

31 August 2015

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NEWS

The ocean produces 2.5 trillion annual economic value

31 August 2015, Consultancy.uk

The bounty of the ocean produces \$2.5 trillion in gross marine product per year, a roughly 10% return on its asset value of \$23 trillion. However, because of overexploitation as well as wider environmental effects, the asset base is being slowly destroyed. Humanity is at a cross roads, according to a recent WWF and BCG report on the future sustainability of this natural ecosystem.

In their 'Reviving the Ocean Economy: the case for action' report, the World Wildlife Fund and the Boston Consulting Group quantify the value of the ocean. The analysis looks at the direct goods and services that the ocean produces and supports, the negative effects human action has on this assets, as well as a number of strategies to safeguards its healthy future availability.

The authors conclude: "The analysis presented here shows that 70 per cent of the annual value of ocean activity is dependent on the health of the ocean. For all of the reasons outlined above, we find humanity at a crossroads. If we continue on this pathway of polluting, over-exploiting, warming, acidifying, and destroying habitats, we will squander the ocean's considerable "shared wealth" fund over the next couple of decades. By this point, the science tells us that oceans will no longer be able to provide the healthy dividend that currently supports hundreds of millions of people."

Sechelt Inlet a promising site for eelgrass recovery (Canada)

27 August 2015, Coast Reporter

A team of eelgrass conservationists is on the Sunshine Coast as part of an ongoing project to reinvigorate eelgrass beds. This sensitive plant is under threat from human development. "The eelgrass beds here have been fragmented in some places," Sunshine Coast resident Dianne Sanford, one of the directors of the Seagrass Conservation Working Group (SCWG), said. "Basically what we're doing is trying to supplement those gaps so that we have the continuous beds that used to exist here historically."

The SCWG team spent last Monday and Tuesday monitoring the existing eelgrass sites that they have been working with, as well as searching for new ones. Over Wednesday and Thursday the team planted shoots harvested from donor beds that were weighted with washers by volunteers from the Sunshine Coast Friends of Forage Fish group. Their hope is that the eelgrass will take root and spread out along the seafloor. Eelgrass grows similarly to bamboo, with one main root system that networks out just below ground level and sends up multiple shoots. Five eelgrass sites around the Sunshine Coast have been identified for rehabilitation. Sechelt Inlet is the most promising because it still has integrity as an ecosystem, despite the impact of human development.

Adani poised to submit third plan for dredging in Great Barrier Reef (Australia) 20 August 2015, The Guardian

The latest version of Adani's controversial plan to dredge in Great Barrier Reef waters to expand its Queensland coal port is poised to go before federal environment minister Greg Hunt for approval. Guardian Australia understands Queensland mining minister Anthony Lynham will announce on Thursday that an environmental impact statement on the Abbot Point port expansion is complete, opening the way for an application to Hunt.

It is the third attempt at a plan for Adani's new terminal, after earlier versions involving the dumping of potentially toxic seabed in reef waters and sensitive wetlands were scrapped amid public outcry, legal challenges and a change of state government. The latest plan will be open to public comment for a month before going to Hunt for assessment under the same environmental laws the Abbott government wants to change to head off "vigilante" legal challenges by green activists. The desire to change the laws was a response to a successful federal court challenge by conservationists which overturned Hunt's approval of Adani's related Carmichael coalmine under the Environmental Protection and Biodiversity Conservation Act.

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

Tampa Bay's seagrass beds to take big hit from rain-fueled algae blooms (USA)

19 August 2015, TBO.com

Besides the standing water in yards and homes and the cars left half submerged in the streets, the constant rains over the past month are poised to claim another victim: Tampa Bay. The rain runoff, much of which carries substantial amounts of nitrogen and other nutrients, wound up in the bay. The huge influx of nutrients is expected to result in algae blooms that will cloud the water, block the sun from reaching the bottom and likely kill off vast beds of seagrass, considered one of the key building blocks of a healthy estuarine system, environmental officials said.

Australia Aims to Shield Mining Projects From Green Groups (Australia)

18 August 2015, Wall Street Journal

Australia's conservative government plans to amend environmental laws to prevent green groups from challenging mining projects in which they have no direct involvement. Opening another front in a long-running battle with the environmental movement, Industry Minister Ian Macfarlane told Parliament on Tuesday that "there is a strategy to destroy jobs" and that activists were blocking resource projects "regardless of the economic impact on the community."

The push to amend environmental laws comes after a court earlier this month overturned approval for Indian conglomerate Adani Group to build one of the world's biggest new coal mines on scrubland near the Great Barrier Reef. After that decision, the government said it would to repeal parts of the Environmental Protection and Biodiversity Act that had allowed environmental groups to delay resource projects or even stop them completely.

Prime Minister Tony Abbott, who has been a skeptic on climate change and a champion of Australia's powerhouse coal industry, said after the decision that green groups were threatening growth and Australia's national interests. Mr. Abbott promised after winning power in 2013 to make the country more "open for business." However, public concern over environmental issues has been rising during Mr. Abbott's time in office. An Essential Media opinion survey published on Tuesday showed 53% of Australians believed the government wasn't doing enough to address worries about climate change.

Related article:

http://www.theguardian.com/environment/2015/aug/17/george-brandis-vigilante-green-groups-destroying-thousands-of-mining-jobs https://indypendent.org/2015/08/12/mining-giant-credits-activists-possibly-saving-great-barrier-reef

'Day visitor' moorings will help protect unique seagrass (Wales, UK)

16 August 2015, Milford Mercury

New visitor moorings have been placed in the Milford Haven waterway, to help protect a unique and scarce species of seagrass. Following concerns about the possibility of damage to beds of seagrass in Longoar Bay from vessel anchors, Milford Harbour Users Association (HUA) and the Pembrokeshire Marine Special Area of Conservation Relevant Authorities Group (SACRAG) worked together to come up with a solution.

Marked by red buoys, the two 'day visitor' moorings can be used by vessels up to 40 feet long and a maximum weight of 10 tonnes. They have been positioned in such a way so as to discourage boat users from anchoring to the west of them, where seagrass is present.

Public comments sought on \$139 million in proposed oil spill restoration projects (USA) 13 August 2015, AL.com

The Gulf Coast Ecosystem Restoration Council released a draft Funded Priorities List (FPL) Thursday for public comment. This FPL details active restoration projects total \$139.6 million, and recommends setting aside approximately \$43.6 million for future projects. According to a summary posted by the Council, the proposed projects on the list would "provide substantial near-term ecological benefits and would help set the stage for future success with large-scale, comprehensive Gulf restoration." The FPL included eight projects in Alabama, totaling more than \$12.6 million in up front or "Category 1" funding and \$13.5 million in "Category 2" funding in the future.

As established by the RESTORE Act, the Gulf Coast Ecosystem Restoration Council will handle one portion of the Clean Water Act fine money paid by BP and other companies responsible for the 2010 Deepwater Horizon oil spill. In Alabama, it is often referred to as the federal council to differentiate it from the state RESTORE council, which will administer Alabama's portion of the Clean Water Act fine money. Government officials recently announced a settlement agreement with BP that set the final Clean Water Act fine amount at \$5.5 billion, to be paid out in increments over 18 years. If that settlement is finalized as is, the federal council would receive approximately \$1.32 billion in total to be put toward comprehensive ecosystem restoration projects, as laid out in the legislation.

Underwater camera reveals seabed at Weymouth (UK)

12 August 2015, ITV News

People in Dorset have this week been given a unique window on the underwater world which sits just off our coastline. Thanks to an underwater camera they've been able to watch streamed pictures of the seabed at Weymouth. It is less a lawn more a forest of grass. Blades washed in gentle currents, fish darting through the leaves. There is plenty of seagrass, which is actually not a grass or a seaweed, but one of the few flowering plants that lives in the sea.

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Conservationists are using a robotic underwater camera to share a unique view of the seabed just of the pier in Weymouth with the public. This work is part of a project raising awareness of threats to seagrass beds around our coast. Over the next three years, conservationists are calling on the public to help map and document seagrass beds from Cornwall to Dorset. They say pollution, dredging, some fishing practices and an increase in sediment all threaten the beds. They warn they're getting smaller each year. more...... http://www.seagrasswatch.org/news.html

Indian River Lagoon sea grass recovery slowly takes root (USA)

11 August 2015, The Guardian

Lori Morris leaned into the waters of Mosquito Lagoon, trying to see the bottom and feeling with her hands to count seagrass shoots growing there. Even in a high-tech world of satellites and remote sensing equipment, the best way to determine the health of seagrass beds in the Indian River Lagoon system is to get into the water and look at it, said Morris, an environmental scientist with the St. Johns River Water Management District. Morris and other district scientists are in Mosquito Lagoon and the rest of the Indian River Lagoon system this summer, visiting specific areas in grass beds - marked by poles and satellite coordinates - they've studied for years. The beds are visited either monthly or twice a year, in winter and summer. So far this summer, the district and partners say they are finding hopeful signs of recovery from a massive seagrass die off in 2011 and 2012.

A network of grass beds have been monitored in Mosquito Lagoon, the Indian River Lagoon and the Banana River since 1986, as the district and its partners worked to improve conditions and restore the grass beds. By 2007, sea grass appeared to be returning to historic levels of the 1940s, with more than 70,000 acres of grass. But in late 2010 and into 2011, a series of algal blooms occurred across much of the system between Fort Pierce Inlet and New Smyrna Beach.

Overall, district scientists are guardedly optimistic about the grass. A system wide mapping by aerial photography in 2013 revealed a 12 percent gain in sea grass. And last year district scientists reported moderate increases or at least no sea grass loss in 52 of 69 sites used in the mapping study. The other 17 sites have either continued to lose sea grass or still have no grass at all. Another system wide aerial mapping is underway. District officials said it identifies areas that might need further investigation or further protection.

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

Capricorn Coast turtles at higher risk says expert (Australia)

12 August 2015, Rockhampton Morning Bulletin

At least some of the money and effort being put into water quality research and monitoring in Gladstone should be transferred north to the Capricorn Coast, according to one of central Queensland's leading sea turtle experts. Bob McCosker spoke at Emu Park and Yeppoon last week, saying he believed politicians - following media pressure had focused too much of their attention on Gladstone Harbour rather than on the Capricorn Coast, especially Emu Park and Rosslyn Bay.

Mr McCosker, who operates the purpose-built Quoin Island Turtle Rehabilitation Centre off Gladstone, was in Emu Park for a turtle release and later spoke at a turtle and wildlife rescue information session in Yeppoon. Mr McCosker justified his call for politicians and bureaucrats to rethink their priorities by pointing to figures showing one-third of all turtles cared for at the rehabilitation centre were rescued from the Cap Coast - the largest single group - and those from this area had the poorest survival rate while in care, with less than half recovering.

In October, The Gladstone Observer reported ("Turtles sicker in Yeppoon than in Gladstone") Mr McCosker telling a meeting in that city that, despite appearances, he believed the waters around Rosslyn Bay were in worse condition than Gladstone Harbour.

Mr McCosker said the rehabilitation centre had cared for about 160 turtles since it opened in March 2012, releasing almost 90 back into the ocean. About 90% were green turtles, while the remainder were mainly loggerhead or hawksbill turtles. Numbers had also been temporarily affected by the 2011 floods that saw massive run-off from the land reduce food supplies for the herbivorous green turtles. But he pointed out that while turtle populations had been "decimated" around the world, it appeared that, just as Gladstone Harbour was healthier than most people believed, there were "strong volumes of green turtles in Queensland".

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

Seagrass thrives surprisingly well in toxic sediments - but still dies all over the world (Denmark)

04 August 2015, University of Southern Denmark

Toxic is bad. Or is it? New studies of seagrasses reveal that they are surprisingly good at detoxifying themselves when growing in toxic seabed. But if seagrasses are stressed by their environment, they lose the ability and die. All www.seagrasswatch.org 4

over the world seagrasses are increasingly stressed and one factor contributing to this can be lack of detoxification. Now biologists from SDU add another important piece to the understanding of seagrass life.

It has long been known that the toxin sulphide is part of the threat to seagrasses. Sulphide is a naturally occurring toxin found in the seabed where seagrasses grows. The seabed is characterized by lack of oxygen and a smell of rotten eggs from sulphides. A widely held theory states that seagrasses cannot tolerate sulphide and that increasing amounts of sulphide due to increased pollution have a negative effect on seagrasses.

The study shows that seagrasses are capable of protecting themselves against app. two thirds of the sulphide that enters the plant from toxic seabed. The last third is absorbed by the plant's tissue and here enzymes convert the sulphide into beneficial nutrients. But the discovery that a seagrass can protect itself from sulfide does not mean that all is good. Factors that may stress seagrasses, so it loses its natural ability to detoxify itself of sulphide include:

Unclear water: This blocks the sun's light, so seagrasses cannot produce enough oxygen to detoxify the sulphide. Rising temperatures: If the water gets warmer, there is a greater risk of low oxygen in the water, which reduces seagrass' capacity to detoxify sulphide.

Discharge of nutrients: When fertilizers are washed from land into shallow coastal areas, many nutrients will be carried with the water. This stimulates blooms of phytoplankton, leading to shading and consumption of the oxygen in the water reducing the seagrasses capacity to detoxify sulphides. more...... http://www.seagrasswatch.org/news.html

Scilly's Seagrass Beds 'Back To Normal' After 2014 Storms (UK)

03 August 2015, ScillyToday

Scilly's seagrass beds are "exceptional" and amongst the best in the UK. That's the view of Dr Jim Bull, a volunteer researcher from Swansea University, who has been coming here every year since 2002 to measure the seabed around the islands. It's the twentieth year that the study has been performed, and Jim says our seagrass beds are looking as lush and dense as ever. And they're as good as they were at the start of the study in the 1990's, which is quite unusual, he savs.

However areas at Old Grimsby harbour are being damaged by increasing boat traffic and Jim says they're "clinging on but suffering." Using fixed moorings can help, he says, because it avoids boats dragging their anchors in the beds, which causes the problems.

The other four sites being monitored are at Higher Town Bay off St Martin's, Broad Ledge by Carn Near on Tresco, Little Arthur in the Eastern Isles and West Broad Ledge between Tresco and St Martin's. The density and length of the seagrass at each point is measured, and the types of organisms found there recorded. But Jim says that doesn't show the extent of the beds. He says they'd like to repeat the aerial photography they made in 2008 to see if that's changing.

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

Cane growers warned to do best management practice program or risk new regulations (Australia)

31 August 2015, ABC Online

Canegrowers are being warned to complete accreditation in the industry's voluntary best management practice program, or risk it becoming mandatory. The low uptake of the program has the industry and opposition concerned the Queensland Government could look to reintroduce water quality regulations.

Two years ago the then LNP government moved to replace Labor's unpopular reef regulations with the Smartcane Best Management Practice program, which was designed to reduce run-off to the Great Barrier Reef. But take up has been slow and in June, just 20 of the industries 4,500 growers had been accredited. Canegrowers chairman Paul Schembri lobbied hard for the voluntary program, and said there was a risk regulations could return.

Mr Schembri said a return to the old regulatory system would be a huge burden for growers, and forcing them to do it would see some do the bare minimum to comply. He said that would lead to worse, not better, outcomes for the reef. Mr Schembri said the industry's failure to take up the program in greater numbers was not justification for renewed regulation, and he did not believe farmers had brought it on themselves. Full article: http://www.abc.net.au/news/2015-08-31/fears-bmp-to-be-mandatory/6736990

Threatened Seahorses At Risk Of Illegal Poaching From Sydney Harbour, Climate Change (Australia)

18 August 2015, Huffington Post Australia

Australia's seahorse population is being decimated amid fears that illegal poachers are stealing them from Sydney Harbour and trading them on the black market. The protected animals are dried and ground for use in Chinese medicine in a bid to treat everything from erectile dysfunction to skin rashes, while buyers are also picking them up 5 www.seagrasswatch.org

on the cheap to put in aquariums in Australia and Asia. Boat traffic and increasingly warm currents are also factors contributing to the dire drop in population, prompting marine experts to declare the species "on the brink of survival".

But world-first photo ID technology and eco-friendly 'seahorse hotels' are the frontline defences of scientists and citizens desperate to save the rare and stunning creatures. A major research project into weedy sea dragons currently underway in Sydney may have come up with a novel way of deterring poachers. The Dragons of Sydney project is recording weedy sea dragons at sites from Pittwater to Port Hacking and each animal is being photographed. Its unique markings are then recorded by software originally designed for tracking manta rays and Underwater Research Group's John Turnbull said this database could stop illegal trading.

However Fisheries NSW Marine Scientist Dr David Harasti said the biggest problem facing Sydney's seahorses is climate change, not poaching. Harasti said the white's seahorse is currently being considered for the NSW threatened species list and habitat loss is a big factor. "Their habitat of sponge gardens and soft corals is pretty much wiped out in Sydney. Now they live on swimming nets and sometimes seagrasses. Every time a boat drops an anchor into a seagrass bed, it destroys that part of habitat," Harasti said.

Full article: http://www.huffingtonpost.com.au/2015/08/18/seahorse-poaching-sydney-harbour_n_7980794.html?utm_hp_ref=australia

Free research trip to Curtis Island to study seagrass (QLD, Australia)

13 August 2015, by Helen Spelitis, The Observer

A researcher from CQUniversity has put a call out to the community to help protect seagrasses, an essential part of the food web, in Gladstone Harbour. She's offering hands-on experience planting and monitoring the grasses combined with education and a few free trips on the Curtis Island Ferry.

Dr Emma Jackson has been studying seagrasses in Gladstone since 2013. She said over the past 10 years seagrasses have declined 50-70%, but last year there was a slight increase. Dr Jackson applied for funding from three organisations and was shocked to find all three - the Ian Potter Foundation, the Norman Wettenhall Foundation and the Fitzroy Basin Association - approved her requests. Her success is based on the commitment to involve a large group of people in a long-term plan to make a real difference.

Full article: http://www.gladstoneobserver.com.au/news/help-seagrass-keep-growing/2739210/

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

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 <u>http://www.erf.org/cerf2015</u>

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

Theme: Declining seagrasses in a changing world.

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

for more information, visit <u>http://isbw12.org/</u>

GALLERY

Hervey Bay , QLD (Australia): Level 1: 29 - 30 August 2015 http://www.seagrasswatch.org/gallery.html

USQ Fraser Coast campus: 29-30 August 2015 Urangan: 30 August 2015

SEAGRASS-WATCH on YouTube

Seagrass: Pastures of the sea http://www.youtube.com/watch?v=66Y5vqswj20 or

http://www.seagrasswatch.org/seagrass.html

Presentation on what seagrasses are and why they are important (over 38,158 views to date)

...seagrass matters blog

World Seagrass Association blog http://wsa.seagrassonline.org/blog/

Keep up to date on what's happening around the world from the WSA with regular updates from WSA President Dr Richard Unsworth and *notes from the field* by Dr Siti Yaakub.

FROM HQ

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