

# Seagrass-Watch Moreton Bay



Newsletter No. 27 – October 2008



## Introduction

Well, 2008 seems to have flown by and our final monitoring season is already upon us. With a few warm days indicating that summer is just around the corner I'm excited to be getting out in the beautiful Queensland weather.

If you check out the Good Tide Times for November and December on the last page of this newsletter you might notice that there are limited good tides on weekends so arrange your day and book your kit quickly and consider weekdays and public holidays to give you more options.

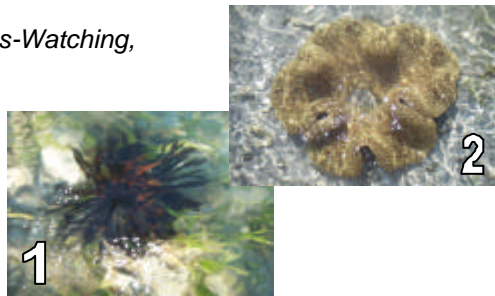
It would be great to see you at the Refresher Training day/Social Day on Sunday 9<sup>th</sup> November so that I can put a face to your name and to give us a chance to refine any details of the monitoring that you may be unsure about, particularly with the changes from November 2007.

You will also find our new website address at the bottom of this page. Simon has included all of your local Moreton Bay Seagrass-Watch data, volunteer and site information so have a look. You might find the links useful too.

On page 3, Paul has been busy data-crunching and has compared a few of our local sites so you can see how your efforts collecting data in the field are put to use.

Happy Seagrass-Watching,

Lou



1. Black Featherstar *Cenoli* sp.
2. Haddon's Anenome *Stichodactyla haddonii*

**Photographs:** Photographs of volunteers undertaking Seagrass-Watch activities are frequently taken and may be reproduced in publications and promotional material. If you do not wish a photograph of yourself to be used for this purpose please inform Paul Finn in writing. Seagrass-Watchers are encouraged to take photos of themselves during their monitoring session with the camera provided. Thank you.

### Websites:

<http://www.qccqld.org.au/Seagrass-Watch-Moreton-Bay-Overview.html>  
<http://www.seagrasswatch.org>

### Contacts:

**Paul Finn / Lou Coles**  
 Coordinators, Seagrass-Watch  
 c/- QPWS  
 Phone: 3821 9000  
 Paul: 0413 502 824  
 Lou: 0405 727 674  
 paul.finn@epa.qld.gov.au  
 lou.coles@epa.qld.gov.au

**Simon Baltais**  
 Secretary  
 WPSQ-BB  
 Phone: 3822 4943  
 Mobile: 0412 075 334  
 baltais@bigpond.net.au

## Social Day and Refresher Training Day

Sunday November 9<sup>th</sup> at Lota



10.30am Training Session:

Training for new volunteers  
 refresher for experienced volunteer



12.30pm Social Sausage Sizzle:

Meet current SGW co-ordinators & other volunteers.  
 Discuss the updated methods and upcoming projects.

Location: (UBD map 163, ref R11)

Adjacent to the Lota Camping Reserve  
 approximately opposite the junction between Royal  
 Esplanade and Orallo Street.

RSVP by 5pm Thursday 5<sup>th</sup> Nov:

For 10.30 Training Session  
 and/or 12.30 Sausage Sizzle  
 Ph. 0405 727 674  
 lou.coles@epa.qld.gov.au



## Our Own Website....

<http://seagrass.sbaltais.com/>

Moreton Bay Seagrass-Watch now has it's own dedicated website where you can look at up-to-date information and photos. At the above website you can view the most recent graph for your monitoring site, see the current list of volunteers and also temperature logger data from around Moreton Bay.

Simon has also included some very useful links that you will find all in the one spot at:

<http://www.sbaltais.com/seagrass/>

The site above is actually the temporary site, the final home for our Moreton Bay Seagrass-Watch web page will be:

<http://www.wildlife.org.au/seagrasswatch/index.html>

# July/August Round-up

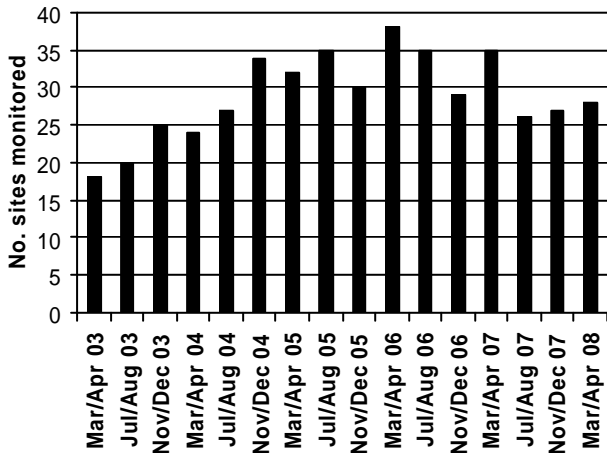
If you would like to share any of your experiences from your monitoring sessions then please email [lou.coles@epa.qld.gov.au](mailto:lou.coles@epa.qld.gov.au), photos are also welcome.

Throughout this newsletter you will see some of the interesting wildlife that were photographed in the last monitoring round by our volunteers at Amity Banks AB1. (Thanks Debra Henry and Frank and Megan Gaeta).

I also heard from the Moreton Island (MI1) team of Diana & Mike Patchett and Ed Boast that they saw a herd of 100+ dugongs while heading back from their site in August. Diana described it as a "very special experience".

Both AB1 and MI1 are sites on the eastern side of Moreton Bay and are accessible by boat. If you have a boat and would like to monitor a similar site then we do have a couple of sites available; please contact Lou.

In the last monitoring period we had a total of 25 sites monitored out of a maximum 53 established sites. This was the lowest number of sites monitored since 2004 (see the graph below). While we understand that not every site can be monitored every time especially when subject to weather and tidal conditions, we do hope to increase our monitoring rate. Thank you to all who helped us gather this important data, we hope you continue to enjoy the experience. If you need a hand to monitor or would like another volunteer to assist please don't hesitate to call or email.



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3. Leafy Flatworm *Phrikoceros baibaiye*
4. Moreton Bay Baler *Melo georginae*
5. Unidentified Sea Cucumber
6. Parchment Tube Worm *Chaetopterus variopedatus*



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## New Volunteers

**Do you have any like-minded friends, family or work colleagues that might also enjoy getting out in the seagrass meadows 3 times a year and doing their bit for Moreton Bay?**

We do have a few unadopted sites in Moreton Bay that are waiting for some enthusiastic people to visit them every 4 months. While formal training will be organised at a later date, please invite them along to the Nov 9<sup>th</sup> training session and Social Day or get them to email me on [lou.coles@epa.qld.gov.au](mailto:lou.coles@epa.qld.gov.au).

Seagrass-Watch is now being established at the Gold Coast too. If you know of anyone in that area that might be interested in volunteering then please get them to email me on: [goldcoastseagrasswatch@hotmail.com](mailto:goldcoastseagrasswatch@hotmail.com)



7. Rose Petal Bubble Snail *Hydatina physis*

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## New Zoning Plan for Moreton Bay to commence 1 March 2009

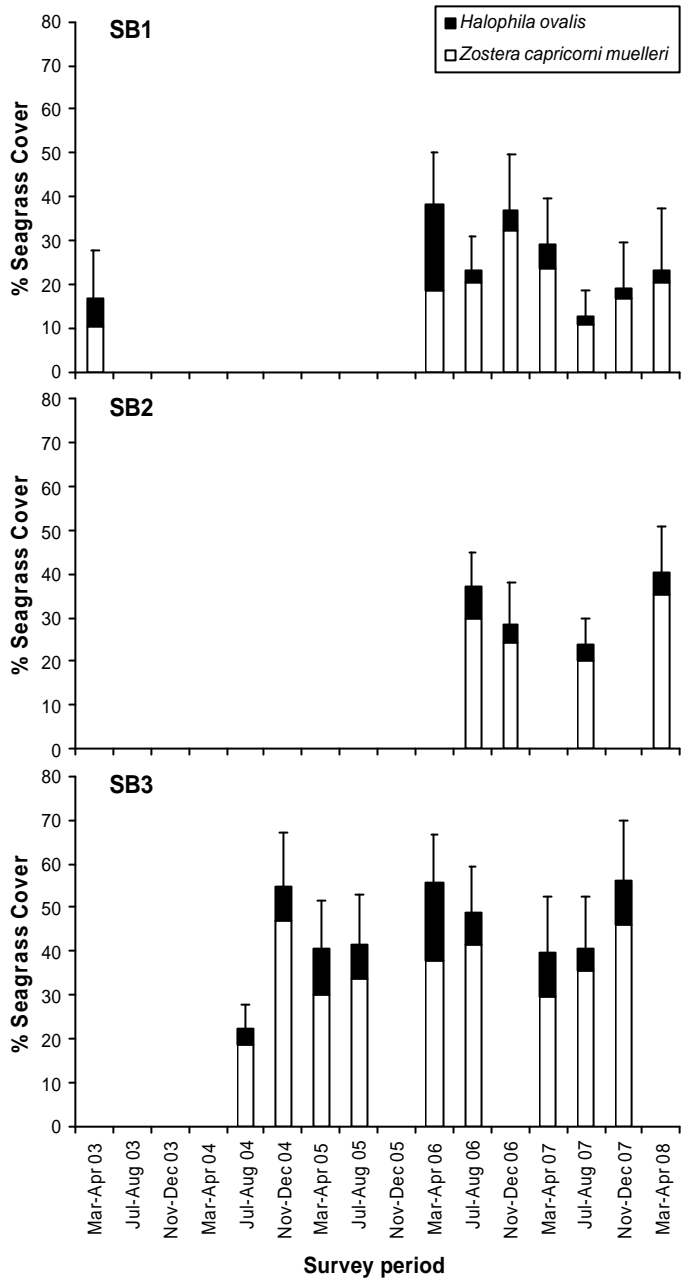
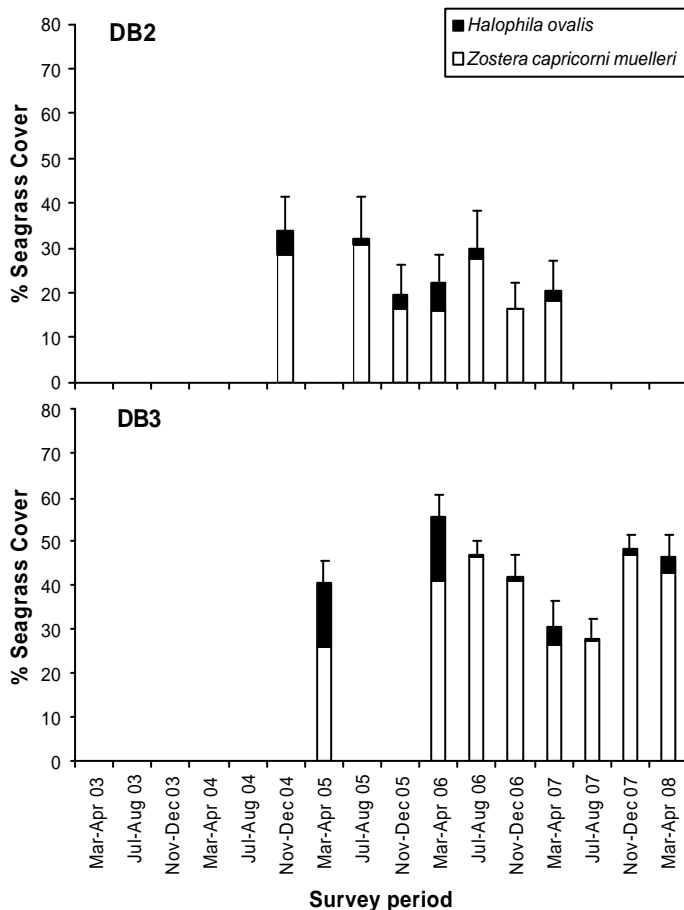
On Sunday 19th October 2008, Queensland Premier, Anna Bligh, and Sustainability Minister, Andrew McNamara, announced the new zoning plan for Moreton Bay Marine Park. The new plan protects 16% of the park in Marine National Park (green) Zones. About 19% of the Bay's seagrass meadows have been incorporated in these zones where fishing and collecting is prohibited. The new zoning plan which comes into effect on 1 March 2009 also extends Go Slow areas for turtles and dugongs and can be viewed and downloaded from the EPA's website at <http://www.epa.qld.gov.au>

# Comparing sites and locations.

By Paul Finn

Graphs show the percent seagrass cover (means and standard errors) and species composition for two sites at Deception Bay (DB2 and DB3) and three sites at the Southern Bay (SB1, SB2 and SB3) during each survey period since the Seagrass-Watch program began in Moreton Bay. (Missing bars indicate the survey was not completed and so no data was available.)

DB2 and DB3 (*below*) are about two kilometres apart along the same stretch of beach in north Deception Bay. DB3 is located southwest of Sandstone Point and DB2 is located at the northeast end of Godwin Beach. DB3 exhibits greater minimum and maximum percentages of seagrass cover. DB3 is also slightly more variable in terms of the total seagrass cover over time (between different monitoring sessions), particularly in terms of the coverage of *H. ovalis*. However DB2 appears to be more variable in seagrass cover within the site (between different quadrats within each monitoring session), as shown by the larger standard errors. Neither site shows the typical seasonal pattern where seagrass coverage peaks in summer.



SB1, SB2 and SB3 (*above*) are located among the southern bay islands. SB1 is on a sandbank between Tiplers and Kangaroo Islands, SB2 is on the western side of Tiplers Island, and SB3 is on a sandbank on the northeast side of Tulleen Island. SB1, 2 and 3 appear to be relatively similar in percent seagrass cover, ranging from 12.4 to 38.5, 24 to 40.4 and 22.2 to 56.1 % respectively. All three sites support a reasonable proportion of *H. ovalis*, which is most variable at SB1 and least variable at SB2 (where the cover is relatively uniform across monitoring sessions). Variation in seagrass cover between different quadrats within each monitoring session appears to be similar for all three sites. There also appears to be a seasonal pattern with seagrass peaking during summer at SB1 (except for Nov-Dec 2007) and SB3, but no seasonal pattern is noticed at SB2.

# Please ensure that you have read these updates to our monitoring methods.....

## Seagrass-Watch, updates to methods from January 2008:

Len McKenzie and Rudi Yoshida from Seagrass-Watch Headquarters visited Moreton Bay and the Gold Coast regions on the 24<sup>th</sup> and 25<sup>th</sup> of November 2007. We ran two workshops and learned that there are several ways we record our data that need slight modification, these are summarised below.

**Sediment description:** Dig your fingers into the top centimetre of the substrate and feel the texture. Describe the sediment by noting the grain size in order of dominance (e.g. sand, fine-sand, fine-sand/mud, mud/sand, mud/coral rubble). It will reduce confusion if we record the sediment in this way, taking care to list the sediment types in order from most to least dominant sediment type. For example, if the sediment is more muddy than sandy, then it is recorded as mud/sand.

**Other organisms:** If possible, be more specific about the number and type of other organisms present within quadrats. For example, information about the distributions of predatory versus algal-grazing gastropods is potentially important. Identification of other organisms should only be taken to the individuals' skill level, i.e. if you know what it is then write it down.

**Water depth:** We would like to start recording the depth of water present in each quadrat. Please measure the depth of water (in centimetres) in the centre of each quadrat and record it in the comments (if there is no water, please also make a note of this).

**Photographs:** These are to be taken at 5, 25 and 45 meters along each transect instead of 10, 25 and 40 meters. Please take the photo from as vertical as possible and make sure to include the three items: the quadrat, quadrat identifier and tape measure.

**Estimating percentage seagrass cover:** Always use the percentage cover photo guide to narrow down seagrass cover estimates. Also, please be more specific with estimates, especially if the cover is less than 50% (i.e. do not simply round off to the nearest 5%). Never use greater- or less-than symbols (i.e. '<' or '>').

**Seagrass canopy height:** When measuring the seagrass canopy height, please take care to select seagrass blades randomly and not to focus on the three longest blades. Seagrass-Watch HQ advise ignoring the top 20% but if you have some other sort of system that works for you (e.g. always taking samples from roughly the same three points within the quadrat) then continue.

**Seagrass species composition:** Estimate the least dominant species first, up to 100%. This is useful for quality assurance/quality control (QAQC) procedure as some people have trouble adding up. If we have this system of writing down the least dominant species first then we can generally work backwards to get the percentage composition. Try and use several diagnostic characteristics for species identification (e.g. blade shape, leaf venation and rhizome structure/colour), not only one.

**Macroalgae:** Please record anything that is not attached to the seagrass and keep separate from seagrass cover, i.e. it is possible to get 100% cover for both seagrass and macroalgae if drift algae is covering the entire quadrat. In this case one must lift up and remove the drift algae in order to measure the seagrass.

**Epibionts (epiphytes versus epizoans):** Epiphytes are algae attached to seagrass blades and often give the blade a furry appearance. Epizoans are sessile animals attached to seagrass blades (e.g. ascidians or anemones growing on seagrass blades). Please do not include epizoans in with the estimation of epiphytes. Record the presence of epizoans in the comments or an unused/blank column. Also, we need to measure epiphytes more accurately, as a percentage cover, and not just within the three categories: low, medium and high. There is a new protocol for this, for example: if 20% of the seagrass blades are each 50% covered by epiphytes, then quadrat epiphyte cover is  $[(20 \times 50) / 100]$  10% (there is a matrix to help with this process, available to download at <http://www.seagrasswatch.org/monitoring.html>, under Quarterly Monitoring, Step 8. estimate epiphyte % cover). The values of percentage epiphyte cover may be lumped prior to data analyses but when and how to do this is for a statistician to decide.

**Seagrass resilience (seed bank) sampling:** For those who are keen we can provide training in assessing the *Halodule* seed bank reserve and thus the resilience of this species. Thirty core samples are taken within each site and training will be provided if you would like to give this a go.

# Mudflat spotlighting

We conduct mudflat spotlighting trips on an opportunistic basis, so we invite you to let us know if you would like to do one of these trips at your own site. This is a great way to see the hordes of bizarre creatures that utilise your site at night. Please contact Simon or Paul to arrange one of these evening events.

# Seagrass surveys

Seagrass-Watch surveys are undertaken three times a year (March/April, July/August and November/December). The November/December 2008 monitoring period is upon us and there is a limited number of good tide times – see tide times opposite (Brisbane Bar). Those who have been trained and set up at sites should select a suitable day and then contact Lou (Ph.3821 9000 or [lou.coles@epa.qld.gov.au](mailto:lou.coles@epa.qld.gov.au)) to book out the equipment. There are seven equipment kits available.

# Thanks & Merry Christmas

**A big thanks to all our volunteers  
for the past year.  
Wishing you all a happy festive  
season,  
enjoy the summer.  
We'll see you in 2009**



8. Sand fish (sea cucumber)  
*Holothuria scabra*



Wildlife Preservation Society of Queensland  
Bayside Branch ( Qld ) Inc



**PORT of BRISBANE**  
Here for the future



# Good Tides...

Month	Day	24hr Time / Height
Nov-08	Tue 04	06:27 / 0.57 m
	Wed 05	07:16 / 0.66 m
	<b>Sun 09</b>	<b>11:54 / 0.68 m</b>
	Mon 10	12:57 / 0.58 m
	Tue 11	13:52 / 0.48 m
	Wed 12	14:43 / 0.40 m
	Thu 13	15:33 / 0.36 m
	Fri 14	16:23 / 0.36 m
	<b>Sat 15</b>	<b>17:14 / 0.40 m</b>
	Tue 18	06:28 / 0.41 m
	Wed 19	07:27 / 0.53 m
	Thu 20	08:36 / 0.64 m
	<b>Sat 22</b>	<b>11:19 / 0.70 m</b>
	<b>Sun 23</b>	<b>12:26 / 0.66 m</b>
Mon 24	13:21 / 0.61 m	
Tue 25	14:10 / 0.57 m	
Wed 26	14:54 / 0.54 m	
Thu 27	15:35 / 0.53 m	
Fri 28	16:14 / 0.54 m	
<b>Sat 29</b>	<b>16:52 / 0.56 m</b>	
Dec-08	Wed 03	06:06 / 0.54 m
	Thu 04	06:51 / 0.63 m
	Fri 05	07:43 / 0.70 m
	Tue 09	12:34 / 0.69 m
	Wed 10	13:40 / 0.58 m
	Thu 11	14:38 / 0.49 m
	Fri 12	15:32 / 0.42 m
	<b>Sat 13</b>	<b>16:23 / 0.38 m</b>
	<b>Sun 14</b>	<b>17:12 / 0.38 m</b>
	Wed 17	06:20 / 0.39 m
	Thu 18	07:12 / 0.53 m
Fri 19	08:10 / 0.66 m	
Thu 25	14:39 / 0.67 m	
<b>Fri 26</b>	<b>15:21 / 0.61 m</b>	
<b>Sat 27</b>	<b>16:00 / 0.56 m</b>	
<b>Sun 28</b>	<b>16:36 / 0.53 m</b>	
Mon 29	17:10 / 0.52 m	

**Compiled by:** Lou Coles & Paul Finn

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**Published by:** Wildlife Preservation Society of Qld Bayside Branch.  
PO Box 427 CAPALABA Q 4157, October 2008

**Disclaimer:** The views expressed in this newsletter are those of the writers and not necessarily those of the Queensland Government.