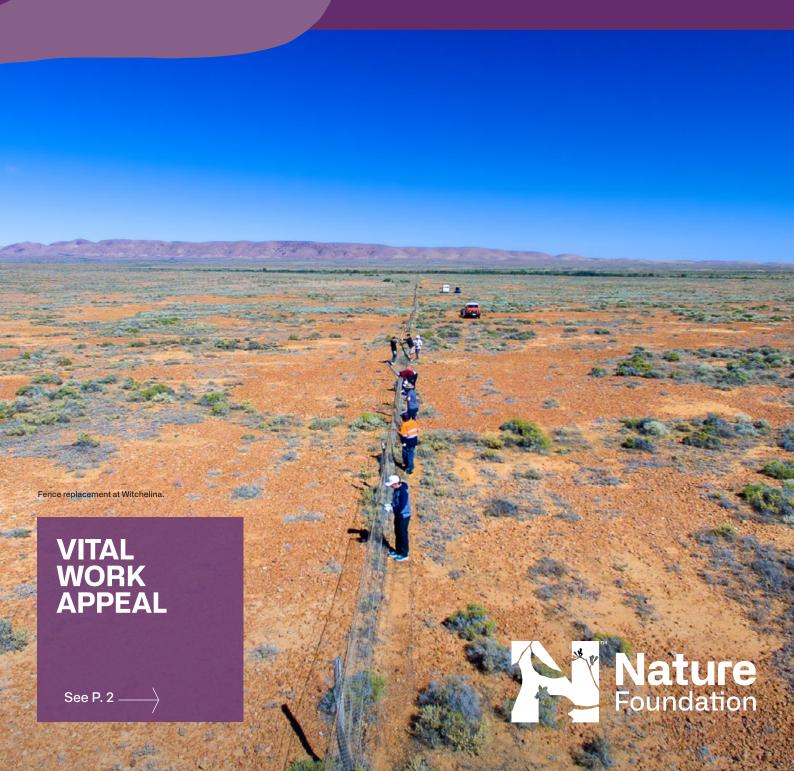
- \_\_\_ **Kids on Country** set to soar
- \_\_\_ An update on **Cygnet Park**
- \_\_\_ Regional **Emu-wren** survey
- \_\_\_ Members special offer

2023

Engaging people in conservation

# NatureVatters



We are fast reaching the end of the financial year. Unfortunately, that means tax and although we can't avoid it, we can offset it by donating to our annual vital work appeal.

The annual vital work appeal is one of our most important appeals each year as it provides us with funds that support a range of key projects which we often find difficult to fund through grants and other channels. This year we have two major capital priorities that we are seeking funds for.

The first is fencing. Fencing is the first line of defence in reducing the impact of total grazing pressure and wandering livestock on our reserves. With just over 400km of boundary fencing it is an ongoing challenge to maintain the boundaries in stock proof condition. We have been implementing a program of fence replacement over the last few years and have so far replaced over 50km of fence. We still have over 150km of priority fencing to complete. All funds raised will go directly toward protecting the habitats of numerous threatened species that we are conserving on our reserves.

The second is additional accommodation at Hiltaba. We need to expand our accommodation at Hiltaba to provide a place for volunteers, staff, and contractors to stay onsite. This will allow us to increase our ability to manage the reserve, protect threatened species, deliver improved conservation outcomes and the visitor experience.

As a charity with deductible gift recipient (DGR) status, all donations are tax-deductible. This year we will resend all donation receipts to everyone that has donated to the Nature Foundation throughout the financial year to help you record your donations and accurately reduce your taxable income.

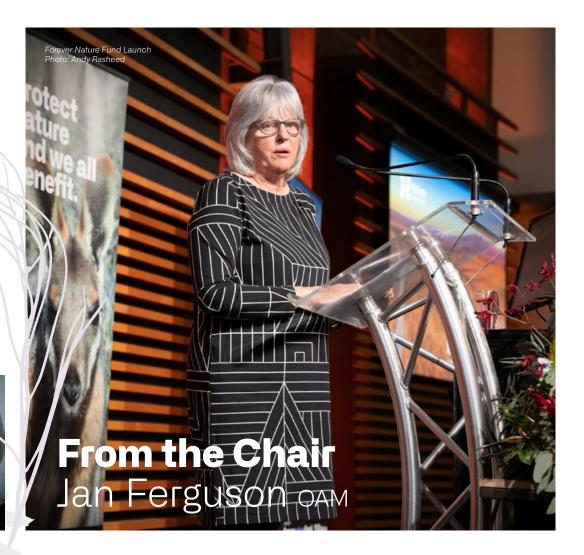
We sincerely thank you for all the donations made to Nature Foundation. Each and every donation makes a big difference to nature here in South Australia.

To make your online donation to our **Vital Work Appeal**, visit <u>naturefoundation.org.au/vwa</u>
or scan the QR code below with the camera
app on your mobile phone.









Whilst we're nearing the middle of the year, as this is our first edition of Nature Matters, I'd like to officially welcome you to 2023; and what an exciting year it's already gearing up to be!

We ended 2022 with the biggest event we have ever held—the launch of the Forever Nature Fund. With this fund we have set ourselves an ambitious target to raise \$20m by 2030 to enable land acquisition at scale that provides high impact and sustainable nature conservation.

We have also seen the Federal Government commit to protecting 30% of Australia's land and seas by 2030, along with creating a nature repair market which aims to encourage businesses or individuals to invest in projects that restore the natural environment. These are important developments that we hope will encourage future investment in conservation and help halt further decline in our biodiversity. We also realise this can't be the only solution and look forward to reforms of the Environment Protection and Biodiversity Conservation Act that should provide for stronger legal protection.

As always, we are following these and other related conservation activities closely, engaging with government and our partners to ensure the best outcomes for nature conservation across Australia.

Within the Foundation, the Board has been working on a refocussing agenda that will allow us to continue growing the organisation as well as the number and size of our reserves, to both increase and improve our impact. We have also developed, and are in the midst of rolling out, a new volunteer management framework encompassing conservation, infrastructure and tourism volunteers, along with other operational improvements that will ensure we remain sustainable for the long term.

Thank you for your ongoing involvement and support. It's a busy time and we are excited about the future!

## From the CEO Alex Nankivell



Recently, 53 new species were added to the national threatened species list. News like this is always particularly disheartening and clearly as a society we need to do more to turn this trend around.

At Nature Foundation we have been working hard over the last decade making strategic acquisitions of land to protect native habitats and the threatened species which rely on them.

Nature Foundation reserves are now refuges for at least ten nationally listed threatened species – Thick-billed Grasswren, Short-tailed Grasswren, Pygmy Blue-tongue Lizard, Regent Parrot, Major Mitchell's Cockatoo, Yellow-footed Rock-wallaby, Plains Mouse, Red-tailed Black Cockatoo, Mount Lofty Ranges Southern Emu Wren, Diamond Firetail. Many of these species have increased in number and are able to capitalise on the good seasons and benefits of effective management as you will read about later in this edition.

We actively manage our refuges, particularly focusing on the issues which caused these species to become threatened, and the fact they have responded so well highlights the importance of privately protected areas.

For example, recent regional bird surveys of the Fleurieu Peninsula found that Nature Foundation's Watchalunga Nature Reserve and the surrounding habitat of the Finniss River and Tookyerta Creek appear to be the final stronghold of the Mount Lofty Ranges Southern Emu Wren. The ongoing survival of this species is a significant responsibility that we are taking very seriously. We are now implementing several strategies on and off reserve and are doing as much as we can to maintain this population, including the planting of 10,000 key habitat species over the next two years.

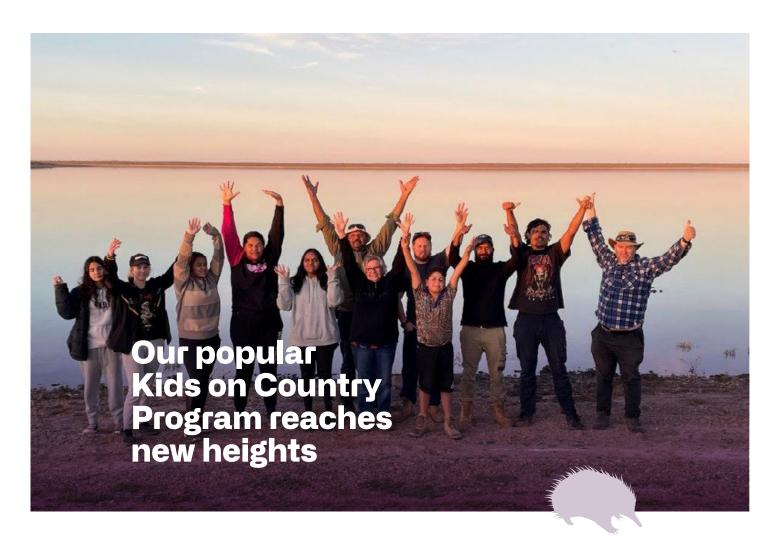
There is still much more to do. We are in the process of implementing two significant changes to the way we do business.

Recently, the Board decided to refocus its efforts on achieving the highest possible quality outcomes for biodiversity conservation. To achieve this, we will now begin the recruitment of two on-site Conservation Land Managers at our two major reserves, Witchelina and Hiltaba. They will be responsible for implementing a growing number of conservation projects, managing volunteers and visitors, maintaining the infrastructure and ensuring the safety of all. The achievements of the voluntary rotational managers at both reserves cannot be overlooked as their efforts and input over the last decade have been immense and we thank them wholeheartedly for their work.

In recognition of the importance of volunteer input to the management of our reserves, we are working on expanding our volunteer programs across the organisation to all our reserves. To do this, we have initiated the recruitment of a Volunteer Coordinator and will introduce a volunteer management framework that aligns with the National Standards for Volunteer Involvement. This will provide additional opportunities for members and supporters to contribute to conservation, infrastructure management and tourism activities across our protected area network.

These are significant changes for our organisation and operations, and necessary if we are to continue to grow and affect real impact and positive change for nature conservation. As always, thank you for your continued support.





Nature Foundation is proud to announce that longer-term funding has been secured to maintain and expand our successful Kids on Country Junior Ranger Program.

The funding, from the National Indigenous Australia Agency, will allow us to continue to provide this program which engages young Aboriginal people in practical, on-Country activities, helping inspire them to pursue future study or careers in conservation and land management.

The Program combines cultural mentorship from Aboriginal Elders and Traditional Owners, innovative e-Learning tools and practical field studies to:

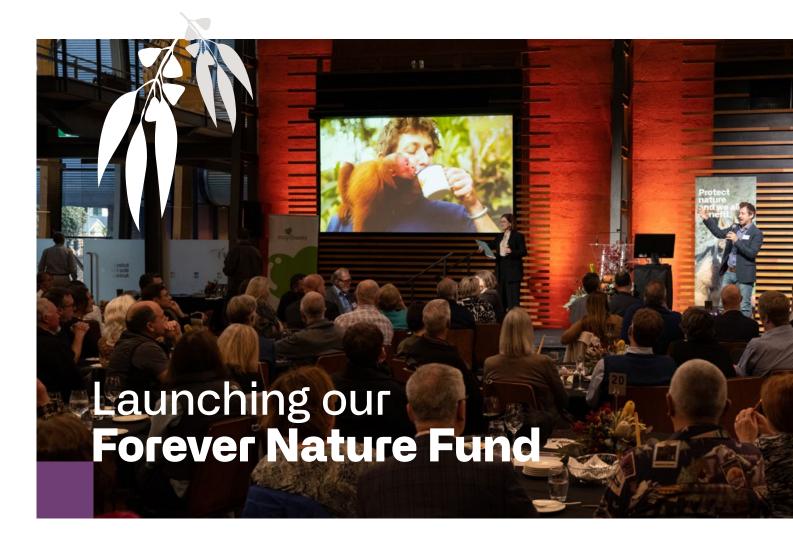
- Strengthen cultural learning, health well-being
- Support ongoing engagement with education
- Inspire future careers in conservation and land management and support Aboriginal employment
- Develop the skills, abilities and strengths of future leaders in the conservation space

Katie Perry, Youth Programs Coordinator with Nature Foundation, has been building a relationship with NIAA since 2019 and with the support of Caroline Nefiodovas, Nature Solutions Development Manager, has grown the Program from a two-camp pilot into a highly sought after innovative Aboriginal youth engagement program, reconnecting young people to nature and Country.

Since 2016, 333 young people have completed the newly SACE accredited Program and this funding will be used to continue to grow the design, delivery and staffing of the Program, allowing more schools from our waitlist to participate.

Existing relationships with the Adnyamathanha – Kuyani people and the Gawler Ranges Aboriginal Corporation will be strengthened and this amazing opportunity will not only expand and grow the Kids on Country program, but also continue to strengthen Nature Foundation's positive reputation within the Aboriginal language groups across South Australia.

We would like to thank all the donors who have contributed to the success of the Kids on Country program to date, and we will continue to work with you on new innovative ideas to strengthen our engagement with Aboriginal people on all seven nature reserves.



# In mid-December 2022 we launched our most ambitious appeal in Nature Foundation's 41-year history, the Forever Nature Fund.

With over 7.7 million hectares of terrestrial habitat cleared in Australia between 2000 and 2017\*, habitat loss has already caused the extinction of 62 Australian terrestrial species. The compounding impacts of climate change will cause a further decline in Australia's biodiversity, with increasing species and ecological communities being listed as threatened across the country.

The Forever Nature Fund has been created to raise money to purchase and manage land with high biodiversity value to preserve existing and create new areas of critical habitat for our native plants and animals. We will use data-driven scientific and environmental assessment tools to identify high conservation value properties. The Fund will enable our team to act quickly and decisively when a suitable property becomes available. The aim is to acquire land at a scale that provides high impact and sustainable

nature conservation, supporting our ambitious target to double the amount of land we protect to 1 million hectares by 2030 and Australia's broader commitment to protecting 30 per cent of land and sea by 2030.

On 14 December, over 250 members, supporters, staff and invited guests joined us at the National Wine Centre to launch this initiative.

After a thought-provoking Welcome to Country by Kaurna Traditional Owner Jack Buckskin, we heard from Sir David Attenborough's right-hand man, the inspiring Dr Chadden Hunter, who explained why he chose filmmaking as his way to have the greatest impact on nature and conservation.





Photos: Andy Rasheed





Nature Foundation Chair Jan Ferguson OAM set the scene regarding Nature Foundation's future strategic direction, including her personal reflections and passion for the importance of nature in the Arid Lands of South Australia. Then Board Director, Bec Hardy showcased Nature Foundation's biodiversity impact and the aims and objectives of the Forever Nature Fund, before doing the honours of launching this ambitious fund.

Thank you to everyone who attended and supported the launch event.

But now the hard work begins, to realise a nature-positive future where biodiversity is secure and our life-support system is thriving, we need to raise \$20m by 2030!

Find out more about the Forever Nature Fund and how you can support this vital project on our website: <a href="mailto:naturefoundation.org.au/fnf">naturefoundation.org.au/fnf</a>

But now the hard work begins! **We want to raise \$20m by 2030!** 



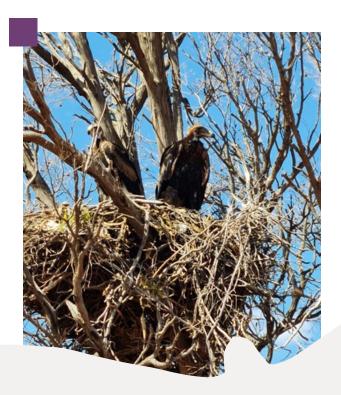












During the 2022 eagle breeding season, our team was able to follow the progression of 11 active Wedgetailed Eagle nests.

As reported in the last edition of Nature Matters, we managed to successfully get one GPS tracker and harness on a female eaglet, despite being visited by a 2-metre Mulga snake that saw the team take refuge

Eagle eyes at Witchelina

up the ladder. Fortunately, the Mulga was on a mission to somewhere else and posed no further problem.

The eaglet was

an extremely healthy specimen, filling up daily on a consistent supply of Bearded Dragons. At the time of this visit, we counted more than 60 Bearded Dragon carcasses around the nest, which appeared to be more than enough for the young male and female living there.

The female equipped with the GPS left the nest in mid-October. She stayed in the immediate vicinity of her nest until early January, honing her hunting skills and getting a bit of support from Mum and Dad. For the rest of January, she began expanding her flights around Witchelina.

In early February, she ventured south, leaving Witchelina for the first time. She flew around Beltana and Leigh Creek, before heading east to Mount Serle. She then headed northwest over Mount Lyndhurst and back home to Witchelina. This was her first significant foray into the unknown.

After making a brief stop at her nest site, she then embarked on a major journey, heading due northwest toward Stuart Creek. She changed bearing, heading north to Lake Eyre and veering east at Lake Eyre North, before heading north again to the South Australian and Queensland border near Goyder's Lagoon, where she stayed for one month. During this time, she used an area of approximately 70,000 hectares around the floodplains of the Diamantina River between Pandie Pandie and Alton Downs stations.

On 18 March 2023, she decided it was time to head home, taking the 430km journey back to Witchelina via the Strzelecki Regional Reserve, Lake Blanche, Mount Freeling and Mount Lyndhurst and rounding off a remarkable 1,000km round trip that took a month and a half to complete.

Interestingly though, it took her two days to get there but three days to get back. On the journey there, she averaged 37km/hr with a top speed of 77km/hr at an average altitude of 742m, reaching a maximum altitude of 1,988m above the ground.

On her return leg, she seemed to be in less of a hurry, averaging 27km/hr and only reaching a top speed of 62km/hr at an average altitude of 765m above the ground, with a maximum altitude of 2,901m. Her highest recorded speed during her entire trip was 93km/hr and her highest point was 2,916m. It is amazing that Wedge-tailed Eagles can access almost one-third of the Troposphere, or lowest level of the Earth's atmosphere.

We are looking forward to seeing where this Eagle will travel to next, and to the coming breeding season where we will attempt to track more Eagles. This insight into how they use the landscape contributes to how protected areas are managed, confirms their role as refugia and demonstrates that for the Wedge-tailed Eagle, the landscape is truly connected.



### **Nature Reserves:**

### Securing the future of Cygnet Park Sanctuary









This stretch of the lower Cygnet River was cleared for agricultural and grazing purposes, except for the river corridor which comprises large River Red, Sugar, South Australian Blue and Manna gums. The entire reserve has been revegetated with a vast diversity of native species, all grown on-site in a purpose-built nursery. A staggering 335,000 seedlings were planted, including many rare and threatened species. Several hundred thousand plants were also established through direct seeding. Initially, revegetation focused on increasing the number of Drooping Sheoaks in the region as a food source for threatened Glossy Black Cockatoos. With the dedication of Dr Dave Taylor, Heiri Klein, Bio·R and their team, the project became an exemplar of what is possible in habitat restoration.



Far left: Early days. Far left below: One-year-old local provenance revegetation. Centre: The revegetation today! Below: Volunteers at the 2011 planting festival.



The project team understood the landscape intimately and trialed innovative new methods to achieve results. One of the techniques used was removing the top layer of nutrient-rich topsoil and weed seed bank, to provide optimal growing conditions for native plants (top left). The nutrient-rich soil was pushed to one side and the native seedlings were planted in the swales between the mounds. This was highly successful as it decreased the competition between native plants and weeds and allowed native plants that have evolved in nutrient-poor soils to thrive.

The project also created a fantastic community of dedicated volunteers who converged on the reserve for planting festivals in June each year (above right). In 2011, 720 people participated in planting 122,000 seedlings over four days and the event became famous for its incredible atmosphere and impressive conservation results.

More than a decade on, the revegetation is unrecognisable, having grown prodigiously in that time (above). Cygnet Park Sanctuary now supports the largest patch of native vegetation in the lower Cygnet River Valley, including significant populations of nationally threatened plant species. In 2020, the Kangaroo Island bushfires stopped at the Sanctuary's doorstep, where the value of the maturing vegetation became even more critical as a vital refuge for the surrounding wildlife. A Heritage Agreement over most of the reserve, including the remnants and the revegetation, will be implemented over the next month to protect the asset in perpetuity.

At the inception of this partnership, which was also supported by the Department for Environment and Water, it was envisaged that Nature Foundation would remain involved for approximately five years until the revegetation was completed. In agreement with all parties, we have recently sold our share of the Sanctuary to Fiona Paton and William King, who are both committed conservationists and have worked closely on the reserve for over a decade. The timing is right for Nature Foundation to step aside to pursue other conservation objectives and let the Patons continue to manage the sanctuary. We wish them all the best and know that Cygnet Park Sanctuary is in safe hands.





By: Dr Anne Jensen, with input from: Phil Cole, lan Atkinson, Natalie Stalenberg and Alex Nankivell



The watering sites were selected and prioritised from 1,100 wetlands in 250 connected wetland complexes along 680km of the Murray Valley floodplain. The WFN watering portfolio grew to 104 sites, with 64 sites across 23 wetland complexes and 18 single locations. To June 2022, WFN, its partners, landholders and volunteers have delivered approximately 15 GL of environmental water to these sites.

Many wetlands and floodplains have been declining or dying because the natural flows they would have received no longer occur thanks to diversion of water for irrigation and the managed stability of weir pool water levels. Hundreds of these wetlands have become disconnected from the main river channel because river flows are too low to reach them.

The situation became particularly dire during the Millennium Drought (1997 – 2009), when wetlands and floodplains were parched and thousands of River Red gums and Black Box trees were dying along the length of the river and on its floodplains.

WFN was born in 2007 at the height of the Millenium Drought. At this time, Ian Preston, an Adelaide electrician started raising funds to buy water to return to the River Murray. He found a partner in the Nature Foundation and in partnership with the Riverland Local Action Planning Group, Nature Foundation began its first successful watering project at Hogwash Bend in the Riverland. This site was chosen because it was the largest known colony of endangered Regent Parrots in the Riverland, with 68 nests recorded in 2008. A small volume of 7 ML was purchased to irrigate stressed mature River Red gums with suitable nesting sites or existing nests. Significant River Red gums were watered by a committed group of volunteers through three critical summers, until the drought broke with floods in late 2010, resulting in the numbers of Regent Parrot nests and young increasing significantly over the watering period.



Volunteers and Traditional Owners at watering site. Photo: Matt Turner Life-giving floods during 2010-12 gave a huge reprieve to the parched floodplains, with mass germination of Black Box and River Red gums following the highest flood peak in 2011. This offered new opportunities for the WFN program with priority given to sustaining the new germination, particularly Black Box. No successful mass germinations of Black Box had survived to maturity in any significant numbers since the 1956 flood, so the survival of these seedlings was seen as critical. Since 2013, watered Black Box seedlings have grown strongly, with many reaching more than double the height and stem diameter compared to seedlings that were not watered. In 2013, following the adoption of the Murray-Darling Basin Plan and subsequent changes to accessing environmental water, Nature Foundation became the first non-government organisation to sign a five-year contract with the Commonwealth Environmental Water Holder (CEWH). This agreement meant access to an annual allocation of environmental water, up to 10 GL/year.

CEWH David Papps celebrated the milestone by turning on the pumps at Clarks Floodplain at Bookpurnong near Berri. Watering at the site was managed by Nature Foundation, local irrigators from the Lock 4 Bookpurnong Environmental Association (L4BEA) and the Loxton-Bookpurnong Local Action Planning Association (LAP) and we watered 14 diverse habitats across 300 hectares of floodplain, including the furthest downstream occurrence of River Red gum tall forest on the River Murray. Floodplain owner, Steve Clark, contributed significantly to equipment and running costs.

Over the years, key partnerships have been developed with Riverland West LAP to water river terraces at Ramco Lagoon, Australian Landscape Trust to water sites on the Calperum floodplain, and Renmark Irrigation Trust and Renmark Paringa Council to water Johnsons Waterhole on the Ral Ral floodplain. The WFN program has also partnered with First Nations groups, including Ngopalmuldi Aboriginal Corporation at the Teringie South wetland on Lake Alexandrina, Mannum Aboriginal Community Association (MACAI) at Sugar Shack and Greenways Landing near Swan Reach, and the Gerard Community Rangers who have provided assistance at Hogwash Bend and Pike River floodplain in the Riverland.

continued on page 14



Black swans. Photo: Teresa ter Bogt

With the help of South Australian government grants, Nature Foundation delivered citizen science and knowledge-sharing projects, including three WFN exchange forums. We developed the 'My Healthy River Toolkit' which provided advice for landholders and communities who were keen to do their own watering projects, and the 'Getting Curious with Water For Nature' project which aimed to improve water literacy and increase knowledge of how a river system gets and stays healthy. We also worked with volunteers Liz and Clint Frankel and the Waikerie community to deliver the Waikerie Art Silos project. The silos, painted by artists Jimmy D'vate and Garry Duncan with the theme 'healthy rivers, healthy communities', continue to inspire thousands of visitors to Waikerie each year.

In 2019, the nationally endangered fish species Murray Hardyhead was detected at a WFN watering site near Lyrup. Subsequent surveys reported that numbers of this nationally endangered freshwater fish jumped from less than 100 to 24,500 because of the watering. These were the highest numbers observed anywhere in the Murray-Darling Basin in recent times. In 2021-22 numbers of Murray Hardyhead were so high that several hundred fish were translocated to a site in New South Wales to increase population numbers and genetic diversity. Other threatened species that have benefited from

Other threatened species that have benefited from WFN watering events have included Australasian Darter (Anhinga novaehollandiae), Regent Parrot (Polytelis anthopeplus monarchoides), Southern Bell Frog (Litoria raniformis), Wood Sandpiper (Tringa glareola), Great Egret (Ardea alba), Spotless Crake (Zapornia tabuensis), Australian White Ibis (Threskiornis molucca), Australasian Shoveler (Spatula rhynchotis), Caspian Tern (Hydroprogne caspia), Swamp Harrier (Circus approximans), Australian Reed Warbler (Acrocephalus australis), Little Grassbird (Poodytes gramineus) and Grey Fantail (Rhipidura albiscapa).

Over 15 years, the WFN program has been advised by a voluntary steering committee including Peter Hoey, Greg Toop, Dr Anne Jensen, Steve Clark, Peter Forward, Phil Cole, Tony Sharley, Sharon Starick, Heather Hill, Andrew Beal, Tony Herbert, Bob Lott and Andrew Johnson and we are very grateful for their support.

In addition to the people and organisations already mentioned, we have also relied on the contributions and dedication of more than 200 onsite volunteers, donors, partners and supporters including Commonwealth Environmental Water Office (CEWO), Department for Environment and Water, Berri Barmera Landcare, Goolwa to Wellington Local Action Planning Association, Loxton District Landcare, the Pike River Land Management Group, the Eastern Hills Murray Plains Catchment Group, the Renmark to Border Local Action Planning Committee, SA Water, Central Irrigation Trust, the District Council of Loxton and Waikerie, Nature Glenelg Trust, Jacobs, SMEC, the Waikerie Men's Shed, Liquid Association Mechanical Services, South Australian State Emergency Service, TRILITY energy company, and the Australian Conservation Foundation. All these partners and volunteers have helped the WFN program to deliver significant benefits in improved wetland and floodplain health to our river system. We would like to sincerely thank all who have contributed to the program.

Late in 2022, we coordinated a process to hand over the watering of the 72 current WFN sites to the CEWO, who will be responsible for their future management. Nature Foundation will continue environmental watering activities at the Murbpook wetland complex on our reserve near Blanchetown.



Silo Art Opening

**P**—14



### Dympna Cullen was awarded a Roy and Marjory scholarship through the Nature Foundation research grant program in 2020.

This funding helped Dympna with her PhD project which aimed to better understand why Crest-tailed Mulgara, or Ampurta (*Dasycercus crisicauda*), are not only able to survive arid zone droughts but seem able to thrive in extreme environmental conditions. We had a chat to Dympna about her research career to date and how the scholarship has helped her along the way.

### What were your interests and passions at the time of choosing your PhD topic?

I really love the marsupial family 'Dasyurids', I think they are such charismatic and interesting Australian mammals and I became interested in arid ecology whilst working with the Australian Wildlife Conservancy, living out on their Newhaven Wildlife Sanctuary in the arid zone of Alice Springs. Around the time of thinking about doing a PhD, I discovered a Crest-tailed Mulgara reintroduction project through the Wild Deserts Project which allowed me to bring together my love of arid ecology, Dasyurids and reintroduction and restoration ecology.

### How did you come across the Nature Foundation Research Grants Program and how has the funding assisted your research?

I was compiling a list of funding opportunities for our lab group and came across the Roy and Marjory scholarship opportunity. This was the largest grant I could secure so it was really fantastic for me to be able to increase the scope of what I was able to achieve and think about achieving. Accessing my field sites in remote areas and then physically collecting samples and getting them processed takes quite a lot of resources. The funding helped me scale up my sample collection effort, improving my sample size and overall research integrity.

### How has your PhD helped with your research career?

The PhD has helped me enormously with my research career, which is part of the reason I took it on. I was previously working in a more field-based capacity, but I knew I wanted to extend that to be able to direct my own research. The PhD has enabled me to establish relationships with the Wild Deserts Project which is a

fantastic collaboration between UNSW and NSW National Parks and Wildlife Services. This project particularly interests me because it not only has an applied ecology restoration component, but a wonderful research component. I have recently started out as a field ecologist for the Wild Deserts project in a part time capacity whilst finishing off my PhD which has allowed me to see a lot of exciting projects. I am also at the pointy end of my PhD and getting really into the analysis and writing, whilst this is a big process it is exciting to be working with my own data.

### What is your advice for any future nature scientists?

Something that has been said to me in the past in terms of shaping the research path you want, is to ensure you are selecting a topic you are interested in, particularly if it is a PhD, because you need to sustain engagement for quite a long time! It is also ideal to design your project to not only get good outcomes, but to also maximise what you are going to learn. That is why I have designed my project to include diverse chapters to make sure I maximise the skills I gain throughout the process. So instead of just choosing a species you have a particular interest in, also think about the skills you want to gain, where you actually want to end up and will these skills take you where you want to go.

### Do you have any other interests?

It is hard as a PhD student! I feel like I am a bit tunnel visioned around nature where my hobbies are aligned – when you are in this kind of career it is a passion that can take over your whole life, for example, I really enjoy birding or going bushwalking, or doing a bit of herping\* but also really enjoy building and gardening on my little block of land in the Blue Mountains. I also enjoy working remotely, being totally immersed in the environment and really dedicating myself to that space.

Dympna thanks Nature Foundation for supporting her project and we look forward to seeing her complete her PhD!

\*Searching for wild amphibians and reptiles out in nature.

# Science and Knowledge

**Aboriginal** 

Rangers

Gathering

September 2023.

With a number of Aboriginal Ranger programs across the SA Arid Lands (SAAL) region working on landscape issues, the SA Arid Lands Landscape Board is working with its Aboriginal Engagement Network to organise a Ranger camp in

To be held at Witchelina Nature Reserve, the camp will be a chance for Aboriginal rangers and other Aboriginal people working on Country, to get together, share ideas and learn about what is happening across the region.

The idea for the Ranger Camp came from the Aboriginal Engagement Group and will be organised by Board staff, with advice and ideas from the ranger groups as to what they would like to see at the event. We look forward to letting you know more about the gathering in the next edition.

The event is supported by Indigenous Desert Alliance (IDA), National Indigenous Australians Agency (NIAA) and Nature Foundation.



### Checking on our tiny Emu-wrens

Watchalunga Nature Reserve provides critical habitat for key threatened species including the nationally endangered Mount Lofty Ranges Southern Emu-wren (Maluchurus stipiturus intermedius).

This tiny bird, weighing in at only 7 grams, is rather secretive, flitting quietly between dense vegetation. They are very difficult to spot, which is why we engage an ornithologist with experience surveying this species. If you are fortunate enough to see one perching on a Lignum bush or Samphire, their long filamentous tail or the beautiful sky-blue throat of the males, differentiates them from the more common Blue Wren species.

Nature Foundation actively manages Watchalunga year-round to conserve the small population of Emu-wrens through creating habitat and managing threats. This could not be achieved without the dedicated support from Goolwa to Wellington Local Action Planning Association (GWLAP), who carry out the on-ground management such as weed control and revegetation plantings.

Each year, an experienced ornithologist is engaged to undertake Emu-wren surveys at Watchalunga during pre-breeding and breeding seasons, as part of a long-term monitoring program. This program was established in 2018 to track which habitat the birds were using, which in turn informs management strategies such as revegetation across the reserve.

To gain a better understanding of population dynamics in the local area, and to identify opportunities for habitat connectivity, Nature Foundation is also undertaking Emu-wren surveys on properties near Watchalunga.

The first survey has been undertaken on a property along the Tookayerta Creek with a second survey on a property next to Watchalunga planned for late winter, hopefully accompanied by some revegetation activities.

This activity has been generously supported by funding from the WIRES National Grants Program and the Disney Conservation Fund. Watch this space to learn what we discover and how you may be able to get involved!

We have also established the Watchalunga biosphere project, which not only focuses on establishing a habitat corridor for the species at Watchalunga, but will inspire and mobilise local communities to protect and restore habitat within the lower Finniss and Tookayerta catchments. We will talk more about this exciting initiative in future editions.



# Compared to some pest species, the impacts of feral cats are largely invisible.



Bones of locally extinct native mammals from a cave near Witchelina Nature Reserve. They would have belonged to a diverse suite of rodents like Hopping Mice and Stick-nest Rats. Feral cats removed these species from the landscape over a century ago.

They are not in plague proportions like rabbits, don't denude vegetation like goats do and won't kill a coup full of chickens like a fox. Instead, feral cats leave a legacy of landscapes deprived of their small mammal diversity. Witchelina Nature Reserve lost at least 15 different mammal species over the last century, largely due to cats. This includes species of native Hopping Mice, Quolls and even Brushtail Possums. The bones of these long-lost species can still be found in nearby caves, but scant other evidence remains of their existence.

While many of these native mammals were driven to extinction by cats and foxes a century ago, there are still some tough survivors hanging on at Nature Foundation reserves. These vulnerable species have survived by living in habitats that are hard for cats to live and hunt in.

For example, Plains Mice live in open plains with deep cracking soils where they can take refuge. This habitat is a place both safe from cats and with a good food source of seeds from the hardy plants that grow there.

Over the last decade, Nature Foundation has been working hard to protect the wildlife of Witchelina from feral cats, investing a lot of time into understanding

the local cat population. The cats here would all be classed as feral in that they are free-living and are not dependant on humans for food. Most cats at Witchelina are average sized (around 3-4kg), however, some massive tomcats have been recorded at over 8kg. Individual cats on Witchelina travel widely with one recorded traveling 12km in a week. Their numbers at any one time vary greatly as they respond to the boom-and-bust conditions of the arid landscape.

Controlling feral cats at Witchelina is difficult with fluctuating conditions and a huge landscape. There is no simple change in human behaviour that we can implement (as you might try in an urban area) as all the cats are living wild. They travel so widely that any cat removed is soon replaced by a cat from elsewhere moving in and with a boom-and-bust population cycle, they can reach very high densities in good years.

What then can we do to protect wildlife from cats at Witchelina? Focusing on strategies for reducing the impacts of cats is critical, including direct removal and non-lethal approaches. Over the last decade we have implemented consistent control, removing over 400 cats so whilst cat populations still ebb and flow with the conditions, this at least keeps numbers lower than they would otherwise have been.

We also work to reduce the impacts of cats via nonlethal means. For example, as cats are better killers in open areas, we can make it harder for them to hunt by reducing grazing pressure on native vegetation which in turn provides more protection for native wildlife.

There is more we need to understand about feral cats in these landscapes and we hope to look in detail at how cats move through the country to understand the strategies they use in arid environments. We are also ready to increase control efforts as necessary to protect vulnerable species. If we are successful in further reducing the impacts of feral cats, we open up the possibility of reintroducing species and it would be a happy moment indeed to see the return of species lost from Witchelina a century ago.

### **Science and Knowledge**





### Celebrating Dr Barbara Hardy AO

Dr Barbara Hardy AO, Cofounder and Patron of Nature Foundation, helped to establish the organisation with Warren Bonython AO, David Cleland and Dr Mark Bonnin in 1981. They worked together tirelessly as volunteers to help guide Nature Foundation to what it is today.

Barbara recently celebrated her 96th birthday and Nature Foundation's Philanthropy Coordinator, Patrick Mentzel, had the pleasure of meeting with her to wish her all the very best on her special day. Barbara was in fine spirits and really enjoyed receiving a bunch of native flowers and a card thanking her for all that she had contributed over many decades to nature conservation in South Australia. It was a wonderful chat updating Barbara on the current conservation directions and how well the nature reserves are delivering nature positive outcomes for our precious natural environment.

# Helping the threatened Plains Mice at South Gap

Nature Foundation has partnered with OZ Minerals Carrapateena and South Gap Pastoral Company to deliver biodiversity management services to a conservation area north of Port Augusta.

The site, located on South Gap Station, was created to offset the impacts of the nearby Carrapateena mine under the Environment Protection and Biodiversity Act 1999 (EPBC Act).

The primary objective of the offset area is to improve the habitat quality and population of the Plains Mouse (Pseudomys australis), listed nationally as vulnerable under the EPBC Act. Two hundred years ago, they ranged widely from central Queensland, to the Murray mouth, to Alice Springs. Now, they are restricted to a much smaller area of inland South Australia.

The Plains Mouse typically lives in open plains, where they build intricate burrows. These burrows have multiple underground chambers and sometimes get such heavy use that little highways form at their entrances. They weigh around 50g, about the size of a tennis ball and unfortunately, this is the perfect size for a snack for feral cats and foxes. As such, feral predators are the leading cause of their decline.

To improve the habitat quality for the Plains Mouse, we are protecting their preferred local habitat of cracking clay. This is a unique geological feature of arid landscapes, where small, localised patches of soil expand dramatically in the rain and then contract as it dries. This creates deep cracks, perfect for animals to hide in. Also, these cracks become pits for organic matter to fall in, essentially becoming self-fertilising soils. Cracking clay sites are good sources of food for the Plains Mouse, but also for other herbivores like rabbits and domestic stock.

The goals for management are to reduce the activity of feral cats and foxes and minimise grazing pressures. The former is addressed by regular control activities by professional contractors. The latter is managed by the creation of a stockproof fence, removal of stock and rabbit control. Helping us with our conservation efforts has been generous assistance from La Niña, delivering us two good years of rainfall.

To monitor the Plains Mouse, we use remote cameras. These are deployed on a post facing downwards, at a lure canister. Our lure is peanut butter, a favourite of most native wildlife. We can identify Plains Mice from images by their unique size as, unfortunately, all other similar-sized mammals have been driven locally extinct.

Plains Mice were first detected at the South Gap offset area in 2021 which coincided with good rains and the beginning of feral animal control. Then in 2022, we saw the population expand from three sites to eight. We are very excited to see the local population increase and disperse into other areas of suitable habitat. Over the next period, we are very interested to see if this population growth can be maintained in the new areas. We expect this will be more likely due to the concerted effort to reduce predation pressure across the offset area.



hoto: Jack Bilby

The Plains Mouse is not the only species of native fauna benefiting from favourable weather and active management regimes. We have also detected Fat-tailed Dunnarts (Sminthopsis crassicaudata), Striped-faced Dunnarts (Sminthopsis macroura), Narrow-nosed Planigale (Planigale tenuirostris), Desert Short-tailed Mouse (Leggadina forresti), Bolam's Mouse (Pseudomys bolami), Sandy Inland Mouse (Pseudomys hermannsburgensis), Spinifex Hopping Mouse (Notomys alexis) and Lake Eyre Dragon (Ctenophorus maculosus).

This is a long-term project between a mining company, pastoralists and a conservation organisation that is delivering conservation outcomes to a nationally threatened species and a suite of other native fauna. We are pleased to be a part of this initiative and applaud all partners' collaborative approach to management.







# Exceptional Kangaroo Island

We are excited to announce that Exceptional Kangaroo Island is providing an outstanding discount offer for Nature Foundation members in 2023-2024.

Since 1986, Exceptional Kangaroo Island have been offering luxury small group and private Kangaroo Island tours, with a promise of good food, good wine and wildlife in the wild. Their mission is to provide sustainable wildlife encounters, enjoy locally sourced food prepared daily and presented in spectacular remote locations and make all of this as easy as possible for you.

Craig Wickham – Managing Director, Exceptional Kangaroo Island, and long-time supporter of Nature Foundation — is providing access to tours at a discounted rate of up to 20% with the option to support our ongoing conservation work.

There are many tours to choose from including but not limited to; guided eBike tours, full day small group or private catered excursions, and complete packages such as the 2 day/2 night Kangaroo Island in Style with accommodation and all meals. The Exceptional KI team can also arrange transport to the Island for you. Explore these options on their website: exceptionalkangarooisland.com

Craig and his amazing team would be delighted to host you on Kangaroo Island and you will have the option of saving 10% off the tour and 10% goes to Nature Foundation, or giving the full 20% saving directly to Nature Foundation.

As a member you will be provided with a special email detailing the discount codes each year or you will receive notification when you become a new member or renew your membership.

Nature Foundation greatly appreciates the support of Exceptional Kangaroo Island to help conserve, protect and restore our precious natural environment. Happy travels!

### Considering leaving a Gift in your Will to the Forever Nature Fund?

To realise a nature-positive future where biodiversity is secure and our natural life-support system is thriving forever, Nature Foundation aims to purchase land with high biodiversity value to create more critical refuges for Australian wildlife.

We have set an ambitious target to double our impact to 1 million hectares by 2030—in support of Australia's commitment to 30% of land and sea protected by 2030. Investing in protected and conserved areas is investing in our future and the health and wellbeing of future generations.

By leaving a 'Gift in Will' you will be helping the Forever Nature Fund to protect critical habitat for native species to thrive.

To find out more information about our Forever Nature Fund visit our website.

If you wish to leave a Gift in Will, please speak to your lawyer or contact Patrick Mentzel—Philanthropy Coordinator on 08 8340 2880 or email <a href="mailto:info@naturefoundation.org.au">info@naturefoundation.org.au</a>

We can also provide information on recommended wording to use in your Will.

forevernaturefund.org.au naturefoundation.org.au/giw

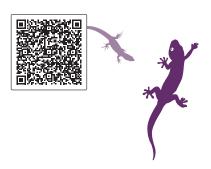




Our Witchelina and Hiltaba Nature Reserves are now open for the 2023 season to day visitors, campers and visitors staying in our accommodation. We are proud to share these beautiful and important landscapes with our members and supporters.

Visitors to our reserves will gain a far deeper and more profound insight into Nature Foundation's work, and the importance of nature conservation, by experiencing it first-hand.

For more information about our nature reserves, visitation and accommodation options, as well as online bookings, visit our website: naturefoundation.org.au/nbt



# Finding your way around: new guides for Hiltaba and Witchelina

Many visitors to Hiltaba are keen to experience one or more of the five walking trails marked out on the Nature Reserve.

Ranging from 2-14kms in length, and catering for different levels of fitness, the walks offer breathtaking views and ample opportunities for photography, bird watching and, in the season, enjoying spring flowers.

Nature Foundation has recently upgraded its free guides with improved maps and more geological, botanical and other interpretive material. Hikers can request the guides from the Reserve Manager, or pick one up from the visitor box at the beginning of each trail.

The five nature drives on Hiltaba, and six on Witchelina, are also a major attraction for visitors. The drives follow signposted, re-purposed tracks from the days of pastoral operations, ranging from 32kms-101kms on Witchelina and shorter distances on Hiltaba.

Designed as self-guided tours, the nature drives each have a set of track notes which visitors can buy or borrow from the Reserve Manager. The track notes fulfil the dual purposes of assisting navigation and providing interpretive material on Nature Foundation's work on each reserve; their history, landscapes, geology, and wildlife. Extensive work over the past two years by botanists Millie Nicholls and Anne Brown has added rich information about plants and trees into the mix.

As always, visitor safety, whether on foot or in a vehicle, is a paramount concern for Nature Foundation! Please enjoy the drives and walks after first familiarising yourself with safety considerations from the guides, track notes and Reserve Manager.







Nature Foundation's Artist Residency program enters its fifth year, with an exhibition in June.

Launched in 2019, the Artist Residency program aims to:

- reflect Nature Foundation's conservation vision by encouraging artists to become immersed in the natural environment, and to respond to it in their creative work;
- support the work of participating artists with an interest in remote natural environments, by providing them with opportunities for substantial visits to Witchelina or Hiltaba.

In 2022, two artists spent time on Hiltaba and another spent time on Witchelina, creating artwork inspired by these environments. The resulting paintings beautifully illustrate their creators' contrasting yet complementary inspiration from, and response to, the nature and landscapes around them.

These pieces of art created by Caroline Johnson, Katie Bradley and Mandy Pryse-Jones will be exhibited at The Main Gallery on Halifax Street from Friday 2 to Saturday 24 June 2023. Art works will be available for purchase and there will be opportunities to meet the artists to talk with them about their work and their experiences on the nature reserves.

Nature Foundation gratefully acknowledges sponsorship of the Artist Residency program by the **Helen James Endowment Fund**; and of the Nature's Foundations 2 exhibition by **The Main Gallery** and **Bec Hardy Wines**.

Nature's Foundations 2 / 02-24 June 2023 The Main Gallery, 156 Halifax Street, Adelaide



### Natureinspired activity pack download

We've put together a natureinspired activity pack for you to download and print, with six colouring-in pages featuring South Australian threatened species and a nature conservation-inspired word find.

It's perfect for kids as well as grown ups! There's something wonderfully mindful about slowing down and taking some time to be creative that is enjoyable for all ages.

To get the pack, simply subscribe to receive our email updates and we'll send it to your inbox in a few minutes!

We would love to see your creations as well, so feel free to share and tag us on Facebook and Instagram.

Subscribe to receive the activity pack at:
naturefoundation.org.au/apd



On Behalf of the Board and Staff at Nature Foundation we would like to wholeheartedly thank Millie Nicholls for her outstanding service. Millie will be stepping down as director after 8 years of service.

Millie first joined the Nature Foundation in 2015 bringing with her a wealth of knowledge and experience. Prior to joining the organisation Millie been a member of the Native Vegetation Council, the National Parks and Wildlife Council and the Northern, Yorke NRM Board and was awarded the South Australian Individual Landcarer of the Year in 2011. In addition to these achievements, she is a leading grassland ecologist in South Australia.

As a director, Millie also served on the Nature Foundation's Nature Conservation Committee providing expert conservation management and ecological advice assisting in the delivery of conservation programs across our Nature Reserves.

We would like to wish Millie all the best in her next chapter.



### Thank you and farewell Millie

### **Erica Stacey**

Marketing and Communications Manager

### How did you come to Nature Foundation?

I have always cared about nature and the environment. Growing up in the southern Flinders Ranges embedded an appreciation and passion that I have carried throughout my personal life, making efforts to protect our planet. Over the past few years I've also looked for ways to support this through my professional life so when the opportunity arose to join Nature Foundation I jumped at it!

### In your role, what sorts of things do you do and what do you enjoy most?

My role broadly involves communicating what's going on with Nature Foundation, from within the organisation, to our members, supporters, volunteers and partners and the general public. It takes into consideration everything from our logo, brochures and this newsletter, to our website, emails, social media and more!

I love uncovering and sharing stories. We often take what we do for granted, but I find that one person's "ordinary" is someone else's "extraordinary". It's exciting to learn about what the different people within an organisation are doing and communicate it with a wider audience.

I also love the digital and technological aspects of marketing, and the data and analytics that come along with it. We're in an exciting time where we can get real time insights from what we're doing and make informed decisions from it to continually improve our activities.

### What are some of your other interests?

I have a young family, so it's very busy! I really enjoy arts and craft activities, as well as getting out and about in nature. With a job that these days is very much computer-based, it's important for me to balance that with more active pursuits. We've recently moved near Belair National Park and I've just bought a mountain bike, so I'm keen to get out and have a go at some of the (easy) tracks!

## **Upcoming Events**



We are excited to announce the following upcoming events!

**2 June** Exhibition Opening

Nature's Foundations 2: Artist in Residency

**30 July** Watchalunga Planting Day (National Tree Day)

**15 August** Conservation Conversations

Science and Knowledge Update

**7 November** Annual General Meeting



Please note, dates may be revised closer to the event. Keep an eye on our website and your emails for further details and any other events.



### **BUSHLAND FOR SALE**

### Blanchetown

Have you dreamt of owning your own natural wonderland? Our Blanchetown Bushland Estate provides a unique opportunity to purchase a 900 hectare block of mallee woodland just minutes from the River Murray and alive with native flora and fauna. We have one allotment remaining.



### Kersbrook

Get back to nature on your own private getaway. This 80 acres of bushland, only one hour from Adelaide CBD, is a bird and nature lovers haven, complete with an off grid cabin.

See full details of these properties on realestate.com.au (scan the QR codes with the camera app on your mobile phone) or via the link below, and please contact the real estate agents with all enquiries.

naturefoundation.org.au/bushbank







### Get social with Nature Foundation!



Do you follow us on <u>Instagram</u>? If not we'd love you to follow our account and help us get the word out about the amazing work we do for nature!

We are also active on Facebook, LinkedIn and Twitter. Hope to see you online soon. THE BOARD Chair Deputy Chair Directors

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Professor Phil Weinstein
Anne-Marie Barbaro
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