



# Barrabool Hills Landcare Newsletter

February 2020

*Locals of the Hills gathered at our end of year get together event.*

[barraboolhillslandcare@gmail.com](mailto:barraboolhillslandcare@gmail.com)

## What's On.

**February 19<sup>th</sup>** – Film Night – Documentary “2040”

**February 17<sup>th</sup>, 20<sup>th</sup> and 24<sup>th</sup>** – Rabbit Baiting Dates

**March 28<sup>th</sup>** – Geelong Nature Forum – “*Where the Rivers Run*” – National Wool Museum

**April 4<sup>th</sup>** – Bannockburn Market – Barrabool Hills featuring

**April 15<sup>th</sup>** – Meeting with *iNaturalist* training/demonstration

**May/June** – Working Bee – wetland project (weed management/ replanting trees)

**June meeting** – Janine Dufty presenting on Koala biolinks

**June 12<sup>th</sup>/13<sup>th</sup>** – Geelong Landcare Network Forum “Farming for our Future”



*Jacinta McGregor took this beautiful photo of these Hills youngsters. Do you know what these locals are? If you do, email your ‘what bird is this?’ answer to our newsletter editor.*

Kindly printed and supported by  
**Libby Coker MP - Member for Corangamite**

[Libby.Coker.MP@aph.gov.au](mailto:Libby.Coker.MP@aph.gov.au)

“Funded from Parliamentary Budget”

## Rabbit baiting in 2020 and beyond

Hopefully by the time you receive this you will all have ordered your bait for the Barrabool Hills Landcare Groups annual rabbit baiting program. Don't forget the program's success depends on everyone participating as "rabbits know no boundaries".

**If you haven't already done so make sure you order through the website by 7th February.**

If you have missed out ordering from the group, there is still an opportunity to order bait through programs run later by our neighbouring Landcare communities.

Please see the dates and contact details below:

### **Batesford – Early Feb**

Dates: 3<sup>rd</sup> Feb, 6<sup>th</sup> Feb and 10<sup>th</sup> Feb (carrots to be collected between 4pm and 5pm)

Collection point: 29 Cullinan Rd, Batesford

Orders due by: 24<sup>th</sup> Jan

Contact: Jacinta Langdon at [jacinta@bwpc.net](mailto:jacinta@bwpc.net) or 0429 418 819 or Felicity Spear, Secretary BFS, Landcare Secretary (52761453)

### **Barrabool Hills – mid Feb**

Dates: 17<sup>th</sup> Feb, 20<sup>th</sup> Feb and 24<sup>th</sup> Feb (carrots to be collected between 4pm and 6pm)

Collection points: either 232 Hendy Main Rd, Mt Moriac 0407568292 **OR** 25 Kingsbury Lane, Waurin Ponds 0414835833

Orders due by: 7<sup>th</sup> Feb

Contact: Order from website <https://www.barraboolhillslandcare.org.au/barrabool-hills/flora-fauna/> or contact Kaye Rodden on 5265 1241 or Jim Seager on 0409 935 700

### **Maude/ Brisbane Ranges – late Feb / early March**

Dates: 28<sup>th</sup> Feb, 2<sup>nd</sup> March and 5<sup>th</sup> March (carrots to be collected between 2pm and 4pm)

Collection point: Maude Recreation Reserve, Steiglitz Road, Maude (opposite the CFA shed)

Orders due by: 21<sup>st</sup> Feb

Contact: Lex Stray 5281 9293 or Elaine Johns 5281 9395; Laura Hollingsworth [maudeanddistrictlandcare@gmail.com](mailto:maudeanddistrictlandcare@gmail.com)

### **Surf Coast Rabbit Action Network (SCRAN) Freshwater Creek - mid Feb**

Dates: 18<sup>th</sup> Feb, 21<sup>st</sup> Feb and 25<sup>th</sup> Feb (carrots to be collected between 12 and 2pm)

Collection point: Freshwater Creek Hall, Dickens Rd, Freshwater Creek

Orders due by: 5<sup>th</sup> Feb

Contact: Rob Bullen at [rob.bullen@bigpond.com](mailto:rob.bullen@bigpond.com) or 0407 353 575 or Colin Cannard [ccannard@gmail.com](mailto:ccannard@gmail.com) or 0417 522 352

### **SCRAN Modewarre – late Feb / early March**

Dates: 27<sup>th</sup> Feb, 3<sup>rd</sup> March and 6<sup>th</sup> March (carrots to be collected between 12 and 2pm)

Collection point: Scout Hall Modewarre Reserve, Cape Otway Rd

Orders due by: 19<sup>th</sup> Feb

Contact: Rob Bullen at [rob.bullen@bigpond.com](mailto:rob.bullen@bigpond.com) or 0407 353 575 or

Colin Cannard [ccannard@gmail.com](mailto:ccannard@gmail.com) or 0417 522 352

### **Surf Coast and Inland Plains Landcare Network (SCIPN) baiting program – End March**

Dates: 20<sup>th</sup>, 23<sup>rd</sup> and 26<sup>th</sup> March (carrots to be collected between 12 and 2pm)

Collection point: Modewarre Hall, 910 Cape Otway Rd

Orders due by: 10<sup>th</sup> March

Contact: Jacinta Langdon at [jacinta@bwpc.net](mailto:jacinta@bwpc.net) or 0429 418 819

**Remember that the baiting of rabbits is just a small part of managing this pest animal. Removal of harbour, such as gorse and boxthorn, and destruction of warrens is also an essential component of the annual program.**

**For any assistance in this follow up management, please contact either Kaye Rodden or Jim Seager or check our website.**



**Bushfires 2020 – what can we learn?**

As the country burns this summer we have all been horrified by the extent of the tragedy unfolding and felt powerless to do anything to prevent it.

The big question for me is how can we avoid this annual catastrophe in the future?

Australians have lived with the threat of devastating bushfires since the Black Thursday fires of 1851 which burnt nearly half of Victoria. Yes, our response to fires is far more sophisticated now but the result is the same – loss of life, loss of homes and significant ecological damage to natural resources. Our present management strategy is clearly failing us.



In the conversations and interviews aired about the fires, there is an alternative approach to fuel reduction burning that is emerging as part of the solution. It's not a new idea, in fact it's been around for thousands of years.

Traditional Owner (TO) cool burning has been practiced in Australia for millennia. It is a technique used by Indigenous Australians to manage vegetation on a huge scale. Bill Gammage, in his thought-provoking book, 'The Biggest Estate on Earth - how Aborigines made Australia', challenges us to appreciate that the landscape Captain Cook found in 1770 when he landed in Botany Bay was 'man made'.

It was often described as a 'nobleman's park' because it was much more open than it is today. Even though the plant species were the same, dangerous fires were rare. Through regular and frequent application of TO cool burning, Australia was kept much safer. When this practice stopped it only took a decade before the vegetation became a

lot denser and fires became hotter and very dangerous.



*Above and Left: Traditional Owner cool burning photos taken by Tracey McRae.*

To burning is becoming better known and is now more widely practiced. I participated in a TO burn in April 2017 at Bakers Lane Reserve in Teesdale. An adjacent area was also burnt that day by the CFA.

The contrast could not have been more remarkable. The TO burn felt safe, cool and gave off a little white smoke. The CFA burn was hot, dangerous and gave off plumes of black toxic smoke. You can read more about the TO method used at Teesdale on [this link](https://www.recreatingthecountry.com.au/blog/ancient-australian-culture-cool-burning) (<https://www.recreatingthecountry.com.au/blog/ancient-australian-culture-cool-burning>)

Indigenous Australians believe that TO cool burning heals the landscape and supports the health of both plant and animal life. Under the predictions of 'there is worse to come as the climate warms' we would be foolish to turn our backs on this millennia-old 'solution' to the devastating effects of annual bushfires.

To read more about 'making families safe in their country homes see my January blog (<https://www.recreatingthecountry.com.au/blog>)

*Stephen Murphy*  
*Sustainable Biorich Landscapes*  
[www.recreatingthecountry.com.au/blog](http://www.recreatingthecountry.com.au/blog)

### BHLG End of Year Get Together Report

The annual Barrabool Hills Landcare Group end of year get together brought numerous members of our community together for a convivial chat and yarn. The crowd of more than 60 consisted of new and near lifelong members of the Hills' community and all relished the opportunity to meet and converse with their friends and neighbours while enjoying yummy food.

The dessert table was the pièce de résistance of the evening, with delicious desserts of every variety and culinary inclination spanning more 3 metres of tables.

*Below: Locals enjoying the convivial atmosphere.*



Our thanks go to Christa and Trevor Jones who kindly hosted our end of year get together in their beautiful garden, to all those who brought delicious food for the event and those who assisted in organising this community gathering, who together facilitated an event that enabled our community to come together. The success of this event confirms that Barrabool Hills Landcare Group continues to grow and has significant relevance in our community.

*Tim Harte*

### Equipment for loan to members

The following equipment is owned by the Barrabool Hills Landcare Group and is available for use by members:

- 400 litre spray unit trailer mounted
  - 2 Kidney tree buckets
  - 1 Potti Putki Tree planters
  - 2 Hamilton Tree planters
  - 1 60 litre motorbike mounted spray unit
  - 1 Rabbit Smoker (for non-culinary purposes)
- Members are requested to return all equipment to Trevor promptly after use.  
Contact Trevor Jones on 0407 009 855.

### Geelong Nature Forum

The 2020 Geelong Nature Forum celebrates the animal and plant life of the Geelong region's river, creeks and wetlands and the volunteer groups who help look after them..... like the Barrabool Hills Landcare Group.

Come and join in this weeklong series of nature based activities, presentations and displays.

Entry to the venue. the Geelong Wool Museum is FREE on Day 1... 28th March.

See you there.

Registrations below,

[https://www.eventbrite.com.au/e/geelong-nature-forum-2020-tickets-83573383239?aff=ebdssbdestsearch&fbclid=IwAR0TOzj4qlvf8Vs7W6jlvJOlvMkqc\\_WKhcIgpU-tDzzQ7FHcngg4FbksizA](https://www.eventbrite.com.au/e/geelong-nature-forum-2020-tickets-83573383239?aff=ebdssbdestsearch&fbclid=IwAR0TOzj4qlvf8Vs7W6jlvJOlvMkqc_WKhcIgpU-tDzzQ7FHcngg4FbksizA)

### THE SCIENCE OF CARBON - Saving the world one tree at a time

Carbon is such an important element that it has its own science dedicated to it. Organic chemistry is the study of all substances containing carbon. It is called Organic chemistry because it is essential in all biological processes, and all of nature is made up of organic molecules- containing carbon.

Let's look at the basic science. Probably the most important equation for all life on earth can be summed up as:



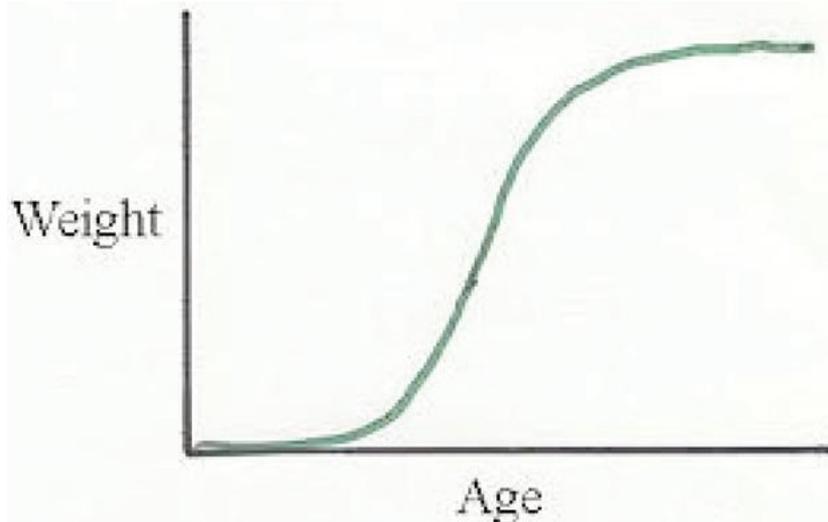
It needs energy but then water plus carbon dioxide makes carbohydrate plus oxygen. This is only made possible by plants, using chlorophyll and energy from the sun, and is called photosynthesis. This is a win- win- win equation. Producing both carbohydrate and oxygen and stripping the atmosphere of carbon dioxide.

But the arrow is double ended. Carbohydrate plus oxygen gives water and carbon dioxide, releasing much of the captured energy, and also releasing carbon dioxide. This process has various names:

- digestion if it happens in an animal.
- combustion or burning when it is fire.
- decomposition, composting or rotting.

So that is the background that probably we all understand anyway but there are implications for everything in the environment.

### Rate of photosynthesis



Let's assume we have adequate water and nutrients and ideal temperatures. The rate of photosynthesis essentially depends on the surface area of leaves. Small seedlings such as eucalypts have tiny leaves so grow slowly, and as leaf area increases so does growth rate. In a forest canopy or long pasture, the top leaves shadow lower leaves so eventually growth plateaus off. This is a typical growth curve in nature known as a sigmoidal growth curve.

### So what are the implications of this for agroforestry?

Carbon fixation works best when plants are in the steep and upward part of the graph. Once the graph plateaus out the net growth eventually becomes zero. Old growth forest for example doesn't keep growing. It is a great carbon sink but is not stripping the atmosphere of carbon dioxide because it is decaying at the same rate it is growing. Selective harvesting of old growth forest will give – over time – more net growth, but there are many reasons why this is not done. Spectacularly old trees, pristine wilderness and wildlife habitat etc. The same principle works well though in agroforestry. The sustainable and perpetual agroforest is one where a

proportion of mature trees are harvested regularly and replaced by young trees.

### Let's put some figures on it.

According to the CSIRO carbon soil map (ref 1) the average amount of organic soil in the top 30cm of Australian soil was estimated to be 29.7 tonnes per hectare (leaving out sandy desert areas). This is thought to be less than half where it used to be prior to white settlement. There is a lot of variation in these figures. In temperate SE Australia we may be slightly more than this.

Now let's put a few trees into the landscape. So with some assumptions (ref 2)

- 65% of the wet weight of a tree is solid dry mass, the rest is water
- 50% of the dry mass is carbon
- 20% of the total tree mass is underground roots

A nice parkland type planting density, with say 20 trees per hectare and each with about a tonne and a half of wood will add another 12 tonnes of carbon/Ha onto the bare pasture alone. In achieving this it has stripped the atmosphere of 44 tonnes of Carbon Dioxide.

Wind break trees are far denser and with understorey contribute possibly the same again when averaged over the farm.

The net effect is that once established, a well treed farm will retain possibly twice the amount of carbon than a bare farm, despite the fact it will harvest carbon (hopefully for storage as buildings or furniture) in a perpetual way into the future.

Carbon credits are often talked about and one day may well eventuate, but in the mean time we can sleep better at night thinking that not only do we have a good cash crop to harvest when we need it, in the process we are doing our own little bit to help mitigate the carbon dioxide problems causing climate change.

1. <https://www.csiro.au/en/News/News-releases/2014/Australiansoil-carbon-map>

2. <http://forestlearning.edu.au/>

*Article by Ian Campbell, reproduced with permission from the September 2019 Newsletter of the Otway Agroforestry Network.*

### What bird is this?

Glenys Harvey and Ric Walter guessed the identity of the bird in the December BHLG newsletter correctly, well done to Glenys and Ric. The bird was a male Rufous Whistler (*Pachycephala rufiventris*), the Rufous Whistler is sometimes called the 'thunder bird' due to its musical song which is sometimes triggered by a loud noise, such as a clap of thunder or someone slamming a garbage bin lid closed. The Rufous Whistler inhabits forests, woodlands and shrublands, with a shrubby understorey and mainly eats insects, it usually forages at higher levels than other whistlers, and is rarely seen on the ground. The sexes of the Rufous Whistler have significantly different colouration and the species breeds in monogamous pairs with both sexes incubating the eggs and caring for the young, the female builds a fragile, cup-shaped nest from twigs and grass which is attached to a tree fork using spider web.

This issue's mystery bird (pictured on the front page and to the right) is especially significant for the Traditional Custodians of the Barrabool Hills, it is the sacred Totem of the Wathaurong who call it Bundjil. Bundjil is the largest bird of prey in Australia and the fourth largest Eagle in the world. Bundjil is highly aerial, soaring for hours on end without wingbeat and seemingly without effort, regularly reaching 1,800 m and sometimes considerably higher! The pictured birds are near fledged juveniles of the species. You know from the blurb above what the original name of these amazing birds are, what is the more recent/common name they are known by? Email the newsletter editor with your 'what bird is this?' answer, the first person to answer correctly will have their name published in the next newsletter.

Tim Harte



### Contact us.

President	Kaye Rodden	0438 317 499
	kathrynminette@gmail.com	
Vice President	Jim Seager	0409 935 700
	ejimseager@bigpond.com	
Secretary	Heike Dunn	0417 020 012
	barraboolhillslandcare@gmail.com	
Treasurer	Anthony Jones	0419 894 098
	anthony@bjc.id.au	
Newsletter	Tim Harte	0431 601 529
	balletcadet@gmail.com	
GIS mapping	Geoff Anson	0418 324 632
	geoffanson@mac.com	
Equipment	Trevor Jones	0407 009 855
Email: barraboolhillslandcare@gmail.com		
Facebook: barraboolhillslandcare		
Instagram: barraboolhillslandcaregroup		
Web site: www.barraboolhillslandcare.org.au		

Let your fellow members know what is happening in the Barrabool Hills. Contributions to the newsletter are welcomed. Send articles and photos to Tim Harte ([balletcadet@gmail.com](mailto:balletcadet@gmail.com)), deadline for next issue is 16/03/20

Members are able to advertise their Barrabool Hills business in the newsletter @ \$30 per issue (space allowing). Ads. are approximately 50 mm x 70 mm, and will be printed provided there is space. A special thanks goes to the Leigh family for distributing the newsletter.