30 November 2017

Seagrass-Watch's electronic news service, providing marine and coastal news of international and national interest. Abbreviated/edited articles are presented with links to their source. Seagrass-Watch HQ recommends that readers exercise their own skill and care with respect to their use of the information in this bulletin and that readers carefully evaluate the accuracy, currency, completeness and relevance of the material in the bulletin for their purposes. You are free to distribute it amongst your own networks.

IN THIS BULLETIN

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

NEWS

How local ecological knowledge can save endangered and rare animals (UK)

30 November 2017, by Cullen-Unsworth et al., The Conversation UK

From knowing where animals live, to which plants provide what medicinal benefits, communities around the world hold expert levels of knowledge on their local environments. For coastal communities dependent on ocean resources, this accumulated ecological knowledge is key to collecting food and maintaining livelihoods. But community ecological knowledge need not, and does not, stand alone from science. It has been repeatedly "tested" by scientists, and is now increasingly being recognised as a valuable asset in environmental management and conservation biology.

In recent years, wider recognition of its value has resulted in local knowledge being drawn on to support natural resource management. By combining the two, local knowledge can be a useful tool in data poor areas. Particularly when it comes to monitoring rare or endangered species. To monitor dugong populations, researchers typically use aerial surveys or unmanned aerial vehicles. But these techniques are costly, and often affected by difficult conditions. This is where local ecological knowledge can be hugely beneficial. If available, it has the potential to fill in the detail about the whereabouts and numbers of sighted dugongs.

Recently published research used the knowledge of fishers to confirm the persistence of dugong in the Wakatobi National Park, Indonesia. The fishers, who take to the water daily, were able to relay precise times, dates and locations of multiple dugong sightings, going as far back as 1942. These fishers had knowledge that far surpassed any official research record and were able to describe previously unrecorded historical trends and population changes. Dugong and seagrass conservation go hand-in-hand. To acquire better information on the population distribution of dugongs, we also need to know the distribution and status of seagrass. And by integrating these kinds of information, we can start saving the oceans.
more…….. http://www.seagrasswatch.org/news.html

Victoria's first fish friendly accreditation (Vic, Australia)
29 November 2017, Power Boat - World

Blairgowrie Yacht Squadron (BYS) in Port Phillip Bay Victoria has been accredited as a Fish Friendly Marina on the back of being accredited as an International Clean Marina in late 2016. This is Victoria's first Fish Friendly Marina and the 33rd such accreditation across the Asia Pacific region.

Fish Friendly accreditation focuses on the protection and enhancement of marine habitat. It was developed by the Marina Industries Association (MIA) in partnership with state agencies including the NSW Department of Primary Industries. The accreditation supports Clubs and marinas in providing environmental leadership to boaters and the general public.

At BYS particular attention has been given to the monitoring and recording of marine species. Melbourne University marine biology students regularly visit the marina to check field plates deployed on the marina arm. Divers also regularly check for any signs of marina pest in the waters around the marina. The recent replacement of some nearby moorings with seagrass friendly installations has also resulted in better seagrass coverage around and in the marina.
more…….. http://www.seagrasswatch.org/news.html

Marine research hub moves a step closer (QLD, Australia)
24 November 2017, Gladstone Observer

A Coastal Marine Ecosystems Research Centre at Gladstone's CQUniversity campus is one step closer to reality with the Minister for the Environment and Energy, Josh Frydenberg committing up to $260,000 to a feasibility study. CQUniversity associate vice-chancellor, Owen Nevin, said he was "thrilled" that the Federal Government had committed to backing the feasibility study. Mr Nevin said the university intended to seek $22 million to develop the world-class research facility which would help to "preserve and enhance" Australia's coastal environments.

Dr Emma Jackson, a seagrass ecologist at CQUniversity said the funding announcement was "exciting". Currently we monitor the marine environment (but) if the centre goes ahead it will be "proactive, getting things protected, enhancing nature," she said. Dr Jackson said the centre would help attract people to the region and have a "knock on effect" in terms of jobs for the community. She said it's about getting "the right people, the right equipment and the right facilities".

Mr Nevin said "a lot of the work (at the centre) will build on the university's expertise around seagrass and seagrass restoration, that's really important for some of the charismatic animals that live in our port, like dugongs, turtles and the important fish species that use seagrass meadows as juveniles".
more…….. http://www.seagrasswatch.org/news.html

Rehabilitating seagrass in Gulf of Mannar (India)
22 November 2017, Times of India

Concerned at the near decimation of seagrass off the state's coast, researchers have begun a vital rehabilitation programme. They planted saplings in a 200sqm area off Thanjavur and Pudukottai districts, part of the Gulf of Mannar Biosphere Reserve, between March and May this year and are thrilled to find that about 75% of the colourful plants "are now growing well".

Seagrass communities, vital for the survival of the marine ecosystem, including coral reefs, once covered more than 60,000 hectares in the Gulf of Mannar, but various marine activities almost sounded their death knell and the efforts now being taken seem minuscule given the magnitude of the destruction. The damage has not been limited to Tamil

Nadu, with researchers saying as much of 35 % of seagrass beds in the country have been destroyed in the past 35 years. Besides, very little study has been done on the plants.

OMCAR founder V Balaji told TOI the 400 sprigs of seagrass species *Cymodocea serrulata* and *Syringodium isoetifolium* were planted in each square metre field formed by burying PVC frames and tied with jute ropes. While admitting that some of the frames had been damaged by fishing nets, Balaji, however, appeared optimistic that the rehabilitation project would flourish and help convert dead seagrass sites into healthy, thriving beds in the near future. The project, Balaji said, was part of the conservation action plan drawn up by the forest department under the TN Biodiversity and Greening Project to protect the dugongs, medium-sized marine mammals largely dependent on seagrass communities for subsistence.
more…….. http://www.seagrasswatch.org/news.html

Enormous Extinct Sea Cow Fossil Found on Russian Island (VA, USA)

21 November 2017, National Geographic

When Maria Shitova saw what looked like white poles jutting out of the sand at a beach in Russia, she thought they were part of a manmade fence. But instead of digging up city planning, her research team exhumed the nearly complete skeleton of a gargantuan sea cow hours later. The team had to dig less than three feet into the earth on the remote Commander Islands in Russia's Komandorsky Nature Reserve before they found the 17-foot-long remains of the extinct creature. The 10-ton specimen lacks a skull and several bones, but it has 45 vertebrae, 27 ribs, and a left scapula. The well-preserved skeleton will be displayed at the visitor center, nature reserve officials say.

"This is the only sea cow that we've ever found that's intact in situ," says Lorelei Crerar, a George Mason University professor who published a paper on sea cows in 2014. "All we've got is just this one record of this animal and that's it." Crerar is hopeful the skeleton's head is in the area somewhere, and might be unearthed by further excavation. When Georg Steller, the German explorer who discovered the creatures in 1941, returned from the Great Northern Expedition, he had to leave a sea cow carcass behind. Crerar says this skeleton could be the abandoned animal.
more…….. http://www.seagrasswatch.org/news.html

Removal of rotting seagrass in Swan River a last resort, despite bad smell (WA, Australia)

21 November 2017, Community Newspaper Group

A bad odour caused by rotting seagrass in the Swan River will only be dealt with as a last resort, the Department of Biodiversity, Conservation and Attractions (DBCA) says. The Department said seagrass and macroalgae often accumulates on shorelines at this time of year, emitting a bad smell as part of the natural breakdown process.

DBCA rivers and estuaries director Mark Cugley said Macroalgae and seagrass in the Swan River can grow rapidly at this time of year due to increases in temperature, available light and nutrients. “Then, as it dies off, prevailing winds and tides can cause it to accumulate as wrack on some foreshores of the Swan Canning Riverpark” he said. Mr Cugley said that while the smell was unpleasant, water movement often disperses the material naturally. He said the removal of wrack was only carried out as a last resort.
more…….. http://www.seagrasswatch.org/news.html

Fishing 'best argument for seagrass conservation' (UK)

17 November 2017, by Jonathan Amos, BBC News

The importance of seagrasses is further emphasised in a new report that looks at how they underpin fishing worldwide. These flowering plants, which grow in near-shore waters, are under intense pressure - some estimates suggest global losses are running at 7% a year. The grasses provide shelter and food for many sea creatures and that makes them a natural draw to fishers. But researcher Richard Unsworth and colleagues say this valuable resource will need better management if it is to be sustained. The scale of the importance of the meadows to fisheries has been more supposition than fact because of a paucity of data on how they are actually used, according to Dr Unsworth from Swansea University in the UK.

The researchers set about correcting this by interviewing experts - including other scientists and fisheries managers - on what they were observing around the world. The team also took in case studies covering all regions from the Philippines to Zanzibar, Indonesia, the Turks and Caicos Islands and locations in the Mediterranean. The picture that emerges is much the same everywhere. Fishers actively target seagrasses because they recognise the habitats' great productivity. This is true from small-scale recreational activity all the way through to large-scale commercial practice.

One critical point to emphasise from the assessment is that many hundreds of millions of people worldwide depend on the catch from seagrass meadows for their daily protein intake. This makes their conservation and proper management all the more important, says the team. Team member Lina Nordlund, from Stockholm University, said: "The ecological value of seagrass meadows is irrefutable, yet their loss continues at an accelerating rate. "Now there

is growing evidence globally that many fisheries associated to seagrass are unrecorded, unreported and unmanaged, leading to a tragedy of the seagrass commons."
more…….. http://www.seagrasswatch.org/news.html

Related article
Importance of Seagrass Conservation Emphasized in New Study (Dive Photo Guide)
http://www.divephotoguide.com/underwater-photography-scuba-ocean-news/importance-seagrass-conservation-emphasized-new-study/

Rare dolphins and dugongs die after being caught in fishing nets, Barrier Reef authority says (QLD, Australia)
19 November 2017, ABC Online

Dugongs and snubfin dolphins have died after being caught in commercial fishing nets in northern Queensland waters, authorities have confirmed. The Great Barrier Reef Marine Park Authority (GBRMPA) said two snubfin dolphins drowned after being caught in a commercial fishing net operation in October. In September and October, four dugongs were found dead in Bowling Green Bay near Townsville, with at least one killed by a commercial fishing net. GBRMPA said a second dead dugong was found floating in close proximity to a commercial netting operation, while the other two carcasses in the area were too decomposed to determine a cause of death.

The gillnet deaths have outraged conservationists. WWF Australia head of oceans Richard Leck said more had to be done to prevent such tragic outcomes. Mr Leck said many gillnet deaths were not reported. He said WWF Australia was calling for the establishment of an 85,000-square-kilometre net-free zone in north Queensland. Mr Leck also encouraged GBRMPA to be more transparent and to keep people updated on when marine mammal deaths occurred.

GBRMPA said there were no further investigations into the deaths as fishers followed all reporting protocols. It also said the deaths were reported with the Department of Environment and Heritage Protection and made public in annual reports.
more…….. http://www.seagrasswatch.org/news.html

Data modelling is key to managing fisheries sustainably (Vic, Australia)
17 November 2017, Phys.Org

Dr Morrongiello, a fish ecologist at the University of Melbourne's School of BioSciences, and his colleagues Dr John Ford, Dr Rob Day and PhD student Joshua Barrow have been working in Corner Inlet in southern Victoria to understand how environmental conditions have affected the growth of the commercially valuable Rock Flathead. Dr Morrongiello's team uses complex data modelling to understand the factors impacting fish stocks.

The team measured the changes in growth patterns of 526 Rock Flathead fish collected over 32 years, and analysed these against environmental factors like temperature and river flow. They ran the data through several climate change scenarios to see likely growth rates in 2030 and 2070. After accounting for factors like age and sex, the researchers showed Rock Flathead grow faster when there are higher river flows and at higher water temperatures. Mr Barrow says the high river flows correlate with more seagrass growth, an important habitat for flathead, which are an ambush predator. Higher temperatures mean more seagrass meadows, and directly help the cold-blooded flathead fish by allowing them to be more active and hunt for food.

This study compliments a larger body of research led by Dr Ford, which examines the changing coastal habitats of Corner Inlet, in Victoria's Gippsland, in relation to variations in the density of seagrass cover over the last 50 years. The researchers have found that decades of intensified weather events, algal blooms and chemical pollutants have contributed to a decline of seagrass in the area.
more…….. http://www.seagrasswatch.org/news.html

Seagrass study key to ecosystem success (QLD, Australia)
10 November 2017, Griffith News (press release)

Declining seagrass meadows in Moreton Bay will be studied by an international team of researchers to overcome the largest remaining barrier to effective management of the world’s marine resources. The team, led by researchers from the Australian Rivers Institute at Griffith University and funded by the Australian Research Council, will develop new software tools that will help manage the cumulative impacts that threaten coastal ecosystems.

Lead Dr Chris Brown said decision makers must manage a bewildering array of threats that coastal ecosystems face. Professor Rod Connolly, a chief investigator on the grant, said the project aimed to overcome the largest remaining barrier to effective management of the world’s marine resources. Seagrass ecosystems in Moreton Bay have been in decline for decades due to multiple pressures brought on by urbanisation of Brisbane and surrounds. The team will collect new data to test the ability of the software tools to predict the impact of cumulative impacts, including

urbanisation and pollution. The team then aims to scale up the tools developed for Queensland seagrass so they can be used elsewhere.

The team also includes Professor Côté from Simon Fraser University in Canada, an international expert on cumulative impacts. Canadian seagrass meadows face many of the same threats as those in Australia, making it a perfect testing ground for the new tools.
more…….. http://www.seagrasswatch.org/news.html

Algal blooms return to Florida Bay – Keys News (FL, USA)
08 November 2017, KeysNews.com

Algal blooms, which kill fish, suffocate seagrass and make life harder for those who rely on the Everglades estuary for their livelihoods, have surfaced again this year. Bob Johnson, director of the National Park Service's South Florida Natural Resources Center, says that large areas of Florida Bay are beset by blooms, which is not surprising after Hurricane Irma and more recent weather events churned up the nutrient-rich bay bottom, one of many likely contributors to the problem.

Pete Frezza, a local fishing guide and research manager for Audubon's Everglades Science Center, says he's noticed algal blooms in different areas of the bay. The only place that looks fine is the areas where there are strong Atlantic tides near the Keys." A potential source of nutrients is freshwater flow from the Everglades via central Florida, namely Lake Okeechobee. Frezza says that while Florida Bay relies on freshwater flow, much of what comes into the bay now is nutrient-laden and carries pollutants. A reservoir to be built south of Lake Okeechobee, which would store and filter water before it flows south, is in the works, and Frezza says the reservoir could be a significant factor in preventing future algal blooms.

Steve Davis, an Everglades Foundation ecologist, is less sure that runoff is contributing to the algal bloom this year. He points to dead seagrass and an intense rainy season as likely factors in the most recent algae threat. Another factor is that while many believe that Irma actually flushed out the bay, it also blew seagrass and other nutrient-rich plant material into it, which has created conditions which can allow algae to flourish. Davis says it's tough to pin down one factor that may be causing the current bloom among sediment disruption, the release of nutrients from dead seagrass and other foliage, and other possible contributors.
more…….. http://www.seagrasswatch.org/news.html

For seagrass, biodiversity is both a goal and a means for restoration (CA, USA)
08 November 2017, Phys.Org

Coral reefs, seagrass meadows and mangrove forests work together to make the Coral Triangle of Indonesia a hotspot for marine biodiversity. The system supports valuable fisheries and endangered species and helps protect shorelines. But it is in global decline due to threats from coastal development, destructive fishing practices and climate change. A UC Davis study published recently in the journal Proceedings of the National Academy of Sciences found that in the case of seagrasses, biodiversity is not only a goal, but also a means for restoration of this important ecosystem.

The Coral Triangle is home to about 15 species of seagrasses, more than almost anywhere else on Earth. Previous seagrass restoration efforts have primarily focused on a single species.
For this study, the scientists transplanted six common seagrass species at four species-richness levels: monocultures, two, four, and five species. They analyzed how well the initial transplants survived and their rate of expansion or contraction for more than a year. The results showed that planting mixtures of diverse seagrass species improved their overall survival and growth.

"Seagrass beds are important habitats for fisheries species, for protecting shorelines from storm damage, and they provide livelihoods for many millions of humans around the world," said Susan Williams, a professor in the UC Davis Department of Evolution and Ecology and the UC Davis Bodega Marine Laboratory. "Seagrass habitat is being lost at a rate of a football field's area every half-hour, which threatens these important functions. We demonstrated we could improve seagrass restoration success by planting a mix of species, and not just a single species, which has been the common restoration practice in warm regions such as Florida, Texas, and also in Indonesia, where we performed the experiment."
more…….. http://www.seagrasswatch.org/news.html

It's Manatee Awareness Month: 5 Facts About These Marine Mammals (USA)
07 November 2017, Parade

Often referred to as sea cows, manatees are gentle, bulbous goofballs with a penchant for sleeping and eating—but despite their laid-back lifestyle and mellow demeanor, frequent collisions with watercraft (and another human interferences) put these marine mammals at risk. While the U.S. Fish and Wildlife Service recently downgraded

manatees from endangered to threatened status, National Manatee Month is a good time to remind ourselves what makes sea cows so cool.

Manatees like to hang out in shallow coastal areas and rivers, munching on vegetation like algae and seagrass. They eat up to nine percent of their body weight in plants every day—and with weights up to 1,200 pounds, they can spend nearly half the day chowing down. Some types of manatees (West Indian and West African) are able to live between fresh and salt water areas thanks to a regulation system in their kidneys that keeps salt concentrations in check.

Christopher Columbus thought that manatees were mermaids, writing the sea maidens were “not half as beautiful as they are painted.” Sea cows can hold their breath for up to 20 minutes, but they opt to go to the surface every three to five minutes. Also, when they take a breath, they replace 90 percent of the air in their lungs—humans only replace about 10 percent.
more……. http://www.seagrasswatch.org/news.html

A New Way to Look at Eelgrass (NY, USA)
03 November 2017, East End Beacon

It’s easy for East Enders to think of the eelgrass that has provided habitat to the Peconic Bay scallop. But seagrasses have become threatened throughout the world. Dr. Bradley Peterson, a marine ecologist with Stony Brook University’s School of Marine and Atmospheric Sciences’ labs in Southampton, has been following the fate of Long Island’s eelgrass since he joined the faculty at the campus, formerly part of Long Island University, in 2003.

Dr. Peterson said the world has lost one-third of its seagrass since 1880. We’re currently losing a football field every 30 minutes, and the rate of decline in seagrass since 1990 has sped up to 7 percent per year. On Long Island, he said, about 23 percent of the seagrass in our estuaries disappeared between 1967 and 1977, due to increasing nutrients, and another 40 percent disappeared during the brown tide explosion between 1985 and 1988. There’s been a lot of research and restoration work attempts in the Peconic Bays and South Shore estuaries since the brown tide explosion, but Dr. Peterson said some of the early research has proven wrong.

Initially, seagrass experts who were brought in said Long Island’s seagrasses were suffering because of “poor connectivity and inbreeding.” Dr. Peterson said there has been little success after years of attempting to replant eelgrass beds using this method, at a cost of nearly $1 million per acre. But collecting eelgrass seeds and dispersing them directly has proved a promising and cost-effective method, he said, when coupled with doing work to help improve the ecological health of our estuaries, by reducing nutrients into the bays and by seeding them with shellfish that can filter algae from the water. It’s about understanding the connectivity of an ecological system, not just about keeping your eye on seagrass. This success is important for many reasons, not the least of which is helping to provide crucial habitat to restore the Peconic Bay scallop.
more……. http://www.seagrasswatch.org/news.html

First-ever seagrass nursery aims to restore Indian River Lagoon (FL, USA)
02 November 2017, WESH Orlando

Watchdogs of the sensitive Indian River Lagoon are celebrating a breakthrough that might help bring back the ailing waterway. Even after getting thrashed by a hurricane, it's coming back. In an underwater nursery just off a runway at the Merritt Island Airport, seagrass is taking root, planted not by Mother Nature but by people.

"This is the first time we know of that nursery-grown seagrass has been transplanted and tried in the Indian River Lagoon," said Keith Winsten, of the Brevard Zoo. "Without seagrass, you're not going to have shrimp. You're not going to have crabs. You're not going to have a place for juvenile fish to hide," said Laurilee Thompson, owner of the famous Dixie Crossroads Restaurant. She is one of several private donors who made the project possible, thereby providing a potential lifeline for the lagoon.

"The process that they have revolutionized I believe will catch on," said Michael Powell, of the Titusville-Cocoa Airport Authority. "I think the process has real potential. We just have to see how fast it grows in and what the costs are down the road," Winsten said. The nursery takes up 1 acre. The next step is to find a way to regrow thousands more.
more……. http://www.seagrasswatch.org/news.html

Study identifies bottlenecks in early seagrass growth (WA, Australia)
01 November 2017, Phys.Org

A new study by an international research team reveals bottlenecks in the growth of seagrass from seed to seedling, knowledge useful for improving seed-based restoration efforts. The study authors are John Statton, Leonardo Montoya, and Gary Kendrick of the University of Western Australia, Robert Orth of William & Mary's Virginia Institute of Marine Science, and Kingsley Dixon of Curtin University in Perth. Their work appears in Scientific Reports, an open-access journal from the publishers of Nature.

In the current study, the researchers sought to understand the journey from seed to seedling for the Australian seagrass *Posidonia australis*. This slow-growing species has experienced serious declines over much of its range, earning it a "near threatened" status on the IUCN Red List. The team conducted their study by painstakingly monitoring the fate of more than 21,000 *P. australis* seeds hand-planted within experimental plots in Western Australia's Cockburn Sound. They sited the plots to test varying degrees of exposure to waves, seed grazers such as crabs, and "bioturbators," animals that inadvertently bury seeds during burrowing or other activities—often too deep for subsequent development.

The team's results showed clear differences in seed success among the various life-stages. In the shallower, more-sheltered sites, few if any seeds survived grazing and bioturbation to complete the initial life-stage transition—the first month of growth when a germinated seedling still relies on its seed for energy. Seeds deployed in deeper sites survived for another four to six months, before almost all the now-independent seedlings were uprooted by waves from winter storms. As a result of these challenges, overall seed survival was vanishingly low—with fewer than 1 in 1,000 seeds reaching the juvenile stage—a probability of just 0.1 percent. The researchers then used models to estimate the seeding density needed to overcome these severe bottlenecks, calculating success at seeding densities 2- to 40-times higher than their field studies. Their results suggest the more seeds the better, although they note additional fieldwork is needed to test for diminishing returns in growth due to overcrowding of seeds and competition for limited resources.
more…….. 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 47,057 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*
Frequently Asked Questions *http://www.seagrasswatch.org/faq.html*
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*
****

Seagrass-Watch E- Bulletin is compiled by Len McKenzie & Rudi Yoshida.