

DECEMBER
2019

Biodiversity Response Planning VICTORIAN COASTAL WETLAND RESTORATION PROGRAM

ISSUE 3
VOLUME 01

#VicWetlandRehab • BI-ANNUAL NEWSLETTER



Avalon Coastal Reserve pictured above is the site for Program 1. UNSW Water Research Lab will be developing a hydrodynamic model to test the flow of water through the site under different restoration scenarios. Photo taken by Melissa Wartman.

CLOSING OUT 2019 WITH SUCCESS!

Thank you to all project partners for all your the hard work in 2019! We have completed many milestones and achievements for the Victorian Coastal Wetland Restoration Program described throughout the newsletter. The Blue Carbon Lab is looking forward to working with everyone in the new year!

The best is yet to come in 2020! The UNSW team will create a high resolution hydrodynamic model and test restoration scenarios for Avalon Coastal Reserve for bird diversity and Blue Carbon outcomes. Next year also marks the beginning of major on-ground works including, installing fencing to exclude cattle from grazing on saltmarsh in Western Port, reinstating tidal flow to a degraded wetland in Gippsland Lakes, and weed and pest control to protect the cultural landscape at Point Lillias.



Avalon Coastal Reserve (225 ha)

PROGRAM 1 ACHIEVEMENTS

WETLAND RESTORATION STRATEGY

- UNSW Water Research Lab completed fieldwork in August 2019 at Avalon Coastal Reserve
- Blue Carbon Lab completed fieldwork at Avalon Coastal Reserve and surrounding control sites in August 2019
- Tino from UNSW Water Research Lab came back to Avalon in November 2019
- Blue Carbon Lab continued to monitor sites for soil gas fluxes in November 2019



Western Port, Bass River (10 ha)

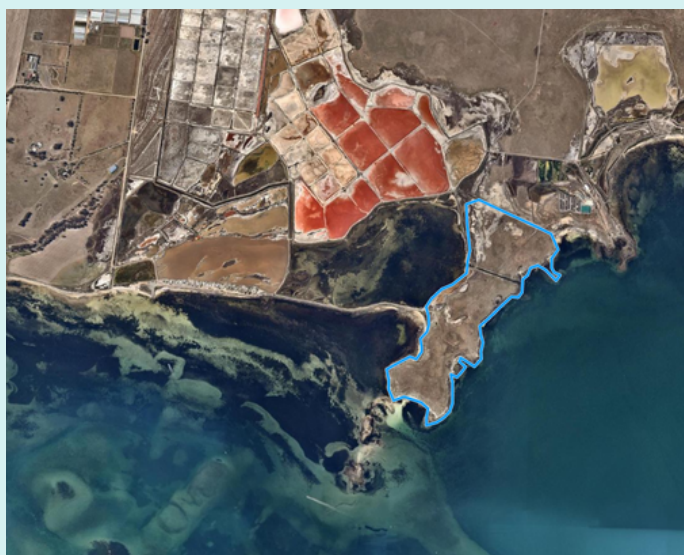


Lake Wellington, Sale (90 ha)

PROGRAM 2 ACHIEVEMENTS

ON-GROUND WORKS

- Blue Carbon Lab continued monitoring the vegetation and soil gas fluxes at Lake Wellington and Western Port sites
- Spring bird surveys completed at Lake Wellington and Western Port sites by Birdlife
- The Blue Carbon Lab received funding from Community Climate Change Adaptation (3CA) grant program
- Weed management actions undertaken at Lake Wellington site



Point Lillias (50 ha)

PROGRAM 3 ACHIEVEMENTS

PROTECTING ABORIGINAL CULTURAL HERITAGE

- Management options report for Point Lillias was developed
- On Country meeting at Point Lillias was held at the end of Oct 2019 to discuss the management options put forward in report
- WAC is currently discussing through the various management options
- On Country meeting in November 2019 with Wurundjeri Woi Wurrung Narrap Team Manager

PROGRAM 1 ACHIEVEMENTS

WETLAND RESTORATION STRATEGY



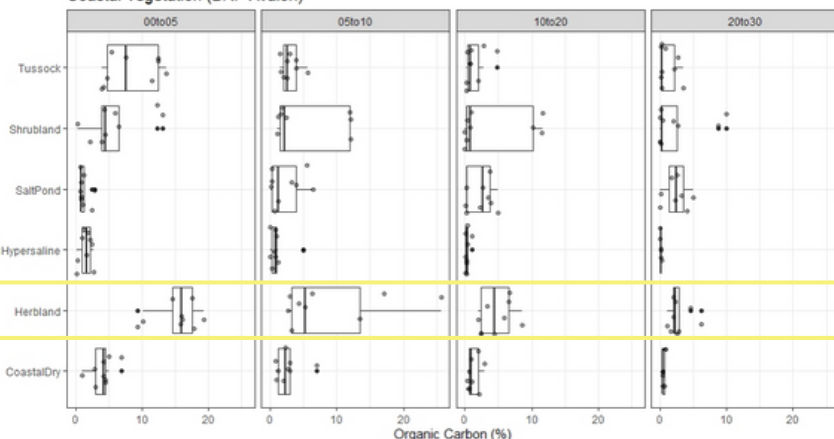
Will Glamore and Tino Heimhuber from the UNSW Water Research Laboratory undertook a 4-day surveying campaign at Avalon Coastal Reserve in early August 2019 to collect data for developing and calibrating a high resolution hydrodynamic model that will be used to determine the movement of water throughout the site under present-day conditions as well as for a variety of potential restoration options. The surveying campaign involved an echo-sounding bathymetry survey of the main lagoon, RTK GPS elevation measurements throughout the various salt ponds, and the installation of water level loggers and flow meters in representative locations of the channel and pond network.



The Blue Carbon Lab team has collected soil cores and gas flux measurements from 6 different saltmarsh communities types around Avalon Coastal Reserve to answer the question: ***How do carbon stocks and fluxes vary for different vegetated coastal ecosystems?***



Coastal Vegetation (BRP Avalon)



Dr. Pawel Waryszak and our many interns and volunteers have been working hard in the lab to process all the soil core samples that we have collected over 2019. This involves slicing them into sections, weighing, drying them out in an oven, weighing again, grinding, and finally analyzing on our CN analyzer to determine the amount of organic carbon in each sample. Some initial results indicate that **Herbland** saltmarsh community type stores the largest amount of carbon in the soil!

PROGRAM 2 ACHIEVEMENTS

ON-GROUND WORKS

BEFORE



Works are underway on our Gippsland Lakes saltmarsh site with a weed removal program with a difference. Vegetation mapping across the 100ha property revealed quality brackish grassland areas that had been dominated by the shrub *Melaleuca ericifolia* or swamp paperbark.

'While the paperbark is a significant specie of our shrubby estuarine wetlands' Greening Australia's Martin Potts who is managing the project site explains, 'in this case the plants are encroaching on the open grassland community and limiting important nesting grounds'.

The grassland sites in times of high water are important habitat for water bird nesting, particularly the threatened Blue-bill Duck, *Oxyura australis* and the locally culturally significant Musk Duck, *Biziura lobata*.

"The birds don't walk well on ground and nest in the tussocks when the conditions are favorable with high water so they can move from the nest to the water with ease and hide from predators." Martin explains.

Birdlife Australia are part of this sites project team and are setting up monitoring sites within the newly opened up grasslands to monitor for there use when this ongoing drought that is greatly effecting the Gippsland Lakes finally breaks.

AFTER



Deb Sullivan from Birdlife Australia commenced spring bird surveys at our control, natural and rehab site in Gippsland.

Birdlife Bass Coast group undertook the bird surveys at the Western Port site with the Eurasian Skylark being the most sighted species.



The Blue Carbon Lab was **awarded \$75,000 from 3CA grant program**, which will allow them to run 4 citizen science workshops at the Gippsland rehab site in partnership with Greening Australia and GLaWAC. Two workshop days will occur in March 2020 prior to restoration work, and two workshops will occur in March 2021 after restoration! **#BlueCarbonArmy**

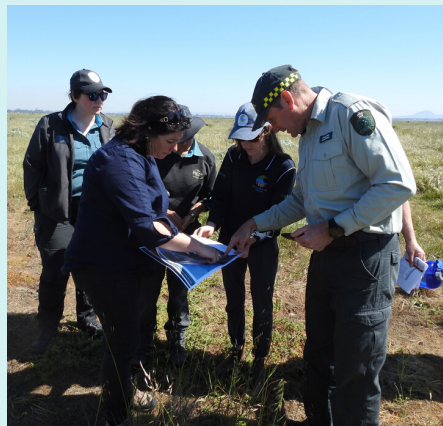


PROGRAM 3 ACHIEVEMENTS

PROTECTING ABORIGINAL CULTURAL HERITAGE



In early November 2019, Wadawurrung Aboriginal Corporation (WAC) hosted an On Country meeting at Point Lillias to discuss management options with project partners. The team took this opportunity to walk around the site to identify areas that are an issue, and discuss different management options to protect important cultural heritage sites and improve native biodiversity.



The two main management problems that were observed on site at Point Lillias were rabbit burrows and weeds. The team talked through various management options for pest and weed control. WAC is currently reviewing the options, with expected on-ground works to begin January 2020. Vegetation surveys will be undertaken across Point Lillias to monitor the vegetation changes with the implemented management action. Before and after pest surveys will be done for rabbits, to ensure that the management action chosen is effective for controlling the rabbit population.



SOCIAL MEDIA PRESENCE #VicWetlandRehab

You can stay up-to-date on how the project is progressing between newsletters via social media. Follow the Blue Carbon Lab and its members on Twitter, LinkedIn, Facebook and Instagram. Our website <http://www.bluecarbonlab.org/our-research/wetland-restoration/> is updated with blog posts throughout the year!

If any project partners are posting please remember to use the **#VicWetlandRehab** and tag the Blue Carbon Lab and any project partners involved in that particular component of the program. Please also acknowledge the **Victorian Government** for funding the project.



#VicWetlandRehab
@BlueCarbonLab
@PeterMacreadie
@PaulECarnell
@MelWartman
@PWaryszak
@DrWillGlamore
@TinoHeimhuber
@MartinPotts1



- Blue Carbon Lab
- Peter Macreadie
- Will Glamore



- Blue Carbon Lab

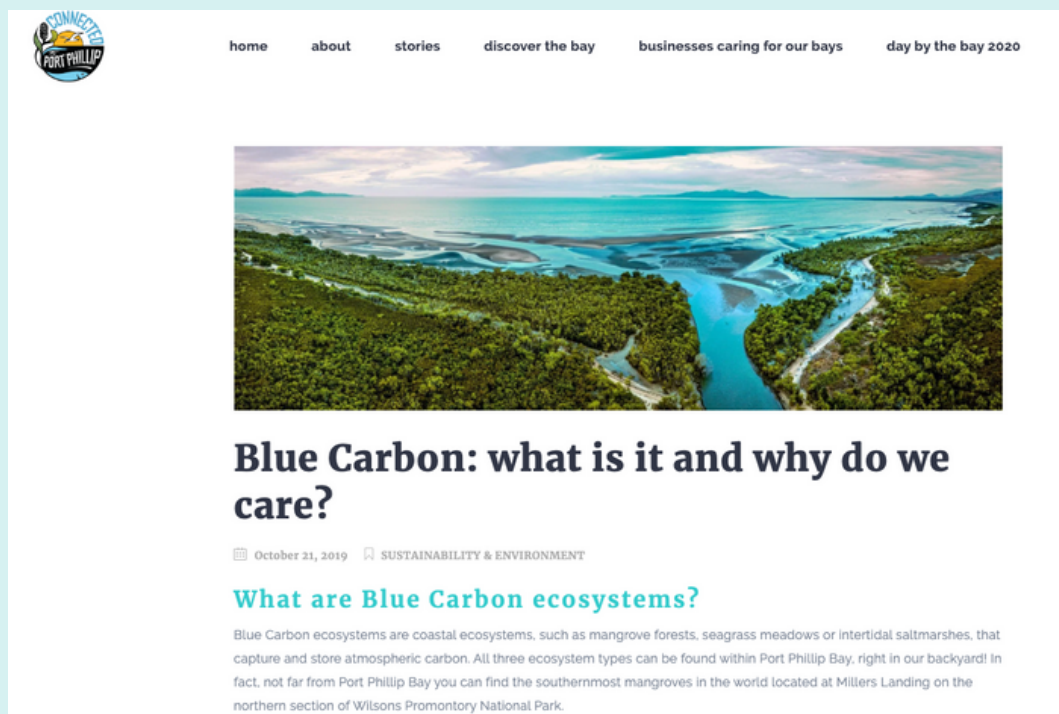


STAY TUNED!
BRP VIDEO COMING SOON

We are in the process of filming and developing an information video about the Victorian Coastal Wetland Restoration Program. If you are interested in being interviewed for it, please e-mail m.wartman@deakin.edu.au and we will arrange a suitable time. Thanks to Tino, Will, and Phil for completing their interviews!

COMMUNITY ENGAGEMENT

Connected to Port Phillip



Dr. Mel Wartman from the Blue Carbon Lab wrote a **community engagement piece about Blue Carbon** and the #VicWetlandRehab Program for Connected to Port Phillip. The Connected to Port Phillip initiative, from Remember The Wild, aims to inspire new and stronger connections with this (Port Phillip Bay) extraordinary ecosystem and support those who work hard to look after it.

Read the whole article here: <https://connectedtoportphillip.com/2019/10/21/blue-carbon-what-is-it-and-why-do-we-care/>

FUNDING FOR THIS PROGRAM:



This project has been funded by the Victorian Government's Biodiversity Response Planning program and is helping to ensure that Victoria's natural environment is healthy, valued and actively cared for.



The Nature Conservancy provided partial funding support for the project which included a contribution from Dow Australia.



Deakin University provided partial funding support for the project.

PROJECT PARTNERS:

