



PLAINS FACTS

EDITION 26 SUMMER 2022

CARING FOR COUNTRY TEAM WIYN MURRUP FIRE SPIRIT SERVICES



Wadawurrung
Traditional Owners
Aboriginal Corporation

STORY AND
PHOTOGRAPHY
BY WIYN MURRUP
TEAM

WADAWURRUNG TRADITIONAL OWNERS ARE BRINGING WIYN MURRUP (FIRE SPIRIT) PRACTICES BACK TO DJA (COUNTRY) TO RENEW OUR DJA, REAFFIRM OUR CULTURAL CONNECTIONS, OUR IDENTITY AND HEAL COUNTRY AND PEOPLE.

Wiyin Murrup practices build a resilient ecosystem and culturally connected landscape.

Wadawurrung ancestors managed Dja with Wiyin (fire) for tens of thousands of years. Ongoing traditional fire burning management can reduce the



ABOVE: WADAWURRUNG CARING FOR COUNTRY TEAM AND GOVERNMENT PARTNERS AT A PRESCRIBED BURNING COURSE

destruction of hot and rapid bushfires and enhance the biodiversity of flora and fauna species.

The term 'Wiyin Murrup' is to describe burning practices developed by Wadawurrung people to enhance the health of the land and its people. Wiyin Murrup can include burning or prevention of burning of Country for the health of important food, medicines and resources and to sustain native fauna populations.

Sophisticated knowledge, developed over millennia, of when and where to burn shows that fire was an essential tool for land management.

DJIRNAP OUR FIRE CARRIER.

Djirnap the cockatoo was our fire carrier, carrying the fire on the top of his head. He would not share his fire, he kept it to himself.

Waa (Crow) and pigeon were the first to try and steal the fire, but they could not. Along came the sparrow hawk. He befriended the Djirnap they shared some tucker at camp. After a big feed, later that night Djirnap fell asleep beside the fire.

Sparrow hawk took the fire and shared it amongst the people.

Djirnap still wears his yellow firecrest and underneath his crest lies a bald patch where the fire once burnt him.

BURNING IN YOUR BACKYARD

WE ALL HAVE A PART TO PLAY IN THE MOSAIC

STORY BY GREG HARRY / PHOTOGRAPHY BY JULIA BLACK

IN OCTOBER 2022, THE STARS ALIGNED AND THREE FIRE PRACTITIONERS ALONG WITH OVER 30 LANDHOLDERS CAME TOGETHER ON WADAWURRUNG COUNTRY FOR THE INAUGURAL "BURNING IN YOUR BACKYARD" WORKSHOP ORGANISED BY CORANGAMITE CATCHMENT MANAGEMENT AUTHORITY.

What a knowledge sharing day it was! With Wadawurrung fire knowledge, CFA and Golden Plains Shire Council process and procedure, the knowledge of working on planned burns around Australia and the world was freely shared with all attendees.

Along with an obvious need for more of these workshops, my next observations were the fear of fire and the thirst for knowledge about the how, when and where a landholder can apply fire safely to their property.



LET'S LOOK AT THESE TWO OBSERVATIONS.

1. THE FEAR OF FIRE

Fire has been a part of the Australian landscape for over 60,000 years, applied as required by the Traditional Owners as part of their responsibility to care for Country. The regular application of fire created a reliable source of food for them and habitat for the wildlife that depended on it.

White man landing in Australia brought about many changes, one was the change in the fire regime that had existed in Australia for so many years. The intensity, extent, frequency, and season of fire all dramatically changed, resulting in huge increases in the overall fuel hazard around the country.

Over time, the population shift from inner city to urban interface and country living has contributed to the difficulty of managing fuels and increasing consequences of bushfires in Australia.

Those consequences and a fire industry funded to suppress rather than prevent bushfires have slowed the flow of land management knowledge and left landholders unsupported and without the necessary knowledge or skills to manage their land or fire risk. The workshop was a small step in rebuilding the knowledge, skills and confidence to safely apply fire to your property.



2. THE THIRST FOR KNOWLEDGE

I was introduced to fire as a land management tool 35 years ago. I am still learning today and will continue to learn every time I apply, don't apply, or watch fire applied by others. My skills and knowledge continue to evolve and have certainly modified the way I apply fire to the landscape.

SOME OF THE THINGS I HAVE LEARNED:

Less is best and often is better. Unless you are in bushfire conditions, with the careful application of fire (lighting pattern), you can manage the intensity, extent, season or frequency of your fire. This starts the mosaic of fire on your property and better prepares your property to withstand the single fuel age class which results from a bushfire.

Burn small areas (10mts x 10mts) and build on them in multi-stage burning. This is achieved by targeting single parts of the fuel complex on your property such as the bark, sedges or the larger fuel build ups, when the surrounding fuels are wet then return days or weeks later to

target the next layer of fuels. This ensures a lower intensity of fire at each stage of your fuel management.

Walk on your land, look at and feel the fuels and soil for moisture. If you feel no moisture, it may be the wrong time to be introducing fire into your landscape because a hot burn has greater impact on the environment.

Look at the type and variety of fuels and birdlife etc before you burn, then look at what is there after you burn. Is the regeneration what you expected? Are you seeing different bird and wildlife on your property?

Every burn will have a fuel management and an ecological effect on your property, so it will have both a fire protection and a land management impact.

The last take home is your land is part of a bigger mosaic so whether you choose to burn or not, you are still part of the mosaic and will be contributing to the habitat of your area.



FIRE RISK CONSULTANTS

Fire Risk Consultants offers a range of operational and strategic services in the Fire, Emergency Management, Risk and Community sectors.

Our services include fire protection planning for built and natural assets in the Australian environment, asset protection plans, bushfire fuel management plans, fire protection plans, risk management plans and land management strategies using fire as an effective management tool.

Our team is heavily invested in the assessment of bushfire risk providing support to government and non-government organisations across Australia. We can provide:

- Sound knowledge of how fire can impact on buildings.
- Experience in the assessment of landscape risk and using this information to influence treatments.
- Bushfire protection planning for assets.
- Identification of bushfire risk mitigation measures that improves the survivability of a building.
- Understanding of community challenges and the impact of bushfires on health and wellbeing.
- Expert advice on all fire risk matters, including the ability to engage with community representatives if required.

Fire Risk Consultants are also heavily involved in on ground vegetation management projects for our clients, utilising tractor mounted slashers, posi-track mulchers and forestry machines to achieve effective fuel modification outcomes.

We have experience in working with large and small organisations in Victoria, Tasmania, Queensland, New South Wales, ACT and South Australia. We have supported the assessment of bushfire risk in high risk locations and assisted in developing effective and realistic mitigation plans.



WHO ARE THE 'FRIENDS OF THE FORGOTTEN WOODLANDS INC.?'

STORY BY GRAHAM ARKINSTALL

EARLY DEMAND FOR TIMBER, FIREWOOD, ROAD AND RAIL DEVELOPMENT AS WELL AS THE GRAZING AND CROPPING OF LAND MEANT THAT BY THE EARLY 1900'S MUCH OF THE VVP WAS ALMOST COMPLETELY CLEARED OF *BANKSIA MARGINATA* AND OTHER SIGNIFICANT WOODLAND SPECIES OF SHEOAK (*ALLOCASUARINA VERTICILLATA*) AND BURSARIA (*BURSARIA SPINOSA*). THIS HAS RESULTED IN ISOLATED WOODLAND FRAGMENTS ON A TRAJECTORY TO LOSS OF GENETIC DIVERSITY AND LOCAL EXTINCTION.

FRIENDS OF THE FORGOTTEN WOODLANDS (FOFW) IS A VOLUNTEER GROUP WORKING TO REBUILD THE WOODLAND COMMUNITIES OF THESE KEY SPECIES THAT WERE ONCE A KEYSTONE IN THE ECOLOGY OF THE VOLCANIC PLAINS.

Formally commenced in 2016, FoFW is a community group which includes scientists, natural resource managers, farmers and others with an interest in propagating and re-establishing the three key species. It brings together existing interest, enthusiasm and past works to build a project covering all of the VVP.

The focus of FoFW has been to collect seed and propagate from remaining remnants and establish new populations which mix their genetics, helping to overcome issues associated with inbreeding and O to changing environments. Local wildlife is also a key beneficiary of such plantings.

Over time, FoFW has built its network to work closely with a wide range of landcare groups, CMA's, private and public landowners, local governments, tertiary institutions, VicRoads, and other government agencies.

ISOLATED *BANKSIA MARGINATA* REMNANT AT TIVERTON - PHOTO BY DAMIAN COOK



MT ELEPHANT BANKSIA SEED PRODUCTION AREAS PLANTING



Currently FoFW have propagated, distributed and also shared with others the task of planting in excess of 30,000 of these three key species back into the VVP landscape from Melbourne to Byaduk. Over 130 planting sites have been used on both public and private land. Key planting sites are called Seed Production Areas. These include 500 plants of each species with 50 plants from 10 different provenances, including one from a climate matched provenance to assist with future climate proofing these species. We have 3 such SPA sites which include 500 of each of the 3 key species. Another key feature of the SPA's is the mapping of all plants through the use of GPS and GIS systems. This allows all losses to be replaced each year with the same provenance. Mapping occurs across as many other planting sites as possible - currently we have in excess of 10,000 entries mapped.

With funding from the Glenelg-Hopkins CMA and Corangamite CMA, the genetics of the remnant Banksia stands were analysed in 2018 by FoFW member Dr Adam Miller of Deakin University (Warrnambool Campus). Fellow FoFW member, Dr Steve Sinclair of Arthur Rylah Institute, has made a thorough analysis of the distribution of past and present populations. These studies show that our group is acting in the nick of time - the populations are isolated but at present retain sufficient genetic diversity to rebuild healthy and resilient populations across the VVP. FoFW have also attracted funding for other research including

drought tolerance of different banksia provenances and genetic movement within populations. Future research projects await further FoFW funding.

Our plantings will, over time, provide reliable VVP provenance seed sources for all three woodland species for future landcare activities. They will also ensure the survival of these species and existing provenances across the VVP.

The continuation of our current activities will provide additional opportunities for interested people and organisations. FoFW is always seeking information about unrecorded remnants of these key species and new planting opportunities.

NEW MEMBERS ARE ALWAYS WELCOMED TO JOIN AND HELP WITH ON GROUND WORK.

Please contact us at info@friendsoftheforgottenwoodlands.org.au if you are able to offer any assistance. Alternatively, contact Aggie Stevenson (FoFW President) on 0427 786 243 for more information.



ABOVE: FLOWERING BANKSIA CONE



MT ELEPHANT SEED PRODUCTION AREAS PLANTING



GOLDEN SUN MOTH HABITAT AT CHEPSTOWE, IN THE VICTORIAN MIDLANDS, PREDOMINANTLY MAINTAINED THROUGH LOW-DENSITY SHEEP GRAZING. THE PROPERTY OWNER, NEVILLE J. ODDIE, IS ADEPT AT USING HIS FLOCKS TO FACILITATE THE SPREAD OF NATIVE GRASSES USED AS FOOD PLANTS BY THE MOTHS (PHOTO CREDIT: D. HARMSHAW 2022).

THE GOLDEN SUN MOTH: AN UNEXPECTED BENEFACTOR OF LOW-INTENSITY SHEEP GRAZING.

STORY BY GRAHAM JURY

HABITAT MODIFICATION IS NOT NECESSARILY HABITAT DESTRUCTION. RATHER, VICTORIA'S NATIVE BIODIVERSITY EXISTS ALONG A CONTINUUM OF DISTURBANCE TOLERANCE.

When Australia's temperate grasslands are modified by sheep grazing, there is a resulting decline in a slew of grazing-sensitive species. However, some species are more tolerant to disturbance from exotic grazing and can even flourish within the modified landscapes that arise within Victoria's agricultural zones. The naturally dominant Kangaroo Grass (*Themeda triandra*) is suppressed by continuous stock disturbance and, provided that exotic plants are managed, tends to be replaced by colonizing native grasses such as Wallaby Grass (*Rytidosperma* spp.).

Shaped over thousands of years through cultural burning and complex interactions with native herbivores, the more fertile areas of the Victorian Volcanic Plain (VVP) are nothing if not the product of the disturbance cycles that maintain them. For the Golden Sun Moth (GSM, *Synemon plana*), modification of this deep-time pattern, in the form of sheep grazing, can produce continuous disturbance pressure, that favours long-term swards of *Rytidosperma*, its food plant, across larger areas than are typical within intact grasslands. Perhaps counter-intuitively, both GSM and *Rytidosperma* can thrive under low-moderate intensity sheep

farming, making its targeted conservation within farming landscapes a highly efficient use of conservation resources.

An estimated 22% of Victoria's agricultural grazing estate is native pastureland¹, much of which could contribute to conservation initiatives to support grazing tolerant native taxa like GSM. During a recent review of GSM conservation in Victoria, we found that the largest GSM populations remaining on the VVP had survived several decades of sheep grazing. Several graziers we interviewed reported retaining large GSM populations within continuously grazed unimproved pasture, finding that their stock's activity produced an appropriate open sward of *Rytidosperma* tussocks with inter-tussock spacing needed by the moths, while continuing to meet their production-based outcomes.

1 Mitchell, M., M. McCaskill & R. Armstrong. 2019. "Phosphorus Fertiliser Management for Pastures Based on Native Grasses in South-eastern Australia", *Crop & Pasture Science*, 70, pp. 1044-52.

Graham Jury is a Consulting Ecologist in the employ of TREC Land Services. TREC have recently completed a Conservation Assessment of GSM in Victoria, on behalf of Trust for Nature.



FEMALE GOLDEN SUN MOTHS DEPEND UPON NATIVE C3 GRASSES FOR LAYING HABITAT AND INTER-TUSOCK SPACING FOR MATING DISPLAYS. THE DESIRED HABITAT STRUCTURE CAN READILY BE PRODUCED THROUGH LOW INTENSITY SHEEP GRAZING. (PHOTO CREDIT: G. JURY 2022).

STRIPED LEGLESS LIZARD A DELIGHTFUL INHABITANT OF OUR NATIVE GRASSLAND

STORY AND PHOTOGRAPHY BY TREVOR PEScott

THE STRIPED LEGLESS LIZARD *DELMA IMPAR* IS ONE OF THE MOST ATTRACTIVE INHABITANTS OF THE TEMPERATE NATIVE GRASSLANDS AND GRASSY EUCALYPT WOODLANDS THAT ONCE EXTENDED FROM THE SOUTH-EAST CORNER OF SOUTH AUSTRALIA THROUGH VICTORIA TO SOUTH-EAST NEW SOUTH WALES.

It is also one that has suffered from early mismanagement of the grasslands, and is now classed as an endangered species.

Measuring up to 30cm in total length, it has a pale grey-brown ground colour with several dark brown longitudinal stripes that extend from a dark brown head to a checker-patterned tail. Superficially it resembles a small snake, but the conspicuous colours and markings are unlike any of the other reptiles found locally.

Their preferred habitat is that where scattered large rocks remain in clay soils that tend to crack open when they dry in summer. Native tussocks are important as sun-basking sites.

Legless lizards feed on small invertebrates including crickets, grasshoppers, caterpillars and spiders.

Late in spring the females lay two elongated soft-shelled eggs usually in soil cracks, and these hatch after about six or seven weeks. Occasionally several females will lay their eggs at the same site.

Although floristic diversity is not important, grassland legless lizards are rarely recorded at sites that are dominated by exotic grasses, nor in particularly tall, or short, grasslands.

Fire is a significant feature in conservation of the species, with late summer low-intensity burns in late summer or autumn, every three years, are best for the lizards' survival. By contrast spring fires can be disastrous for the lizards.



STRIPED LEGLESS LIZARD

SEED COLLECTION WORKSHOP

JOIN A VARIETY OF GRASSLAND EXPERTS IN THE FIELD EXPLORING THE GRASSY EUCALYPT WOODLANDS OF THE VICTORIAN VOLCANIC PLAINS.

LAST YEARS EVENT WAS SO POPULAR THAT PARTICIPANTS ASKED FOR MORE - AND LONGER!

Small groups will explore the site with an “expert” (our word, they wouldn’t describe themselves as this) identifying herbs and grasses utilising resources such as pocket guides, books, apps and even a field microscope. Each group will also discuss seed collection techniques and there’s also the opportunity for hands on practice where appropriate and permitted.

After a provided lunch participants will have a chance to change groups if they want to and further explore the site. This was what was asked for after last years shorter version of the workshop. Participants wanted more time in field with the experts to discuss and learn.

Please indicate at time of booking if you have any dietary requirements

This project is supported by Corangamite CMA, through funding from the Australian Government.

THE LIST OF “EXPERTS” IS STILL BEING FINALISED AND SO FAR INCLUDES:

- Mike Robinson-Koss: Otway Greening
- Peter Wlodarczyk: Indigenous Nurseryman
- Stuart McCallum: Friends of Bannockburn Bush & Geelong Landcare Network
- Dale Smithyman: Natural Resources Officer Golden Plains Shire
- Mark Trengove: Ecological Services
- Candice Parker: Greening Australia

DETAILS

LOCATION GRASSY EUCALYPT WOODLANDS, BANNOCKBURN

DATE 14 DECEMBER 2022

TIME 10:00AM-03:00PM

FOR FULL INFORMATION AND TO BOOK VISIT [HTTPS://BIT.LY/3UAMKbK](https://bit.ly/3UAMKbK)



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Environment, Land, Water and Planning

