



Australian Ecosystems Foundation Inc.

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Spring newsletter. Issue 29

Email: info@ausecosystems.org.au

Conservation matters from AEFI Secretary

Vale great mate and AEFI president Dr Jim Shields, it is with a heavy heart and much sadness that I now do this presidents report on behalf of Jim who passed away last year. Before I dive into what we have been up to I would like to acknowledge the passing of Jim Shields, who filled the president position of AEFI for 3 years. Jim was a good mate of mine and we achieved a lot together in the areas of wildlife conservation and eco tourism. He paved the way for detection dogs of many species which is now a world known conservation practice when looking for rare and endangered wildlife. He lived a full life and was a big inspiration to myself and many other people. It has been hard to talk about but I feel as though Jim deserves to be recognised for all his efforts within our organisation. Rest easy, mate.



AEFI along with everyone else have been thrown in the deep end these past 18 months. During the drought we were providing water sources for our native species by installing and filling up water stations, donated by Plumbers Supplies Coop. We were also unable to go ahead with our tree planting in Hartley due to the lack of moisture in the soil, which would have led to a low success rate of the Eucalyptus trees. Then came along the Gospers Mountain megafire which hit our reserve on the 21st December, thanks to all the volunteers and local RFS who helped protect the sanctuary. I'd also like to thank Lithgow mens shed for building and donating nesting boxes which provided habitat for possums post fires. Following this we had floods and then came along Covid 19. What a year it has been. We would like to thank anyone who has supported us financially during these rough times as well as our regular volunteers, who are the bloodline of our organisation.



On a positive note coming out of this time, we have been doing our part in helping the bushland recover through revegetation, as well as working on a variety of projects such as the Mountain Pygmy Possum breeding centre and our Indigenous Mentoring Program 'Walk Talk n' Do'. Read on to learn more about what we're doing!

TREVOR EVANS

In this issue

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- Bushfire season at Secret Creek Sanctuary
- Welcome to Australian Ecosystems Foundation..



- Indigenous mentoring program "Walk Talk n Do"
- Mountain Pygmy Possum (*Burramys parvus*) breeding centre
- Conmurra wildlife sanctuary



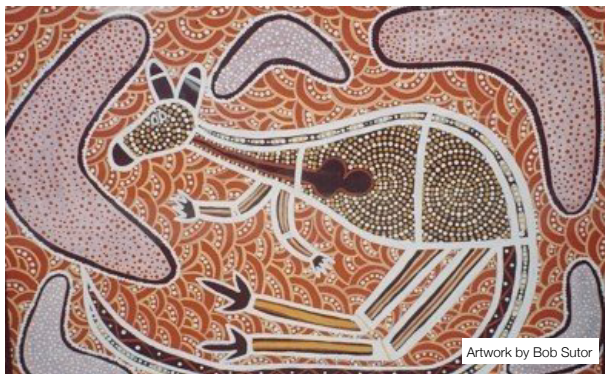
Brush-Tailed Rock Wallaby (Petrogale penicillata) Image by Amber Webb



Sanctuary is still closed for tours, anyone visiting Secret Creek through the restaurant refer to @secretcreekcafe on Facebook and Instagram

Brush-tailed rock wallabies (Petrogale penicillata) are endangered marsupials native to Australia, and were hunted heavily for their fur in the early 1900s, resulting in the decline of more than half a million wallabies. We have had rock wallabies within our protected area at Secret Creek for 18 years and have been seeing lots of pouched young lately. Amber found this little fella under a cave with his mum nearby keeping a close eye on him. There are smaller populations dispersed around, however the fragmentation of the species causes a

loss of genetic diversity and therefore, a higher risk of extinction. Introduced predators, wild goats competing for food as well as habitat loss, land clearing are all contributing factors to the gradual fall in numbers of Brush-tailed rock wallabies in the wild. We really do need more people and organisations dedicated to saving Australian wildlife by protecting habitats and maintaining natural ecological processes. If you would like to help us save the species, head to www.ausecosystems.org.au to make a donation.



Artwork by Bob Sutor

WALK TALK N' DO INDIGENOUS MENTORING PROGRAM

Australian Ecosystems Foundation, along with local Indigenous leaders, are looking for Aboriginal youth between the ages of 15-24 to participate in a 4 month mentoring program to connect Indigenous youth to their culture, wildlife and country.

Bush tucker, native species, interviews, stone tools, Didg and sticks, dance, Aboriginal art, language, educational information and more!

This free program will run on a Saturday every fortnight at Secret Creek Sanctuary in Lithgow from 11am-4pm, starting on the 21st of November 2020. Lunch and all materials included. Transport to and from the train station is available!

Limited spots, email info@ausecosystems.org.au for further info or to register your interest



<https://www.bobsutor.com/my-art.html>

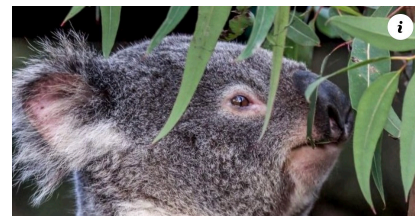
Our volunteer koala tree planting project in Hartley Vale

Thankyou to BrazilianAid, Lithgow Girl Guides and all our other volunteers who were able to come along to our koala tree planting weekends in Hartley Vale on the 1st and 2nd of August as well as the 19th September.

We planted around 4000 trees and are on our way to our target of 5000. The Eucalypts had been growing in tubestock for over 6 months as we had to postpone our tree planting firstly due to drought, then bushfires, then floods and only just managed to fit it in between the restrictions of Covid 19. We worked on revegetating an area with various Eucalyptus species to be used as a vital wildlife corridor between two areas of bushland and

as an insurance population for koala food trees. These Eucalypts will be used to feed koalas in rehabilitation before being released back into the bush or koalas in captive environments.

Australian Ecosystems Foundation would like to thank Lithgow native nursery and all the volunteers there who were involved in collecting and germinating seed, which had provenance value to our local Eucalyptus species. We would also like to thank the property owner Kaz for allowing us to get stuck into some environmental conservation on her block of land. Also a big thanks to Featherdale Wildlife Park and Mogo Zoo for contributing to this project.



ABC.NET.AU
Blue Mountains volunteers plant thousands of native trees to feed koalas after bushfires



Eucalyptus species planted -

- E. cideroxylon
- E. pauciflora
- E. polyanthemos
- E. punctata
- E. viminalis
- E. dives
- E. cypellocarpa

If you would like to get involved in our revegetation projects in the Blue Mountains region please visit our website and complete the volunteer application form at

www.ausecosystems.org.au/support



Secret Creek Sanctuary recovery from bushfires



Smoke filled the gully months before the fire had arrived, then on the 21st of December Gaspers Mountain Fire and Oaky Park Fire joined at the back of our reserve creating a big fireball. We had evacuated some of the animals to Featherdale Wildlife Park before the fire hit and while none of the wildlife inside the sanctuary were injured, we had extensive damage to our fencing, tool shed and main water supply. Thanks to all the volunteers who helped protect

the sanctuary on the day as well as Bathurst ARC owner Rob Lowe for the donation of fencing materials and BrazilianAid who organised a group of volunteers to work on pulling the place together again.



Bush regeneration a year post fire

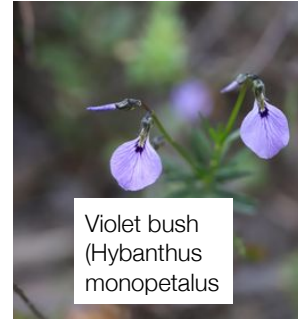
While the Australian landscape has evolved to recover from bushfires, this fire season was different. The long drought leading up to fires put a lot of vegetation species under stress due to the lack of moisture in the soil. When the Gaspers Mountain megafire came through, it was out of control and moving fast, leaving no patches of unburnt bushland for wildlife to retreat to. Then we had floods, which was a relief to put out fires still burning however, the heavy rain gushed away all the top soil and remaining seed bank. All below images taken by Amber Webb



Bitter pea (*Daviesia ulicifolia*)



Waratah (*Telopea speciosissima*)



Violet bush (*Hybanthus monopetalus*)



Finger hakea (*Hakea dactyloides*)



Flax lily (*Dianella caerulea*)

Here we are, almost a year post bushfires and there are lots of signs of regeneration. The bush started with slow epicormic Eucalyptus shoots and we have been observing ground cover and shrub layer species coming back,

such as Happy wanderer (*Hardenbergia violaceae*), Blue Flax-lily (*Dianella caerulea*), Bracken fern (*Pteridium esculentum*), Black thorn (*Bursaria spinosa*) and a variety of grasses (*Poa*).



Apple berry (*Billardiera scandens*)

Welcome to Australian Ecosystems Foundation..



Lucie Novakova is our new onsite Project Manager, living nearby Secret Creek Sanctuary. She worked as a Strategy Consultant for Deloitte in Sydney before and is hoping to use her skills to help preserve nature and critically endangered species as opposed to help increase profits. Specifically she will be helping with the Mountain Pygmy Possum Enclosure Build project - her goal is to tackle all administrative and organisational burdens to give her team more productive time on the ground building and creating stuff. When not looking after her four young children (4 under 4), she's looking after their family business - Six Foot Track Eco Lodge.



Amber Webb began volunteering with Australian Ecosystems Foundation back in 2019 while working for Guide Dogs NSW as well as rescuing and rehabilitating wildlife through WIRES. She is about to complete her course in Conservation and Land Management and has also been volunteering with local bushcare groups.

Amber is our Assistant Manager and will be working on the ground at our reserve Secret Creek Sanctuary, looking after endangered species, working with local Indigenous elders, assisting in administrative tasks, developing educational material and organising environmental conservation projects in the Blue Mountains.



Allison Garoza is a filmmaker with a major in Human Ecology. She loves exploring the natural world and using her skills in filmmaking, writing, and sculpture to promote conservation. Allison films and edits videos for wildlife non-profits in Australia, Africa, and the United States, and works as an editor for the major television networks in Sydney. She first came to Secret Creek in 2015 to film quolls for Australian Geographic, and has made additional videos on most of our species over the years. After the recent bushfires, she made a video to promote our Everyday Hero Page which helped Secret Creek surpass our \$30,000 goal. Allison is now working as AEFI's filming and media producer.

Allison has filmed the illegal wildlife trade in Southeast Asia, filmed anti-poaching rangers protecting rhinos in Botswana and worked for the Zoology Department of the Field Museum of Natural History in Chicago. Through her filmmaking, Allison is most proud of when she helped save a rare part of Far North Queensland (home to endangered northern quolls, four species of endangered bats and aboriginal art) from a limestone mining company.

Secret Creek is one of Allison's favourite places in Australia and she admires AEFI's conservation efforts. She loves learning about native animals and wants to continue using her skills to help protect them.

Volunteer profile



Lucille Hoy has been coming as a regular volunteer to Secret Creek Sanctuary and has been a big help to us through this challenging year. We are lucky to have her come in and give a hand whether it be walking dingoes or cleaning enclosures. Lucy is the local Animal Rescue Collective Hub (ARC) representative, and is also a WIRES volunteer, giving her time to rescuing and rehabilitating injured wildlife. We love you Lucy!

Mountain Pygmy Possum (*Burramys parvus*) breeding centre and climate adaptation project

Mountain Pygmy Possums are the only true hibernating alpine marsupial of Australia. Currently living down in the Snowy Mountains, they have become critically endangered due to habitat loss, fragmented subpopulations, bushfires, decline of their primary food source Bogong moths, impacts of climate change and predation from feral cats and foxes. They were first found as a 10,000 year old fossil and were thought to be extinct, until a live one was discovered at Mt Hotham ski lodge in 1966. **This is our last chance to save the species.**

Project detail

The construction of a Mountain Pygmy Possum breeding centre at Secret Creek Sanctuary will allow us to have an insurance population onsite where we will be able to increase genetic diversity within the population and widen their environmental range, assessing the ability of the possums to breed and maintain populations in a warmer climate than their current natural habitat. The species lineage have survived in cool temperate lowland rainforest the last 24 million years. Australian Ecosystems Foundation have been working closely with key researchers in Australia's biodiversity, including Professor Mike Archer AM of the University of New South Wales (UNSW) and Senior Threatened Species Officer Dr Linda Broome of the NSW Department of Environment, Climate Change and Water (DECCW). For the past 8 years we have been developing this plan and are now at the stage of construction. Photo below by Dr Linda Broome.

How is it all going to work?

The breeding centre will comprise outdoor enclosures with a thermally stable, insulated soil bank with nest boxes deep inside. There will be options for the possums to go inside an air-conditioned nest box or to an outdoor environment, allowing them to acclimatise. The nest boxes will be within a well insulated mud brick building built against the side of the outdoor enclosures. The thermal refuge room will enable us to move possums indoors if temperatures exceed the insulating capacity of the nest bank, or in case of fire. To maintain a cool and moist environment, a sprinkler system will mist the enclosures during hot, dry weather. The building will have quarantine rooms, animal preparation room and surgery, cleaning room, food preparation area, research and surveillance room and an office area.

The breeding program will use a low disturbance approach, keeping animal handling to a minimum. Monitoring cameras and microchip readers will keep records of all the possums. The program will remain in close contact with Healesville Sanctuary breeding program in Victoria and their advisory group to further the best chance of success for both locations.

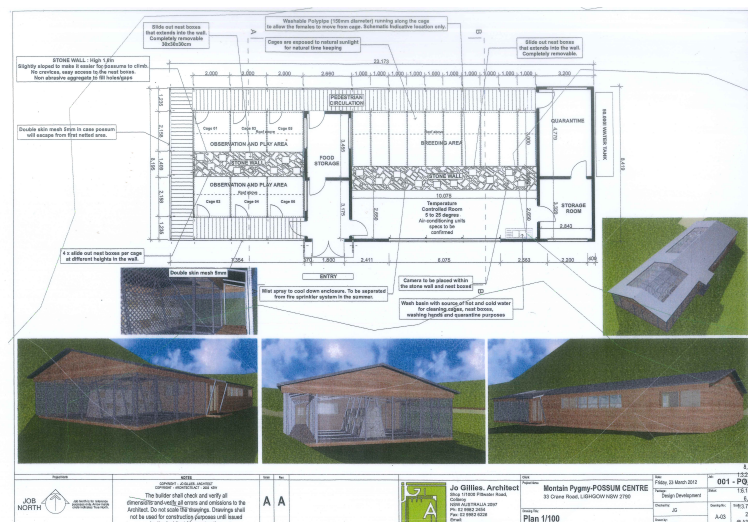
There will be opportunities for innovative research projects for university students in relation to the breeding centre and climate adaptation project. Students will be able to examine why the Mountain Pygmy Possum is currently restricted to habitats above the winter snow line and discover if translocations will enable the species to thrive into a warmer future.

Help us preserve an important species of Australia's biodiversity so that ecosystems remain in balance.

Head to www.ausecosystems.org.au to make a donation



Become a member of Australian Ecosystems Foundation Inc, through our website



Conmurra wildlife sanctuary

Australian Ecosystems Foundation is supporting the creation of a new wildlife sanctuary located just outside Bathurst NSW. Joel and Andrea Little from Conmurra Wildlife Sanctuary & Airbnb have managed their 67 hectare property for conservation since 2013. They run a successful Airbnb business and this year received approval to create a sanctuary for native endangered species. AEFI are proud to be a founding sponsor of this project which has resulted in a protected woodland enclosure being built to house small native mammals that once existed on the plains and hills around Bathurst.



The first species to arrive were Rufous Bettong (*Aepyprymnus rufescens*) and Long-nosed Potoroo (*Potorous tridactylus*), bred by south-coast wildlife park Potoroo Palace, as well as Parma Wallabies (*Macropus parma*) from Secret Creek Sanctuary. Southern Brown Bandicoots (*Isoodon obesulus*) were the next to arrive however, their trip wasn't as straight forward. Unfortunately, there seems to have been a big drop in the number of these bandicoots being held in captive environments and the only animals that could be sourced were in Victoria which was in the midst of a lockdown. A lack of transport options made it look like the bandicoots would not make the trip from Mt Rothwell Conservation and Research Centre, near Geelong. Thankfully, Mt Rothwell was able to engage a pilot who previously helped evacuate animals during recent bushfires, and he offered to fly the animals from Mt Rothwell to Bathurst direct! AEFI Founder Trevor Evans was happy to help release four Southern Brown Bandicoots into the Conmurra woodland enclosure on 27 October 2020.



Jarrah the Koala (*Phascolarctos cinereus*)



Welcome big boy Jarrah to Secret Creek Sanctuary. Jarrah is a 4 year old male who came to us from Wild Life Sydney. He has settled in really well and has been loving getting into all the new Eucalyptus species up here in the Blue Mountains. Euccy, our special hermaphrodite Koala and Jarrah were both born at Wild Life Sydney and have been able to come together again.

Hermaphrodite: both male and female sex organs. This is very rare in Koalas.

AEFI would like to thank the following people and organisations for their support

Volunteers

Sean Kelly
Matty Hunter
Sharon Edlin
Lucille Hoy
Lachlan Manning
Catherine Emblem
Naomi Harmer
Adrian Fornston
Kirsty McCosker
Arne Verworn

Hannah Kohlenberg
Lucy Ward
Allison Garoza
Plaid Patrol
Brazillianaid
Lucy Johnston
Joel Little
Lithgow Girl Guides
Courtney Darlington
Bree MacDonald
Tree planting volunteers!



How can you help?

There are many ways you can contribute to the work we do at AEFI. As a non-profit environmental organisation we rely on donations and the support of our members as well as grants and the work of volunteers

BECOME A MEMBER/DONATE/VOLUNTEER

If you would like to renew your membership, become a member, donate or register your interest in volunteering please visit our website and complete the online application form at www.ausecosystems.org.au/support



HELP FUND A PROJECT

- Mountain pygmy possum breeding centre and climate adaptation project
- Breeding programs of endangered species
- Local revegetation of Indigenous plant species
- Indigenous mentoring programs
- Cultural centre on site

We are a registered charity in Australia and are listed on the Register of Environmental Organisations, therefore donations over \$2 are tax deductible

CONTACT US:



Australian Ecosystems Foundation Inc and Secret Creek Sanctuary



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