



# Main Creek Catchment Landcare Group Newsletter

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## FROM THE CHAIR'S DESK...

Hi Landcarers,

Another year has flown by.

Sadly this year we lost two of our amazing committee members: Geoff Taylor from Meakins Road and Bernie Schedvin. With the passing of Bernie, our Newsletter Editor, we are looking for some help. Please contact us if you can offer assistance with the newsletter.

Bernie was a great advocate of the "Early Invader Weeds" program, and the team there wrote a lovely article about her in their recent newsletter. <https://sway.office.com/R7F7QbjA23Xc58EB?ref=Link>

Speaking of weeds, now is the perfect time of year to treat your weeds, especially thistles, ragwort, blackberries and agapanthus before they set seed and spread further. **ONE YEARS SEEDS IS SEVEN YEARS WEEDS!** So get them now.

To help with weeding, Landcare has put together tool belts complete with herbicide dabber for members. We still have some in stock for the cost price of \$170. Weeding is much easier when you have the right tools for the job.

The Committee has been busy throughout the year working on a long list of projects including:

- Greens Bush to Arthur Seat (GB2AS) biolink/wildlife corridor, completing work on 3 properties in Main Ridge with Shire Biolink grant funding;
- Liaising and working with diverse community groups;
- Setting up a coordinated feral animal control program with neighbours adjoining Greens Bush - National Park.
- Monitoring water quality in our waterways;
- Weed control in the Biolink restoration project along Spring and Double Creeks, Flinders;

- Site visits and treatment of Hedge Woundwort along Splitters & Main Creeks

It has been a busy and productive year and our membership continues to grow. Thank you all for your support.

I hope you all have a safe and happy festive season. We're here to help so please contact me (in the New Year).

Michelle Stacey.

[admin@wildman.net.au](mailto:admin@wildman.net.au)

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## WHAT'S ON

- Saturday December 9<sup>th</sup>  
Working bee with the Greens Bush Association.  
For more information please see the flyer p 8.

# Farm Dam Emissions

In late November, Dr Martino Malerba and his team from Blue Carbon Lab gave a presentation at Uncommon Folk about their research into greenhouse emissions in fresh water wetlands or "Teal carbon" ecosystems, with particular reference to farm dams.



Dr Martino Malerba - Blue Carbon Lab photo

It is now known that poorly managed farm dams can release vast amounts of greenhouse gases especially methane, into the atmosphere.

In Australia there are estimated to be about 1,800,000 farm dams. So the thinking is that if even a small percentage of these dams are managed to limit greenhouse emissions, the net outcome would be a significant reduction in the emission of these gases.

Martino explained that in the presence of dissolved oxygen in the water, degrading carbon binds with oxygen to form carbon dioxide. When there is limited dissolved oxygen in water, carbon binds to hydrogen and forms methane. Methane has more than 30 times the warming power of carbon dioxide over the first 20 years after it reaches the atmosphere.

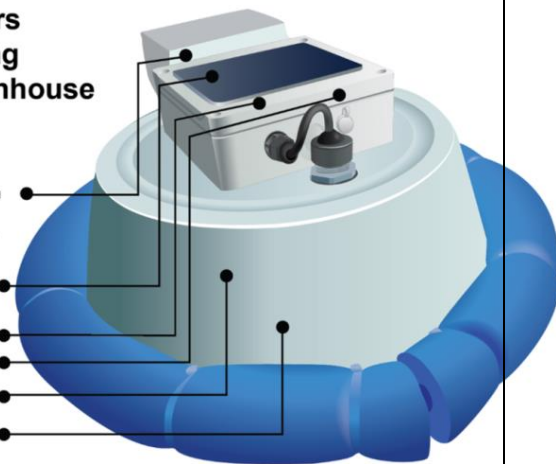
Martino's research team is looking at 4 aspects of farm dams:

- How to accurately measure green emissions in farm dams
- The effect of limiting nutrients in a dam and increasing the biodiversity (plants and animals) in and around the dam, on these emissions
- The effect of Climate Change on farm dams
- The cost effectiveness to the farmer of managing farm dams to reduce greenhouse emissions.

Currently the group is developing a device which they have called a Pondi. This device, which is capable of measuring carbon and methane emissions in dams, minute by minute, over a long term, is being used at Uncommon Folk. The team are working to determine the variables which affect emissions.

## Pondi sensors for monitoring aquatic greenhouse gases

- Cloud backend for monitoring the devices.
- Internet connectivity for real-time data access.
- Solar panel and battery for continuous recording.
- Gyroscope to monitor orientation and movements
- GPS for localization
- Sensors for temperature, humidity, and pressure.
- Greenhouse gas sensors for carbon dioxide, methane, and nitrous oxide.



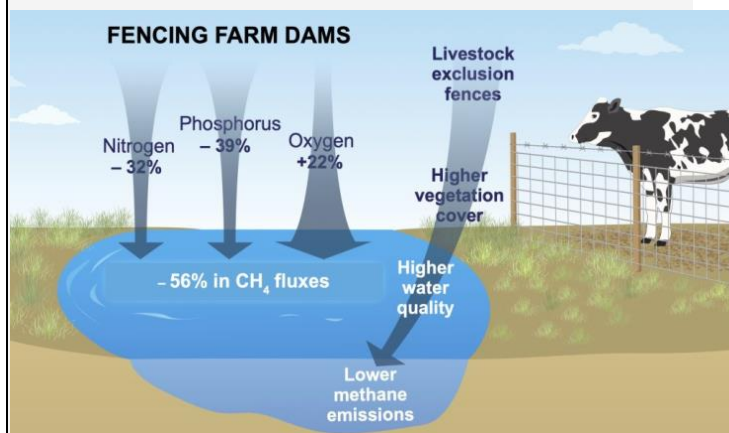
Blue Carbon Lab photo

Dams with some type of active intervention to limit nutrients, (eg managing fertiliser runoff or fencing off a dam to exclude cattle manure and urine and adding water plants to absorb nutrients), after a minimum of 2 years management have shown



significant changes in water quality:

- 39% decrease in phosphorus
- 32% decrease in nitrogen
- 22 % increase in dissolved oxygen
- 56% reduced greenhouse emissions



Blue Carbon Lab image

So although the requirements for an optimally managed farm dam are yet to be defined definitively, at this early stage in the research it appears that:

- Fencing off the dam to exclude cattle
- Having plants to capture nutrients and filter impurities on the uphill side of the dam
- Increasing the diversity of plants to absorb carbon, growing in and around the dam
- Growing a shelter belt on the windward side of a dam to both minimise the evaporative effects of wind and shade the dam to help reduce the temperature of the dam water
- Installing floating wetlands (to absorb carbon) to cover about 10% of the dam

can, over time, on average, reduce the emission of greenhouse gasses, especially methane. Martino explained that in such a dam a point may be reached where dissolved oxygen increases, total carbon in the dam decreases and the dam can become a carbon sink rather than a greenhouse gas emitter.

For a more detailed explanation of the chemistry refer to the MPLN newsletter Dec 2023 edition.

Martino's team is working on the possibility of being able to measure the reduction in greenhouse emissions accurately so farmers could receive credits for this type of intervention.

A positive outcome of this management plan is the possibility of reversing the loss of fresh water biodiversity and increasing the habitat for beneficial animals: birds and frogs. The team is measuring this effect by using a sound-scape analysis to record animal sounds.

Models show that by 2050, many dams in Australia will experience periods when dam water has completely dried up. Martino's team is looking at measures that can be taken to minimise loss of water. Again shelter belts to reduce evaporation appear to be part of the solution.

Farm dams older than 20 years, of  $\approx 0.1$  hectare in area, that are fenced, shaded and protected from the wind and near a fresh waterway appear to be optimal.

For more information please go to <https://www.bluecarbonlab.org/our-research/teal-carbon/>

To be part of the program go to: [Register your interest here.](#)

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# The Joy of Volunteering

## A great morning with Greens Bush Association Wilga Kottek

There is a certain satisfaction that comes with hefting a bag of invasive South African orchids, commonly referred to as 'disa' (*Disa bracteata*) out of Greens Bush. It is especially satisfying if you personally located and dug these invaders out of the ground!

Greens Bush Association (GBA) staged another successful working bee on Saturday 11<sup>th</sup> November. Woody weeding of sweet pittosporum (*Pittosporum undulatum*) and the removal of disa were the two options for attendees.

Equipment and disa identification instructions were provided by Virginia Carter (the wonderful GBA leader) who had already mapped areas requiring weeding.



Disa are easy to identify when they are sporting their distinctive flower spikes, however keen eyes are required when these stalks have been eaten by the local swamp wallabies and only a few shrivelled leaves are left

behind. It is important to remove both of the underground bulbs, so that the entire plant can be destroyed and not regrow next season.

Disa tend to be found along disturbed ground such as fire breaks and areas that have had the vegetation slashed back. This means that no 'bush-bashing' is involved. Despite this, disa can be surprisingly difficult to spot amongst the grasses, bracken and other orchids (leek orchid, sun orchid and finger orchids were all seen

over the course of the morning). I found that I could make a visual sweep of an area



that appeared to have been cleared of disa only to have someone else spot a

plant that was right next to my boot. The 'spotter' job is particularly well suited to children and 'disa digging' is an excellent activity for all ages, as well as being a good flexibility workout!

Disa hunting is a great communal activity and a lovely way to spend a few hours assisting and meeting our local National Park Ranger, Kim Cott, who also kindly attends these working bees. You get a morning walk with local experts, who can identify flora and fauna, and an opportunity to network and meet like-minded people. This is an activity for all ages. You can

enjoy those unique, positive feelings that come with volunteering your time to help to protect the local environment as you tip your disa collection into the communal sack that is destined for destruction.



Editor's note:

If you would like to share Wilga's joy by attending one of the best volunteering opportunities around, the next one is Dec. 9. Please contact Virginia Carter at [localhabitat@gmail.com](mailto:localhabitat@gmail.com)

# Our Peninsula's special FLORA & FAUNA

Amanda Jane Breidahl

The Mornington Peninsula National Park is a very beautiful and special part of the Mornington Peninsula and provides habitat for many species of indigenous flora and fauna. Many of the Landcare Groups across the Peninsula have been busy planting wildlife corridors, connecting neighbouring properties, which are already improving habitat opportunities for many of our native fauna. The Peninsula is home to many



White-footed Dunnart

special animals, including powerful owls, hooded plovers, koalas, sugar gliders, dusky and agile antechinus, white-footed dunnarts and possibly the broad-toothed rat. Sadly, these are under constant threat of habitat destruction (especially by large herbivores, such as deer) and predation by foxes and cats. We are hoping to enlist the help of our Landcare community to address these.

## Deer:

We are asking everyone to please keep a vigilant eye out for the presence of deer on road ways, private properties or in and around reserves and the National Park. If you see any deer please log it on



the Deer Scan section of the Feral Scan App <https://www.feralscan.org.au/deerscan/> or alternately please contact Kim Cott from Parks Vic [kim.cott@parks.vic.gov.au](mailto:kim.cott@parks.vic.gov.au) or Helen from Main Creek Landcare. [hdaly6644@gmail.com](mailto:hdaly6644@gmail.com) to provide details of your sighting, including the exact date and location.

Here is a link to a recent talk that Main Creek Landcare hosted about the Deer problem <https://youtu.be/cQlyCtw34v0>

Foxes: If fox numbers are consistently reduced, it takes the predatory pressure off our smaller animals. If private landholders are able to undertake fox control programs, then this will augment the work undertaken by Parks Victoria and will significantly impact fox numbers. There is a range of methods that private landholders can employ. Landcare can help give advice on these various methods and we also have a number of recommended responsible, reliable shooters who offer to shoot foxes free of charge. If contiguous neighbouring properties become involved, then a more co-ordinated approach can be arranged. If you are interested in learning more about fox control, please email Helen Daly [hdaly6644@gmail.com](mailto:hdaly6644@gmail.com)

Cats: You can help prevent needless wildlife deaths by ensuring all domestic cats are de-sexed and are kept confined



within your home day and night. If you suspect you have a feral cat on your property, you can trap it and take it to a veterinarian for humane euthanasia.

We are hoping that you will partner with us in preserving our beautiful Mornington Peninsula and National Park for the future enjoyment of many generations.



# WHO KNEW?

Amanda Jane Breidahl

You learn something new every day ... and when you attend a Greens Bush Association (GBA) working bee, you tend to learn a lot of new things! On the November working bee, we were digging up the invasive South African orchid, *Disa bracteata*.

As a vet, I knew that an animal which was mon-orchid had only one testicle (mon=one orchid=testicle), and that an animal that was crypt-orchid had a retained testicle (crypt=hidden orchid=testicle), that requires abdominal surgery to locate and remove. If this is not done, then the retained testicle has a high incidence of developing cancer. Orchitis indicates inflammation of the testes (orchid = testicle, itis = inflammation).

So, after years of admiring the beautiful orchids in the plant world, I finally learnt why they are called orchids.... if you dig them up very carefully (as we were taught to do by Virginia Carter, GBA's illustrious leader) you find that the main part of their underground root system is often composed of two bulbs, that hang together looking just like – you guessed it – two testes!!

Who knew????



# A Win for the Environment

Main Creek Landcare Catchment Group has registered as a recipient for the new Victorian recycling program. We would love you to donate the 10 cent refund /eligible container to the group.

This is an easy way for everyone to contribute to the health and resilience of the environment by helping to finance the work of protecting our local native animals (eg koalas, sugar gliders and powerful owls), managing weeds and feral animals, protecting the quality of our waterways and the promotion of sustainable farming practices.

To donate your refund, please enter the ID: **C2000009261** (that's 5 zeros) when returning your eligible items.

Eligible items include: plastic soft drink bottles, glass beer bottles, soft drinks and alcohol sold in cans and small fruit juice cartons.

Ineligible items include: glass wine and spirit bottles, juice bottles over 1 Litre, cordial bottles, milk containers (other than flavoured milk), concentrated fruit or vegetable juice and health tonics.

Recycling points:

## OTC BP

Safety Beach  
1 Marine Drive, VIC Safety Beach  
1300 237 010  
Open: 8.00 – 18.00

## Return-it

Depot - Rosebud  
1/8 Henry Wilson Drive, VIC Rosebud  
1300 237 010  
Open: 8.00 – 17.00

## OTC Red Hill Cellar and Pantry

Red Hill South  
141 Shoreham Rd, VIC Red Hill South  
1300 237 010  
Open: 8.00 – 19.00

## Return-it

Depot - Dromana  
32 Brasser Avenue, VIC Dromana  
1300 237 010  
Open: 8.00 – 17.00

For questions please email:  
maincreek@mplandcare.org.au

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# My Whinge

Craig Dodgson

## It's all about the soils

Before I begin, may I thank those people who replied to my last column with such kind feedback. I was pleased to think I had touched a nerve and people could relate to my article. Thank you again.

I have always been amazed that within a relatively short distance, the soils of Main Ridge can change dramatically.

At our patch, I have soils that range from red to chocolate coloured, heavy clay soils that can become unworkable in winter wet periods, turning into plasticine. However, as they dry out the soil can be beautiful, rich and free draining, capable of supporting a large range of plants.

Knowing when to plant becomes very important as digging wet soils destroys their structure and therefore, they cannot support the plants you are trying to grow.

A short distance away, (Purves Road seems to be a demarcation point), the soils change completely.

The heavy, clay soils give way to sandy, grey loam which I assume contains less nutrients than my clay soils. These soils support a different range of plants than what I am used to seeing at our place.

There is some overlap, but often the growth habits can be different.

I love to walk around these areas to see just what is growing.

Recently, I walked along the roadside path from Waterfall Gully Road towards Seawinds National Park.

My timing must have been good as there was a lot to see even though some flowers were past their best. What can be assumed to be just a weedy, narrow strip of bush as you drive along revealed a number of treasures if you take the time to walk the path. Surprisingly for me, were the large patches of 'bird orchids' growing luxuriously, crowding each



other out. I have these growing on my heavy soils so I was not expecting them on these grey, sandy soils, especially since I had offered them to Seawinds to grow in the gardens there and they had not been able to get them to establish. Here, they were growing beautifully.



There were grasses and sedges I could not identify, looking wonderful. There was white flowering *Pimelea humilis* and beautiful pea flowering plants with the last of their 'egg and bacon' flowers hanging on.



I would love to grow *Platylobium obtusangulum* but I am not sure if it will grow in our heavier soils.



For me the highlight was the number of flowering spikes of the grass trees *Xanthorrhoea minor*. Unlike *Xanthorrhoea australis*, these grass trees have no visible trunks and to walk this path at another time of year, I would have been unaware of their existence as they would have disappeared amongst the grasses just waiting for the right conditions to occur to send up their flower

spikes again. I am fairly sure that they would not grow at our place. Again, knowing your soil types can affect what you can grow.

We so often disregard our soils paying them little attention, just so long as things grow, then that is good enough. However, a trip to Seawinds Nursery or the Briars Nursery will offer a large range of indigenous plants which should require careful consideration. Will the plants you choose be suited to your soil type? It may be indigenous to Main Ridge but which part? Asking a few questions may avoid disappointment as you scratch your head wondering why things are struggling to grow in a soil type they are unsuited to.

It is a nightmare I know. And I have not even gone down the track of provenance, a whole other can of worms. But when you get it right and you understand your soil type, it is very rewarding.

Happy planting.



**WORKING BEE  
GREENS BUSH  
9am Saturday 9<sup>th</sup> December 2023**

**Meet @ end of Greens Road, Main Ridge. Melways 254 D3**

Come along & join in the works to help protect our magnificent Greens Bush, MPNP. Learn about our local flora & fauna, bushland restoration principals/techniques & meet your fellow local, bushland enthusiasts.

Works will involve

- Woody weed control - aiming to connect two previous work areas

Bring along / wear sturdy shoes, long top & pants, hat, gloves, eye protection & water - all weeding tools supplied

If you would like to attend, please register on ParkConnect or email me at [localhabitat@gmail.com](mailto:localhabitat@gmail.com)

To receive all notifications of all Greens Bush Activities, become a member. Go to [www.parkconnect.vic.gov.au](http://www.parkconnect.vic.gov.au) create a profile & join GBA