

PROGRAM OVERVIEW

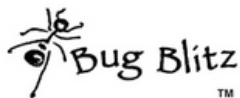
EMPOWERING THE GIPPSLAND COMMUNITY ON CLIMATE CHANGE, BY TRANSFORMING THEM INTO CITIZEN SCIENTISTS THAT CONTRIBUTE TO LOCAL CLIMATE ACTIONS, WHILE COLLECTING DATA TO INFORM WETLAND MANAGEMENT IN VICTORIA.

This program is funded by

BHP



Project partners



GIPPSLAND'S WETLAND RESTORATION CITIZEN SCIENCE



Blue Carbon Lab



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MEET THE SCIENTISTS

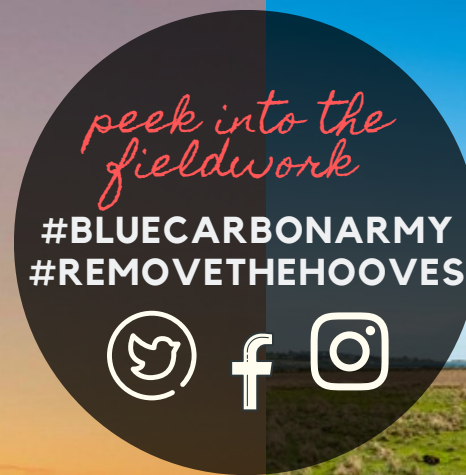
Our Gippsland team

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SAFETY

We've got you covered!

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CITIZEN SCIENCE DAY

Get the most out of your Blue Carbon Citizen Science day! Read this field trip briefing for information on how to prepare and what to bring. Also, start getting familiar with the site, the research and the data collection activities.

MEETING POINT

Bond Street Event Centre
10 Bond Street, Sale VIC 3850

KEY TIMES

Arrival: 9:00 am (11th October 2023)
Return: 3:00 pm (11th October 2023)

SCHEDULE

9:00	AM	Coastal Wetland talk
10:00	AM	<i>10 Bond St</i>
10:00-10:30 AM		Travel to fieldsite
10:30	AM	Fieldwork
2:30	PM	<i>Gippsland Lakes</i>
2:30-3:00 PM		Travel to Sale

FOOD & WATER

Lunch will be provided (please specify any dietary requirements in your registration form). Bring your own snacks or energy bars for the field. Water will be available to refill your bottle.

COMMUNICATION

There is good mobile coverage at the field site. However, we encourage participants to minimise outgoing calls.

TOILETS

Our coastal wetlands sites do NOT have toilets. Please use the toilet prior to departing to the field. In case of emergency, a research vehicle will drive you to the closest toilet in Sale.

DAY IN THE FIELD

The Citizen Science day will begin with a presentation providing insights into coastal wetland research. We will then head to the Gippsland Lakes to collect data from the tidal marshes.

GET READY



CLOTHING & FOOTWEAR



- Closed & sturdy footwear (hiking boots or gumboots)
- Long comfortable pants & a long sleeve shirt (to avoid scratches & insect bites). Rain jacket if rainy day.
- Spare change of clothes & shoes for your return (optional)

FIELD SUPPLIES



- Small daypack (to carry water bottle, hat, personal items)
- Hat & sunglasses
- Water bottle (1L) & snack
- Insect repellent & sunscreen
- Personal items in ziplock/dry bag
- Medicare card
- Medications (if required)
- Camera (optional)

*Please check the weather forecast and adjust your clothing & supplies accordingly

THEIR IMPORTANCE

SPEEDY CAPTURE & LONG-TERM STORAGE

They can trap carbon 30-50 times faster than terrestrial forests. 80% of the carbon is stored in the soil, where it is locked away for centuries to millennia.

CLIMATE ACTION & ADDITIONAL SERVICES

They are efficient carbon sinks that help offset CO₂ emissions and fight climate change. They enhance biodiversity (eg. sustain migratory birds), support fisheries, provide ecotourism revenues and protect our coast against erosion and extreme weather events.

VULNERABLE & DEGRADED

When degraded, coastal wetlands stop capturing carbon and can become significant sources of greenhouse gases (methane, nitrous oxide, carbon dioxide). In Australia, coastal wetlands are mainly threatened by adverse changes in land use and natural water flows.



COVERING ONLY
1% OF THE OCEAN FLOOR,
THEY CAPTURE HALF OF
THE WORLD'S BLUE
CARBON.



BLUE CARBON SYSTEMS

Coastal wetlands – mangroves, saltmarshes, and seagrasses – are collectively known as 'Blue Carbon' ecosystems. They act as natural sinks of carbon, effectively reducing atmospheric CO₂ concentrations that contribute to climate change.

GIPPSLAND LAKES



The Gippsland Lakes are a network of lakes, marshes and lagoons in east Gippsland, Victoria. They are home to over 400 indigenous plants and 300 wildlife species including waterbirds, frogs, and fish. Most of the area is internationally protected under the Ramsar Convention. However, some sites have had a long history of degradation from livestock grazing.

SALTMARSH RESTORATION !

The **'Restoring coastal wetlands through low-cost strategies'** project is restoring >200 ha of degraded coastal marsh in Victoria through fencing to exclude non-native animals. The project aims to demonstrate fencing as a scalable, replicable, and low-cost strategy to restore blue carbon ecosystems. As part of the project, scientists are studying how fence installation can enhance plant cover, carbon sink capacity and biodiversity from degraded zones.

To achieve this, you will help scientists collect baseline data from a) healthy saltmarsh and b) a degraded site (soon to be restored).



peek into the fieldwork

#BLUECARBONARMY
#REMOVETHEHOOVES



FIELD SAMPLING

In the field, you will contribute to collect the following datasets:

PLANT COVER

Saltmarsh species will be identified and the percent cover estimated within a 1m x 1m quadrat.

INVERTEBRATES

Invertebrates (terrestrial and water bugs) will be identified from bug cores and sweep net surveys.

BIRD SURVEYS

Bird species will be surveyed during 20 min intervals within 2 hectares. Species and abundance will be recorded.

SOIL CARBON STOCKS

Samples of the top 5 cm of soil will be collected using 50 ml syringes and archived to calculate soil carbon stocks.

SOIL DECOMPOSITION

Pre-made teabags (red and green tea) will be buried 5 cm deep in the ground. Bags will be retrieved after 3, 6, 12 months and used to estimate plant decomposition.

SOIL ACCRETION

White feldspar powder will be sprinkled on 25x25cm quadrats and monitored through time to calculate soil accretion rates.



POTENTIAL HAZARDS*

*See pg 11 for emergency assistance

SNAKES & WILDLIFE

Venomous snakes could be present at the site! Participants must wear proper footwear (boots) and be mindful of where they step.

Participants allergic to bee/wasp stings or insect bites should bring necessary medication (EpiPen) and alert staff before heading to the field.



WEATHER

In summer, participants should wear sunscreen and hats at all times and drink plenty of water. In winter, keep warm with protective jackets and raincoats.



TERRAIN

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Terrain is mostly flat, but wet and muddy areas can cause slips and trips.

Wear boots and watch where you step!



RUSHES & BUSHES

Scratches or cuts from spiky rushes or overhanging branches are very common.

Wear protective clothing - including long pants and long sleeved shirts.



KNEELING

Field activities require bending-down and kneeling. Remember to keep a good posture, flexing the hips and knees, not the waist.

Also, be careful when using tools to avoid any cuts and blisters.



SCIENTISTS IN THE FIELD

Activities will be led by some of the top scientists working in Gippsland.



PHEBE FIDGE

BLUE CARBON LAB (DEAKIN)

Phebe is a marine ecologist and technical officer for the 'Restoring coastal wetlands through low-cost strategies' project.



DR NOYAN YILMAZ

BLUE CARBON LAB (DEAKIN)

Noyan is a marine biologist and researcher on the 'Restoring coastal wetlands through low-cost strategies' project.

@NoyanYilmaz



MARTIN POTTS

GREENING AUSTRALIA

Martin is the Gippsland project manager for Greening Australia. He works to restore wetlands around the Gippsland Lakes.



RORY CROFTS

BLUE CARBON LAB (DEAKIN)

Rory is a marine biologist and field technician for the 'Restoring coastal wetlands through low-cost strategies' project.



GUNAIKURNAI LAND AND WATER ABORIGINAL CORPORATION

The Gunaikurnai people are the Traditional Owners of a large area of the Gippsland region in Victoria. A Gunaikurnai officer will talk about the Aboriginal connection to Water, Country and Wetlands.



Bug Blitz is a not for profit initiative, integrating scientific, educational and creative opportunities for children and community. One of their representatives will join us in the field and lead invertebrate (bug) surveys.



BirdLife is Australia's largest organisation for the advocacy, education and conservation of birds. One of their Gippsland officers will join us in the field and lead bird research.

@BirdLifeOZ

SAFETY

EMERGENCY ASSISTANCE

Deakin University's Blue Carbon Lab has safety protocols and emergency procedures in place. We encourage participants to exercise their best judgment with regard to their own safety and the safety of other team members.

In the event of a medical emergency all our staff is certified to provide first aid and assist participants. There will be several First Aid kits and snake bandages on site. If necessary, an ambulance will be requested by dialing **000** on any mobile or landline. The Gippsland Lakes have a stable mobile connection, easy road access and the closest hospital (Central Gippsland Health) is 20 min (12 km) away.



NEAREST MEDICAL CENTRES

CENTRAL GIPPSLAND HEALTH [SALE]

155 Cuthridge Parade, Sale VIC 3850
03 5143 8600 (24H)

CENTRAL GIPPSLAND HEALTH [MAFFRA]

48 Kent St, Maffra VIC 3860
03) 5147 0100 (24H)



PARTICIPANT RIGHTS & RESPONSABILITIES

INTELLECTUAL PROPERTY RIGHTS

We encourage you to share photos, videos, and stories of your field work with family, friends, local media. However, all information and data gathered is intellectual property of Deakin University Blue Carbon Lab. Co-opting or plagiarism of data is strictly prohibited.

DRUGS & ALCOHOL

The possession, use, purchase, or sale of illegal drugs or substances while on an field trip is strictly prohibited. Local statutes, customs, practices, ordinances, and regulations with regard to the use, possession, sale, or purchase of alcohol are applicable to all participants and project staff during the field trip.

DISCRIMINATION

Deakin University's Blue Carbon Lab does not discriminate on the basis of race, religion, ethnicity, national origin, gender, sexual orientation, or any other reason prohibited by applicable law and respects participants' right to privacy.

MINORS

Deakin University's Blue Carbon Lab considers participants less than eighteen (18) years of age to be minors. Minors can only participate in field trips if accompanied by a parent, teacher or legal guardian of at least 21 years of age.

RIGHT OF REMOVAL

Any participant found in violation of any of the policies described in this document is subject to removal from the team at his or her own expense.

*peek into the
fieldwork*

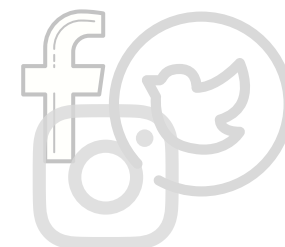
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#REMOVETHEHOOVES



MORE INFORMATION

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VISIT

www.bluecarbonlab.org

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