Issue #8 July 2022





Challenges and Learnings from this year's planned burn season

This year the western part of the region has seen a high number of burns on identified priority sites and other significant grassland roadsides, e.g., Woorndoo Chatsworth Rd. Thankyou letters and payments have been distributed to relevant brigades involved in successful burns on high priority sites.

The CFA Planned Burn Taskforce helps to provide more peoplepower to small brigades who are lacking volunteer capacity. From all reports this has worked well for the last 2 years, and more brigades are taking up the offer.

The eastern part of the region saw a lower than usual number of burns this season, however there are concerns about the general trend of declines in burning across the whole region. Our LRP steering group discussed the key challenges in a recent meeting.

- Higher than average rainfall year, meaning smaller window of opportunity for burning
- Some brigades less interested in burning after summer as they see little benefit for fuel reduction
- COVID restrictions. High case numbers over summer period putting lots of volunteers out of action
- Reduction in volunteer numbers and availability, exacerbated by CFA members not able to volunteer if unvaccinated

- The Taskforce which has now been in operation for two seasons. As brigades see how successful and helpful this has been they are more likely to utilise them.
- Firebreak maintenance an ongoing issue in some areas. Maintenance is the responsibility of the land manager and there has been significant budget cuts in some Councils which affects their ability to keep all the firebreaks ready for burning.



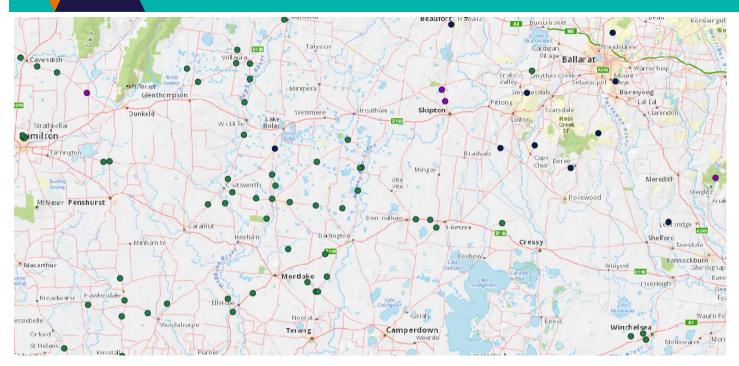
Chatsworth Woorndoo Road











Map view from Planned Burns Victoria, showing completed burns this season. See <u>Search Results | Planned Burns Victoria</u> (ffm.vic.gov.au) for more details.

Phalaris and Fire

Recently, Professor John Morgan shared this scientific paper "Perennial pasture grass invasion changes fire behaviour and recruitment potential of a native forb in a temperate Australian grassland." Morgan and Zac Walker worked for 7 years to get the paper published.

Grassland managers have observed for many decades, the increase in cover of invasive introduced pasture grasses (mainly Phalaris) in this critically endangered vegetation community, so it's very exciting to have some published scientific research on its effects. The findings will also be of interest to land managers around the use of fire as a management tool.

Temperate grasslands rely on frequent fire (1 -3 years) to maintain biodiversity and habitat structure. Many of the high-quality remnant grasslands are now confined to small, linear reserves where the threat of pasture grass invasion is high.

This work strengthens the argument for maintaining native grasslands for biodiversity and for keeping communities safe from unplanned fires, with exotic grasses contributing to fuel loads that are 5 times higher than native grasslands! These more intense fires have also proven to have soil heating impacts which can influence species recruitment and persistence.

To read the full paper -

https://opal.latrobe.edu.au/articles/journal_contribution/Perennial_pasture_grass_invasion_changes_fire_behaviour_and_recruitment_potential_of_a_native_forb_in_a_temperate_Australian_grassland/19801297



Hoary Sunray (*Leucochrysum albicans var. tricolor*), the native forb used in the study to determine fire residence time effects on seed survival.



An example of a recently burnt grassland linear reserve on the VVP, with Themeda resprouting.

Wadawurrung — Bringing fire spirit to Country. "wiyn murrup gooma dja"

It's been a privilege to once again partner with Wadawurrung Traditional Owners Aboriginal Corporation (WTOAC) to bring fire management back to some significant grassland and grassy woodland sites.

This Autumn, as part the Victorian Government's Biodiversity Response Planning project; WTOAC led an ecological burn at Blacks Creek Nature Conservation Reserve. With support from Forest Fire Management Victoria (FFM Vic), over 20 ha of native grasslands were burnt on the Parks Victoria managed reserve, near Skipton.

The project required considerable planning and support from agencies – WTOAC, Glenelg Hopkins CMA, Parks Victoria and FFM Vic. The burn has helped to maintain the condition of the grasslands and projects such as this have the added value of relationship building and sharing of knowledge.



Ecological burn at Black's Creek Reserve.

With the support of the Commonwealth Government's NLP2 program, we were able to work in partnership with the Corangamite CMA to support WTOAC to lead two cultural burns in Grassy Eucalypt Woodland habitat.

The first burn was on a private property with significant cultural and ecological values, adjoining the Moorabool River. Thank you to the local CFA brigades and the landholders for their contributions to the preparation and delivery of this burn.

You can view a short clip of the "Moranghurk" burn here-

https://fb.watch/dYGfwZH-kJ/

We were also able to revisit last year's cultural burn site at the You Yang's to do a follow-up burn.

Here's the video - https://fb.watch/dYDvQY2dSR/

Vegetation monitoring has continued at this years and last year's sites.

In the last 12 months, WTOAC have been able to put more members through the General Fire Fighters training course and increase their burn crew numbers. It's fantastic to see all ages and genders working together, learning together, and practicing traditional land management.



Wadawurrung family members at the You Yangs.

A new list of Victorian grassland flora:

The Grassy Plains Network has put together a new list of the flora of Victoria's grasslands. The list contains 615 species from across the Victorian Volcanic Plain and Riverina.

For more information visit: https://grassyplains.net.au/a-new-list-of-victorian-grassland-flora/



Woorndoo-Dundonnell Rd. Repairing, restoring, and reconnecting native grassland on an iconic linear reserve.

John Delpratt, Woorndoo Chatsworth Landcare Group

In 2021, the Woorndoo Chatsworth Landcare Group received DELWP funding (2021 Community and Volunteer Action Grants - Stream 2 Biodiversity On-ground Action and Stewardship) to undertake native grassland restoration at the Woorndoo end of the iconic Woorndoo-Dundonnell Rd. The aim is to restore diverse native grassland by direct sowing to areas dominated by exotic vegetation, and repair degraded patches within the native vegetation through a combination of seeding and tube stock planting, reconnecting this fragmented native grassland community.

The project site is a 850m long section of roadside, extending from the corner of Woorndoo-Dundonnell Rd and Woorndoo-Streatham Rd, eastwards towards Dundonnell. It comprises large patches of more-or-less intact Kangaroo Grass (*Themeda triandra*) grassland separated by degraded vegetation dominated by pasture grasses (e.g. Phalaris) and weeds. The higher biomass of the pasture grasses results in a significantly higher fire risk than native grasses.

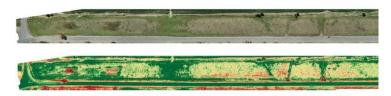


The project site is 850 m long and approx. 35 m wide (approx. 3 ha). Discrete patches of native grassland cover approx. 2 ha of the site (middle-ground and distant slope) with 1 ha supporting exotic pasture grasses and weeds (foreground).

Mapping

Drone images were used to map the areas of exotic vegetation that required restoration (approx. 1 ha) and the areas of native grassland that were to be protected. While

this was a useful tool for estimating the location and extent of works, site operations are relying on visual inspections.



High resolution drone images (October 2021) revealed the distribution of native grassland (light colours) and exotic vegetation (dark colours), allowing the accurate mapping of areas to be restored and repaired (small areas of exotic plants within the native communities).

Restore and reconnect

After securing all required native vegetation management permissions and permits from federal, state and local authorities, the site was burnt in March 2022 to remove the dense above-ground biomass of both native and exotic plants. Topsoil removal from those areas to be restored by direct sowing was completed in May 2022, using as a guide the distinct differences in re-growth foliage colour of dominant native and exotic grasses, along with on-ground species identification.

Topsoil removal is a proven method for rapidly reducing the exotic soil seed and bud bank, and elevated nutrient levels, from areas that are to be restored by direct sowing native seed mixes. It significantly reduces competition during the critical establishment phase for the restored native community. At the boundaries, where there was intergrading of native and exotic species, a conservative approach was taken. Removal of the remaining exotic plants will be a follow-up activity.



Topsoil removal to a depth of approx. 100 mm from sections previously dominated by exotic species. These areas will be sown with a diverse native grassland seed mix to reconnect the preserved areas of Plains Grassland (foreground and background).

Repair

An innovative component of the project is the commitment to repair small, degraded areas within the native grassland patches. These patches result from historical damage to the grassland that leads to rapid invasion by exotic species. The objective is to develop protocols that will restore these damaged areas to native vegetation, rather

than allow the exotic species to expand into the surrounding native community. A combination of chemical and/or manual removal of the exotic species, followed by sowing and planting of local native species will be evaluated. The expectation is that successful techniques will be adopted more widely to rapidly repair existing and new damage within native remnants, once the invading exotics have been controlled.



A degraded area within a native grassland remnant. These areas quickly become invaded by exotic species, which are likely to expand into the surrounding native community if further, nearby damage occurs.

Repairing and reconnecting these large but fragmented patches of Plains Grassland with local native grassland species will result in a continuous stand on this 850m section of linear reserve. Follow-up management will be targeted towards reducing the abundance of exotic species remaining on the site to acceptable levels.

In the longer term, the site will be managed with periodic cool burning by the CFA, and it will be interesting to watch the extent to which native species, both plant and animal, migrate between the remnant and restored areas.

It is hoped the site will become a template for the repair, reconnection and expansion of the very many fragmented remnants of native grassland for which this area is renowned.

Have you seen a Fat-tailed Dunnart?

Louise Falls, DELWP

This is a fat-tailed dunnart, one of the smallest carnivorous marsupials in Australia. This species is known to occur across the Victorian Volcanic Plain in South West Victoria, however there are few recent records of fat-tailed dunnarts across these landscapes and little is known about the health and numbers of dunnart populations across Victoria.

DELWP's Natural Environment Program team is looking to undertake a survey of this species, to measure population health and genetic diversity. We are also looking to study the ideal habitat conditions for this species, and to record where they are occurring.

Dunnarts are resilient if they have suitable habitat, and have been found in public parks, roadsides, farming properties and managed grassland reserves. They nest in cracks in the ground, under tiles or rocks and also under tin and fencing materials- basically anything they can find!

If you, or anyone you know has seen a fat-tailed dunnart across the VVP, please contact Louise Falls on 0436 914 128 or email at louise.falls@delwp.vic.gov.au.



Native marsupial, the Fat-tailed Dunnart, Sminthopsis crassicaudata.

Fat Tailed Dunnarts – caught on camera near Orford.

Lisette Mill, Basalt to Bay Landcare

In 2020, a farming member of the Basalt to Bay Landcare Network sent me a photo of a critter he had found in the woodpile. The second I saw it I knew this was a Fat-tailed Dunnart and that this meant that there would likely be more in other places nearby. But where?

With all notable flora and fauna sightings on Landcare members private land comes the urge to survey the nearby public land to see if there are more. Because what is on the public land is what helps any Landcare Group build future funding bids. Most environmental grants to help protect and enhance natural assets need a strong component of public benefit by working on public land.

So, during Covid restrictions we took advantage of our remote sensing camera fleet and positioned them in the nearby Moyne Shire asset on Riverside Rd, near Orford to look for more. Within weeks we had photos of another population of Fat-tailed Dunnarts.

We also encouraged other farm members to look for signs of Dunnarts and to borrow our remote cameras. Two other farm properties in the vicinity also have Dunnarts.

When the next round of State Government environmental grants for multi-year programs for community-led action on native biodiversity open we have a ready-made project to apply with.

It is this work; the building & resourcing of public and private environmental protection goals; that Landcare all over our region is great at doing.



A suspected Fat-tailed Dunnart caught on camera.

To connect with Landcare Groups in any area of Victoria search the Landcare Gateway website: https://www.landcarevic.org.au/groups/

Lisette Mill, Landcare Network Facilitator for The Basalt to Bay Landcare Network Inc, Moyne Shire area. 0408712713.

Plant-Hero's on the VVP

"The Plant Hero's" is a website that showcases stories of people saving plant species from around Australia.

Each story includes a YouTube clip. I've included the links to 2 well-known and much-loved grassland species that have a range of challenges in their conservation programs.

MURNONG YAM DAISY (Microseris scpigera)

Today only three populations remain in Melbourne.

Over years of missteps, mistakes and occasional breakthroughs, the Merri Creek Management Committee and traditional custodians, the Wurundjeri Woi Wurrung, have worked to conserve this species. Learning it was less to do with the plant and more about the special relationship with people, in this place.

YouTube



Murnong.

<u>SPINY RICE-FLOWER</u> (Pimelea spinescens SUBSP. spinescens)

Learning from mitigation translocations. What happens when a threatened plant is growing in an intended development location?

Often under Australian legislation, impacts can be 'offset' and the plant translocated. Moved, salvaged, re-grown in pots and planted elsewhere. But does that really work?!

YouTube

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ammie.jackson@delwp.vic.gov.au