30 June 2011

IN THIS BULLETIN

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NEWS

Researcher says Yasi wiped out green sea turtles food supply (QLD, Australia)

30 June 2011, ABC Online

Cairns Turtle Rehabilitation Centre (CTRC) co-founder, Dr Jennie Gilbert says the category-five cyclone wiped out many seagrass beds throughout the Great Barrier Reef, leaving green sea turtles with little to eat.

Six green sea turtles have been found stranded and been taken in by CTRC in the last month but Dr Gilbert says she expects more. "Another two or three turtles and we're actually at capacity," she said. "The experts tell me that they're expecting this to go on for a few years. It will take a while for the sea grass beds to come back because they have been destroyed." "Hinchinbrook [Island] which had beautiful sea grass beds is now sandy beds."

Earlier this week, the Department of Environment reported a 500 per cent increase in turtle strandings in North Queensland. 53 stranded turtles have been found on Townsville beaches since January. Dr Gilbert says the cold blooded turtles might also be affected by a drop in water temperature since Cyclone Yasi.

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

Seagrass blues

29 June 2011, Cosmos Online

The world's seagrass meadows are under threat and with them, species diversity and economic activity - but there's another reason to care about their fate. Squishy and largely hidden, seagrass meadows may have a more difficult time grabbing headlines than their coral reef cousins, but researchers are now finding that preserving these forests of the sea may have a vital role in the climate change puzzle.

Along our 32,000km coastline, there's some 90,000 square kilometres of sea grass meadows, each made up of individual seagrass plants: mainly large, leafy and sun-loving. Out of the 72 known seagrass species, Australia has 26 of them, some of which are found nowhere else on Earth, such as the endangered *Posidonia sinuosa* of Western Australia. In a recent study, 15 of the 72 known species of seagrasses were listed as 'Endangered', 'Vulnerable' or 'Near Threatened' on the International Union for Conservation of Nature (IUCN) Red List.

Seagrass researcher at the University of Technology Sydney, Peter Macreadie says there are multiple factors that make seagrass vulnerable, but the biggest threat is the creation of anoxic dead zones by algal blooms. There is also direct damage done by humans via dredging or by boat propellers. If some plants are disturbed in the middle of a meadow, the 'hole' will actually get bigger and bigger, eating away the meadow from the inside. "We know we've lost 30% of the world's seagrasses already," says Macreadie.

Many seagrass scientists are now concerned about changes in water temperature caused by the apparent effects of climate change, he added. "Seagrass is changing its range and distribution, but they can only tolerate a certain set of temperatures." Paradoxically, seagrass may be part of the solution to this threat. "When we think about carbon sinks, most of us think about tropical rainforest like the Amazon," says Macreadie. "But seagrasses, mangroves and salt marshes cover 1% of the seafloor, but are estimated to sequester 70% of the ocean's carbon."

The first Blue Carbon report came out in 2010 and detailed how coastal ecosystems, including seagrass sequester carbon. According to Macreadie, it is estimated that seagrass beds can store for carbon for thousands of years, as opposed to the dozens of years of terrestrial plants. It is hoped that by showing the capacity of seagrass to store carbon, they will be better candidates for funding and awareness in the same way that forests are conserved for their biodiversity and carbon storage capacity. There are, however, some hurdles to overcome.

Mick Keough, at the Department of Zoology at the University of Melbourne, who has recently received funding to identify key seagrass habitats in Melbourne's Port Phillip Bay says the situation is improving for seagrass in Australia. "Some state governments, Western Australia and New South Wales in particular have strong emphasis on protection of seagrass." But he adds that while seagrasses are seen as important by government, public perception is a real problem. "They aren't as charismatic as the reefs, but their role in nutrient cycles are a really important part of the ecosystem. I don't think anyone sees them as a pest anymore, but the don't have the same passion as they might for the barrier reef."

So when you step on that squishy piece of seagrass on the beach, don't curse: without these humble plants, our seas would be less rich with life, our water more turbid and our climate more turbulent.
more…….. http://www.seagrasswatch.org/news.html

Good news for Gladstone's seagrass meadows (QLD, Australia)

29 June 2011, Media Newswire

The discovery of seed banks off Gladstone is good news for the recovery of seagrass meadows in Port Curtis. Fisheries Minister Craig Wallace said Fisheries Queensland scientists had discovered seed banks at many sites visited locally as part of their investigation into the resilience of Gladstone's seagrass meadows.

Gladstone Ports Corporation (GPC) who commissioned the study said the program formed part of a wider research and monitoring project. GPC CEO Leo Zussino said the project was about monitoring and understanding Gladstone's seagrasses. "We are undertaking one of Australia's most detailed seagrass research and monitoring programs in a port to ensure the future of these critical fisheries and dugong and turtle habitats," Mr Zussino said. Fisheries Queensland Principal Scientist Michael Rasheed said the project was ongoing and would continue to monitor for signs of recovery.

Seagrass is being monitored at seven locations within the Gladstone harbour area including Pelican Banks North, Pelican Banks South, Facing Island, Fisherman's Landing, Wiggins Island (West), Rodds Bay and Redcliffe. The program includes the monitoring of intertidal seagrass, biomass interpretation, temperature loggers and light loggers, seagrass tissue nutrients and statistical analysis, as well as regular remapping of seagrass distribution.
more…….. http://www.seagrasswatch.org/news.html

Another dugong found dead (QLD, Australia)

23 June 2011, Gladstone Observer

Another dugong has met a grisly end in Gladstone Harbour. The animal died in the Calliope River and was found near the NRG power station, where warm water is piped out and marine life is known to enjoy these conditions.

The Department of Environment and Resource Management confirmed reports about the dead mammal that began filtering through to The Observer yesterday morning. Queensland Parks and Wildlife Services operations manager Dave Orgill said the service received a report via its hotline that a local person had found the dead dugong overnight on the river. “Initial indications are that the animal was healthy and died through massive trauma to its mid section. While results are yet to be validated, the trauma is consistent with boat strike.”

Former Environment Minister Kate Jones announced a scientific panel to investigate the recent deaths of animals in the Gladstone Harbour two weeks ago. It has been a bloody year for dugongs in the Gladstone region. This is the third dead dugong found in less than a month and three dead dolphins were also found in May.

Anyone who finds dead or injured marine wildlife should call the QPWS hotline on 1300130 372.
more…….. http://www.seagrasswatch.org/news.html

Seagrass meadows remain 'forgotten' in conservation debate

13 June 2011, The Ecologist

Every hour, an area of seagrass the size of two football pitches is lost. The rate of loss is equal to that occurring in tropical rainforests and on coral reefs yet it receives a fraction of the attention. Whilst there are widespread concerns about the degradation of coastal and ocean ecosystems from human activities, marine ecologists say 'uncharismatic' habitats like seagrass meadows are often forgotten or marginalised in conservation agendas.

'People don't necessarily understand its importance - it doesn't have the charismatic appeal. For example, in the tropical oceans it doesn't compare in colour to coral reef. But it actually has a huge impact on the productivity and biodiversity of the coral reef and marine ecosystem,' says Richard Unsworth, a marine expert working on the SEACAMS project at Swansea University.

Recent research has highlighted the large 'blue carbon' role seagrass has in absorbing carbon and locking it away into sediment. On a local scale, the absorption of carbon dioxide may also mitigate the negative effects of ocean acidification on coral growth.

Seagrass can help trap pollutants and act as a 'natural water filter' but too many nutrients, such as from sewage run-off can lead to its degradation as it can block sunlight or encourage algae growth. Other significant threats include; sand dredging projects, coastal development, extreme weather events and rising sea temperatures.
more…….. http://www.seagrasswatch.org/news.html

Fish face same fate as dinosaurs(United Kingdom)

21 June 2011, euronews

Experts say the world’s oceans are facing mass extinction of fish and other marine life on a scale comparable with the disappearance of the dinosaurs. This catastrophic scenario is the conclusion of a meeting of 27 marine biologists earier this year in Oxford.

Scientists and conservationists are seriously worried about the fate of natural habitats like the mangroves and seagrass meadows, which are dying off at an unprecedented rate. Whole marine ecosystems like the coral reefs could disappear within a generation. After reviewing all the latest research, the scientists found that a combination of negative factors are creating conditions associated with every previous mass extinction of species in the Earth’s history. Time is fast running out they say, and they are proposing urgent action.

Firstly, there has to be an immediate reduction in Carbon Dioxide emissions, the gas mainly responsible for global warming. They increased by 5% between 2008 and 2010. Fishing must be reduced to a sustainable level, and some fisheries must be closed if they cannot demonstrate sustainable principles. There should be a global system of marine protected areas to maintain biodiversity. There needs to be rigorous controls and reductions of pollutants harmful to marine environments or toxic to marine organisms. Nutrient input into the oceans also need to be controlled by such factors as the better management of sewage treatment. And there is a need to assess, monitor and control other sub-marine activity such as the laying of cables or pipelines.
Full story and source: http://www.euronews.net/2011/06/21/fish-face-same-fate-as-dinosaurs/

Scientific Panel to investigate Gladstone marine deaths (Qld, Australia)

16 June 2011, Media Newswire (press release)

Environment Minister Kate Jones has announced a Scientific Panel will investigate the recent deaths of a number of dugongs, dolphins and turtles in waters off Gladstone. Ms Jones said the panel will be made up of marine science experts, working with scientists and officers in the Department of Environment and Resource Management to look at all the evidence and provide advice on the cause of death.

Ms Jones said officers in the Department of Environment and Resource Management (DERM) have advised that the animals appeared to have been in good health prior to their death and they don't believe pollution was a factor in their deaths. The Department is currently awaiting pathology results to confirm this. DERM also advise that where necropsies were able to be undertaken, results have shown that human interference is the most likely cause of death for the majority of these cases – with boat strike or netting injuries the likely causes.

Full story and source: http://media-newswire.com/release_1152522.html
Related article: http://www.gladstoneobserver.com.au/story/2011/06/17/wildlife-fund-boss-welcomes-scientist-panel/ , http://www.abc.net.au/news/2011-06-16/panel-to-probe-marine-animal-deaths/2760012 ,

PUBLICATIONS:

Minimizing Carbon Emissions and Maximizing Carbon Sequestration and Storage by Seagrasses, Tidal Marshes, Mangroves

It is only very recently that the importance of protecting and restoring seagrass habitats has been clarified as a climate change mitigation strategy. Towards this end, Conservation International, IUCN, IOC□UNESCO and partners are "building a program to coordinate and guide establishment of coastal 'blue' carbon as a conservation and management tool contributing to climate change mitigation and the development of associated conservation financing mechanisms". The initial action in order to realize the program was the formation in February 2011 of the "Blue Carbon" International Scientific Working Group.

http://www.marineclimatechange.com/marineclimatechange/bluecarbon_recommendations_files/bluecarbon_recommendations_3.28.11.FINAL.HIGH.pdf

GALLERY

Mua Island (Torres Strait, Qld): 20 - 23 June 2011 http://www.seagrasswatch.org/gallery_June_11.html

Cyrene Reef (Singapore): 06 June 2011 http://www.seagrasswatch.org/gallery_June_11.html

Ecofiesta, Townsville (Qld, Australia): 05 June 2011 http://www.seagrasswatch.org/gallery_June_11.html

CONFERENCES

CERF 2011 Conference (Daytona Beach, Florida, 6-10 November 2011)

21st Biennial Conference of the Coastal and Estuarine Research Federation.
Societies, Estuaries and Coasts: Adapting to Change
This theme reflects a growing realization that human societies are an integral component of ecosystems and the dynamics of these societies and ecosystems are interactive - their futures are interdependent. Nowhere is this more evident than in the estuaries and coastal zones of the planet, where human populations are concentrated, typically dominating estuarine watersheds and affecting their linkage with the local, regional, and global dynamics of the coastal ocean. CERF as a professional scientific society has increasingly focused not only on understanding causes of ecosystem change but providing information necessary to manage anthropogenic changes that have impacted the biodiversity and sustainability of estuarine and coastal systems. This conference will highlight new findings and perspectives of the interactive dynamics of diverse ecosystems and human societies, and in particular, explore how these dynamics can only be understood and managed when addressed at regional and global scales. To a greater extent than in previous CERF conferences this will include an effort to specifically address socioeconomic drivers and responses.
Please visit the conference & workshop web site for further details: http://www.sgmeet.com/cerf2011/

FROM HQ

Frequently Asked Questions *http://www.seagrasswatch.org/faq.html*
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Seagrass-Watch E- Bulletin is compiled by Len McKenzie & Rudi Yoshida.