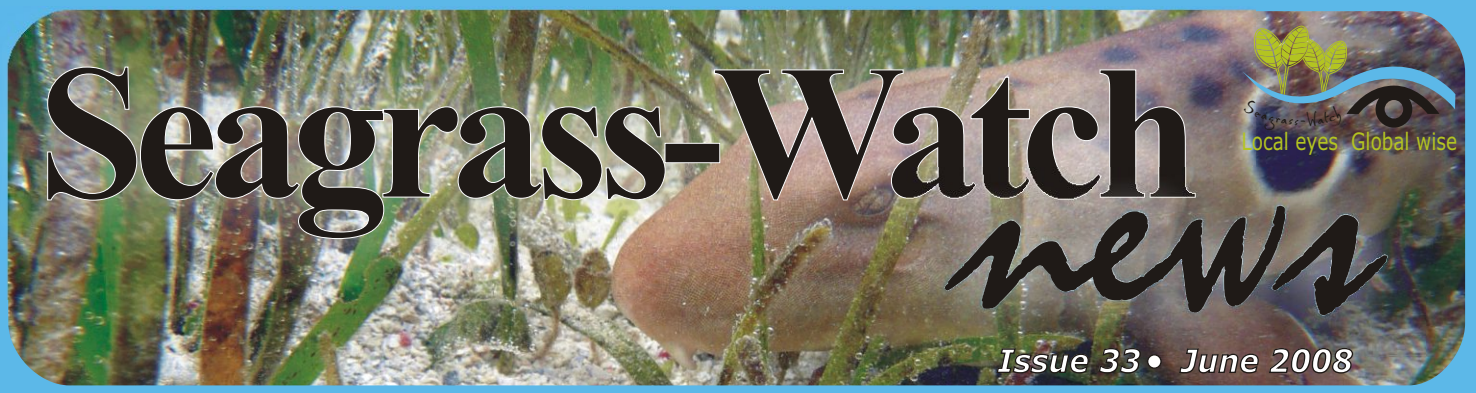

Seagrass-Watch news

Local eyes Global wise

Issue 33 • June 2008

Seagrass-Watch has turned 10, and in this issue we have included a brief background of how it all began. It's been a busy 10 years, but the last few months have also been busy conducting a number of training workshops and monitoring. Most groups report fairly good seagrass, although bad weather has made for some challenges. Bailer Shells also appear to be busy with many groups reporting their presence.

In this issue you'll find articles on recent surveys conducted in the Comoros Islands to map seagrass and establish monitoring, and how remote controlled helicopters are being used to map seagrass meadows in Malaysia. Read about community seagrass outreach workshops in Malaysia and Thailand and the release of a new book on the marine life of Bootless Bay (PNG). You'll also find our regular updates from groups in Queensland and Palawan (Philippines).

Included are also articles on education activities with schools and a visit from the vice principal of Tarakan School, Kalimantan, as part of an Endeavour Award scholarship to strengthen Australia's education relationships with Indonesia.

The success of Seagrass-Watch is the result of everyone's belief we can work together and make a difference. A big THANK YOU to all Seagrass-Watch participants and supporters.

What's inside:

Happy Birthday!

10 years watching the grass grow

28th March 2008 marked the 10th anniversary of Seagrass-Watch. There have been many memorable milestones from the past ten years. However, not many participants may be aware of the programs history and how it all began.

In the early 1990's, Warren Lee Long and Len McKenzie (Queensland Department of Primary Industries and Fisheries) often envied programs such as WaterWatch, which involved local citizens helping to monitor the condition of freshwater streams. They wondered if volunteers would be interested in "watching the grass grow"?

At the same time, local citizens in Hervey Bay were keen to play a role in understanding the marine environment particularly motivated after 1992, when dead and dying dugongs began to strand in unprecedented numbers along the shores of Hervey Bay and the Great Sandy Strait. It was the community which first raised the "alarm", that something could possibly be wrong with the seagrasses as a result of an unusual combination of floods and a cyclone. This encouraged the scientists to look and find that in fact 1000km^2 of seagrass had been lost and the dugongs were dying of starvation.

In early 1997 passionate Hervey Bay citizens formed the Hervey Bay Dugong and Seagrass Monitoring Program and their leader Jerry Coman's contacted Dr Bill Dennison (UQ) and the Department of Primary Industries and Fisheries for assistance.

It was after a call from Jerry Comans in February 1997, that Len suggested an simple method to engage the community, and Warren suggested the name "Seagrass-Watch". However, their initial attempts at developing a monitoring program involving community volunteers was not encouraged by their superiors. Such as program was originally considered an extension exercise at best and a "waste of time".

Nevertheless, continual lobbying from the community lead to a workshop six months later hosted by Environment Australia at the University of Queensland. From there a strategy was developed to meld all concerned partners and put forward a proposal with the assistance of Dr Rob Coles for Natural Heritage Trust (NHT) funding. Two applications were eventually submitted: one for Hervey Bay and one for the Whitsundays.

On 28 March 1998 the first Seagrass-Watch training workshop was conducted in Hervey Bay (Queensland, Australia) to introduce the program and trial monitoring protocols. In April of the same year, the first international Seagrass-Watch training workshop was conducted in Trang, Thailand. From these initial workshops, several techniques were trialed (including biomass estimation, shoot counts, Braun Blanquet, etc). At the same time, community members assisted scientists with the mapping of seagrass resources in their regions. In October 1998, the inaugural Seagrass-Watch Newsletter (issue 1) was released.

The first Seagrass-Watch field session, Hervey Bay, Qld

In June 1999, Len proposed a monitoring method and strategy for the program, and it is the standard sampling methodology used by Seagrass-Watch today. On 9th August 1999, the first monitoring sites were established (Boonooroo, Great Sandy Strait) and by the end of year 27 sites were being regularly monitored.

The program continued to grow and on World Environment Day 2000, Seagrass-Watch was awarded The Prime Minister's Environment Award, Natural Heritage Trust Award for Rural and Regional Leadership.

Continued over.....

Seagrass-Watch acknowledges the Traditional Owners on whose sea country we monitor

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For information about the Reef and Rainforest Research Centre visit
http://www.rrrc.org.au

North Queensland

Continued from page 1.....

In 2002 Seagrass-Watch expanded internationally with the assistance of The David & Lucile Packard Foundation and the University of New Hampshire. In October 2004 Seagrass-Watch went online to a global audience with the launch of its website www.seagrasswatch.org

Although it may have had some misgivings at the onset, the Queensland Department of Primary Industries and Fisheries has been one of the greatest supporters of Seagrass-Watch. The program is one of the primary tools used by DPI&F for condition and trend reporting for marine fish habitats and water quality.

Since its 1998 launch when it offered a revolutionary new way for local stakeholders to participate in marine coastal monitoring through to today, Seagrass-Watch has evolved into a global seagrass and assessment monitoring program providing quality data to assist with management and protection of these valuable marine ecosystems.

It has not been an easy 10 years. Seagrass-Watch has had to defend itself and the quality of its data on several occasions, when similar programs were not even questioned. Nevertheless, Seagrass-Watch has persevered through the dedication of everyone who participates and supports its philosophy that to protect the valuable seagrass meadows along our coasts, everyone must work together.

Green Island Centenary of Parks

David Anthony (DPI&F) Senior Media Officer

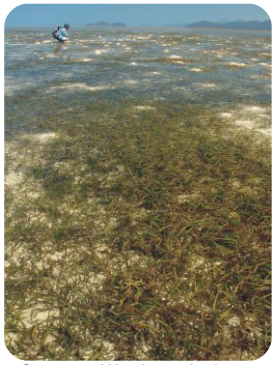
More than 1000 visitors to Green Island off Cairns recently gained a greater appreciation of the value of seagrass to Queensland's fisheries.

The Department of Primary Industries and Fisheries had a comprehensive display about seagrass set up near its Monkman Reef Research Station on Saturday, May 17, the day the Environmental Protection Agency celebrated the Centenary of Parks in Queensland.

Swiss visitors Catherin Roeder and Sarah Philipp, fascinated with DPI&F fisheries resource officer Louise John's information on seagrass.

Fisheries resource officer Louise Johns from the Northern Fisheries Centre was available to discuss the importance of seagrass as a nursery for prawns and some species of fish and as feeding grounds for dugong and turtles.

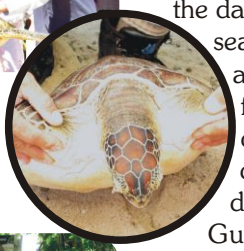
The display highlighted Seagrass-Watch, as there are two Seagrass-Watch sites on Green Island which are being monitored as part of the Great Barrier Reef Water Quality Protection Plan. The monitoring provides a critical component of the assessment of any long-term improvement in water quality that will occur as best land management practices are widely adopted across the Great Barrier Reef catchments and regions.



Seagrass-Watch monitoring on Green Island reef flat

Adults and children alike enjoyed reading the posters displayed as well as the newly released brochure "Seagrasses of Green Island". The badge-making activity was popular with the children with lots of colourful creations were made. Even the adults made badges for themselves.

Michael Scanlan of Lake Eacham and Mitchell Redenbach of Cairns carry a turtle to release into the ocean



Other activities held throughout the day included turtle releases, sea cucumber presentations, a crocodile display featuring a live baby croc, dangerous marine creatures, traditional dancing by the Guru-Gulu Gungandji people, face-painting, tours and lectures.

Isabella Gray from Perth is helped by Indigo and Ruby Johns to make a fisheries badge as a memento of her trip to Green Island

Another highlight was a screening of two films by Noel and Kitty Monkman the EPA obtained from the National Film and Sound Archive. The films were Ocean Oddities (1931) and Invisible Wonders of the Reef (1961), the latter made on Green Island. The Monkmans made documentary films about the Great Barrier Reef, taking up residence on Green Island in 1956 where they established a laboratory for research and photography, including photomicrography.

Seagrass display at the Green Island

DPI&F's Green Island research facility was named after the Monkmans in recognition of their pioneering work. The late Kitty Monkman assigned her lease to the Queensland Fisheries in 1979 to ensure her late husband's legacy was continued.

Noel & Kitty Monkman

Noel was born in New Zealand in 1896. After the First World War, Noel joined a theatrical company touring New Zealand as a cello soloist. Kitty was the company's pianist and Noel proposed marriage on the day they met. Several months later they moved to Sydney and played in theatre orchestras for the next 15 years.

In 1929, Noel and Kitty began a career in films, making documentaries about the Great Barrier Reef. Their early visits to the Great Barrier Reef were mainly to reefs out from Gladstone, but after a few visits to Green Island they decided to establish a permanent base there. Noel was the first Australian to take his camera underwater. Noel produced and directed 22 films, including 2 feature films, both of which he also wrote the story and film scenarios; "*Typhoon Treasure*" in 1937 and "*The Power and the Glory*" in 1941. Kitty not only assisted Noel, but was also associate producer of Noel's last two films before his death.

Noel & Kitty established a well equipped laboratory on Green Island, both for research and photography, including photomicrography. In 1948 Noel was elected a Fellow of the Royal Microscopical Society (London).

Noel & Kitty were staunch conservationists for the Great Barrier Reef and in particular Green Island. Noel was Honorary Fisheries Inspector and Honorary Ranger of the island. Through their activities we can be thankful that much of the beauty of Green Island and its surrounding reef has been preserved for future generations.

Noel died in 1968, his ashes scattered over his beloved Green Island reef. Kitty died in May 1987, her ashes buried beneath the monument to Noel which still stands today on the island, as a reminder to a truly remarkable couple.

Far North Queensland

Seagrass-Watch on Cape York

Christina Howley reports

Cooktown

Seagrass Monitoring has been conducted at Archer's Point (approximately 30 km south of Cooktown) since 2003 by local scientists, volunteers and the Cooktown High School science students. Some of the Year 12 students have now been monitoring for 3 years and have taken on the role of teaching the new science teachers the Seagrass-Watch methods.. The most recent monitoring of the site was conducted in April and May as part of the Reef Water Quality Protection Plan. In April parts of our transects were buried under sand deposited during the wet season from an adjacent creek. We returned to the site in May to find that *Halodule uninervis* was already starting to recolonise the bare sandy areas. We're looking forward to returning with the marine studies students in July to see how well the meadows have recovered by then.

Monitoring at Archer Point

Napranum

Seagrass-Watch has also been conducted in Napranum by myself, Jason Carroll and Richard Barclay, a Napranum elder and senior ranger. Richard is a dedicated Seagrass-Watcher who continues fieldwork despite the fact that the Nanum-Wungthim Land & Sea Office no longer has a phone or internet connection. Somehow through word of mouth he always knows we're coming and shows up with all the equipment ready to go! The Napranum seagrass meadows are a valuable hunting and collecting area for the local people, as can be seen from the number of footprints throughout the meadows, and the locals take a keen interest in the state of the seagrass.

Napranum seagrass team

Everyone enjoys the days spent at our beautiful Cape York monitoring sites.

Torres Strait Roundup

Jane Mellors reports

Hammond Island

The first site to be monitored for May 08 was Corner Beach. This meadow has a really nice gradation across the three transects. Species composition for the entire site is still a mix of *Enhalus*, *Thalassia* and *Cymodocea rotundata*, with *C. rotundata* recording quite long leaf lengths. Epi cover was still relatively high. Congratulations to the Hammond Island rangers who have chosen to take sole ownership of their site. Seagrass-Watch HQ wishes them best and looks forward to hearing of their progress. Many thanks to Stephen Ambar and also to Loretta for their enthusiasm. We were also ably assisted by Christina Howley, who also joined us at Horn Island the following day

Horn Island

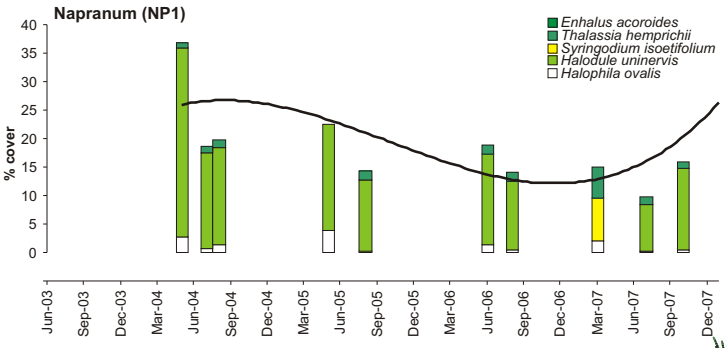
A great turn out of students helped assist Pearson Wigness monitor his site at Wongai Beach. Cover appeared down at this site with quite a few bare patches being recorded. Algae cover in the form of a filamentous green algal mat was high. Everybody pitched in to help with seed counts and only one core recorded no seeds at all. At the end of the monitoring Pearson gave us a quick talk on the importance of maintaining seagrass monitoring as it helps deduce the health of the meadows. Healthy seagrass meadows ensure the survival of viable populations of dugong and turtle which are culturally important to Torres Strait islanders.

Thursday Island

The regular crowd came down and monitoring went very smoothly at Front Beach. Over all seagrass cover was higher than expected and we are still getting good counts of seeds in a clump around Transect 2 at the 30m mark. Since the beginning of this year seeds have been occurring in more cores, which does make seed counting less dreary. After monitoring Stacee gave a hand with entering the data via the web based data sheet. She remarked that by reading back over the data sheets you can see how important it is to be succinct in your comments and write down whole counts.

May Seagrass-Watch concluded with monitoring at Back Beach (Battery Point). *Halodule uninervis* was still the predominant species here though *Thalassia* was starting to give it a nudge. Interestingly there seemed to be more *Cymodocea rotundata* present than has been recorded previously. Both algae and epiphyte cover were high. Many thanks to Mr Smith for keeping us entertained with his mud walking antics croc shoes just don't cut it!!!

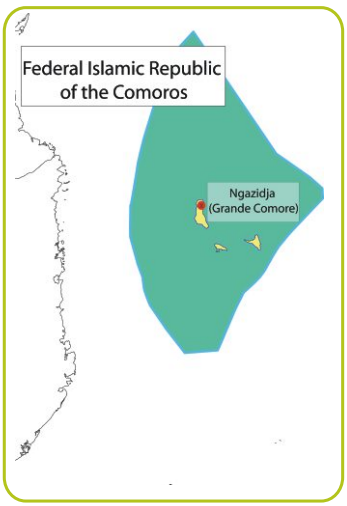
Next monitoring will be in late July, early August and it is back to early morning starts!! Esso



Comoros Islands

Seagrass Mapping & Monitoring in the Comoros Islands

Daniella Blake reports



The Union of the Comoros (Grande Comore, Mohéli and Anjouan) is a volcanic archipelago in the Mozambique Channel between East Africa and Madagascar. It has a unique environment with a high number of endemic species. Endangered species including green turtles and dugongs inhabit the islands' extensive seagrass meadows. Seagrass also supports local artisanal fisheries which provide a significant source of income and protein for this developing country. However, until now only isolated studies have been conducted on the terrestrial flora and fauna and even fewer on marine ecosystems.

Since 2005 Community Centred Conservation (C3), a British non-profit organization based in Grande Comore, has been conducting environmental research, awareness-raising and capacity-building activities in the Comoros in collaboration with the Ministry of the Environment and various other local organizations. Using Seagrass-Watch methodology, C3 has surveyed and mapped the seagrass meadows of the islands of Grande Comore and Mohéli during 2006-2007 and we plan to survey the seagrass meadows of Anjouan during 2008.

Of the two islands already mapped, Grande Comore has the most extensive intertidal seagrass meadows which are found on its fringing reef flats, in muddy coves and around mangroves. In total, 8 species of seagrass have been identified on Grande Comore: *Thalassia hemprichii, Cymodocea rotundata, Cymodocea serrulata, Halodule uninervis, Halodule wrightii, Halophilia ovalis, Syringodium isoetifolium* and *Thalassodendron ciliatum,* with *T. hemprichii* and *T.ciliatum* being the most widespread and *H.ovalis* the rarest.

In March 2008, C3 conducted a Seagrass-Watch training workshop, for the environmental community association at Planete Plage in Mitsamiouli, north-west Grande Comore. Melissa Hauzer, Daniella Blake and Enrico Andreini gave a presentation about the basic biology of seagrass and its importance in marine ecological systems. The Planete Plage team then headed out to the seagrass meadows in front of the town of Mitsamiouli to learn how to identify and map seagrass species, including percentage cover and sediment type. The participants also set up a permanent site which will help them to continue to monitor the state of their community's seagrass meadows in the future.

Seagrass identification in the field (above) and learning to estimate percent cover using a quadrat (right)

The Planete Plage team is keen to continue monitoring their valuable seagrass resources that support their local fisheries as well as internationally-endangered species.

The Comoros is an island nation in the Indian Ocean, located off the eastern coast of Africa on the northern end of the Mozambique Channel between northern Madagascar and northeastern Mozambique. At 2,235 km² the Comoros is the third smallest African nation by area; and with a population estimated at 798,000 it is the sixth smallest African nation by population (though it has one of the highest population densities in Africa). Its name derives from the Arabic word qamar ("moon").

The country officially consists of the three islands in the volcanic Comoros archipelago: The islands from northwest to southeast include Ngazidja (Grande Comore), Mwali (Mohéli), and Nzwani (Anjouan) but exclude the French-allied island of Mayotte to the southeast. The capital, Moroni, is located on Ngazidja.

The country is notable for its diverse culture and history, as a nation formed at the crossroads of many civilizations. It has three official languages: Comorian (Shikomor), Arabic, and French, and it is the only country to be a member of each of the African Union, Francophonie, Organisation of the Islamic Conference, Arab League, and Indian Ocean Commission, among other international organizations.

The tropical climate has two clearly marked seasons: a cooler, dry period between May and October and a warmer, humid season between November and April. The highest monthly rainfall occurs in January with 11–15 inches (275–375 mm), and the summer is the season of greatest tropical-cyclone frequency.

Less than one-sixth of the land remains covered with forest, and rapid deforestation, caused mainly by domestic firewood consumption, threatens to reduce the islands' forested land still more. Mangroves line the coastal zone.

Animals are similar to those of Madagascar. Turtles abound along the coasts and are exported. The Comorian waters are one of the habitats of the coelacanth, a rare fish once thought to be extinct, the fossil remains of which date to about 400 million years ago. Relatively little in known about the seagrasses of the Comoros, but it's location suggests similarities to northern Mozambique.

Source: http://en.wikipedia.org/wiki/Comoros and The World Atlas of Seagrasses
Image courtesy of http://www.workingabroad.com/page/137/comoros-conservation.htm

View from the sky (Malaysia)

Choo Chee Kuang reports

On April 6, SOS had the privilege to capture the first glimpse of how Merambong seagrass meadow looks like from above using a remote-controlled helicopter . The aircraft hovered at 400 ft from the ground off the Merambong meadow and took some 500 snapshots.

The master of this RemoteCAM Aerography is Adrian Majani, who adopted the hobby three years ago. Adrian's skillful control over the copter, combined with a high resolution camera, had helped to produce high quality aerial images of the meadow.

The images were captured at low tide so that the demarcation between the intertidal and subtidal meadows could be perceived clearly. The intertidal meadow appeared more barren, consisting of smaller types of seagrass species e.g. *Halophila ovalis, H. minor, Thalassia hemprichii* intermingled with sandy patches.

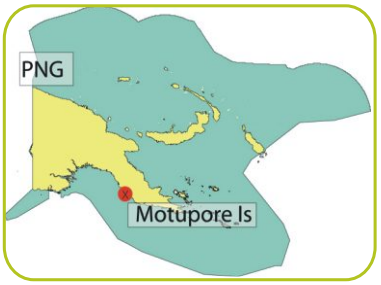
Above: Preparing for take off
Insert: The remote controlled helicopter used
Below: The Merambong meadow

Who knows, this technique might someday be used to monitor seagrass changes in the future, with some clear advantages as to reduce the impact of trampling on the seagrass meadow and to survey areas less accessible on foot?

The middle section of the meadow is noted by sandy patches, intermingled with smaller types of seagrass species. Red arrow pointing at a person on the meadow

Motupore Island (PNG)

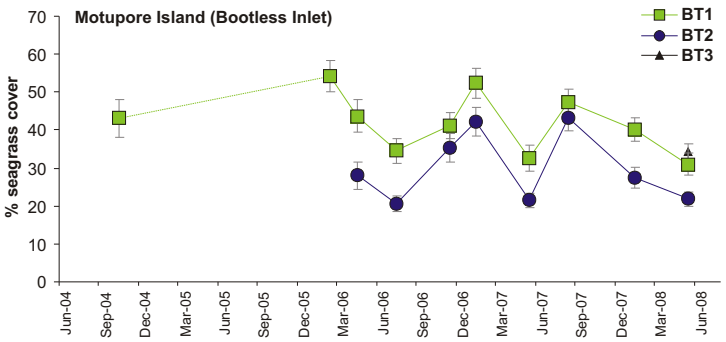
Jane Wai reports

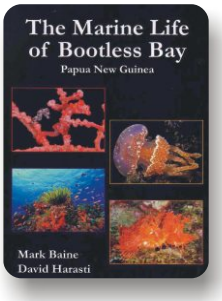


A third seagrass monitoring site was established during our recent monitoring survey in May. This third site BT3 is located across Bootless Bay from Motupore Island on what is known as the Taurama Beach. The Taurama site is characterized by an extensive seagrass meadow. The topography of the area is mostly flat so there are prolonged periods of overexposure during low tide. The seagrass meadow is within a relatively sheltered area with a network of fringing reefs and patch reefs all around. The area is also highly fished and the abundance of invertebrates and fish is minimal compared to the two existing sites at Motupore Island.

We are grateful for the support of the local community there especially that of Dame Carol Kidu, MP who is a long time resident of Taurama and enthusiastic supporter of our work within the bay.

Taurama site.
Photo courtesy: Pablo Saenz





As part of its ongoing outreach and educational awareness program within and around Bootless Bay, the Motupore Island Research Centre (MIRC) has recently published a book entitled Marine Life of Bootless Bay authored by Dr Mark Baine, former MIRC Director and David Harasti. The book contains over 900 lavish photographs that showcase the vast diversity of marine organisms found within the bay.

More than 3000 copies of the book are being distributed to local schools and the communities within and around Bootless Bay. The book itself is available free of charge and can be obtained by contacting Ms Jane Wia on email: wiajtupa@upng.ac.pg .

Roxas, Palawan

Sheila Albasin reports

The second Seagrass-Watch monitoring in Tinitian, Roxas, Palawan was conducted on May 2-3 & 7, 2008 at Barangay Caramay, Roxas, Palawan sponsored by the Roxas Population Health and Environment Project of WWF-Philippines funded by USAID. There were 17 participants, 6 of them were from the old pool (2005 & 2006) of trained locals while the rest were new participants. The trainer was Ms. Hildie Nacorda from the UP Marine Science Institute.

. Participants at the training hall: Back row from L-R- Danilo Namuco, Rodel Arcaño, Juvy Gabinete, Ryan Villorente, Jally Bacquiao, Edmundo Mahusay, Sany Boy Gabua; 2nd row L-R – Barahim Badari, Jenny Palarca (WWF-Phils.), Modesta Sanchez, Annie Atabelo, Emma Tura (WWF-Phils.); seated from L-R – Marilyn Saclet, Rosalie Amurao, Merlie Gonzales, Zenaida Estrada and Sheila Albasin (WWF-Phils.)

Day 1 was devoted to a presentation of previous seagrass surveys that were conducted by WWF-Phils. by Sheila Albasin and a review about seagrasses, their importance, the different species and the Seagrass-Watch method by Ms. Hildie Nacorda. A practical was also conducted with the participants divided into 1st, 2nd and 3rd transect. Day 2 included fieldwork in Tinitian and Day 3 deskwork where participants transcribed and analysed their data. Each group/ transect also gave a presentation of the results of their survey.

Workshop participants put into practise what they have learnt

A total of 6 species were observed along the 3 transects: *Enhalus acoroides* (Ea), *Thalassia hemprichii* (Th), *Halophila ovalis* (Ho), *Cymodocea rotundata* (Cr), *Halodule uninervis* (Hu) and *Cymodocea serrulata* (Cs). *Thalassia hemprichii* was the dominant species in all the transects.

	Transect 1	Transect 2	Transect 3
Ave. Seagrass Cover (%)	78	65	86
Ave. Seaweed Cover (%)	3	5	3
Number of seagrass species	6	4	5
Dominant species	Th	Th	Th
Ave. density (# shoots/per sqm)	433	377	372

Fruits and flowers of *Enhalus acoroides* and *Thalassia hemprichii* were also seen. Other seagrass species present in the meadow but were not encountered in the transects include *Syringodium isoetifolium*, *Halophila pinifolia* and *Thalassodendron ciliatum*.

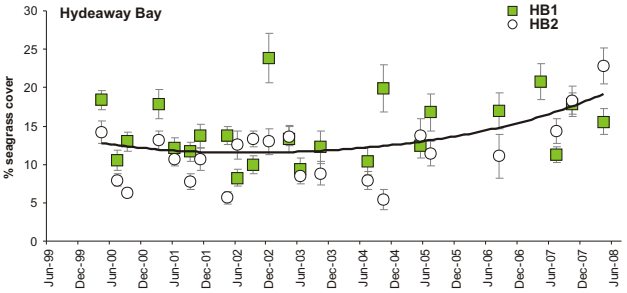
In the field, Trinitian Roxas, Palawan

Whitsunday roundup

Kim Hodgon reports

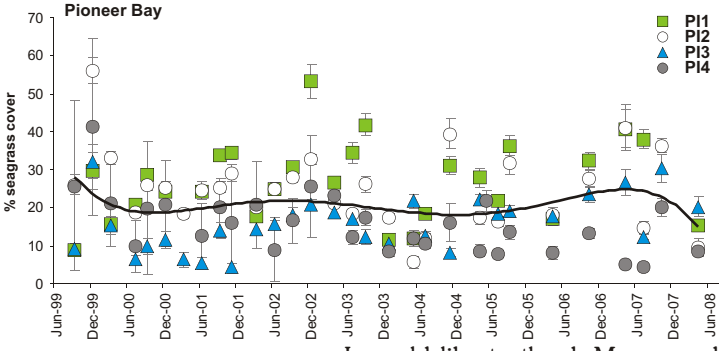
Seagrass monitoring was undertaken at Hydeaway Bay in the beginning of April. It was a beautiful clear day and I was excited as Maren had two new ladies joining us. Unfortunately Victoria had a fall in the car park and was taken home again, but we hope to see her there next time. So, it took a little while to get organised and out to the sites, but we pulled it off. A very patient Marin coordinated us all and we finished monitoring before the tide beat us.

We were astounded to discover a live Bailer shell (*Melo amphora*) cruising across the mudflat. I had seen lots of dead shells and had no idea of the beauty of the animal inside. This was Maren's second Bailer shell at Hydeaway. The first one saw Maren and husband David sitting on the beach for hours until the tide turned to ensure that no one pinched it! A temperature logger was also retrieved and replaced at HB2. Our peace was temporarily disrupted by a low flying Army CH-47 Chinook Helicopter, all in all a very exciting day.



We were joined by Len & Rudi to monitor Pioneer Bay sites (PI1-PI4) on 6 & 7th April. Unfortunately, no dugong feeding trails were observed at Pi2 or PI4. There were significant channels and swirls throughout the plots from the wicked weather which had been experienced in February and there were over 30 vessels, blown ashore and many sunk on their moorings.

Overall the seagrass was relatively unscathed, although cover was slightly lower than the same time last year for some sites.



I would like to thank Maren and Hannah from Hydeaway Bay and Heather and Sheena (who ditched Yoga to attend!) and as usual Lauren and Emma for their assistance with monitoring. Until next time, happy seagrassing.

Stormy weather a challenge for Gold Coast Seagrass Watch

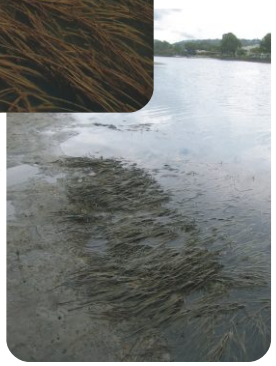
Sheila Davis reports

Stormy weather made for some challenging times for Gold Coast Seagrass Watch during the March-May monitoring period.

Monitoring Currumbin Creek.
Photo courtesy: Ian Banks

Our session at Currumbin Creek on Saturday, 29th March was preceded by five hours of heavy rainfall the night before. That and the major flooding during January and February may explain why we found almost no seagrass at this site as it had all been covered by silt.

The following Saturday, 5th of April, our 10 seater inflatable hadn't returned from repairs in time, so we rented two little tinnies instead. We had checked the weather forecast and it looked like the storms would pass before they reached us. It was a beautiful sunny day when we headed over to South Stradbroke Island, so much so that several of us left our jackets back on shore.



Currumbin Creek seagrass meadow late last year

In the middle of our monitoring session the sky suddenly went very gray and the visibility was nil. It was so bad that I even wondered how we would get back to shore. Then it began pelting down with a very cold rain and we all shivered while finishing working on the transects. Nico, the most sparsely dressed amongst us, was given the camera so that he would at least stay warm running between the teams to take the photos.

The Drenched team on South Stradbroke.
Photo courtesy: Ian Banks

Suddenly the skies cleared and we had a great run in the little tinnies back to the mainland where a wonderful picnic awaited us. No sooner had we finished and packed up when the storms reappeared, just in time for the boats to be driven back. In retrospect, we should have waited until the storms passed, but our experienced boaters Ian Banks and Lou Coles braved the conditions and returned the boats, surviving against all odds.

The next monitoring session was scheduled for Sunday 18th of May and we were keen to establish this new site; however a strong weather warning with 48km/hr winds the day before made it an easy decision to cancel that one all together.

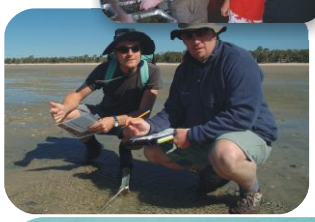
We've now scheduled several sessions through to August, but we know that the forecast can change any of these plans at a moment's notice. Stormy weather is just another challenge of seagrass monitoring. Experiencing bad conditions certainly made us realize what a treat it is to monitor on a beautiful day.

Queensland

Hervey Bay Roundup

Trischelle Lowry reports

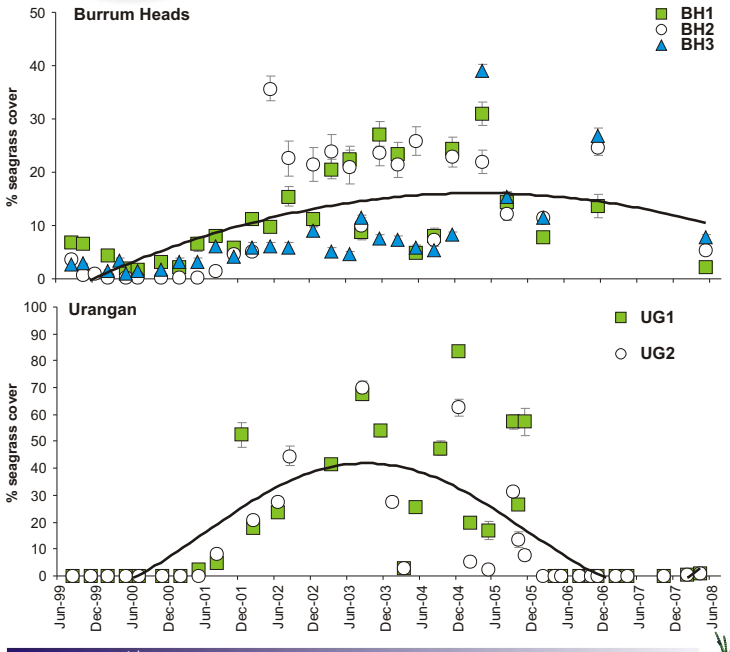
Monitoring undertaken in May saw very similar results to our last round. Sites have continued to support some very promising patches of seagrass, however along the transects and within the quadrants seagrass is still reasonably scarce.



On behalf of Hervey Bay Dugong and Seagrass Monitoring Program, I would like to extend a big thankyou to both Len McKenzie and Rudi Yoshida for conducting a recent workshop in Hervey Bay. It was both extremely informative and lots of fun. I think I speak for all participants in saying that we all learnt something new that we can now put into practice in our field monitoring. It also provided excellent training for our new volunteers.

Recently, volunteer Matt Lowry was lucky enough to undertake a flight around the Hervey Bay region. He came across some awesome sights including this one of a large herd of dugongs feeding near Burrum Heads, just north of Hervey Bay.

Although recent heavy rain has hampered monitoring of some sites, we look forward to sunshine and lots of seagrass for our next round of monitoring taking place in August.



Great Sandy Strait update

Gordon Cottle reports

The past three months have been the most frustrating I have encountered since early 2000! Unabated strong to gale force SE winds prevented boat access to any of our water based sites. However, this has not stopped the Team from monitoring at our coastal sites.

Boonooroo

Although Gordon, Pat, Hanne and Helen had to wait longer than usual for the water to run off BN1 in early March (being held up by the SE gale), they found that the silt which covered the site last September had washed away revealing a lot more seagrass. An interesting observation was large leaf *Halophila ovalis* which neither Hanne or I had seen before.

Tin Can Bay

At Norman Point (TBI), Gordon & Pat in March found the sand bar had washed shoreward revealing a lot more seagrass than previous. In June the site had very sparse seagrass cover, but encouraging patches of *Halophila ovalis* in the area.

After a week of torrential rain (up to 450mm on the Fraser Coast) and gale force winds, the Team went to Inskip Point (PB1) on 3rd June. The first task was to re-peg the site to the positions provided by HQ. After re-checking every point, the variations were only 0.000 to 0.004! There was a slight increase in *Zostera capricorni* cover since last year and an interesting find was a live Bailer shell and extensive dugong feeding trails throughout.

Tinnanbar

Seagrass cover was up on last year are Tinnanbar. TN2 is directly in front of the now closed Caravan Park and with virtually no boat or pedestrian traffic the site has shown considerable improvement.

Poona

In early May, Helen, Hanne and Robyn recorded the lowest seagrass covers for the last 18 months at PN1. Seagrass at this site has fluctuated over the last 9 years and currently looks to be declining. With the increase in development in the township, there is concern about the level of stormwater runoff impacting the site. Both PN2 and PN3 however continued to show improvement.

In May the Team attended the Seagrass-Watch Workshop at Hervey Bay. Regrettably sickness prevented me from going, and Robyn Bailey reports "*It was a really enjoyable day, very educational. Even gives you a greater insight into the importance of seagrass in our ecosystem. So glad I didn't miss it*" Hanne and Helen also expressed their enjoyment and interest.

GSSFFW team at the Seagrass-Watch workshop

We are hoping, that with improved weather conditions, it will be possible to get to our water based sites before the end of June to cap off the finalisation of our BMRG Funding, to whom a big THANK YOU, which has enabled us to maintain the Sesgrass-Watch program.

Girringun Ranger Training

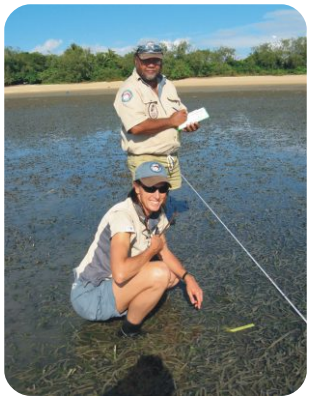
Jane Mellors reports

Jane and Naomi from Seagrass-Watch HQ, accompanied by Rachel Groom from GHD, went to Cardwell on Jun 3 and 4 to conduct Seagrass-Watch Training for the Girringun Rangers and other QPWS employees.

Girringun land is located between Innisfail and Townsville in north Queensland. Within its confines are two World Heritage listed sites: the Wet Tropics and the Great Barrier Reef. It also includes the offshore islands and waters surrounding Hinchinbrook, Goold, Brooke, the Family and Dunk Islands.

Planning for this sea country is being put to effect through Traditional Use of Marine Resource Agreements (TUMRAs) (see Issue 30). To assist in the roll out of this TUMRA, GHD was engaged to develop a turtle and dugong monitoring plan for Girringun Sea Country, within this activity the value of monitoring seagrass as a means of building capacity and knowledge on marine resources was recognized and Seagrass-Watch HQ was called in to do the training.

Mick, Keith and Evan had already had a taste of Seagrass-Watch when they attended a workshop in Townsville 2007. So this workshop was a refresher for those three but was totally new ground for Brenton, Leroy and Justine. A familiar cry during the course of the workshop was "I didn't realize there was so much interesting stuff about seagrass other than dugongs ate it!!!"



Secure in their new found knowledge of seagrass taxonomy and monitoring protocols, the next day a new Seagrass-Watch site (GO1) was established at Goold Island. The extensive meadow is located on a reef flat on the leeward side of the island. We gained access to the island courtesy of the QPWS barge. Once at Goold, Mick pointed out the area he thought would be best to monitor as access at all tides would be possible. As we walked across the meadow we noted many different star fish, heart urchins, sea urchins and holothurians inhabiting the meadow. We also noted several species of seagrass including *Enhalus acoroides,* a first - up close and personal experience for Naomi. The site we eventually established however was predominantly *Cymodocea serrulata* with some *Halodule uninervis* present. The day went well with many reassurances that this monitoring was a happening thing. Many thanks to Rachel and Justine for facilitating the workshop, Mick for thinking it was a great thing to do and to the Girringun for welcoming us on to their Sea Country.

Not to let a chance go by, Seagrass-Watch HQ also gave a presentation at the Cardwell State School. Question time was quite lively with some very good questions being asked with regard to the affect of dredging and climate change on seagrass and how many stomachs does a dugong have???

Bowen

Naomi Smith reports

In May a successful Seagrass-Watch workshop was held in Bowen for community members and Bowen Scouts. Also joining this workshop was Arinda Santi, a school teacher from Indonesia, looking at ways to incorporate Seagrass-Watch into her school activities and Kelly Jacobs from Central Queensland University who already undertakes Seagrass-Watch at Shoalwater Bay.

The workshop was led by Jane Mellors with assistance from Iony Woolaghan and Naomi Smith from the Department of Primary Industries and Fisheries, Townsville. An additional site was set up at Front Beach, BW2, as there is already a site (BW1) where the Bowen State School partakes in Seagrass-Watch. There were 18 participants in the workshop and after a morning of power point presentations and assessment, I think everyone was looking forward to the field work. During the workshop the seagrass identification hands on section was very popular as we had collected many species of seagrass from Front Beach the day before, such as, *Zostera capricorni, Halodule uninervis, Halophila ovalis, Syringodium isoetifolium* and as Jane had just returned from work in the Torres Strait she had more species, such as, *Enhalus acoroides, Thalassia hemprichii* and *Cymodocea serrulata*.

A few of the scouts even made a herbarium press. After everyone had passed the assessment and had a scrumptious meal at the BBQ it was time for the field. To begin with one quadrat was monitored by everyone then the activities were spread amongst the group and the site was monitored very efficiently for first time participants.

Thank you to Lesley Bullemor (group leader for Bowen Scouts) for organising this workshop, which also made it into the Bowen local newspaper. It appears that the seagrass of Front Beach is in good hands with this reliable group.

Regional Roundup

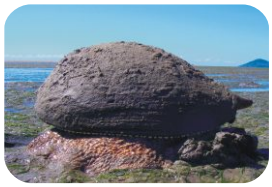
Posa Skelton reports

"I love this time of the year", remarked Sharon Taylor the president of the Northern Beaches Rotary and a Townsville Seagrass Volunteers member, as we geared up for our Seagrass-Watch survey at Bushland Beach. She was referring to the cooler days in early April.

Above : Bushland Beach RWQPP team.

This quarter has been a busy period for our group with surveys of most of our sites by our team of volunteers and also in association with the Reef Water Quality Protection Plan marine monitoring programme (RWQPP).

We began with an invitation by the Northern Beaches Rotary to Townsville Seagrass Volunteers (TSV) to attend a barbeque to celebrate their fifth birthday on April 5th. This was immediately followed by the survey of Bushland Beach under the watchful gaze of the old guard Lux Foot, and the infectious enthusiasm of the new site coordinator Jacky Stein.



One of six large bailer shells

A month later we were again out at Bushland Beach to undertake another survey for the RWQPP on May 3rd. We were mesmerised by six large bailer shells (*Melo amphora*) frolicking nearby our monitoring site. But we were shattered upon discovering a dead Green sea turtle entangled on a rope from a crab pot. It was a timely reminder of how vulnerable our animals are and for us to take better care of our activities to reduce this unnecessary loss.

Dead Green turtle at Bushland Beach

Seagrass-Watch HQ monitored our other sites Shelley Beach (SB1 & SB2) on the 2nd and 4th May, respectively, before they headed to Magnetic Islands to monitor Picnic and Cockle Bay on the 5th and 6th May. Don and his team at the University of Third Age continued their monitoring program of Cockle Bay (MI2).

While we have been active on the mud-flats we have equally been busy on-land to promote and support our partners. TSV were invited to attend the Reef Guardian School program meeting at the Holy Spirit School. The meeting provided an opportunity for TSV to showcase the Seagrass-Watch initiative and to encourage new schools to be involved.

The Townsville fishing classic

Belgian Gardens State School the custodian for our Rowes Bay site (RB1) held a fund-raising event "Fishing Classic" on 1st June, at which TSV was invited to hold a display. Thanks to Jane Mellors and Santi (Vice-Principal from Tarakan, Kalimantan Indonesia) who helped in the setting up and manning of our display.

On the same day as the Fishing Classic two other events took place that involved TSV the Fishing Expo and the Ecofiesta. Our partner - Conservation Volunteers Australia assisted with the Fishing Expo display, whereas a group of volunteers took turn to staff the Ecofiesta stall. We are most grateful to Seagrass-Watch HQ, North Queensland Algal Identification Facilities and the New Townsville City Council for provision of materials and support. Naomi Smith was again her outstanding self and single-handedly set up and packed the display. I would like to thank our members: Linda Berger, Julia Hazel, Jane Mellors, Anna Skillington, Naomi Smith and Melanie Thomas for donating your time to assist with our display.

Unveiled at the Ecofiesta was our Seagrass Mosaic a work of art on tiles that a group of us known as the Weedies worked on in the 2006's Ecofiesta (see Issue 26). The art-work incorporated the Seagrass-Watch logo, the various seagrass species and the animals and critters found amongst the seagrass meadows. The Seagrass Mosaic is now on permanent display at the Queens Garden.

We are now looking forward to a fantastic winter season where there's bound to be new discoveries at our monitoring sites. And we look forward to sharing this with our old and new TSV members, as well as the Seagrass-Watch fraternity worldwide.

Bushland Beach

Jacky Stein reports

On the 5th April, with the weather on our side, our group of 16 volunteers headed by the Rotary Club of Northern Beaches and Posa Skelton (*School of Earth & Environmental Sciences* JCU), started out from Bushland Beach, eager to see what the flooding February rains had done to our local seagrass meadows.

The evidence was clear with deep blowouts (erosion gaps in the meadows) cutting into our survey area, and the trip out fraught with muddy ankle sinking mud holes! The seagrass however was surviving well even if a little on the thin side. *Halodule uninervis* was more prevalent, making up almost 100% in most areas.

An interesting find was two Nudibranchs, which were at first glance were thought to be algae. Many crab holes, gastropods and hermit crabs were also evident in the survey area.

Our volunteers included JCU students and the Rotary Club's latest exchange student Alex, from Peru. He was fascinated with the day's events and was clearly taken by the lovely setting and ocean breezes. Alex, who has never even been fishing, was soon counting and measuring the seagrass with his group, like a pro, and has already asked when the next sampling day out is on.

Seed coverage was varied, but half seed were found in most of the quadrats, although in small numbers.

Making good time, thanks to our many volunteers, we noticed on our return trip, to our delight, the seagrass meadows had actually grown larger in area, and now cover much more of the area between our site and the beach. Interestingly enough, the *Halophila ovalis* coverage was greater in the newer areas.

Our next sampling date will be on the 5th of July, with low tide of 0.49m at 4.43pm.

From the schools

Seagrass Education

Choo Chee Kuang reports

Students practise their skills at making a herbarium press

The school headmaster and teachers take a great interest in the seagrass meadow

Sea cucumbers, starfish, sea anemones, wing shells and seahorses are some of the bountiful marine creatures that thrilled students and teachers from the Sek Menengah Tanjung Adang when they visited the Merambong seagrass meadow on 19 March 2008.

Launched by SOS in partnership with the MNS and Seagrass-Watch, and sponsored by the ABN AMRO, the programme was aimed to raise the awareness of the local students about the importance of seagrasses.

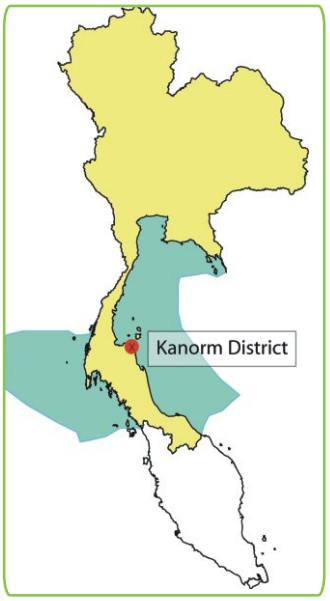
The talk was coordinated by Choo (SOS) at the school classroom. The participants aged between 15-16 were briefed on topics on seagrass identification, importance and conservation, seagrass invertebrates species and techniques associated with seagrass monitoring,

A total of 15 students, 4 teachers and the school headmaster then proceeded to catch the low tide at the Merambong seagrass meadow. With guidance from the SOS staff, the monitoring activities were completed in less than an hour and students began the second task to document seagrass invertebrate species.

On the following day, the students did some data analyses and presented their findings. They also prepared the herbarium samples of the different seagrass species for display at the school exhibition corner.

Koh Tha Lae Tai National Park

Anchana Prathep reports



A capacity building camp on coastal marine resources was organized by BRT, Haad Khanom - Mu Koh Tha Lae Tai National Park and the Seaweed and Seagrass Research Unit, Centre for Biodiversity of Peninsular Thailand, Faculty of Science, Prince of Songkla University for local schools at Khanorm District, Nakoh Si Thammarat. Students from three local schools (Thongniankanaphibal, Khanormpittayakom and BaanKo) attended the camp during 15-16 May 2008 at Haad Khanom -Mu Koh Tha Lae Tai National Park. The results from Khanorm Marine Initiative Project, which was carried out at the area during the last two years, funded by BRT and TOTAL E&P Thailand and TOTAL Foundation of France were used as materials to produce a handout for the students.

In this camp, students learnt about coastal marine communities in the area: sandy beach, rocky shore, open sea, coral reef, seagrass meadow and mangrove forest. The students were brought to investigate lives and their adaptation in the mangrove forest, they also learnt about the seagrass meadow community at Koh ThaRai, which "Seagrass-Watch" was set up and students at Thongniankanaphibal have been monitoring since July 2007.

This is the fourth camp under the Khanorm Marine Initiative Project, which has been using the results found from research and turning them into handouts and activities for local community. This hopes to draw students' interest into marine ecosystem, get them to know and love what they do have at their front door.

From the schools

Torres Strait education

Jane Mellors reports

Rebecca Bowie returned to her home to beat the drum on Seagrass-Watch. During her time there Beccie spoke to several year levels at Tagai College about Seagrass-Watch, and how to become involved. Tagai State College has recently been awarded Education Queensland regional Showcase award for Excellence in Community and Industry Partnerships. They received the award in recognition of the innovative programs such as involvement in Seagrass-Watch offered through the secondary Campus' Marine Studies centre. The college will now enter its achievements in the State Showcase award for Excellence.

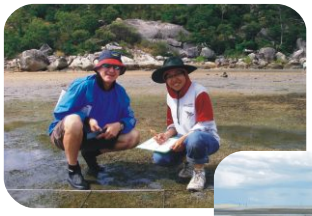
Beccie continued her mentoring role with students and rangers by assisting with the monitoring at Hammond Island, Back Beach, Front Beach and Horn Island. It was great seeing some past students participating in Seagrass-Watch (e.g., Kinam) while some past students watched (e.g., Ina). We are hoping to expand Seagrass-Watch in the Torres Strait and are currently in the early stages of planning a visit to Murry Island State School.

Bowen State Primary

Naomi Smith reports

Jane Mellors and Naomi Smith were invited by teacher Ian Haworth to Bowen State Primary School to give a "How to Seagrass-Watch" presentation to Grade 7 and to assist them out in the field. The students were very interested in seagrass and listened intently during the presentation, even participating by answering many questions. Our presentation was also combined with a water quality talk from Ports Corporation. We all met at Front Beach where the students then divided into two groups, one that were going to participate in Seagrass-Watch and the others were going to test for water quality. The Seagrass-Watch students divided into 3 transect groups, 1 seed group and 1 photography group. Then it was out onto the lively meadow for our monitoring of their site BW1. This meadow is made up of 3 species *Halodule uninervis, Zostera capricorni* and *Halophila ovalis*. Out of all the coring for seeds only a few were recorded. Lesley Bullemor (Bowen Scouts) came along to see what was involved in Seagrass-Watch. Her participation in the field convinced Lesley that Seagrass-Watch would be an appropriate activity for the scouts and interested community members to monitor a site. With this in mind Lesley organized the Bowen Seagrass-Watch Workshop and now a second site is being monitored in Bowen!!!!

Arinda Susanti



Above: Anto Wilson and Arinda Susanti monitor seagrass on Magnetic Island.
Right: Santi monitoring seagrass in Bowen, Qld

During the months of April and May, Arinda Susanti accompanied the Townsville Seagrass Volunteers on several of their monitoring trips and attended the Bowen Workshop.

Santi is the vice principal of the school at Tarakan, Kalimantan, Indonesia. Tarakan city is a small island in the northern part of east Kalimantan. She was the successful recipient of an Endeavour Award scholarship. The Endeavour Programme is an internationally competitive, merit-based scholarship programme that provides opportunities for short or long term study, research and professional development in a broad range of disciplines in Australia. The Awards strengthen Australia's education relationships with Indonesia, allowing professionals and researchers to establish enduring personal and institutional linkages

The aim of Santi's Fellowship was to learn about initiatives and practices in environmental education, as she had been given instruction by the education ministry to prepare curriculum material for marine education for her province. Santi felt that by participating a range of Seagrass-Watch activities from School visits/monitoring, RWQPP monitoring with community members, attending workshops and displays (Ecofiesta/ Rowes Bay Fishing Classic) she would get a feel for all aspects of the Seagrass Watch program to enable her to establish Seagrass-Watch in Kalimantan. We wish Santi all the best in her endeavours.

Do you want to get Involved? Register with Seagrass-Watch HQ www.seagrasswatch.org

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Any comments or suggestions about Seagrass-Watch or contributions to newsletters would be greatly appreciated.

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