

WILDLIFE DIARY

March 2016

Commemorating 15 years of Seagrass Monitoring

Great Finds

Mud skippers returning to the Redlands

Seagrass monitoring teams note mudskippers expanding across the Redlands. Seen 5 years ago at Ormiston we have recently seen mudskippers in good numbers at Wellington Point. It's great to see.

Population

"Nevertheless so profound is our ignorance, and so high our presumption, that we marvel when we hear of the extinction of an organic being; and as we do not see the cause, we invoke cataclysms to desolate the world, or invent laws on the duration of the forms of life!"

— Charles Darwin, *The Origin of Species*.

Seagrass and summer rain

Seagrass monitoring data (Mar-Apr 2005 – 2015) for the Western side of Moreton Bay and Brisbane average total rainfall for January (2005 – 2015) was entered into "R" (R-Development-Core-Team, 2008) and a high (0.84) correlation value was noted. The correlation for 2004 – 2015 is (.75) and 2006 – 2015 was (.92).

Waycott et al. (2007) highlighted increased seagrass growth was associated with increased nutrient availability. Urban areas are noted for producing high nutrient loads in Moreton Bay (Dennison & Abal, 1999) and seagrass growth is dependent on light and nutrients (Waycott et al., 2007).

The high correlation does not prove high summer rainfall results in increased seagrass density but it does appear consistent with past research observations.

**Make a difference.
Vote 1 for our
Wildlife during the Council election.**

"You cannot get through a single day without having an impact on the world around you. What you do makes a difference, and you have to decide what kind of difference you want to make."

Jane Goodall

Did you Know?

Did you know Seagrass monitoring in Moreton Bay has established the extent and growth in commercial bait worming in some areas of Moreton Bay. It has provided evidence of the impact of both recreational and commercial bait worming activities on seagrass meadows.

Commercial bait worming involves the raising of a wall around an area, then digging within the bunded area (pit) with a digging fork to find and take bloodworms (Skilleter, 2004). As bloodworms are a burrowing animal, harvesting involves the complete turn-over of the top 20-50cm of sediment and seagrass (Skilleter, 2006).

	Bait worming activity 2010	Bait worming activity 2013
Manly	0 m ²	9,628 m ²
Snipe Island	0 m ²	20,558 m ²
	Bait worming activity Oct 2009	Bait worming activity 2013
Lota / Thorneside	70,654 m ²	344,739 m ²
Total increase		304,271m ² (30.5 ha)

The loss of seagrass at Ormiston (OR4) in 2014 due to commercial bait worming was estimated to be approximately 50%. Similar losses of seagrass have been recorded at other seagrass monitoring sites where commercial bait worming occurs

Great Walks



You can find seagrass all along the Bayside and Redland shoreline. However, the Wellington Point to King island walk provides an ample opportunity to get up close to

seagrass and the many creatures that call it home.

Web Sites

WPSQ Coastal Community Science

<http://wpsqccs.wordpress.com/>

Seagrass Report

<https://wpsqccs.files.wordpress.com/2016/02/report-no19-28jan2016-mbsgw-sjba.pdf>

Redland Planning issues?

<http://carp-redlands.org/>

Wildlife Memorial Day

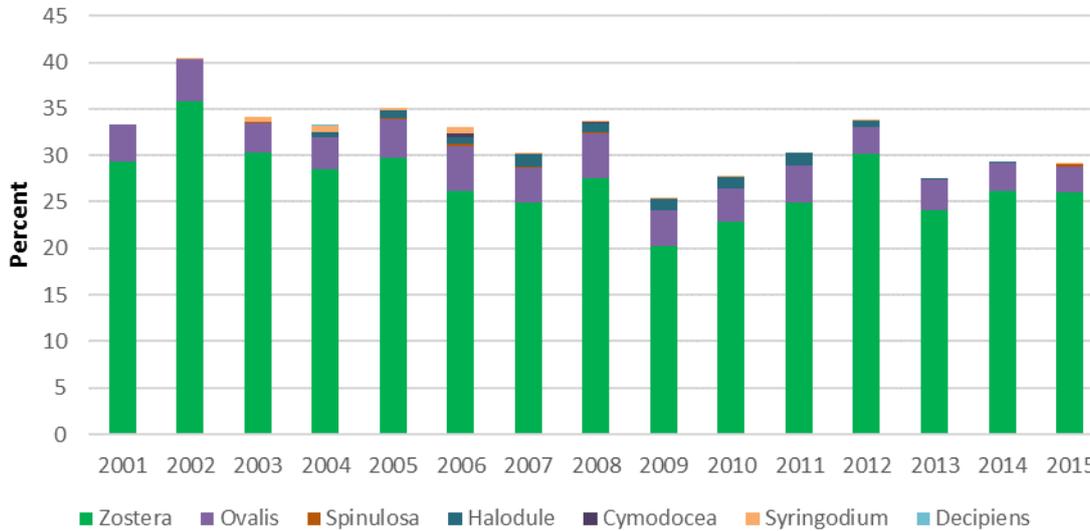
<http://www.wildlifememorialday.com>

Seagrass Update

The 2016 WPSQ Coastal Citizen Science Report has been released. So what does it show?

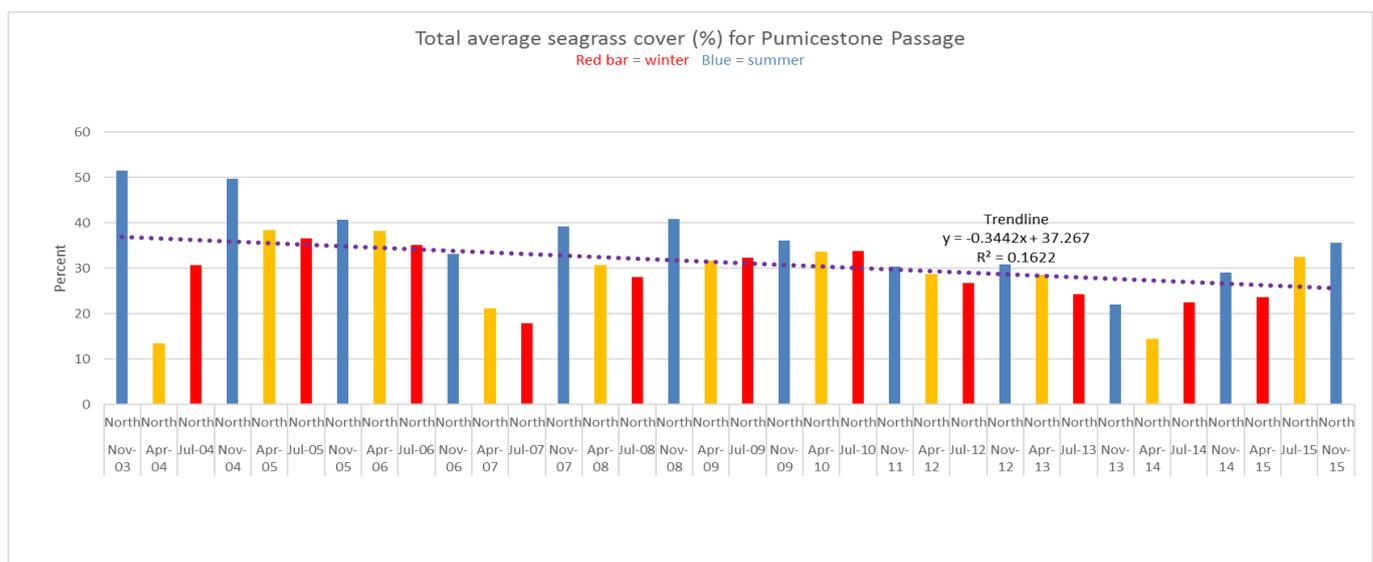
Moreton Bay supports seven seagrass species (*Zostera muelleri* ssp. *capricorni*, *Halophila ovalis*, *Halophila spinulosa*, *Halophila decipiens*, *Halodule uninervis*, *Cymodocea serrulata* and *Syringodium isoetifolium*), totalling about 25,000 ha, which occur in intertidal and subtidal areas. The seagrass cover by species composition for sites monitored since 2001 are shown below.

Seagrass annual cover (%) by species.



The monitoring undertaken continues to highlight seasonal trends in seagrass cover with seagrass density increasing in summer and declining in winter at many monitoring sites this is notable along Western Moreton Bay and the Pumicestone Passage. There has been anecdotal evidence to suggest intertidal seagrass on the Western side of Moreton Bay increased – one to two months after high rainfall events in summer.

Overall intertidal seagrass distribution appears to be relatively stable in Moreton Bay. Although there may have been some distributional shifts within seagrass meadows, sites very rarely go from supporting seagrass to being completely devoid or vice versa. There has been an interesting case where seagrass appeared in an area where it was once devoid (DB1) and another where seagrass almost completely disappeared. We are concerned that there appears to be a general decline in seagrass cover in the Northern Section of Moreton Bay. To see the full report go to: <https://wpsqccs.files.wordpress.com/2016/02/report-no19-28jan2016-mbsgw-sjba.pdf>



Never doubt that a small, group of thoughtful, committed citizens can change the world. Indeed, it is the only thing that ever has.

- Margaret Mead



Published by
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March 2016