

Seagrass-Watch Gold Coast



Newsletter No. 6 – March 2011



Summer 2011

Websites:

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

<http://www.seagrasswatch.org>

Contacts:

Daniela Wilken-Jones
Coordinator, SGW Gold Coast

C/- QPWS Burleigh
Kabool Road, West Burleigh, 4220
Phone: (07) 5520 9600
Mobile: 0432 988 513

goldcoastseagrasswatch@hotmail.com

Simon Baltais
Secretary
WPSQ-BB

Phone: 3822 4943

Mobile: 0447 539 968

baltais@bigpond.net.au

Nick Hoffmann
Coordinator, SGW Moreton Bay
nick.hoffmann@derm.qld.gov.au

Ewa Meyer
Projects Manager WPSQ
ewa.meyer@wildlife.org.au



Sunset on Brown Island site 2

Here's the first newsletter for 2011 and with the first Seagrass-Watch monitoring period of the new year fast approaching (March/April) it's time to check out the 'Good Tides' at the back of this newsletter and contact Daniela to book out your kit.

With all the extreme weather we have been having recently we would be very keen to see what effect it has had on our local seagrass beds, so it would be great to get as many sites as possible monitored this season.

Check out the article 'After the Floods' by Simon Baltais on page two and find out why your contributions are so important to seagrass and seagrass communities.

If you are new to SGWGC why not attend one of our training days being held this season, its a great way to meet like minded people, have some fun in the sun while learning about seagrass and monitoring techniques – see opposite for details.

Look forward to seeing you in the field this Summer, until then;

Happy Seagrass-Watching, Daniela

Training Day's

Field training days are an excellent way for new volunteers to acquire the skills required for monitoring a site and for existing volunteers to freshen up on their field techniques.

Training will be conducted at the following sites during March-April.

Tallebudgera Creek site 1

Saturday 2nd April

11:30 am Training Session

Brown Island site 1

Saturday 16th August

10:30 am Training Session

Lunch will be provided at each training session, so come along and enjoy a social and educational day by the water with Seagrass-Watch Gold Coast.

For details please contact Daniela on 0432 988 513 or goldcoastseagrasswatch@hotmail.com to book your place and for catering purposes

We are now on Facebook

Check us out and keep informed
look up

Seagrass-Watch Gold Coast

And don't forget to tell your friends or other 's who may be interested.

After the Floods

by Simon Baltais

A taskforce of scientists from a range of organisations in the fields of marine ecology, remote sensing, modelling, water quality monitoring, geomorphology and hydrology are out in Moreton Bay to answer two big questions.

1. What is the initial impact on the waterways & Moreton Bay and
2. How long will it take for Moreton Bay to recover

Seagrass-Watch and Mangrove-Watch will be playing their roles in helping answer these questions. Therefore, we believe it's very important that as many of our sites as possible are monitored during the up and coming monitoring season. Worldwide seagrass meadows are responsible for about 15% of total carbon storage in the ocean*. An enormous contribution of great value to natural systems.

With over 80 monitoring sites across Moreton Bay and the Gold Coast, Seagrass-Watch and Mangrove-Watch are well placed to help understand what is going on in the bay after the floods.

The flood has also raised many questions about how we best manage our urban and rural catchments and creates opportunities to design for greater resilience to future rainfall events.

However, we do know that:

- There are likely to be human health implications regarding recreational use of waterways and fishing
- Flood waters will increase turbidity (or the amount of sediment/soil) in our waterways and Moreton Bay
- Large plumes of soil will move into mangrove areas and Moreton Bay, in time these deposits will settle and may smother seagrass and corals. Dugongs, turtles, birds and other marine life dependant on seagrass as a food source could be at risk
- The elevated nutrient levels carried in flood waters could lead to outbreaks of algae after the waters clear of suspended sediments
- Slumps in dissolved oxygen levels, as a result of increased organic matter that decomposes, could result in localised fish kills.

Moreton Bay has been put under severe stress from recent flooding events. We need to know what is going on to help make the right management decisions to bring it back to a healthy state.

For all these reasons your help this monitoring season will be one of the most valuable to date. We look forward to seeing you on the mudflats and helping the scientists answer those questions.

*[http://www.marineclimatechange.com/marineclimatechange/bluecarbon\)_2_files/carbon_management_report_final_printed_version_1.pdf](http://www.marineclimatechange.com/marineclimatechange/bluecarbon)_2_files/carbon_management_report_final_printed_version_1.pdf)

Did you know...



Seagrass is linked to the seahorses upright position

Professor Norm Duke MangroveWatch

If you're near Gympie – Why not go check out the lunchtime lecture by professor Norm Duke from MangroveWatch

On Saturday 2nd April at 1pm
@
The Gympie Regional Gallery

discussing his involvement in this very worthwhile environmental group.
www.mangrovewatch.org.au

Macroalgae



Increased nutrient runoff after extreme weather events and floods may lead to a process called eutrophication or algae blooms which inhibit seagrass growth.

Macroalgae are so diverse that although there are identification sheets in your SGW kit, it only covers some of the more commonly encountered species. If you want to identify a species you find take a photo and make a note about it and we will endeavour to find out for you.

Seagrass surveys

Seagrass-Watch surveys are undertaken three times a year (March/April, July/August and November/December).

The **March / April 2011** monitoring period is upon us and there are plenty of good tides to choose from – see Good Tides opposite for the Gold Coast Seaway.

Those who have been trained and set up at sites should select a suitable day and contact Daniela to book out equipment.

Please give plenty of notice.

Marine Strandings

If you come across dead or injured marine wildlife such as turtles and dugongs, please call the

**Marine Strandings Hotline on
1300 130 372**

Save the number in your mobile phone

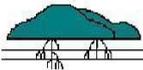
Thanks

A big thankyou to all the volunteers for generously giving their time to this valuable community monitoring program. SGWGC would also like to thank Linda Ray for her very valuable support and continued assistance to the program.

Compiled by: Daniela Wilken-Jones and Simon Baltais
Seagrass-Watch Coordinator

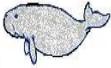
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Disclaimer: The views expressed in this newsletter are those of the writers and not necessarily those of the Queensland Government.



Wildlife Preservation Society of Queensland

Bayside Branch (Qld) Inc



wildlife.org.au



Healthy land – healthy water



Gecko



The Norman Wettenhall Foundation



**Queensland
Government**

Good Tides...

Month	Day	24hr Time / Height	
March	Thu 3 rd	1351 / 0.19	
	Fri 4 th	1420 / 0.16	
	Sat 5th	1447 / 0.14	
	Sun 6th	1514 / 0.14	
	Mon 7 th	1540 / 0.16	
	Tue 8 th	1608 / 0.19	
	Wed 16 th	1154 / 0.25	
	Thu 17 th	1237 / 0.13	
	Fri 18 th	1318 / 0.03	
	Sat 19th	1358 / -0.04	
	Sun 20th	14538 / -0.06	
	Mon 21 st	1517 / -0.03	
	Tue 22 nd	1558 / 0.03	
	Wed 23 rd	1639 / 0.13	
	Thu 31 st	1240 / 0.25	
	April	Fri 1 st	1310 / 0.20
		Sat 2nd	1337 / 0.17
Sun 3rd		1404 / 0.16	
Mon 4 th		1432 / 0.16	
Tue 5 th		1459 / 0.18	
Wed 6 th		1528 / 0.21	
Thu 7 th		1558 / 0.26	
Thu 14 th		1114 / 0.20	
Fri 15 th		1159 / 0.10	
Sat 16th		1241 / 0.03	
Sun 17th		1322 / -0.01	
Mon 18 th	1403 / -0.02		
Tue 19 th	1443 / 0.02		
Wed 20 th	1525 / 0.09		
Thu 21 st	1608 / 0.19		
Fri 29 th	1151 / 0.26		
Sat 30 th	1222 / 0.22		

Quick Seagrass-Watch Reference Guide to Monitoring Techniques:

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 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 tape, quadrat and quadrat identifier.

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 in Cairns 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.