



## Installation of warning boards for the Hepu Seagrass Demonstration Site

Ten warning boards were recently installed at the main road crossings and harbours of Shitoubu of Xinggang town, Yong'an and Wuni of Shankou town, and Shatian town. The boards were instigated by the management office of the Hepu National Reserves for *Dugong dugon*, a local coordinated unit of Hepu Seagrass Demonstration Site, and supported by the local governments and active coordination of the relevant departments. The boards promote the importance of the Hepu Seagrass Demonstration Site and notify people take care on the site; not to harm the seagrass or the fauna they support. ♡



## Distribution of Seagrass in South China

The Indo-west Pacific has long been recognised as the global centre of shallow water marine biological diversity and the South China Sea, which is located at the center of this marine biogeographic realm, therefore represents an area of globally significant marine biodiversity.

Seagrass meadows in China's waters of the South China Sea are mainly distributed in Guangdong Province, Guangxi Province, Hainan Province and Hong Kong.

In Guangdong Province, seagrasses are located at Liusha Bay of Leizhou Peninsula, Donghai Island of Zhanjiang and Hailing Island of Yangjiang. The seagrass meadows of Liusha Bay distribute along the coast. The dominant species *Halophila ovalis* covers more than 98% of the seagrass area.

In Guangxi, 540ha of seagrass are mainly located at Hepu in eight locations, namely Dianzhousha, Xialongwei, Beimu Salt-Field, Yingluo Bay, Danshuikou at Shatian, Shanliaojiuhejingdi, Gaoshatou and the foot of Ronggen Hill. The area of each seagrass meadow ranges from 20ha to 250ha. The dominant species in the Hepu seagrass meadow is *Halophila ovalis*. The area of seagrass bed in Pearl Bay of Guangxi is about 150ha with the dominant species of *Zostera japonica*.

In Hainan Province, seagrasses are mainly located at Li'an Bay, Xincun Bay, Long Bay and Sanya Bay. Seagrasses in Li'an Bay are distributed around the lagoon, *Enhalus acoroides* is the dominant species, whilst the total area of *Halophila ovalis* and *Halodule uninervis* is less than 10%. In Xincun Bay, 200ha of seagrasses distribute at the south of the lagoon, the dominant species is *Enhalus acoroides*, and the total area of *Halodule uninervis* is less than 8%. In Long Bay, seagrasses are located at the inner side of the coral reef in belt pattern. The area of seagrass at Shanya Bay is less than 1ha, *Thalassia hemprichii* is its dominant species.

In Hong Kong, a small area of seagrass occurs at Shenzhen and Dapeng Bays. ♡



## Threats to Seagrass in South China

Seagrass meadows in South China Sea are facing serious threats, a consequence of poor public awareness of the importance of seagrasses. Threats include:

### Construction of shrimp ponds

Shrimp culture is blooming and large areas of intertidal seagrass have been replaced with shrimp ponds. This is prevalent at Liusha Bay and Hailing Island in Guangdong Province, Pearl Bay in Guangxi and Li'an Bay in Hainan Province.



### Aquaculture

Seagrass habitats are being replaced with seashell (eg oysters, pearl, etc.) and algal culture farms. About 100ha of seagrass was destroyed at Dianzhou in Hepu (Guangxi) to make way for seashell culture, with broken pegs and waste seashells found throughout the area. Also large areas of the Liusha Bay meadow are used to cultivated shellfish. Similarly, large areas of seagrass in Li'an and Xincun Bays (Hainan Province) are used for algal culture.

### Net fishing

Local people set fishing nets on the meadows. Activities, such as piling and trampling on seagrasses during fishing, can damage the seagrasses. Also, the large and long nets accidentally trap dugongs. For example, a dugong was caught when feeding on the Hepu seagrass meadow in Guangxi, and was safely released back to sea by the fishermen.

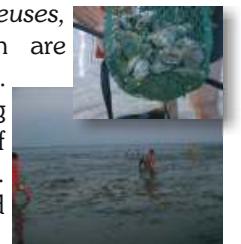


### Poisoning, blasting and electron capturing

After ebb tide, numbers of fishermen catch fish by poisoning, blasting or electro fishing. These activities are universal on seagrass meadows along the coastal area of South China, especially at Liu'sha Bay in Guangdong province. Blast fishing is quite prominent, and can be very damaging to seagrass.

### Shellfish digging

Digging *Sipunculus nudus*, *Linnaeus*, *Phascolosoma esculentaes* and shellfish are universal on most seagrass meadows. Hundreds of people, including children, dig for shellfish in the seagrass meadows of Hepu (Guangxi) and Liusha (Guangdong). Shellfish are an important source of food and income for the local people.



### Trawling

There are more than 400 trawlers working in the shallow (<10m) sea areas of Hepu. Intensive bottom trawling can be physically destructive. A component of the SCS project is encouraging operations of deeper water trawling.

### Other impacts, include:

Pollution from both land and sea (e.g. wastes from restaurants and visitors are discharged into the sea near the seagrass meadow of Xincun Bay, reducing water quality).

Port and shipping channel maintenance dredging which occurs quite universally at Hepu seagrass meadow in Guangxi.

Natural impacts, including Typhoons (e.g. a typhoon in Sep 2002 destroyed the seagrass meadows at Hepu of Guangxi, and recovery took many months). ♡



## Fiji Hideaway



The Coral Coast stretches along an 80 km length of coast on the southern side of Fiji's main island, Viti Levu. A popular tourist destination, the Coral Coast is also home to some of Fiji's more established resorts. The Coral Coast embraces Natadola Beach in the west, to Pacific Harbour further to the east.

In the heart of the Coral Coast is Tagaqe village and the Hideaway Resort, who are working together to preserve and regenerate the local coral reefs.

Tagaqe village has designated part of the reef in front of Hideaway Resort as "tabu" protected. This is a Marine Protected Area (MPA) to provide a safe environment for the coral and marine life to grow and flourish.

Recently, Tagaqe's chief Ratu Timoci Batireregu initiated a program working with the resorts along the 6 km of fringing reef in the Tagaqe area, to secure the protection of tribal reefs by the installation of effective sewage/water treatment plants, coral regeneration and cultivated rock ventures.

To help assess the condition of the reef ecosystem, Seagrass-Watch was granted permission to map the extent of seagrass resources within and adjacent to the tabu area in front of Hideaway Resort, and to establish a monitoring site.

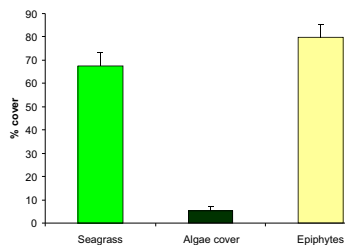
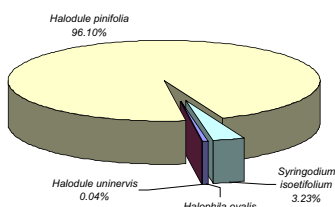
In early May 2006, Seagrass-Watch HQ scientists Len McKenzie and Rudi Yoshida mapped 1.6 hectares of predominately *Halodule pinifolia* meadows in front of the resort and conducted the first monitoring of the site. Just over 20% of the meadows were within the designated tabu area.



Map of seagrass meadows on reef-flat in front of resort (green circles=TQ1, red flags=tabu area)



Four seagrass species are found in the Seagrass-Watch monitoring site. Until recently, these were all the species found in Fijian waters (*Halophila decipiens* was recently identified from the Great Sea Reef, on the northern side of Vanua Levu). The most noticeable feature of the seagrass condition within the site was the high amount of epiphyte cover on the leaves. High epiphyte can be a natural occurrence, however at some locations it can be an indicator of elevated water column nutrients.



Above left: *Halophila ovalis* ssp. *bullosa*



Above right: A patch of *Halodule uninervis* within the dense meadow of *Halodule pinifolia*.

Continued monitoring of the site will determine if this phenomenon is natural or human induced. ♡

### Coral regeneration and the live rock trade

In the mouth of the channel to the Tagaqe tabu area, the villagers and the resort have established a coral farm, where fragments of coral are grown on racks before transplanted onto the reef. With the assistance of Walt Smith International and Pacific Aqaufarms, resort visitors can sponsor a piece of coral, where the grown fragment is glued directly onto the reef using epoxy in a sheltered location of the tabu area.

Adjacent to the tabu area, Tagaqe village is working with the Georgia Institute of Technology and the University of the South Pacific (supported by Fogarty International Centre of the United States National Institute of Health) to farm live rock for the tropical aquarium trade.

Live rock is coral reef rock covered by particular algae species, which tropical aquarium hobbyists put in their seawater aquariums to keep the water clean. You need about 1kg of live rock per 4 litres of seawater. With direct flights and markets to the US, the live rock trade has become a major income for many Fijian coastal villagers. For the last 10-15 years, the trade has relied on harvest of the reefs. It was estimated that 800,000 kg of live rock was harvested and exported in 2001, for approximately F\$1.20 per kg. After years of harvesting, villagers noticed the consequences of the live rock trade, such as destruction of marine habitats, the undermining of the reef structure and erosion. However, instead of breaking off pieces of coral rock for sale, Tagaqe village has begun planting pumice pellets as a substitute for reef rock. Pumice pellets are hung on wire on the reef flat adjacent to the tabu area. After about eight months the pellets become naturally covered by the desirable species of algae, and these are marketed as environmentally-friendly live rock to aquariums around the world. Revenue from the cultivated rock venture will flow to the village's development and education projects.

For more information on Hideaway Resort and its environment program, please visit [www.hideawayfiji.com](http://www.hideawayfiji.com) ♡

Right: Live rock farm - pumice pellets strung on wire

Below: Coral farm - coral fragments grown on racks before transplanting





## Seagrass-Watch in Suva

Suva is the capital of Fiji and is located on the southeast coast of the island of Viti Levu. It became the capital in 1877 when the geography of the former capital at Levuka on the island of



Ovalau proved too restrictive.

Suva has a population of 167,975 (1996 census). Rapid population growth and urbanisation of the city and corridors has put increasing environmental pressure on the region. Environmental degradation is largely due to domestic waste and sewage disposal dumped in mangrove

habitat and water ways. Industry in the area discharge their waste directly into rivers and coastal waters, which significantly reduces water quality in the near-shore waters around Suva. Often little or no regard is paid to the importance of mangroves and seagrasses in the marine food chain or the problem of leaching of pollutants during periods of high rainfall.

High concentrations of nutrients (sewage) also cause algal blooms that are destructive to the ecology of the harbour waters. A recent study undertaken by the University of the South Pacific indicated that the general water quality of Suva harbour gave cause for concern. Water pollution around Suva is dire and very worrying in terms of health for the local population and the environment. Pollution is obviously effecting the biology in the area, as



fish caught off Suva harbour sometimes have an oily, kerosene flavour, while marine life in the harbour has been degraded. Shellfish feed by filtering the water they live in. Those found in coastal areas of Suva absorb sewerage waste and the population of Suva has been advised not to eat the local shellfish because of the danger of hepatitis. Despite that problem, Suva harbour and Laucala Bay remain a major source of food for low-income residents (source [www.unescap.org](http://www.unescap.org) & [www.sprep.org.ws](http://www.sprep.org.ws)).



In May 2006, a Seagrass-Watch site was established at Suva Point (Nasese) by Len McKenzie and Rudi Yoshida, to help assess the condition of Suva's marine habitats.

Located on large mud flats in front of an education precinct, the site is easily accessed by foot. The meadow is comprised of *Halodule uninervis*, *Halodule pinifolia* and *Halophila ovalis ssp bullosa*. Of concern, was the high amounts

of epiphytic algae covering the leaves and macroalgae, which formed a thick mat over the grass. Also of note were significant clumps of drift algae washed up along the foreshore.

It will be interesting to compare this site in the new capital with Cawaci, near the old capital Levuka. ♡



Left: Epiphytic algae covering seagrass  
Below: Drift algae along Suva shoreline



## Cawaci, Ovalau

### Shaun Ashley reports



On May 7th 2006, we were fortunate to be accompanied by Seagrass-Watch program leader Len McKenzie and Rudolf Yoshida. The group of five left for Cawaci at 8.00am Sunday morning, with transport supplied by the Royal

Hotel, to brave the hot sun and carry out the sampling. While recording of the data at the two sites, CW1 and CW2, it was observed that the amount of macro algae in some areas has increased significantly with more epiphyte seen growing on the seagrass. The major observation made at the time of sampling

was that, recent excavations by Department of Roads at site CW2 has permanently filled with water which has contributed to new patches of *S. isoetifolium* growing in the area with *H. uninervis* growing closer in shore in the pools. Upon carrying out our July



2006 sampling at Cawaci, changes were noticed at both CW1 and CW2. The main observation was that there has been a significant decrease in algae present on both sites as compared to past observation. Secondly seagrass has decreased especially *S. isoetifolium* which has eventually decreased in the area being monitored. Also major digging was evident between the two sites which we feel could be a likely contributor to the changes. ♡



# PNG & Malaysia

## Seagrass-Watch & Motupore Island



Jane Wia (Research and Training Officer,  
Motupore Island Marine Biodiversity Unit)

Seagrass-Watch on Motupore Island has taken off successfully with the first of its quarterly monitoring surveys conducted in April of this year and the next one scheduled for the end of July. An additional monitoring site (BT2) has been established as a replicate to the initial BT1. We also hope to be able to set up further monitoring sites in the near future with assistance and collaboration from local communities within Bootless Bay, Central Province. The Motupore Island Research Centre (MIRC), in collaboration with Project Seahorse, has recently received funding from the Australia and Pacific Science Foundation to conduct a study into the diversity, distribution and trade of seahorses in Papua New Guinea. As some of the survey sites for this project overlap with those for Seagrass Watch, we hope to conduct surveys for seahorses during the sampling times in order to offer some insight into the presence of these wonderful animals in seagrass habitat. ♡



Above: Seine netting for *Hippocampus kuda* (right) in the seagrasses around Motupore Island.



## For the love of the seahorse (Malaysia)

By Hilary Chiew (The Star Tuesday June 20, 2006)

"You have 40 minutes, so get moving," instructs seahorse researcher Choo Chee Kuang. Divided into three groups, the nine volunteers quickly take up position and set about laying transect lines.

It is nearly 7am and the rays from the rising sun illuminate the dark patches of the muddy ground, bringing to life the green pastures at the Sungai Pulai estuary in Johor, Malaysia.

Otherwise submerged, the seagrass meadow is gradually exposed as the tide ebbs, together with invertebrates like the starfish, sea anemone and sea cucumber. The verdant carpet in the sea could very well be a submerged vegetation "bridge" connecting southwest Johor to Tuas in Singapore, given its sheer size of 38ha.

Since August, volunteers of the Save Our Seahorses (SOS) have descended upon the largest seagrass meadow in the peninsula once a month. SOS was set up last year by a group of enthusiastic members of the public in Johor after they learnt of the dire state of seahorses in Sungai Pulai. To date, 72 volunteers have lent a hand to Choo in his effort to save the spotted seahorse (*Hippocampus kuda*).

Briefed on the tasks and supervised by Choo, they assist in collecting data on the diversity, distribution and abundance of seagrass community on the intertidal meadow. Apart from

identifying the various seagrass species, they also record species of algae and invertebrates.

When the tide returns and covers the meadow, the survey team switches to seahorse surveys, using a drag net to comb the seagrass meadow. But the elusive fish disappoints them. They only net three of its closest relative, the crocodile pipefish (*Syngnathus biaculeatus*).

Locally referred to as the Merambong seagrass meadow, the meadow is under threat from the expansion plan of the Port of Tanjung Pelepas (PTP). "If nothing is done to check the development project between Tanjung Kupang and Pendas, the seagrass meadow is doomed and so is the seahorse," Choo says, in reference to the impending port expansion programme that will reclaim a further 8km of shoreline.

Although the expansion plan does not reclaim the seagrass meadow, Choo says it would have an adverse impact on the fragile ecosystem. High sedimentation would lead to algae blooms that will further impede photosynthetic activities. Choo suggests that PTP constructs its warehouse complex further inland instead of removing riverine mangrove that can act as a buffer against sedimentation.

The lecturer at the University College of Science and Technology Malaysia, Terengganu, says ignorance and indifference have led to the disappearance of a huge tract of seagrass meadow at Tanjung Adang following reclamation by PTP in 2003. "Now, further development of the port is closing in on the last remaining seagrass meadow in the confluence of the Straits of Malacca and Johor Straits." Choo says the Second Link project has likely destroyed seagrass meadow that were never documented.

Adverse impact from the on-going development is already being felt by fisher folk like Hanuar Isa, vice-chairman of the Kampung Ladang Fishermen Club that represents 50 families in Tanjung Kupang.

"Our fishing ground has shrunk substantially. We gave up a big area in the river for PTP, which designated it as a shipping channel. Deepening of the channel also altered the current flow and extensive reclamation for the port project has polluted the river. We still spend the same amount of time at sea but the returns have dropped," he says.

He says fishermen who ventured into cage culture face a bleak future as the water quality has deteriorated. Hanuar says employment promises were largely unfulfilled because of a mismatch of skills and jobs offered by PTP. It now hires 10% of the locals, mostly as cleaners and garbage collectors.

Data compiled from the surveys will be valuable towards developing a management and conservation plan which SOS hopes to complete by next year. With the report, it hopes to convince the authorities to turn the estuary into a marine protected area. "We hope that one day, the local community will be empowered to monitor their own fish stocks, seagrass health and water quality."

Early this year, SOS joined the Australia-initiated Seagrass-Watch which aims to raise awareness on the condition of near-shore seagrass ecosystems and provide early warning of coastal environment changes. Set up in 1998, Seagrass-Watch is currently monitoring 150 sites in Asia Pacific. For more details, visit <http://www.sosmalaysia.org> and [www.seagrasswatch.org](http://www.seagrasswatch.org) ♡



Choo Chee Kuang

# New South Wales & Victoria



## NSW Community Seagrass Monitoring

Rebecca Small (Seagrass Project Officer, Community Environment Network (CEN))



Well it has certainly turned chilly for the Community Seagrass Monitoring Project in NSW!!! Never the less the cold weather has not halted the interest or enthusiasm of anyone!

Workshops have recently been conducted along the NSW north coast at Urunga in the Bellinger Local Government area, Port Macquarie in the Hastings Local Government area, Old Bar/ Saltwater Lagoon in the Greater Taree Local Government area and Green Point in the Great Lakes Local Government area.

So it's that time again time to get more funding! At the moment works are underway to gather vital resources and funding to extend the project and expand it further into NSW. Long term goals for further funding is to further strengthen the comprehensive national near shore community seagrass monitoring effort in Australia.

Over the last 12 months the program has been very successful involvement from over 150 leaders from government and non-government groups, and over 300 local community volunteers! A huge thankyou from myself to everyone this financial year who have lended their support and passion to the project. ♡



Left top: Participants at Green Point learn monitoring techniques



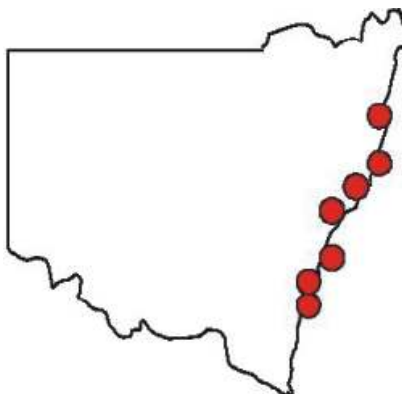
Above: Learning about seagrasses at Green Point



Left bottom: Practicing methods at Urunga

Central Coast  
Community  
Environment  
NETWORK

Map shows NSW coastline and the sites where The Community Seagrass Monitoring workshops have been undertaken by Rebecca Small, Seagrass Project Officer.



- Bellingen - Urunga
- Port Macquarie
- Taree - Old Bar
- Great Lakes - Green Point
- Lake Macquarie - Coal Point
- Central Coast - The Entrance
- Central Coast - Long Jetty
- Pittwater - Careal Bay
- Manly
- Rockdale / Randwick / Botany
- Lake Illawarra
- Shoal Haven - Gerroa
- Eurobadalla - Congo
- Narooma - Wagonga Inlet

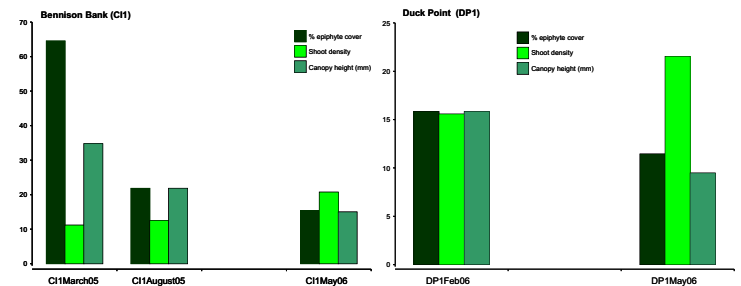
## Posidonia australis monitoring in Corner Inlet Marine National Park, Victoria

Rebecca Koss, Sea Search Project Officer

During 2005 and 2006, two sites were monitored, Benison Bank, within Corner Inlet's Marine National Park (MNP), and Duck Point, an adjacent seagrass bed within Corner Inlet Marine and Coastal Park. Duck Point was a comparison site where impact to the seagrass beds may occur due to the presence of a boat ramp, accessibility to this area from the road, and the lack of restrictions, such as fishing.

Three monitoring surveys were done at Benison Bank and two at Duck Point. The variability in the number of monitoring surveys was due to inclement weather. As the monitoring requires the use of SCUBA, conditions need to be safe for volunteers to enter the water. Monitoring results were collected by S.E.A.L. Diving Services, the local SCUBA volunteer group, and compiled by Jonathan Stevenson, Parks Victoria Marine Ranger for Corner Inlet Marine National Park.

Monitoring results from Benison Point show a large difference in epiphyte cover between March 2005 to August 2005 and May 2006. During the summer and early autumn, epiphytical cover builds up over the *P. australis* frond. This is due to an increase in light, water temperature and the type of nutrients available in the water column. The build up on some fronds can be quite dense where it has the ability to smother the top 50-75% of the leaf. This in turn decreases the ability for the leaf to photosynthesise, as it is unable to have access to light, causing it to die. *P. australis* displays this behaviour by leaves breaking at the point where the epiphytical growth starts. Leaf die back is indicated by the corresponding decrease in leaf length. Results show that shoot density has increased over time, however, an assessment of shoot density counts *in situ* has indicated that previous monitoring surveys underscored shoot density. This will be corrected by fine tuning our monitoring techniques.



Monitoring results for Duck Point has similar trends to Benison Bank. Epiphyte cover and shoot length decrease from summer to autumn. Shoot density has increased, however this is also due to the fine tuning of survey technique. Overall, it appears that shoot length is greater at Benison Bank then Duck Point, but this needs to be furthered analysed. At this stage, the collected monitoring data has only been analysed at the basic level. As more monitoring data is collected, further analysis will be done to better assess the differences between Benison Bank and Duck Point. These results will also hopefully indicate the fine tuning of monitoring techniques. It is hoped data collected from our 2006 autumn and winter season will indicate these improvements.

For information on Sea Search, visit the website: [www.seasearch.org.au](http://www.seasearch.org.au) or contact the Sea Search Project Officer by email: [rkoss@people&parcs.org](mailto:rkoss@people&parcs.org) ♡

# Torres Strait - Queensland



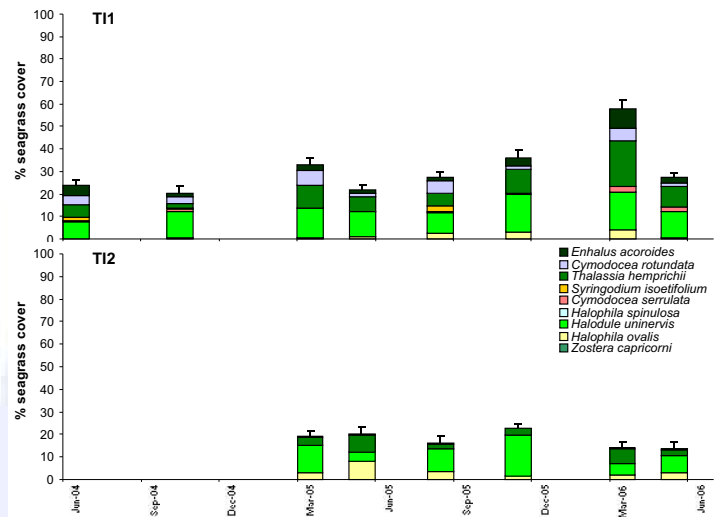
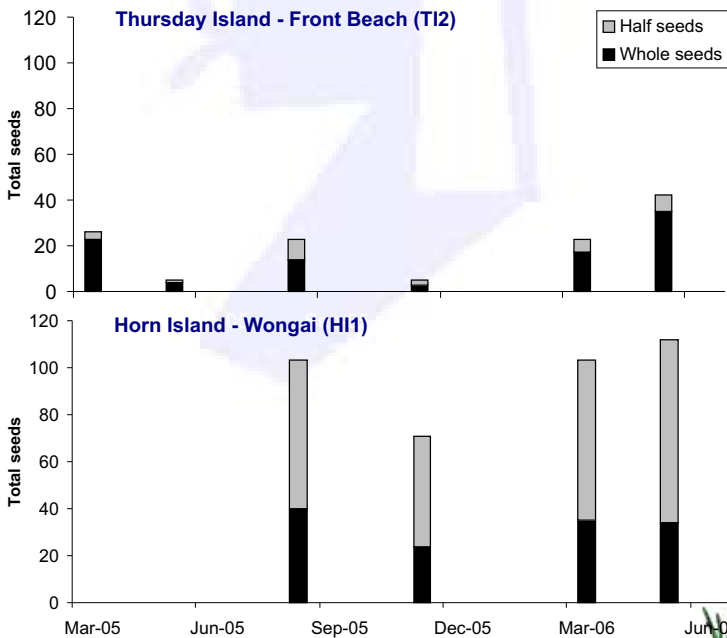
## Torres Strait Update

All three sites were monitored in late May despite school camps and the dreaded flu that was doing the rounds. Another impressive turnout for Back Beach (TI1), with Belle (Tess's puppy) joining us for the first time. Lucky she was on a lead as we may have lost her amongst the *Enhalus*. Percent covers were down compared to March sampling with no evidence of the jellyfish that were everywhere at Back Beach in March. Top marks to Ina who came straight from school camp to Seagrass-Watch regardless of her sleep deprivation.



Top left: The Back Beach team with mascot.  
Above: Belle amongst the seagrass.  
Left: Checking out the seagrass on Transect 3

Front Beach (TI2) was monitored on Sunday afternoon May 21. All up monitoring took about three quarters of an hour. It's amazing how quickly it can be done when you are not sinking to your knees in mud!!!!!! *Enhalus* flowers and fruits abounded at the deeper edge of our meadow but unfortunately not within our site. However, *Halodule uninervis* seeds were the highest they have been for this site, with the number of whole seeds outweighing the number of half seeds. The opposite was true for Wongai Beach (HI1), where lots of germinated seeds were counted. Unlike TI2, seeds were counted in all thirty cores.



Ina, Stacey and Sinitta (from TI High) were on hand to assist Jane and Ron (DPI&F) and students from Torres Class. When we first arrived on site, we thought we were going to have to count the careened boat in Transect 1 - close but not close enough. Algae cover was down this month while epi-cover was up.

Thanks to the support of the high school Jane Mellors will be able to continue assisting with Seagrass-Watch on Thursday island until the end of the year. Next monitoring for Torres Strait is early August: Back Beach (TI1), August 8; Front Beach (TI2) August 9; and Wongai Beach (HI1) August 10. The low tides are early morning so set your alarms and see you out on the seagrass flats!!



Top left: Ron takes down temp logger details  
Above: The Seagrass-Watchers of Wongai Beach



Left: *Enhalus* flowers and fruits (TI2)  
Left: Ship ahoy!!



Bottom left: Stacey takes the lead on Transect 2  
Below: Ina and Anita looking for seeds



# Queensland

## Moreton Bay Community Seagrass-Watch

Paul Finn (QPWS) reports

The Moreton Bay Community Seagrass-Watch Program is currently supported by the Wildlife Preservation Society of Queensland's Bayside Branch, Queensland Conservation, Queensland Parks and Wildlife Service, Port of Brisbane and Tangalooma Wild Dolphin Resort. However, the majority of our funding is provided by SEQ Catchments.

We currently have 241 volunteers on the database, with 204 trained in the methods of Seagrass-Watch. Twenty-three of these volunteers are new, signing up since February 2006. There are 57 sites set up within Moreton Bay, with 49 of these currently adopted by trained volunteers. Collectively, volunteers across all sites have surveyed 2567 m<sup>2</sup> since May 2001. During the March-April 2006 monitoring period only, volunteers surveyed 314 m<sup>2</sup> across all sites.

The March-April monitoring period saw a record 38 sites monitored. In addition, the Noosa Seagrass-Watch team got underway with their first monitoring period (see article in this newsletter). We were nominated for a Healthy Waterways Award again this year, this time in the research category, and although we didn't win, it is encouraging to know that our volunteer's efforts are appreciated. Two long-term volunteers attended the awards night on April 5th. We have started to deploy our recently acquired temperature data loggers, so we should be able to report on some temperature data and how it relates to seagrass health in the near future. Recently, preliminary meetings with community groups on the Gold Coast have started the process of organising a Seagrass-Watch program down there. ♡



Above left: Training day at Deception Bay 23 April 2006

Above right: Volunteers monitoring at Moreton Island Site 2 supported by the Tangalooma Research vessel



Dugong feeding trails at Ormiston (left) and Soldier crabs on the march (right)



## Great Sandy Strait Fauna and Flora Watch

Gordon F Cottle reports



After an enforced six month lay-off it was good to be back on deck again and with Robyn Bailey attempted Poona PN1 on 22/4, but were thwarted by an unpredictable tide, resulting from recent cyclonic activity, leaving 0.5m of water over the site at the supposed "low".

We proceeded to Poona PN2 which regrettably is in very poor condition, as is the whole foreshore, probably the legacy of the Easter Fishing Comp. with increased boat and people traffic (yabby pumping). Grass cover was down from 5 - 15% in May 05, to 0 - 5% with an absence of *Zostera* (ZC).

The next day at Tinnanbar TN1, 1 % coverage was well down on the previous recordings in Sept 05.

The following weekend Robyn recruited her husband and daughter Sarah (10 yrs), who did an excellent job recording, and surveyed Poona PN1, the results indicating a drastic reduction from April 05 with up to 12 - 20% cover, down to 3% maximum.

On May 27/28th we were joined by my wife Pat and successfully surveyed Tinnanbar TN3, the grass cover average being 5% with 10 & 17%, well down on the 7 - 25% in July, 05.

At TN2 surprisingly the *Zostera* (ZC) had recovered from summer "burn off" up to 15 - 20%, whilst *Halophila ovalis* (HO) had gone in some areas but showed healthy new leaf in others. There were extensive feeding trails throughout the area as reported by local observers. As at Poona the foreshore is in bad shape with vast areas of mud where previously there has been good cover.



Perfect low tides and fine weather over the weekend 24/25th June saw us using Bailey's boat (courtesy of Paul) and getting to Boonooroo BN3 for the first time in two years. Good percentage cover of 25 - 30% with a variety of grasses over all transects, having

recovered well from July 04.

On the Sunday Robyn, Pat and I walked to Boonooroo BN1 which appeared a lot healthier than last September, with a highest cover of 5%. Marine life was extensive with all grasses HU, HO and ZC in evidence, coverage up to 20 - 28%, and feeding trails throughout.

An observation on this area is that the 100mm of silt seen before has completely washed away leaving the shell grit and small rocks totally exposed, as is the grass. Good booties are the order of the day.

An exciting two months, with the next trips planned for 9/10th July, boat trips to Reef Islands (weather permitting). ♡





## Whitsundays Seagrass-Watch July 2006

Margaret Parr (QPWS Volunteers) reports

### Pioneer Bay

The Pioneer Bay seagrass team had their first outing for the year at the end of April.

Our first day saw Helen, Robina, Sandra, Eileen, Bruce and I monitoring sites PI3 and PI4. The seagrass was dying back after summer, so was short and looking rather sparse. We saw little



algae and epiphytes and no dugong feeding trails. Conditions were good for snails as there were many in our quadrats. Bruce showed the girls how to use a compass. They all mastered the skill and were able to practice when we marked out our sites.

On our second day, we were joined by Jane Mellors, Catherine, Naomi and Andrew from DPI&F Townsville. It was interesting to hear of their different involvement with seagrass.

Jane gave an informal talk on seagrass plants, their seeds and flowers. We examined different species of plants and seeds along with photographs which have been donated and very gratefully received by the team.

Out on the mud flats Helen conducted a mini workshop on seed collecting. There was a lot of looking but they only found one seed and another sprouting. PI2 was about as muddy as last year, but PI1 was significantly muddier with large patches of silty mud over the site. The seagrass coverage appears to be much less that last year.

### Dingo Beach

Dingo Beach is always an enjoyable and simple site to monitor. Sandra, Eileen, Wendy and I completed monitoring, but daylight faded before we could complete seed monitoring (*it's not easy to spot those little black shiny seeds when the sun isn't shining*). We observed healthy amounts of seagrass, but again quite small lengths.♥

## Be sunsmart

The new Seagrass-Watch long-sleeve SunShirts have arrived. The sky blue Raptor fishing shirts by Kokoda Clothing feature:

- Soft feel fabric with excellent wicking properties
- Vented back for added ventilation
- Quick release logo snaps
- Handy parallel front pockets designed for mobile phone/ sunglasses
- Generous body sizing
- Mesh lined pockets
- Sleeve fastener
- Good UPF rating
- Embroided Seagrass-Watch logo

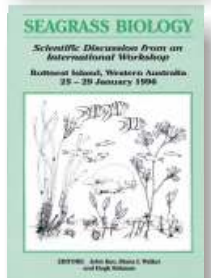
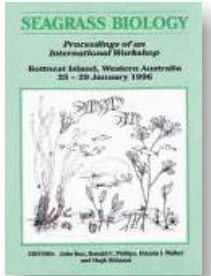
If you would like to purchase a shirt, visit our Seagrass-Watch shop at <http://www.seagrasswatch.org/shop.html>. Shirts cost AUD\$38.50 (incl GST).♥

## Seagrass Biology

Seagrass-Watch HQ has several copies of "SEAGRASS BIOLOGY: Proceedings of an International Workshop Rottneest Island, Western Australia 25-29 January 1996" to give away. The 2 volume hardcover sets, originally AUS\$80, have been kindly donated by Dr John Kuo.

The proceedings contain 49 peer reviewed scientific papers and 9 abstracts in the areas of Reflections; Diversity; Molecular Genetics; Hydrodynamics; Production and Nutrient Dynamics; Animal Interactions; Decline and Recovery; Monitoring and Management; and 8 colour plates.

If you would like a copy, send your request (*including mailing details*) to [hq@seagrasswatch.org](mailto:hq@seagrasswatch.org). Hurry stocks are limited!!♥



## Website

Over the past couple of months, Seagrass-Watch HQ has been working hard to improve accessibility and information updates on the website. To increase site access and speed, the site was moved to a new host. We apologize for any problems you may have experienced during this period viewing pages on the site. Nevertheless, the site is now easier to access, and is now top of the seagrass search lists on the most popular web search engines (e.g. Google & Yahoo).

Between 100-130 unique web users visit the site every day. So be assured, the information you collect and articles/images you contribute to the program will reach a wide global audience. Some of the most popular pages include the gallery and latest news.♥



**Do you want to get involved?**  
Contact a local Seagrass-Watch representative in your location - visit [www.seagrasswatch.org](http://www.seagrasswatch.org)



Text: Len McKenzie, Jane Mellors & Rudi Yoshida  
Layout & graphic design: Len McKenzie & Rudi Yoshida

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

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Contact: Seagrass-Watch HQ  
Northern Fisheries Centre  
PO Box 5396, Cairns. Qld. 4870 AUSTRALIA  
Email: [hq@seagrasswatch.org](mailto:hq@seagrasswatch.org)  
Phone: +61 7 4035 0100

