research project to attach satellite tags on rare dugongs to monitor the behaviour of the mammals, their seagrass habitat and the animals' migration route in the Trang sea.

So far, the research team, comprised of Thai and Japanese biologists, has tagged only three dugongs. The fishermen aired their views during a forum held at the Andaman Foundation in Muang district of Trang. Representatives from the Department of the National Parks, Wildlife, and Plant Conservation observed. Issama-el Bensa-ard, a representative of the Trang fishermen's club, said the local anglers wanted the tagging project halted and talks held between locals and national-park authorities to find a way to conserve rare dugongs in Trang.

Aren Phrakhong, deputy chairman of the Trang fishermen's club, insisted his group had no ulterior motive. It did not want to ask for state funding, but merely wanted a role in conserving dugongs. Members of his club have taken care of marine resources in the Trang sea for a long time and have never received financial assistance from the state, he said. Most local fishermen consider the sea and its marine resources their home, he added.

*more..... <http://www.seagrasswatch.org/news.html>*

### **DEIA report lacks scientific data, says environmental activist (Malaysia)**

*07 January 2015, The Sun Daily*

An environmental activist today claimed that the Detailed Environmental Impact Assessment (DEIA) report on Forest City lacked scientific data and failed to address the impact on reclamation on Johor Straits.

Malaysian Nature Society, Johor branch adviser Vincent Chow told the Sun the report had shown that most data used in the DEIA were from secondary sources and not the first hand study statistics. He said some photos taken during the study period from July to September last year such as Photo 9.9 did not mention the date taken and the location. Chow also revealed the report estimates that all of the seagrass species on Merambong shoal will totally vanish when higher coverage of reclamation takes place. He said it was also stated that Tanjung shoal will experience serious sediment reclamation impacts on Johor Straits but failed to give more information on how many species of seagrass will be affected and how long they can survive except to say 'No evidence to proof that 3.96 hectare seagrass area have been badly hit by the reclamation work.'

Although Chow is not against development, he said, sustainable development is important as reclamation works on the proposed Forest City site will adversely affect the marine and coastal biological diversity on Johor Straits. The Forest City project will see four man-made islands being built in the waters of Tanjung Kupang between southwest Johor and northwest Singapore. It consists of four man-made Islands near Second Link and Port of Tanjung Pelepas (PTP), the total reclamation land is about 1,600 hectares. The first man-made Island is about 396 hectares, for reclamation work alone. The project, scheduled for completion in five years' time is estimated to create 15,000 to 20,000 job opportunities. The size of the other three man-made islands are from 59 hectares to 1,064 hectares.

*more..... <http://www.seagrasswatch.org/news.html>*

### **Hannah watches the seagrass grow (Australia)**

*30 January 2015, Fraser Coast Chronicle*

From the science lab to the football field, Hannah Wilson was keen to learn new skills from the moment she stepped foot in Gladstone. The CQUniversity ecology and conservation biology student is completing a summer research scholarship at the Gladstone campus. Her project is to find the impact of fauna communities on seagrass growth.

Having now finished the data collection stage, she has already noticed some interesting facts. "Mantis shrimp seem to kill seagrass; I thought that seemed a bit strange," she said. Three-years ago Ms Wilson moved to Gladstone to study, after she had a transfer from Monash University.

*Full story: <http://www.frasercoastchronicle.com.au/news/hannah-watches-the-seagrass-grow/2527626/>*

### **Abbott's dredge pledge has catch says environmental group (Australia)**

*25 January 2014, Rockhampton Morning Bulletin*

The Abbott Government's pledge to stop dredge spoil dumping in the Great Barrier Reef Marine Park may still allow up to 80% of dumping to go ahead, an environmental group has claimed. Environment Minister Greg Hunt on Saturday said he had now acted on his promise of three months ago by ordering new regulations be created to put an end to dumping capital dredge spoil in the marine park. Mr Hunt said it was a "significant step towards improving and protecting" the marine park for future generations and he was "now taking the next step to enshrine a ban in law.

But WWF Australia chief executive Dermot O'Gorman said while the ban was welcome, more than 80% of dumping in reef waters since 2010 had occurred within the larger World Heritage Area, not the marine park.

While Mr Hunt's pledge has garnered support, the public was still waiting on a decision on the controversial Abbot Point project, which would see up to 1.7 million cubic metres of dredge spoil dumped on the nationally-listed Caley Valley wetlands. Mr Hunt's decision will require changes to the marine park Act's regulations, with the marine park authority to start a public consultation on the changes "shortly" and a final decision expected to be made in March this year.

*Full story: <http://www.themorningbulletin.com.au/news/Abbotts-dredge-pledge-has-catch-says-environmental/2522009/>*

## **Queensland Election 2015: Labor will seek legal advice to overturn approval for dredge spoil dumping in Great Barrier Reef Marine Park (Australia)**

21 January 2015, Courier Mail

Opposition Leader Anastacia Palaszczuk says she will seek legal advice over whether she can overturn an approval for dredge spoil to be dumped in the Great Barrier Reef Marine Park. But she has stopped short of guaranteeing she can stop the move, after committing to ditch the Newman Government's plan to place the dredge spoil on land instead.

Premier Campbell Newman has warned mining company Adani would be within its right to dump offshore if onshore plans were scuttled, as the proponents had already gained approval to do so. Ms Palaszczuk has also ruled out providing taxpayer-funded financial support to Adani to help it get its Carmichael mine off the ground.

Full story: <http://www.couriermail.com.au/news/queensland-state-election-2015/queensland-election-2015-labor-will-seek-legal-advice-to-overturn-approval-for-dredge-spoil-dumping-in-great-barrier-reef-marine-park/story-fnr8vuu5-1227191903381>

## **Sea turtles use magnetic fields to find their birth place, researcher believes (Australia)**

16 January 2015, ABC Online

Adult sea turtles use the Earth's magnetic field to return to nest on the same beach they were born on, a researcher believes. PhD candidate Roger Brothers, from the University of North Carolina, said while the phenomenon of animals using a magnetic field to navigate was not uncommon, very few animals used it to find their way home. He said it raised concerns about wire used by conservationists along Queensland's Great Barrier Reef to keep animals and people away from unhatched eggs, fearing it could interfere with a turtle's perception of the magnetic signature.

"The new findings that we're presenting provide evidence that nesting females relocate those natal beaches by seeking out the unique magnetic signatures along the coast and implies that hatchling turtles are learning those fields when they're young and using that information to return as adults," Mr Brothers said. Conservationists in America and along the Great Barrier Reef sometimes use wire to keep animals and people away from unhatched eggs. "The cages are very effective at keeping raccoons and other animals out of the eggs but they also distort the local magnetic field in which the eggs develop," Mr Brothers said.

Full story: <http://www.abc.net.au/news/2015-01-16/sea-turtles-may-use-magnetic-fields-to-find-their-birth-place/6021518>

## **The dugong dilemma (Qatar)**

04 January 2014, Gulf Times

Qatar has the second-largest population of dugongs in the world – Australia being the first. Last year, ExxonMobil Research Qatar (EMRQ), Qatar University (QU) and Texas A&M at Galveston (TAMUG) signed a tri-party agreement to further environmental research and marine mammal initiatives relevant to Qatar. To increase understanding of the dugong population in Qatar's coastal waters, EMRQ has been providing TAMUG and QU with funding and technical assistance in the project.

In her talk on the past and current research on the dugong population in Qatar – organised by the Qatar National History Group (QNHG) – Dr Jennifer Dupont, Research Director, EMRQ, will throw light on issues such as the biology, feeding behaviour, habitat preference, and significance of dugongs in coastal waters around the globe. Dupont will also elaborate on the specifics of past research projects in the region and our current state of knowledge on population abundance and distribution in the Arabian Gulf.

Australia has approximately 80,000 dugongs, while the Arabian Gulf, the territorial waters of Qatar, Bahrain, Saudi Arabia and the UAE, has around 7,500. In Qatar, dugongs are found in Semesma, Um Baab, and Dukhan, which according to a legend has got its name from dugong. The recent tri-party agreement aims to develop the scientific understanding needed to inform environmental management decisions for dugongs in Qatar. Not much is known about the Qatari population of dugongs.

The EMRQ-TAMUG-QU programme has three research objectives: to conduct beach surveys to collect morphometric data (shape and size) and samples from stranded animals; to determine the age of dugongs by histological processing of tusks collected from those specimens; and to interview fishermen to locate and estimate dugong numbers in preparation for future larger-scale studies.

Full story: <http://www.gulf-times.com/culture/238/details/422077/the-dugong-dilemma>

## **Ship Collision Spills Tonnes of Oil in Singapore Strait (Singapore)**

03 January 2014, Environment News Service

A collision Friday between an oil tanker and a bulk carrier at the eastern end of the Strait of Singapore, where it meets the South China Sea, has spilled thousands of tons of crude oil, threatening white sand beaches and endangered sea turtles in Indonesia.

Early on the morning of January 2, the Maritime and Port Authority of Singapore received a report that a Libyan-registered oil tanker Alyarmouk had collided with a Singapore-registered bulk carrier Sinar Kapuas in Singapore waters. The collision occurred about 11 nautical miles northeast of Pedra Branca, an outlying island that is the easternmost point of Singapore. The Alyarmouk reported that one of her cargo tanks sustained damage. As a result 4,500 metric tonnes (approx. 32,400 barrels) of crude oil were spilled into the Strait of Singapore, according to an estimate by the Alyarmouk's ship managers, V. Ships UK Ltd.

Two oil spill response companies have been activated to control the spill. The companies have deployed four craft equipped with dispersants, oil booms and skimmers to the site. The site of the spill is just 18.6 nautical miles north of Bintan, Indonesia, famous for its beautiful white sand beaches and resorts and artisan fishing and boat-building communities. Oil spill cleanup workers are battling time and tides to keep the oil from threatening the beaches of Bintan and the sea turtles that swim in Bintan waters.

*Full story: <http://ens-newswire.com/2015/01/03/ship-collision-spills-tonnes-of-oil-in-singapore-strait/>*

### **Robot looks like a fish to ride with marine life (Switzerland)**

*02 January 2014, Phys.Org*

Students at the Swiss Federal Institute of Technology (ETH) in Zürich are working on a project that could deliver an ideal device for marine life filming, minus the turbulence and appearance that could scare fish away. They are working on Sepios, a nautical robot with fish-like appearance that would make it ideal for closing in on fish. The device, they said, is a four-finned cuttlefish-inspired robot, a distance away from classical nautical vehicles on the level of maneuverability.

Last year, they took the robot sea diving in France. The robot tested successfully in the sea, shown diving through seagrass and attracting fish with its good-looking fins. Ackerman also commented on the performance of the underwater vehicle: "Sepios has no trouble moving through dense patches of seagrass, even in surge, which would be a tangled nightmare for any underwater vehicle relying on propulsion systems that produce thrust by spinning. It also generates a minimal amount of turbulence." The body length is 70 cm with a wingspan of 95 cm and weight of 22.7 kg. The top speed of Sepios is 1.8 km/hr, with a maximum depth of 10 meters and battery life of one hour and 30 minutes. The robot is fully assembled and almost operational.

*Full story: <http://phys.org/news/2015-01-robot-fish-marine-life.html>*

### **Government demands environment data on Abbot Point dredging (Australia)**

*29 December 2014, Whitsunday Times*

The Federal Environment Department has demanded more detail on the potential impacts of the controversial Abbot Point dredging project on the Great Barrier Reef. In a statement of reasons released on December 23, the department has further explained its earlier decision on what details are needed before an approval can be made.

Last week the State Government issued tenders for the work to be completed, but the Federal Government has told proponent North Queensland Bulk Ports it has not provided enough information. Specifically, a Federal Environment Department decision-maker on the project has sought more detail on the project's potential impacts on the reef, on the Caley Valley wetland and what alternatives were considered.

The project was earlier fast-tracked by Environment Minister Greg Hunt, allowing it to proceed to a decision without a full environmental impact assessment under federal law. Mr Hunt's decision followed the port changing from offshore dumping of dredge spoil to onshore disposal in the nationally listed wetland habitat. Public documents reveal the department has sought more detail, which was promised but not yet delivered, on underwater noise, sediment plume modelling, and a "scientific review of potential dredging impacts and timing for coral spawning, seagrass growth and turtle nesting". The latest decision also reveals the department wants more information about the "cumulative offset and indirect impacts" of the project, including "shipping and greenhouse emissions" - a controversial issue as the port development would facilitate massive new coal mines and exports to India and China.

**CORRECTION:** The original article published said the department had delayed a decision. APN would like to clarify the department released a 'statement of reasons' clarifying the details sought on the project's environmental impacts.

*Full story: <http://www.whitsundaytimes.com.au/news/Government-demands-environment-data-on-Abbot-Point/2497406/>*



## GALLERY

### **Moreton Bay , Qld (Australia): 16 & 18 January 2015** <http://www.seagrasswatch.org/gallery.html>

Wynnum: 16 January 2015

Wellington Point: 18 January 2015

### **Cairns, Qld (Australia): 20 - 21 January 2015** <http://www.seagrasswatch.org/gallery.html>

Green Island: 20 January 2015

Yule Point: 21 January 2015

## CONFERENCES

### **Coastal & Estuarine Research Federation 23rd Biennial Conference (CERF2015) (Portland, Oregon, USA, 8-12 November 2015)**

Theme: Grand Challenges in Estuarine and Coastal Science: Securing our Future

The CERF 2015 scientific program offers four days of timely, exciting and diverse information on a vast array of estuarine and coastal subjects. Presentations will examine new findings within CERF's traditional scientific, education and management disciplines and encourage interaction among coastal and estuarine scientists and managers. Additionally, the Scientific Program Committee plans to convene special sessions and workshops that promote intellectually stimulating discussions of the Grand Challenges in Coastal and Estuarine Science:

Managing and mitigating the risks of climate change – *shifts in precipitation and hydrologic patterns; wetland and species migrations; sea level rise; drought and water scarcity; severe storms, etc.*

Synergistic effects of ocean acidification with hypoxia, eutrophication or other conditions – *synthesis of information (e.g., from 2013 CERF) with new research results and methods for mitigating effects*

Polar estuaries and coasts – *physical oceanography, ice cover, biogeochemical interactions and impacts to coastal ecosystems*

Making data work – *advancement, management and integration of modern datasets (observing, genomics, bioinformatics) and capabilities to yield predictive models and tools*

Cities by the sea – *scientific exploration of dense and growing populations, economies and the built environment on coastal ecosystems; success stories from green infrastructure*

Estuaries under threat – *environmental change and variability associated with population growth, resource acquisition and scarcity, war/conflict, biodiversity loss and interactions in the next 50 years*

Multiple uses – *managing multiple, conflicting uses of coastal resources across the natural and sociological continuum; integration, quantification and valuation of ecosystem goods and services*

The Scientific Program Committee for CERF's 23rd Biennial Conference is now accepting proposals for scientific sessions and workshops. Ideas for topics and speakers will be accepted through 12 September 2014. Proposals will only be accepted online. A formal Call for Scientific Sessions and Workshop Proposals is now posted on the CERF website. Some examples include:

managing and mitigating the risks of climate change;

synergistic effects of ocean acidification with hypoxia, eutrophication or other conditions;

polar estuaries and coasts;

making data work;

cities by the sea;

estuaries under threat; and

multiple uses of coastal resources.

CERF 2015 sessions will include oral, poster and combined oral/poster formats. Those making submissions should be prepared to either act as a convener or chair of the session/workshop they are proposing, or identify an appropriate chair.

for more information, visit <http://www.erf.org/cerf2015>

## 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 35,943 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 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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