A new region for Queensland

The latest region to establish Seagrass-Watch monitoring is Mission Beach, approximately 165 km south of Cairns in far north Queensland. Mission Beach is a 12 kilometre stretch of golden sand shoreline, surrounded by the waters of the Great Barrier Reef Marine Park and the rainforests of the Wet Tropics World Heritage Area. Mission Beach encompasses a number of beach-side communities including Bingil Bay, Wongaling Beach, South Mission Beach and Garners Beach.

Tourism is the main industry in and around the Mission Beach area. The region also has quite a lot of farming of tropical fruits and vegetables, aquaculture and sugar cane. Directly offshore from Mission Beach is Dunk Island, a large continental Island and well known international tourist destination. The island is part of the Family Group of Islands (a well known hideaway for the rich and famous).

In the Mission Beach region, the only inter-tidal seagrass meadows suitable for Seagrass-Watch are in Lugger Bay, South Mission Beach. These meadows are only exposed at very low tides (<0.4m) and are composed of Halodule uninervis. This location was also one of Jane Mellors’ PhD field study sites, where she examined seagrass abundance and sediment/plant nutrients in the early 90’s.

Access to Lugger Bay is via a path through pandanus and eucalypt forest, with beautiful views of the sea, Dunk Island and Tam O’Shanter Point. After a little more than a kilometre there is a set of steps down to the long curved beach and monitoring sites of Lugger Bay.

The monitoring site was established in May 2005. In late July, students from Mission Beach State Primary School were joined by Seagrass-Watch HQ scientists Len McKenzie, Jane Mellors and Rudi Yoshida to conduct the schools first monitoring event. Although the weather was miserable, the students picked up the monitoring techniques quickly and an enjoyable afternoon was had by all. Information from the long-term monitoring will be incorporated into the seagrass monitoring component of the Great Barrier Reef Water Quality Protection Plan (see issue 22).

Farewell Jerry

It is with great sadness that we announce the passing of Jerry Comans. His was affectionately referred to as the “grandfather” of Seagrass-Watch. Jerry passed away at his home in Scarness on Tuesday 19th April.

A former commercial fisherman and charter boat operator with more than 30 years experience in the region, Jerry started the Hervey Bay Dugong & Seagrass Monitoring Program in 1997 in response to concerns that the seagrass meadows were not recovering from the 1992 floods that killed off over 1000 square kilometres of seagrass meadows. Jerry was integral in establishing the Seagrass-Watch program. With his assistance, funding was secured in 1998 to develop the program and sampling protocols. The HBDSMP was an integral partner in the Seagrass-Watch program in the early days. Jerry was the Local Seagrass-Watch Coordinator in Hervey Bay for several years and much of the success of the program in the local area was due to Jerry’s passion and dedication. With the help of many volunteers and local school children, they mapped much of the inter-tidal area between Burrum Heads and Point Vernon and parts of the Great Sandy Strait. The work has been invaluable to understanding dugong habitat.

Jerry retired from the Local Coordinator position in 2004 and moved on to enjoy retirement. Jerry is survived by his wife Lynne, four children, 10 grandchildren and 2 great grandchildren.

In the Philippines, dried seagrass leaves are found to cure diarrhea. Also, Halophila ovalis is pickled and used as salad vegetable.
Burrum Heads
When Wendy Jones monitored BH1 in April, she reported dugong feeding trails in the near vicinity. Dave and Rhonda Kohler recently reported that they had seen larger numbers of adult and juvenile dugongs just south of Burrum Heads.

Toogoom
In March, Maree Cliff reported that the extreme high tides (over 4m) and strong northerly winds had eroded a lot of sand at the back of Toogoom beach - which was deposited over the intertidal banks and site TG1.

Dundowran
In May, David and Rhonda Kohler reported “good” seagrass coverage at DD3. The sites generally have less than 3% cover, however they reported 4% in places. Of particular note, was a greater mud component in the sediment. Sandra and Lloyd McKay similarly reported a slightly higher component of mud in the sediment at DD1. Seagrass cover at DD1 has remained low at approximately 1% for the last 6 years. No seeds were collected at the site in August and no seeds have been reported at any other Dundowran site. This absence of a seed bank indicates that seagrass abundance and distribution will remain relatively low across Dundowran for some time.

Urangan
Matt and Trischelle Lowry when monitoring UG2 in May noticed that at least half of the Zostera was reddish/brown in colour. This is often a consequence of high light and desiccation. They also reported dugong feeding trails across the site.

In August, Len McKenzie and Rudi Yoshida (Seagrass-Watch HQ) revisited the Booral site UG3 with Trischelle. The seagrass abundance recorded was the highest on record for the site since monitoring began in late 2001.

Peter Stratford from University of Central Queensland also assisted at Urangan, learning the Seagrass-Watch methods as he will be establishing sites in Gladstone in October 2005. Both Trischelle and Peter were also shown the additional Reef Water Quality Protection Plan collection methods, so in October they can collect samples for seagrass tissue nutrients, sediment nutrients, seagrass reproductive health and also conduct edge mapping.

Poona
At Poona in April, Steve, Nicole and Robin Bailey reported Zostera meadows inshore of the monitoring site, not previously seen at PN1. They also noticed dugong feeding trails in the vicinity and across the site. In August Len and Rudi (Seagrass-Watch HQ) assisted monitoring at PN1, similarly observed abundant dugong feeding trails. Severe beach erosion near PN1 has meant that access to the site is now from the northern side of the point. Seagrass cover at PN1 has recovered to the higher abundances of 2003, which were significantly higher than when monitoring started in 1999. Species composition remains relatively unchanged and the number of H. uninervis seeds counted was low indicating a relatively small seed bank. On the 18 August, students from the Maryborough Special School assisted to monitor PN2.

Tinnanbar
In May when monitoring TN1, Robyn Bailey and I found a very healthy increase in seagrass abundance since April. However at TN3 in July, we noticed a significant reduction in H. ovalis.

Boonooro
In early June, Anne O’Dae, Mitch, Gordon and Kathy reported a noticeable resurgence of H. uninervis at BN1 since November 2004.

Tin Can Bay
After a monitoring hiatus of a couple of years, sites in Pelican Bay have been resurveyed. Seagrass meadows at Inskip Point have continued to recover. Extensive Zostera meadows cover the intertidal banks of Pelican Bay, at Inskip Point. The site PB2 which was last examined in July 2001, was also re-examined in August 2005. Seagrass cover at PB2 has increased by a factor of 10 times. The amount of macroalage has also double from approximately 10% in 2001 to 25% in 2005. The site TB1 at the Tin Can Bay township has remained relatively unchanged. At TB1 only Halodule uninervis is present and the cover is approximately 1%.
Regional roundup

Pioneer Bay
Seagrass abundance at all Pioneer Bay (PI) sites appear to be following a typical seasonal trend, with lower abundance in the colder, slow growth, winter months. Reports of high deposition of mud across site PI4 are a concern, however this appears to have had limited impact on the seagrass as abundances are within expected ranges and species composition is unchanged. Impacts on associated faunal abundance however are unknown and will be examined in the near future.

Midge Point
In late May 2005, the Wenzler family (Paul, Jennifer, Tara and Andrew) conducted monitoring at Midge Point (MP2 and MP3). Seagrass abundance and species composition were well within ranges normally expected at these sites for this time of year, Seagrass abundance was generally 20-25%. The site also had a lot of associated fauna with abundant crab holes and lots of gastropods. Epiphyte levels were high in places, but this is not a concern due to the high number of grazers (e.g., gastropods).

Laguna Quays & Midgeton
In early May, Margaret Parr, Dell Williams and a few assistants revisited sites at Laguna Quays and Midgeton. At both locations, the seagrass abundance was low, but within the ranges expected for that time of year. The sites examined all had significant amounts of mangrove detritus and showed some evidence of wind and wave activity with erosion and exposure of rhizomes. The sites also had significant abundance associated fauna with many crab holes and hermit crabs. A good sign of a relatively productive seagrass meadow.

Margaret Parr (QPWS Volunteers) reports

Slimy, slippery silty mud was again a feature of monitoring our 4 sites in Pioneer Bay.
Three sites are largely unchanged on the mud scale but on the site (PI4) nearest to the Able Point Marina (where dredging has recommenced), four of the six site marker pegs are now buried under a new wave of mud.
The twelve volunteers who valiantly contended with the mud also worked in winds up to 30 knots and at times driving rain.
The seagrass itself looked in good condition. We found little epiphyte [cover], less algae than previously, no seeds, no feeding trails, but a fair amount of dugong poo.
Of great interest to us is a different species found on site three, we will let the scientists put a name to it!
We were delighted to have Hugh Kirkman working with us for one day. He certainly pulled his weight and monitored more quadrats than the rest of us! His history of the discovery of the importance of seagrasses is amazing and it is all very recent history.
Burrum Heads dugong & seagrass research

James Sheppard, a PhD student at James Cook University and the CRC Reef has been conducting a satellite tracking study of the dugongs in Hervey Bay over the last three years. Twenty-two wild dugongs were caught and tagged with the latest in GPS satellite tags, which allowed his research team to monitor the movements of the animals 24 hours a day for up to three months at a time. His results have opened a remarkable window into the behaviors of this elusive and threatened marine mammal.

What became apparent as soon as the tracking data starting coming in was that the dugongs in Hervey Bay were using specific areas of core seagrass habitat intensely. The extensive intertidal and subtidal seagrass meadows of Burrum Heads is one of these core habitats. Many of the animals spent a large proportion of the tracking period moving in small home ranges of 0.5 to 10 km² across this roughly 25 km² area.

Recognising the importance of the site to the dugongs in the Bay, James used a marine video camera and geographic software to survey and map the entire intertidal and subtidal Burrum seagrass resource. Samples were also taken for laboratory chemical analysis to gain an understanding of the specific nutrients in the seagrasses the dugongs were targeting. A high resolution map of species type and abundance across Burrum Heads has been drafted. The next step will involve matching the dugong movements to the seagrass distribution to build a detailed picture of how and why the dugongs use the area as habitat. James has been aided in his research by the local Seagrass-Watch team, who have kindly supplied their monitoring data for Burrum Heads. This has provided an invaluable means of incorporating seasonal biomass fluctuations into the final estimates of just how many dugongs the area can support and for how long. Given the rapid development occurring around the area, this research provides further justification for continued monitoring and safeguarding of this valuable seagrass resource.

Influence of human use of catchment areas adjacent to the GBR

Kellie Lobb (James Cook University)

I'm hoping to conduct quite an ambitious Honours Research Project with the help of the Seagrass-Watch over the coming 18 months. I plan to analyse plant tissue and sediment material to assess nutrient levels at 12 locations along the length of the Great Barrier Reef.

By analyzing sediment and plant material for nitrogen stable isotopes it is possible to determine the influence of human use of catchment areas adjacent to the GBR, for example urban sewage outfalls, aquaculture or agricultural activities. This technique has been successfully used to determine the influence of sewage outfalls in Moreton Bay.

With the help of Seagrass-Watch volunteers, I am aiming to collect seagrass, macroalgae, sediment and mangrove leaves in both dry and wet seasons, to account for any seasonal variations in nutrient availability and uptake. I’m planning my first sampling for September/October to capture the dry season and aim to repeat this sampling in March 2006 to capture the wet season.

If all goes to plan my results will return a picture of nutrient influence across the length of the coastline adjacent to the Great Barrier Reef, and in particular identify parts of the coast that experience higher nitrogen (nutrient) levels than other regions.

I hope my project will be of interest to passionate seagrass watchers and will enthuse those interested in becoming involved in sample collections in September/October 2005 and March 2006.

Thanks and I hope to see you in the field!!

Natural and human impacts at Urangan

Chris Ashcroft (Australian Maritime College)

I am currently undertaking my final semester research project for the Bachelor of Administration (Marine Resources). I am a member of Hervey Bay Seagrass-Watch since mid 2002 and first participated as part of Urangan State High School Marine Studies program.

I am now in my final semester of University (Maritime College and University of Southern Queensland), which requires that I undertake a research project relating to the marine ecosystem. I have chosen to study the growth patterns of seagrass over time in the Hervey Bay area (particularly sites UG1 and UG2), and hope to identify possible causes (both natural and human) of fluctuations in growth and biomass.

As I only have one semester to complete the research, the project will be brief. However, I hope to identify and correlate major trends in seagrass growth to natural and human impacts (such as flooding and the extension of the Urangan Marina). I will hopefully have some results for everyone in the next newsletter.

I would also like to thank the seagrass monitoring team responsible for UG1 & UG2, Trischelle Lowry and Len McKenzie for all of their assistance with this project.
The Poo Report: In search of seeds!
By Dr Michelle Waycott, School of Tropical Biology, James Cook University

Since 2000, my students and I have been trying to establish if the dugong might be dispersing seeds of some seagrass species, helping to ensure our seagrass meadows can recover and ensuring genetic exchange. As most Seagrass-Watch participants know, dugongs live on a diet of seagrasses and their feeding activities can often be seen as a furrow in the seagrass meadow. Over the past 4 years we have been accumulating dugong poo, many of which have been collected by Seagrass-Watch groups when they are out and about. Collecting poo is not a fun thing to do, it is usually fairly smelly and often looks remarkably like human poo (see photo)! However, it is very useful for us as it is the only way we can work out if seagrass seeds are making it through the gut if the dugong.

A recently completed student project finished sorting all the dugong poo we had at the time and has shown some very interesting results. The student, a 3rd year student at J.C.U. Veronica Magnusson, carefully sorted through each sample and found that while many poo's did not have any seeds in them 19%. Of all the seeds she found, Veronica also discovered that Zostera seeds were dominant among the samples we had and found in the poo obtained in November from Hervey Bay and Pioneer Bay. Only 1 sample contained Halodule uninervis seeds, that was found in a June collected sample from Shelley Beach. These observations match the dominant species found at all of these sites and the time of year would be when the seeds are at their maximum in the seagrass meadows.

So, now we know that seeds make it through the gut but we still don’t know if they are able to germinate and grow once the poo is dispersed. although as the samples are frozen when collected we have a limited ability to interpret what the viability of seeds is. To test this we examined the seed structure microscopically to determine if the seed coat was intact and showing no signs of being digested or broken (see drawings).

These results were promising indicating that 43% of the seeds were intact (see graph). A few seeds, 20%, had been partially digested in their passage through the gut of the dugong and the remainder, 37%, were empty of any embryo the seed coat being visible only. The fully intact seeds were examined further to determine if the embryo inside the seed coat appeared healthy, all were! So, although this is not a definitive analysis, nothing short of germinating the seeds from a poo can provide that level of confidence, we believe this gives us evidence that the dugong can transport seeds.

We are keen to keep collecting poo, if you see them out on the tidal flats, pop them in a plastic bag and freeze them. Get in touch with your seagrass watch co-ordinator to find out how to get the poo to us or call me directly.

We would like to thank all the people who have provided samples. They help us understand our seagrass habitats better.

Contacts: email michelle.waycott@jcu.edu.au telephone (07) 4781 5246.
Cayla Ruttiman (Class 3/4c Magnetic Island State School) reports

On Tuesday 19th July, Class 3/4C went on an excursion to Picnic Bay to do a seagrass survey. Before we got on the bus we did a check to make sure everyone had everything they needed. When we got to Picnic Bay we ate some lunch then went down to the beach. Then we put our bags down on the sand. After that Jane [Mellors] showed us some equipment we needed to look at seagrass. Then Miss C [Cislowski] split us into groups, the people in my group were Cara, Seamus, Olivia, Puku, Jesha, and Lachlan. My group found heaps of H. ovalis, H. uninervis and some other seagrass. After that we laid out transects and a quadrat we got the clipboard and wrote down what animals were near the seagrass like snails or crabholes. Then we wrote down what type of seagrass were in the quadrat. After that we needed to write down the percent of the seagrass coverage like 15% seagrass coverage, then the percent of algae cover that's how much algae is in the quadrat. After that we did how much epi-cover and how long the seagrass leaf is. Then we did the next 5 metres and the next. After I did a few of them I joined the seed collecting group. In the seed collecting group you need to sieve a core and write down how many whole and half seeds you find. Soon after that we had to go back to school and eat big lunch.

Karen Bird (TCC) reports

Seagrass-Watch HQ (DPI&F) conducted Seagrass-Watch training for Townsville volunteers at Belgian Gardens State School on 4th June 2005. The training was funded by Envirofund with in-kind support from DPI&F, Townsville City Council and Belgian Gardens State School. Fifteen people attended the training day, along with two representatives from Seagrass-Watch HQ in Cairns, DPI&F, CoastCare and Townsville City Council Representatives. Seagrass-Watch volunteers ranged from James Cook University students to primary school teachers and representatives from conservation groups across the region.

Len McKenzie, Seagrass-Watch program leader, provided an interesting visual presentation on seagrass meadows as ecosystems, and the animals relying on these systems for a life source. Len also discussed the major varieties of seagrass species found in Queensland, including the predominant plants around the Townsville region, and some handy tips on how to visually identify each species in the field.

Dr. Jane Mellors, from Seagrass-Watch HQ, discussed the Seagrass-Watch sites around Townsville and explained the visual and manual survey techniques used. Jane also gave explanations on how visual aids are used for seagrass coverage estimates, and the importance of gaining such vital information at regular times.

After the presentations and a wonderful lunch volunteers made their way down to the Rowes Bay site, where the survey and monitoring techniques were put to use.

On the 23rd April 2005, Jane Mellors (Seagrass-Watch HQ) gave a presentation on the new seagrass monitoring program at Picnic Bay (Magnetic Island) to the Local Marine Advisory Committee, teachers from Magnetic Island Primary and members of Magnetic Island Rotary Club. Activities included seagrass monitoring techniques and seagrass identification. Magnetic Island Primary and Magnetic Island Rotary Club have adopted a seagrass monitoring site at Picnic Bay and will be monitoring every 3 months. Funding from Envirofund Round One 2004-2005 and in-kind contributions from DPI&F and TCC have provided kits and training for these groups.

Above left: Cockle Bay team primed for action L-R Elena, Catherine, James, Yuki, Linda, Marilyn and Alan.
Above right: Rhonda, Karen and Catherine estimating cover at Cockle Bay.

Cayla Ruttiman (Class 3/4c Magnetic Island State School) reports

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Ecofiesta 2005
Karen Bird (TCC) reports
The Seagrass-Watch program was well displayed and presented at this years’ Ecofiesta. The Seagrass-Watch stand generated a lot of interest from the public, with both school children and adults making inquires into the volunteer organisation. A seagrass identification activity was provided to create a hands-on experience with the visual concept proving popular amongst the many participants. A colouring-in activity for the younger children provided education about the many sea creatures that inhabit seagrass meadows.

Overall the day was great success, with the many activities for all age groups providing an exciting and educational experience for all who attended Ecofiesta.

Lucinda, Halifax Bay
In May, Jane Mellors (Seagrass-Watch HQ) travelled to Lucinda to inspect the seagrass site that the Herbert River Rotary Club want to monitor. The weather was definitely against them, with squalls coming across at regular intervals and gale force winds blowing. Needless to say the tide did not drop as much as it should. However enough of the seagrass meadow was exposed that they could confirm the species they would be recording and to decide on a sampling design. It was decided that instead of using the standard three transect (50m x 50m) design they will monitor 30 random quadrats between two GPS points at this intertidal site (HX1). This change in design was because the meadow was only approximately 25m wide and fringed a large sand bank. Despite the weather there was a good turn up of volunteers who were all very enthusiastic.

Bushland Beach
Jane Mellors (Seagrass-Watch HQ) reports
Since the last newsletter we have successfully monitored Bushland Beach (BB1) twice. We were joined in April by many seasoned Seagrass-Watchers; Kath McMahon had flown in from Brisbane to get her fix of intertidal seagrasses before heading off to Perth, Jaunita Bite was there from Indonesia and Len McKenzie from Seagrass-Watch HQ, Cairns. With this eclectic group we felt eminently qualified to monitor the seagrass this month. We were again out on the seagrass flats in July. The Bushland Beach team were joined by regular watchers from the Shelley Beach sites, who wanted to see how the seagrasses at Bushland Beach compared to those at Shelley Beach. The verdict . . . well that would be telling, come see for yourself.

Regional roundup
Overall the monitoring within the July 2005 period proved to be very beneficial, with a range of new sites across Townsville creating a rather hectic schedule for volunteers and organisers alike. Although more volunteers would be much appreciated, those keen Seagrass-Watchers that made themselves available, collected vital information on the health and composition of seagrass meadows during the winter months. The abundance of seagrass for the winter period for Townsville areas was generally low, but this is to be expected as winter is the slow growing period. Seagrass is much more productive in the summer months.

Unfortunately, Karen has announced she is retiring from the position of Local Coordinator due to current work and other commitments. Karen has done a great job helping to progress Townsville Thurangowa Seagrass-Watch and was successful in securing funds to assist with the development of the program in Townsville and Magnetic Island. She worked closely with local schools and the city council, developing several partnerships and promoting the program. We all wish Karen the best on her future endeavors and thank her for her efforts.

We are currently looking for a local coordinator in Townsville. Please contact Seagrass-Watch HQ if you would like more information (see page 20).
Belgian Gardens State School - Rowes Bay
Junior Rangers

Rowes Bay Junior Rangers from Belgian Gardens State School recently monitored seagrass in Rowes Bay, Townsville. With training from Jane Mellors (Seagrass-Watch HQ), students gained a full appreciation of the values of the intertidal zone. This learning experience provided students with a sense of community involvement, and a rare look into the conservation methods used by environmental managers. Below is their account of the monitoring events.

**Tess Mulhall 6J & Damien Cox 7J report**

On Wednesday, 4th May 2005 some students from 6/7J at BGSS and Jane Mellors (Seagrass-Watch HQ) went out seagrass monitoring. Also with our teacher, Mrs Gayle Joyce of 6/7J and some parents, who took time to help supervise the children. We students are the Rowes Bay Junior Rangers and we have 2 tasks to do for the community this year.

1. Clean up Rowes Bay Beach

Our learning program is on the importance of water catchments, rainforests to the reef and seagrass meadows in the Townsville region. These play a vital role in supporting marine communities and help maintain coastal water quality and clarity.

The 2 main species of seagrass, *Halodule uninervis* and *Halophila ovalis*, are found in abundance and both are a very important food source for the dugong and the green sea turtle.

When we were monitoring the seagrass there are the things we had to look for and monitor: type of seagrass, sediments, algae cover, canopy heights, epiphyte cover and we also had to comment on things that we thought were interesting like animal habitats we saw. Every 3 months a different class will go down to Rowes Bay to do monitoring because over the 3 months seagrass differences change.

Three classes go and do this monitoring and send the data to the Fisheries experts. It is great fun and we know we are doing "a little bit" to help protect the GB reef.

"….I had heaps of fun and learnt heaps" Rebekah Ash 7J
BGSS

**Kayley Zuhorn 7J**

On 4th May 2005 some students from 6/7J at Belgian Gardens State School went down to Rowes Bay Beach to monitor seagrass as part of the Rowes Bay Junior Rangers Program, run by our teachers Mrs Joyce and Mr. Murphy.

We established the “rangers” because we are a Reef Guardian School.

We received a seagrass monitoring kit from the Townsville City Council which had every piece of equipment necessary for the monitoring. At the beach we were met by Dr. Jane Mellors, who had already given us an introductory talk about seagrass at school. Jane helped us measure 50metres out to find the places where we had to put the transects and every 5 metres to place the quadrats.

There were 3 groups, each working on a transect and we recorded what we saw in each quadrat places at every 5 metres along the transect. In each quadrat we monitored the kind of seagrass, how much seagrass, the amount of algae cover, the average length of the seagrass and any other interesting things found.

After doing the quadrats, some students were shown how to monitor for seagrass seeds. We had to find whole and half seeds from under the mud and record how many we found in several locations.

It’s a great experience to be able to monitor the seagrass. It’s really fun and you learn a lot. Next term we will go down to Rowes Bay again and monitor the same site on a very low tide see if it has changed.

I was given the special task of entering the data the we recorded on the official Seagrass-Watch website and had to be very careful to be accurate.

Thank you Jane Mellors and the DPI&F for making all this possible for us.

**Steven Murphy (Class 6M) report**

On Wednesday the 3rd of August, Belgian Gardens State School went for a trip to Rowes Bay to check how the seagrass is going. This is the second time this year we have went. Most of the seagrass that we found was the HU type and sometimes we found the HO type. When we were going out the water was up to our ankles and we were pretty much sinking in the sand because my shoes were under the sand when we were walking out. We found some sea squirts and worms when we were out there.

I thought it was a good but wet day. I reckon its good and important to check the Sea Grass every once in a while so we know if its going to die or if the Sea Grass is going good. I thought it was a fun day.

"….I enjoyed the excursion and wish I could do it again. It was an awesome experience” Kate Roots, 6M, BGSS.

"….I think that the trip was very good, fun and educational. I learned a lot”. Nicole Lay, 6M, BGSS.

"….I think the sea grass excursion was a wonderful way to show students just how important the sea grass is . I think all the students and teachers agree that this excursion was both an educational and fun way to help the sea grass” Melanie Whiting, 6M, BGSS.

"….I had a fun day but it was wet. but I didn’t care” Cale, 6M, BGSS.
Seagrass-Watch Mackay

Jon Woodworth (Mackay Whitsunday Regional Coastcare Facilitator) reports

Seagrass is an important food to turtles and dugongs, but during drought kangaroos will sometimes eat seagrass too.

Residents at St Helen’s Beach north of Mackay noticed during the height of last year’s drought that mobs of kangaroos would hop out and munch on Halodule uninervis and Halophila ovalis meadows at low tide. As well as kangaroos, black swans regularly visit the area and graze on the seagrass.

St Helens Beach

A group of volunteers from Friends of St Helens Beach are currently monitoring a site near the main boat ramp at St Helens. Recent monitoring at the site indicates that the seagrass is in Good condition. The group plans to set up second monitoring site at Main Beach St Helens on a more sandy location.

Long time local Stan Halliwell says that the St Helen’s Bay supported a dugong station for about two decades from the turn of the century. Dugongs were caught by indigenous workers using row boats and harpoons and dragged ashore at Dewars Point. The place is named after Frank Dewar who owned the station which employed about 40 workers. The dugongs were drowned at sea and then dragged up the beach and boiled in a large vat. The meat was fed to the workers and sold to local farmers. The oil was very valuable and was used in a wide range of products. “The fact that such a big operation ran for many years indicates that the area sustained far bigger populations in those days,” he said. The nearby Newry Island group of islands is now a declared Dugong Protection Area (DPA).

Sarina Inlet

Sarina Inlet seagrass meadows have rebounded well from the January 2005 flood event and are now looking very healthy.

Volunteers from the Sarina Beach Progress Association recently monitored a site in Sarina Inlet and found lots of dugong feeding trails. The site is also popular with turtles which nest on Sarina Beach. Jane Mellors from Seagrass-Watch HQ recently visited the site to take sediment samples from the site to check for herbicide residues.

Mackay Whitsunday Regional Coastcare Facilitator Jon Woodworth gave a presentation to the Sarina Integrated Catchment Management Association recently explaining the Seagrass-Watch monitoring to members.

In May Jane Mellors (Seagrass-Watch HQ) visited Mackay and assisted Jon with monitoring at St Helen’s Beach and Sarina Inlet. While there, Jane collected sediment samples from Sarina inlet for the RWQPP monitoring and provided training and helped clarify seagrass species. At St Helen’s Beach (SH1) Zostera and Halodule uninervis can appear very similar as the plants are heavily grazed by turtles and dugong. St Helen’s Beach is also one of the muddiest sites to monitor and volunteers are urged to conduct a thorough risk assessment (see page 19) each time they visit.
Thursday Island

Jane Mellors (Seagrass-Watch HQ) reports

Back Beach, Thursday Island

In May we monitored Back Beach (TI1) for a fourth time, so now we have a whole year’s worth of data. It is getting to the point where we are confident of relocating our markers and know what the protocols required for successfully monitoring our seagrass. Ashley had become quite a dab hand at the photography, while Akila and Koeygab are very adept at identifying the seagrass species and estimating cover and composition. In general the seagrass appeared sparser than when we last monitored in March. We also haven’t noticed any Syringodium in our site since October last year. It has been great having Gilianne come along and help us monitor our seagrass meadow as she is able to tell us a lot about the biology of the animals that inhabit this meadow. At times, though we have had to remind her that we are here seagrass-watching and not mollusc-watching. Thanks Gilianne and all the best.

Front Beach, Thursday Island

We monitored Front Beach (TI2) for the second time with newcomers to Seagrass-Watch, Anita Zanardo and the Wheate-Church family, who quickly picked up the methodology and then there was no stopping them. While the seagrass cover appeared to be similar to our March monitoring, there did appear to be an increase in the occurrence of Enhalus in our plot and a definite decrease in the number of seeds found. The afternoon’s monitoring was memorable as the weather was perfect and the sediment is nice and firm underfoot, which Jane tells us makes for a great site to monitor.

Another fantastic trip was made to Thursday Island in late August. We successfully monitored Back Beach for the fifth time and a round of applause for all participants involved in this monitoring trip as we had to be on site by 6:00am, which is till very dark on TI, to catch the low tide. Due to a recent crocodile sighting we didn’t actually venture onto the meadow until the sun was up, but because we are all now very experienced Seagrass-Watchers we polished off the monitoring in under 45 minutes.

In late August when we sampled, we had some new recruits (Alan Keeling, Assan Wapau and Hezrom Kris) to help monitor Front Beach. They were ably assisted by Ashley Hewitt who is a regular Back Beach Seagrass-Watcher.

Hail Hail the gang’s all here!!

Right: Koeygab and Ashley estimate seagrass cover

Above: A quick refresher on estimating cover: L-R Jillian, Kalina, Carla, Anita, and Stohman, Adrian, Monika and Colleen

Top right: Karlina and the Church girls look for seeds

Bottom right: Jahmon and Jillian measure canopy height

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