- ___ Yellow-footed Rock-wallaby update
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- ___ Working together for **Thick-billed Grasswrens**
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3 2021

Engaging people in conservation

NatureMatters





Help solve the mysteries of the majestic Wedge-tailed Eagles

Wedge-tailed Eagles are one of our most iconic raptors, as they wheel overhead against the azure sky, perch on their lofty nests or sit on the roadside feeding, but they are much more than that. At Witchelina Nature Reserve they are an important indicator species of overall ecological health.

Why are Wedgies so important?

As the apex aerial predator on this large and significant refuge for eagles, which showcases an impressive variety of South Australia's magnificent biodiversity, their presence serves as a barometer of how well the landscape is faring. Globally, pesticides, habitat loss, and climate change have greatest impact on the species at the top of the food chain.

Since Nature Foundation acquired Witchelina, we have been full steam ahead with restoration and revitalisation by removing introduced predators and domestic grazers, lowering grazing pressure, involving local communities and Traditional Owners, and funding research projects into the flora and fauna of Witchelina, including considerable work on eagles and other raptors.

Even after carrying out regular raptor surveys there's still much we don't know about the eagles! What we do know is that after a boom in 2018 (caused by the immense decline of red kangaroos due to the drought), the Wedge-tailed Eagle population at Witchelina reduced to less than a quarter in 12 months, and since then recovery has been slow.

We need to understand more about the eagles so that we can better manage this refuge and ensure that it becomes a functioning and healthy ecosystem in which they can flourish.

What are the mysteries that we need to solve?

Where do Wedge-tailed eagles go en masse when the population declines? Do they return when times improve? How do they interact with the ecosystem and use a landscape that is no longer grazed by livestock? These important questions need answers.

We conduct annual raptor counts but are unable to tell which individual we are counting, what its territory is or how that territory changes in time. This means we don't know about population turnover or how the birds utilise the nests on the reserve. We also need to understand when and what the birds are hunting to inform how to best manage the reserve in relation to the key species in their diet: kangaroos, rabbits, bearded dragons.

The best way to collect data to answer all these questions is by tracking a significant proportion of the adult population's movements. We can do this by carefully capturing at least 12 adults and fitting them with GPS collars with a threeyear lifespan that will provide a crucial amount of data. This will enable us to manage Witchelina so that it continues to be an important refuge.

How can you help?

You can help bring this project to life through making a donation. The GPS collars are expensive, at \$3000 each and there are other costs to cover too, including bringing specialists on board. Please help us make it happen by donating online: naturefoundation.org.au/how-to-help/ donate/raptor-appeal or by using the form below.

You, or a group of friends can sponsor a GPS collar for \$3000. We'll send an annual update of where the tracked Wedge-tailed eagles have been flying for the life of the collar to Collar Sponsors. For more information please email info@naturefoundation.org.au.

Every donation will help, and your support is greatly appreciated.



Nature Foundation proposes a bold new future for the Rangelands

The Rangelands in the arid north of South Australia covers an incredible forty million hectares equating to about 40% of the state. The land uses are many including livestock grazing, the resources sector, Aboriginal land management, nature conservation and nature-based tourism.

A Bill has been proposed to replace the current Pastoral Land Management and Conservation Act 1989, which has done a good job, but is 30 years old. Much has changed over those 30 years, including our understanding of climate change and species extinctions, the structure of the local through to international economies, Native Title, technology and markets unforeseen in 1989 such as carbon and environmental offsets.

Nature Foundation, together with other nature conservation and primary industry organisations, have invested considerable effort over two years to help shape replacement legislation to not only protect soil, water, biodiversity and cultural values of this amazing area, but to see it prosper under the fast-coming climate change scenarios. Considerable common ground has been identified across the conservation sector, scientists, community and with graziers.

Unfortunately, the draft Bill does not provide for these opportunities, and focuses strongly on livestock grazing which currently comprises about 3% of the Rangelands economy, and is modelled to be adversely affected by climate change.

To facilitate a better outcome, we met with the Hon David Basham, Minister for Primary Industries and Regional Development in August in an open and productive discussion.

The Bill also precludes conservation as a land use unless it is a minor part of a lease enterprise, it removes the livestock stocking limits that have protected the landscape, and weakens regulatory controls.

If this Bill is enacted in its current form, there is also no guarantee Nature Foundation will be able to manage Witchelina and Hiltaba nature reserves for conservation under that Act.

During the meeting with Minister Basham we proposed a bold solution to view the Rangelands as a whole, capable of supporting livestock industry, tourism industry, nature conservation and the fast-growing environmental offsets markets, mining, cultural heritage and communities. We suggested introducing an overarching Rangelands Act to replace the current legislation and the proposed Bill.

A new Bill inclusive of all the industries in the Rangelands, and encouraging innovation for new and emerging ones, would encourage and enable a diversity of land uses, both current and new, while improving the condition of this vast area as a whole.

Nature Foundation is keen to assist in securing a contemporary Bill for the Rangelands, The Rangelands Act, and secure our community's and state's role in the region, now and well into the future.

This has been a brilliant year for Nature Foundation but the whole sector is faced with a problem, hence my focus here.

For many, if not all of us, it has been a year of COVID-challenge, change and uncertainty. On this basis and on behalf of all of us at Nature Foundation, we wish you a peaceful festive season.



Good winter rains have brought many parts of the state to life.

This is evidenced by the abundant wildflowers, including at Hiltaba, where the Rotational Managers have reported this as the best wildflower season they've seen. This includes sightings of Sturt Desert Peas at the Mount St Mungo Lookout carpark during our recent and very popular Members' Tour. The impacts of spring are also being felt further north at Witchelina where Alex Nankivell, Science and Knowledge Program Manager, despite low rainfall, has spotted fledgling Wedge-tailed Eagles – the first in three seasons. And the news on Yellow-footed Rock-wallabies at Hiltaba is positive too.

Nature Foundation continued in our state and national roles engaging with the PLC2021 Online Summit in late October. The Summit's theme: Global Trends and Policy; Business and Biodiversity, Hope and Optimism is particularly important in the lead up to COP26 (Climate) and COP15 (Biodiversity) global forums. It is clear from the Summit that there is strong and growing global demand for tangible on-ground progress on nature conservation from people from all walks of life. As a result, the need for organisations such as Nature Foundation to do more continues to grow. There is a sense of a building of momentum, strength, determination and achievement in the conservation sector, with a wide range of organisations working together at local, state and national levels. It is exciting too that in March 2022, staff will share highlights of three of our programs at the in-person Private Land Conservation conference, PLC2022.

I watch with great pride as the researchers who have been supported by Nature Foundation continue with their outstanding work and be recognised for it. Two have recently come to my attention: Brock Hedges, our 2019 Roy and Marjory Edwards Scholarship recipient, has been supported by the Justin Costelloe PhD Scholarship for his research, and Dr Tahlia Perry, who received a 2017 Nature Foundation research grant is a finalist in the PhD Research Excellence category in the 2021 SA Science Excellence and Innovation awards, with winners to be announced 3 December.

With the third round of the Revitalising Private
Conservation in SA grants again being oversubscribed
and currently undergoing assessment, I'm pleased to
report there are already fantastic on-ground results from
Rounds 1 & 2. This includes innovative invasive species
removal through controlled burns and important work

on Kangaroo Island to remove feral pigs with significant benefits for the island's biodiversity and associated tourism and agricultural sectors. We very much hope for continued South Australian Government support of the program beyond the June 2022 pilot.

It was exciting to see Nature Foundation being showcased at SA's Nature Festival in September. Two well-received events were run, exposing us to new audiences: Getting Curious with Water For Nature, a citizen science event in Loxton and Warren Milera, a Nurungga/Adnyamathanha man, a leader in our unique Kids on Country program entertained the audience through songs and stories including about KoC and its significant impact.

A highly successful tour of Para Woodlands Nature Reserve in October enabled members and others to see first-hand the important ongoing work at this wonderful near-urban reserve through the restoration of a functioning grassy woodland that is providing considerable benefits to local threatened woodland birds and other wildlife.

We are developing carbon offsets at Hiltaba Nature Reserve as a high priority project not only for Nature Foundation but also as a pilot for the pastoral zone.

The very thought-provoking, moving and useful Cultural Competency training at Iga Warta in the northern Flinders Ranges on Adnyamathanha land in August for the Board and senior staff has strengthened our resolve to continue expanding and strengthening our Aboriginal engagement.

In exciting news, we recently received a SA Arid Land Landscape Board grassroots grant to pilot leading edge thermal sensing of wildlife, using cutting edge methodology to quantifying grazing pressure. We received a second donation from SA Power Networks Employee Foundation to fund the balance of the project. We look forward to the outcome of this project.

With great sadness I acknowledge the passing of Tony Everett in June this year. You can read our tribute to Tony on page 17.

We have just entered the start of a year of 40th celebrations from which will see us continuing to lift Nature Foundation's profile, seeking to take donations to another level and acknowledge those who have so greatly helped the organisation over that time.

The office will be closed from lunchtime 23 December 2021, reopening on Monday 10 January 2022. This leaves me with the opportunity to wish you all a merry and safe festive season and to take time to refresh so that we together can continue to inspire and work with more people in innovative ways to protect South Australia's remarkable biodiversity.



After a decade-long dip in numbers, it's finally looking up for the Yellow-footed Rock-wallabies at Hiltaba.

Nine wallabies were trapped during a survey at the reserve earlier in the year. Five of these were female – a good sign! This compares with one female trapped in 2012, and two females each year between 2013 and 2019.

This contrasts to 10 to 12 animals trapped each survey from 2005 to 2009.

The Yellow-footed Rock-wallaby has been on a knife edge for most of the last decade, having only survived predator and grazing pressure by the skin of its teeth. Of Australia's 39 extinct mammal species, 7 are wallabies, 6 wallaby species are listed as endangered and 10 are vulnerable. If it weren't for the efforts of the Bounceback Program implemented by the Department for Environment and Water more than 20 years ago, we may not have the yellow foots either.

Species extinction is usually caused by several factors. In the wallabies' case, the introduction of goats and foxes has had a profound effect through the removal of food resources, reduced availability of shelter and increased predation. These have a cumulative effect on fecundity, thermoregulation and juvenile survival.

We see it as our role as Hiltaba's wildlife managers to do our best to balance the cumulative effect of the numerous pressures on this threatened species.

Recent survey work identified euros as the most abundant animals in the core wallaby habitat at Hiltaba. When Hiltaba was

used for livestock grazing, kangaroos were actively managed to reduce competition with livestock, but this no longer occurs and the increase of the kangaroo population is only limited by drought.

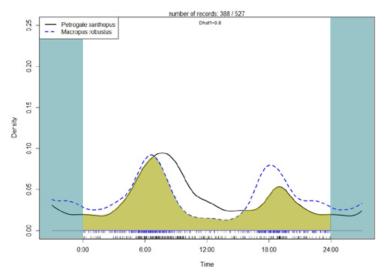
Camera trap surveys show that there is an 80% overlap in foraging activity between euros and yellow foots and given that euros are 3 to 4 times larger, they're likely to win when it comes to who gets first pick of food and shelter.

There is also a 75% overlap in foraging activity between goats and the wallabies. Availability of browse species, particularly *Ptilotus*, *Solanum*, *Sida* and *Abutilon* spp, especially during dry times is critically

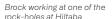
important to the survival of Yellow-footed Rock-wallabies. The removal of browse by goats has serious implications for the health of wallabies' populations through reduced fecundity.

To ensure the future continues to be rosy for the Yellow-footed Rock-wallabies on Hiltaba, we need to work towards eliminating the goats and managing competition from euros.

You can support our work in providing essential refugia on our nature reserves for threatened species like the yellow foots by making an online donation to our Vital Work Appeal here <u>naturefoundation.org.au/how-to-help/donate</u>.



Activity overlap: Yellowfooted Rock-wallabies (Petrogale xanthopus) and euros (Macropus robusta)





Brock Hedges, Nature Foundation's 2019 Roy and Marjory Edwards Scholarship recipient and University of Adelaide PhD candidate, recently won the prestigious \$20,000 Lake Eyre Basin Justin Costelloe PhD Scholarship to further his research.

Brock's work examines the impact of climate change on invertebrate populations in Australia's arid zone ephemeral freshwater habitats using granite rock-holes as a model system. These unique freshwater rock-holes, generally filled by rain, in which the freshwater lasts only for a short time, are a keystone, arid-lands habitat. These are also very significant for the local Traditional Owners.

His field work has taken him to ephemeral rock-holes across Australia, including in South-East Queensland, Central Australia and Hiltaba Nature Reserve.

The findings from his PhD are expected to be relevant to broad regions across the South Australian arid zone, much of which forms part of the Lake Eyre Basin, and will assist in protecting this unique habitat, including informing the management of Hiltaba's rock-holes.

Brock's research includes in-field ecological surveying across a range of study sites, paired with a series of long-term, mechanistic models for the sites. His focus is on a few target species to determine their likely capacity to cope under future stressful conditions and the broader ecosystem services provided by these water bodies.

A fundamental step in his work is measuring rock-hole dimensions and volume to understand how much rainfall is needed to fill the rock-holes, how their size, shape and catchment area impacts water retention, and determining the evaporation rate.

Brock had started measuring the rock-holes using old-school technology, physically measuring each one with measuring poles.

"It was really exciting to receive the Justin Costelloe Scholarship because it allowed us to access emerging methodologies that we would otherwise not have been able to," explained Brock Hedges.

The scholarship meant that during his field trip to Hiltaba in June, he used a drone to capture spatial data to help characterize the hydrology of the rock-holes.

"Utilising UAV or drone imagery has enabled us to collect fine grained spatial data to feed into the climate models. Using the traditional methodology we would have only been able to collect quite coarse measurements."

The drone was used to photograph each rock-hole from different angles and these images were processed to produce 3-dimensional models and calculate the potential volume of the rock-holes.

He will also measure the actual water volume at regular intervals, which when combined with local weather data, will assist understanding the relationships between rainfall, temperature and rock-hole hydrology.

"It means the data we'll be using for the next step, the climate modelling, is now really accurate."

Brock will be working with Adelaide University's Global Change Ecology and Conservation Lab to model future climate at Hiltaba under varying emissions scenarios and using the findings to inform an experiment to test how viable invertebrate populations are under those conditions.

"If it hadn't been for the initial Roy and Marjory Edwards Scholarship from Nature Foundation, I wouldn't have been able to win this additional funding. Nature Foundation's scholarships are really important in supporting research like this," said Brock.

The Lake Eyre Basin Justin Costelloe PhD Scholarship is named in memory of Justin Costelloe, a senior researcher fellow at the Department of Infrastructure Engineering at the University of Melbourne. He was a leader in investigating surfacewater and groundwater systems in Australia's arid zone and provided advice to governments on the management of these systems in the Lake Eyre Basin. The scholarship is designed to build links with emerging academics with a similar passion for understanding this vast inland environment.

For updates on Brock's work see his Blog – Brock Hedges

Nature Foundation's next research grant funding round will open in March 2022. You can make a difference to nature and biodiversity by supporting scientific research and helping kick start the career of a nature scientist like Brock by making a donation to the Bright Futures Appeal or Professor Mike Bull Research Fund at naturefoundation.org.au/how-to-help/donate.

Since 2012, the Roy and Marjory Edwards Scholarship has been awarded to seven post graduate students to the value of more than \$193,000. Through judicious investment of a generous donation by Mrs Edwards, we will be able to continue supporting more students into the future. If you are interested in starting a Scholarship Fund or bequesting substantial funds to create a new scholarship, please contact Patrick Mentzel, Philanthropy Coordinator at patrick.mentzel@naturefoundation.org.au or by calling (08) 8340 2880.



Genetic sequencing dispels ant diet myth

Dr Tahlia Perry was one year into her PhD at Adelaide University when she received a Nature Foundation research grant in 2017.

Tahlia, her supervisor, Professor Frank Grutzner, and Dr Peggy Rismiller, a world renowned echidna expert, had just launched a citizen science project called EchidnaCSI - Echidna Conservation Science Initiative – to collect echidna sighting data and scats. The next step was to analyse the scats using molecular techniques to better understand the echidna's diet that could be applied to their conservation in both the changing landscape and captive breeding.

Tahlia used the grant to undertake expensive 'shotgun' DNA sequencing on scats collected through EchidnaCSI, the first time this had been done for this species. She discovered that there was much more in echidna guts than just ants and termites! It turns out that echidnas eat a wide range of insects, as well as plants and fungi.

The Nature Foundation grant was the first significant funding for the EchidnaCSI project and enabled Tahlia to implement this important pilot study which has shaped subsequent work.

Tahlia's journey to Postdoctoral Researcher and conservation geneticist at Adelaide University began when she was at school and had a passion for animals but didn't want to be a vet.

"When I got to uni I was studying zoology and fell in love with genetics," Tahlia Perry explains. "But I always wanted to work in the conservation space."

Professor Frank Grutzner was interested in using genetics for conservation but had not had the opportunity to do so. It was Tahlia's PhD that brought genetics and conservation together.

While echidnas will always have a special place in her heart, this project has provided Tahlia with an unrivalled launch pad for similar work for other native species in need. Having developed and run EchidnaCSI, she understands the value and potential of citizen science projects and is keen to help conserve other species in her role as a conservation geneticist.

The real driver for Tahlia's research work is her passion for protecting native species, and she hopes that her work on one of Australia's least studied species will soon have real conservation and policy outcomes.

Tahlia's top piece of advice to up and coming nature scientists is to make lots of contacts.

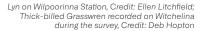
"Networking is really important for your career. I'm good at making friends with everyone I meet. It's knowing the right people that makes a big difference."

Tahlia also believes that science communication is important.

"I took part in FameLab and the Three-Minute Thesis competition while at uni. Communications training is a part of these programs and as a result I'm a much better communicator. Being a good science communicator is vital to getting people interested in what you are doing as a nature science researcher and it can help you secure funding."

Tahlia was recently announced as a finalist in PhD Research Excellence category of the 2021 SA Science Excellence and Innovation awards. The winner will be announced on 3 December, Good luck Tahlia!

Nature Foundation's next research grant funding round will open in March 2022. You can make a difference to nature and biodiversity by supporting scientific research and helping kick start the career of a nature scientist like Tahlia by making a donation to the Bright Futures Appeal or Professor Mike Bull Research Fund at naturefoundation.org.au/how-to-help/donate.





Pastoralists and conservationists work together for Thick-billed Grasswrens

Co-owner of one of Witchelina Nature Reserve's neighbouring properties, Lyn Litchfield, recently played an important role in a survey of the nationally threatened Thick-billed Grasswren subspecies, *Amytornis modestus raglessi*.

The survey is part of a project to understand the population dynamics of the subspecies that has declined in numbers on Witchelina over the last decade, and is funded by a SA Arid Lands Grassroots grant and the Wettenhall Environment Trust through their Small Environment Grant Scheme.

Thick-billed Grasswrens are notoriously cryptic little birds. They are experts at sneaking around the Chenopod shrublands preferring to remain undetected. Because they are a nationally threatened species, surveys like these are important to better understand how the species is faring.

The project is investigating whether populations of the Grasswren have undergone similar declines on neighbouring pastoral stations, and if so, to determine the causes. Data from this project will assist developing and implementing effective conservation management strategies to build resilient Grasswren populations and to improve their long-term survival.

Lyn and husband Gordon's property, Wilpoorinna Station, and neighbouring Mt Lyndhurst and Mundowdna stations, all owned by the Litchfield Pastoral Company, together with Witchelina Nature Reserve, make up a large part of the limited range of the local Thick-billed Grasswren subspecies.

Lyn provided considerable assistance to the team of volunteer experts from BirdsSA when they visited in May to conduct the autumn survey. Not only did she facilitate access to the properties and assist the

team in finding new sites to survey through her local knowledge, she was also an active member of the survey team.

"She soon became a real Grasswren expert," said survey leader Graham Carpenter.

But this survey is not Lyn's first experience with conservation.

Lyn's passion for taking good care of the environment was sown when as a child her father would take her to see mallee-fowl nests on their Eyre Peninsula property because he knew how rare they were. On her property today her interest in the environment is about taking good care of the land from which they get their income, not just about conservation.

She's observed the birds on the property for many years. Close friends, Nature Foundation Rotational Managers Barry and Maureen Wright, encouraged her to get involved with BirdLife's Atlas of Australian Birds which collects data from birdwatchers to determine the distribution and abundance of species. Since then her love for birdwatching has grown.

The bird survey team's visit was a win-win situation.

"The highlight of having the team here was their company," said Lyn Litchfield. "It was great sitting around and chatting to them, hearing about how they count the birds, their other experiences of birdwatching and what exciting birds they'd seen.

"And seeing the photographs that they took of the birds was great too, because in the natural environment you see them at a distance – I try not to disturb them so I see them through the binoculars but with the photos you could blow them up to twice the size of a wren and you could see all the little feathers. Plus the team brought some great food to share too!"



Phragmites burning by N Motteux. John on the fireground by N Motteux. Contractor at work mulching the reed trash by J Fargher. Germinated swamp wattle in a burned area by J Fargher.







Smoke over Yundi Nature Conservancy on the Fleurieu Peninsula usually strikes fear into the hearts of locals. But on May 22 it was for good.

Owners John Fargher and Nicole Motteux were thrilled that perfect weather, careful preparation and a Revitalising Private Conservation in SA grant came together for a successful environmental burn on part of the Yundi Swamp at the Conservancy.

More than 20 CFS volunteers from Yundi and four other units carried out the burn, guided by Nature Glenelg Trust with permission from the Native Vegetation Council.

The burn is the first step in reversing impacts of old agricultural drains and a *Phragmites australis* (Common Reed) incursion smothering this critically endangered Fleurieu Swamp habitat.

In the months since the burn, the unburned reed trash was mulched to be used for backfilling the drains. There are already signs of recovery in the burned areas with germination of Acacia provincialis (Swamp Wattle) and Leptospermum continentale (Prickly Tea Tree) on the swamp margins as well as early regrowth of native Baumea and Carex reeds and sedges, plus Gahnia cutting grass and Blechnum minus (soft water fern). Following drain back-filling works in July/August, the next step is a four-treatment trial to determine the most effective way to control *Phragmites* regrowth. The results will be shared with other Heritage Agreement owners so they

can benefit from this trial.

There's still plenty more to be done to increase the property's biodiversity including further facilitating natural regeneration and revegetation in the swamp with locally sourced and propagated plants.

The benefits of this 36 acre private conservation property's biodiversity reach well beyond its boundaries. Its native vegetation provides habitat for beneficial predatory birds and insects that improve pasture productivity in neighbouring agricultural properties, supporting sustainable production and integrated pest management.

This includes habitat for birds such as Magpies and Ibis that eat pasture pests like Cockchafer beetle larvae and the endemic tea tree which provides nectar and habitat for wasps that parasitise scarab beetle larvae – another important pasture pest.

John and Nicole purchased the land because its vegetation was in a condition that they could realistically manage and improve in the medium-term.

"We were attracted to this property because we have always loved biodiversity, especially plants and birds. We have worked all over the world, always exploring natural habitats and completing projects working with local communities for the protection of endangered species and the habitats they depend on," says John Fargher.

The swamp area was already protected by a Heritage Agreement when they bought it and they have applied for another one for the adjacent biodiverse woodlands.

"The opportunity to contribute to biodiversity conservation and complement the efforts of others on the Fleurieu is something that gives us joy and hopefully leaves a valuable legacy.

"We are encouraging our neighbours with contiguous swamp to consider an Heritage Agreement on their land to protect as much of the Fleurieu swamp area as possible."

This is one of many Revitalising Private Conservation in SA grants that have biodiversity impacts that go well beyond their fence lines. For information about the program see naturefoundation.org.au/what-we-do/conservation-programs/revitalising-private-conservation.

The Revitalising Private Conservation in SA program is expanding the number, extent and quality of protected areas of native vegetation on private land in South Australia. Led by Nature Foundation and funded by the South Australian Government, the program brings together a partnership of the state's leading environmental and agricultural producer organisations, including Conservation SA, Livestock SA, Nature Conservation Society of South Australia and Trees For Life.



Hiltaba has never looked lovelier with an abundance of wildflowers and wildlife on display and perfect weather for the entire week. To everyone's great excitement, one of our guests even spotted a Sturt's Desert Pea, never previously seen at the Mount St Mungo Lookout carpark!

We travelled to the Gawler Ranges via Kimba to visit the beautiful silo artwork and were very fortunate to stay at Paney Shearers Quarters for the first night, as guests of National Park Managers Lindsay and Nadine Brown. Experts on all things Gawler Ranges, they delighted us with their knowledge and experience in conservation management of the National Park.

From Paney we visited ancient rock holes with the Gawler Rangers Aboriginal Corporation (GRAC) Rangers who were so generous in sharing traditional knowledge with us, then explored the nearby organ pipe formations before travelling on to Hiltaba.

There are too many wonderful highlights of our stay at Hiltaba to list but hiking the Betty and Bob Lewis walking trail and watching the sunset over the beautiful rock formations at Pretty Point was certainly one of them! Our first full day at Hiltaba provided the opportunity to walk part of the Cleland Trail and undertake the Mount St Mungo Drive, both 'must-do' activities at the reserve. The following day our Property General Manager Chris Reed took us on a guided tour of a beautiful new drive called Chiltadinna. Guests explored the boundaries of Hiltaba and heard a wealth of information from Chris about the reserve including what we have been doing with fencing out vagrant stock and the work involved in fence maintenance.

Everyone loved the many opportunities for birding, walking, and exploring more Hiltaba highlights such as rock holes, homestead tour, woolshed tour, and wombat and scorpion spotting in the evenings. Many new friendships were made, stories told and of course our evening talks on a wide range of nature topics were much appreciated by all.

Those who had never been to Lake Gairdner were delighted with our visit there on the way home – a spectacular sight. After so much adventure, our final night was spent in Port Augusta for a pampering dinner and night at the Oasis Hotel.

Thank you all who joined us for the great company, good laughs and fantastic conversations. All proceeds from the tour will be put towards the Raptor Appeal. We are also happy to advise that proceeds from the Kangaroo Island tour earlier this year will be put towards the Mount Lofty Ranges Southern Emu-wren project. We will report on the outcomes of both via social media and future Nature Matters newsletters.

Watch this space, our website and e-news in 2022! We plan to host two member tours; one to Kangaroo Island in March and one to Witchelina Nature Reserve in September. Further details to come.





Over 100 people hopped on board with our Getting Curious with Water For Nature events over the last 12 months, and the good news is that there are more to come!

The project offers a range of opportunities for budding citizen scientists to learn about the ecology of our River Murray wetlands, how they can help collect and share frog, bat and bird data with scientists all over Australia, and the importance of water for the environment to keep our river healthy.

Getting Curious with Water For Nature held four events in various locations along the SA River Murray from Renmark to Murrundi and aims to support local people to get involved with citizen science activities including bird watching and frog and bat monitoring.

Thirty people took part in a bird walk and learnt about frogs, and the Water For Nature Program and how it benefits the floodplains and wetlands at the Murrundi Wetlands near Jervois.

At the Pike Floodplain, between Paringa and Lyrup, 40 locals learnt about frogs and participated in a sunset bird walk. A local landholder and volunteer also spoke about how the health of the Pike Floodplain has dramatically improved since Water For Nature has been working with them to deliver Commonwealth environmental water.

Five committed birdwatchers enjoyed seeing first-hand the swan breeding on Qualco lagoon as a result of the delivery of Commonwealth environmental water.

And to top it off, thirty excited children and adults look part in a fantastic night bat-walk and a workshop on how to use the Frogspotter app at the Loxton riverfront.

Everyone can get involved in frogspotting.
Frogspotter app is free to download on mobile phones and laptops and then all you need to do is head out to your nearest froggy habitat over spring and summer to find out what species live nearby.

And the good news is that Nature Foundation and partners Goolwa to Wellington Local Action Planning Association won a second Grassroots Grant from the Murraylands and Riverland Landscapes Board, so there are plenty more events coming up over the next few months - keep an eye on our social media for more Getting Curious events.

This project is supported by the Murraylands and Riverland Landscape Board through funding from the landscape levies and is a partnership between Nature Foundation and Goolwa to Wellington Local Action Planning Association. All events were held in partnership with local Landcare groups and private landholders.



Successful survey at Geegeela – a living bequest blooms

The reserve is likely to contain more than the 175 native plant species that were recorded. Several state significant species were noted including Mentha satureioides (Creeping Mint), Melaleuca wilsonii (Totem Poles), Choretum glomeratum ssp. chrysanthum (Yellow-flower Sour-bush), Eucalyptus fasiciculosa (Pink Gum) and Callitris rhomboidea (Oyster Bay Pine).

The next step was an autumn survey. Fourteen mammal species, including five exotic ones, were recorded. Native species included Common Brushtail

Possum, Red-necked Wallaby, Sugar Glider, Swamp Wallaby, Western Grey Kangaroo, White-striped Freetail-Bat and a highlight was the trapping of a Lesser Longeared Bat (*Nyctophilus geoffroyi*).

More than 50 invertebrate species and six reptile species were recorded including Marbled Geckos and Stumpy Lizards. Students from Frances Primary School who visited the reserve with Bryan added a new species to the survey list – an Eastern Striped Skink (Ctenotus spaldingii).

Over 50 bird species were recorded including Red-tailed Black-Cockatoos (Calyptorhynchus banksii graptogyne), Hooded Robins (Melanodryas cucullata), Brown Treecreepers (Climacteris picumnus), Southern Scrub-robins (Drymodes brunneopygia) and an active colony of Painted Button-quail (Turnix varius).

We are grateful to Karen Foale for making a living bequest of this significant property and we look forward to increasing the conservation work occurring there.

"I decided to gift the property to Nature Foundation because it is such a special place and needed special people to look after it into the future," said Karen Foale.

"Over the years Nature Foundation has proved capable of caring for our natural resources and it seemed only fitting that I should bequest the property into their hands."

Gifted to Nature Foundation in 2019 by long-time member, Karen Foale (pictured above), we will continue to protect Geegeela Nature Reserve's biodiversity, especially the endangered buloke woodland vegetation community, an important food source for the nationally endangered South-eastern Red-tailed Black-Cockatoo.

This 102 hectare property is located adjacent to the Geegeela Conservation Reserve between Bordertown and Naracoorte in an area known as Bangham. Karen purchased the property in 2013 to protect the high quality habitat containing remnant eucalyptus and buloke woodlands to ensure the long-term protection of the cockatoo habitat.

To inform our management for conservation of this property, a biodiversity survey was recently undertaken. This was led by Nature Glenelg Trust's Senior Ecologist, Bryan Haywood, assisted by the Scientific Expedition Group and supported by a Grassroots grant funded by the Limestone Coast Landscape Board.

The survey began in late spring last year with vegetation mapping, during which seven vegetation types were identified.

If you are the owner of land with conservation value, and would like information about bequesting or gifting it to Nature Foundation to help us protect South Australian landscapes and wildlife for future generations, please contact Patrick Mentzel our Philanthropy Coordinator on 08 8340 2880 or email patrick.mentzel@naturefoundation.org.au



Operations on the remote nature reserves of Witchelina and Hiltaba are supported not only by the Rotational Managers and staff but also by the generosity and dedication of a number of volunteers who with their special skills contribute enormously to the vital areas of safety, communications and contact with the outside world.

I would like to highlight and thank a few volunteers who provided essential infrastructure needs from a Work Health and Safety perspective to ensure that we are compliant with current legal requirements. Graeme Tonkin has for many years looked after the fire alarms in all accommodation buildings, tagging and testing all electrical items and ensuring all our fire extinguishers are serviced regularly on both remote properties. He is also a wizard with his drone taking many aerial photos and has provided mapping of noxious weed infestations and maps of transects for wild dog baiting and kangaroo counting.

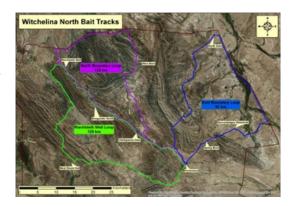
David Clegg, coming from a working life as a Telstra technician, has been invaluable in keeping our phone and NBN internet links operating through satellite communications. He has also generously donated one computer and set up UHF solar powered radio links from outstations to the homestead at Witchelina, and has been the link person with our suppliers when outages occur.

He has just developed and installed a Wi-Fi extender package at Witchelina that enables phone and internet capability at the accommodation buildings at the property. And is in the process of doing the same project at Hiltaba.

Recent grunt work by Eric de Smit and Ian Pope at the Witchelina Shearers Quarters septic system upgrade is also worth noting for their assistance in the maintenance of that system.

The maintenance of the property's infrastructure and essential services by a willing band of highly skilled volunteers is highly valued and integral to the running of the properties.

Chris Reed Property General Manager





Our beautiful range of merchandise is now available for purchase online, just in time for Christmas and there's something for everyone!

For young ones, or young at heart, there are vibrant Kids on Country Bandanas in a choice of three colours. Printed with Shane Mankitya Cook's stunning artwork they only cost \$12.00 each. One would go well with a Kids on Country sun-safe bucket hat at \$16.00 each – perfect for days at the beach or bushwalking.

We also have some handy items for use at home, all designed to be planet friendly: biodegradable cleaning cloths printed with our new logo at \$12.50 for two; a clever double layered stainless steel Bento Box, to take your lunch or dinner anywhere you want completely plastic free for \$42.95; and organic cotton tea towels with our lovely Eucalyptus design for only \$9.90.

Also available are Stainless Steel Straws – a two pack that come in their own reusable printed linen bags in a choice of three colours for \$11.00; practical cotton produce bags in a choice of prints; and a Dish and Laundry Stack – a 200gm block of green tea and lemongrass scented dish and laundry soap, handmade in Victoria from all natural ingredients and Palm Oil free, with its own reclaimed wooden soap dish.

And of course there are our stainless steel water bottles that have been tried and tested far and wide including at Hiltaba and in Western Australia! These come in black, white and bright green, but if

Nature Foundation products now available online!

you want to add a bit of colour to life, hot pink and bright yellow are available too. These plastic-free, double walled bottles keep contents cool for 24 hours or hot for up to 12. They have a screw-on lid with a carry handle and are only \$39.00.

For keen bushwalkers or those interested in local wildlife, we have copies of James I D Smith's Wildlife of Greater Adelaide available for \$55.00. Use this to identify wild neighbours in your backyard or expand your knowledge on local nature.

Do your Christmas shopping in comfort this year and help nature at the same time. Head to <u>naturefoundation</u>. <u>org.au/how-to-help/nature-shop</u> to find gifts for those discerning friends and family members. Or you might even like to buy something for yourself!

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Annual General Meeting

A very successful AGM was held online on 28th October 2021. It was great to have so many members joining us via technology despite wild weather outside.

The main matters covered in the meeting were:

- · Highlights of the 2020-21 year, including
 - establishment of two new reserves –
 Murbpook on the River Murray and Gidgelapa
 - evidenced-based improvement in conservation on our reserves
 - our new branding and website
 - leading the 2-year, \$3m Revitalising Conservation in South Australia program
 - a 30% increase in our supporter base
- A positive financial year result of \$1.9m surplus, and noting that Pitcher Partners continue as our auditors
- The re-election to the Board unopposed for a threeyear term of Phil Weinstein, Douglas Ransom and Jan Ferguson OAM
- Chris and Maria Reed accepting the honour of Fellows of Nature Foundation due to their tireless voluntary commitment, particularly to Hiltaba and Witchelina Nature Reserves for the last 11 years
- Chris Jolley winning the third Mike Bull Medal awarded by Mike's son Nick, for his research at Charles Sturt University on native fauna survival in fire prone areas.
- Science and Knowledge Program Manager, Alex Nankivell's fascinating presentation on the (positive) trends in species' prospects on Hiltaba and Witchelina, noting the ups and downs are strongly related to rainfall, grazing competition and predator control
- Thought-provoking three-minute presentations from our 2021 Nature Science Grant recipients Jack Bilby on Western Quoll reintroduction, Claire Moore on Kangaroo Island koalas, Rhys Browning on Grey Box and climate change, Larissa lasiello on human noise and light impacts on three seabird species, and Kate Matthews on soil microbial health in restored ecosystems.
- Gratitude to our members, donors, volunteers and staff, without whom we could not conserve nature in the way we do.

The 2020–21 Annual Report on our website holds a great deal more interesting information. We trust you will enjoy reading about the work we do and keeping spreading the word to your family and friends.



Looking for a perfect Christmas gift that is beautifully presented, luxurious and supports the natural environment right here in South Australia?

The Nature Foundation Barbara Hardy Shiraz released by Bec Hardy Wines to celebrate our 40th birthday ticks all the boxes! Featuring a stunning label design with an image of Hiltaba Nature Reserve by Bill Doyle, this delicious wine features the following elements.

Nose: complex aromas of plums, dark fruits, dried herbs and hints of mint

Palate: bright and textural with dark berries, plums and subtle spices, complemented by an elegant and lengthy finish.

Pairing: Try with venison loin dry rubbed with juniper berry and lavender served on braised cabbage with a blueberry and red wine glaze.

Oak maturation: 15% new French and American oak for 18 months.

Enjoy the very best South Australian wine and help nature at the same time – \$3 from every bottle sold is donated directly to Nature Foundation's conservation programs.

You can purchase from <u>bechardy.com.au/our-wines/bechardy-wines/nature-foundation-40th-anniversary-shiraz/</u>

Summer Twilight Night @ Pertaringa! 29 December 2021

Celebrate the festive season with a balmy summer afternoon at Pertaringa, featuring live music, food, games and, of course, wine!

On Wednesday 29th December, we'd love to see you, your family and friends at the Pertaringa cellar door for a fun and relaxing few hours with music by Juliet Oliver and yummy food available for purchase from our friends at Smokin' It Up.

There'll also be plenty of lawn games to keep the kids (and adults) entertained.

The ticket price includes a glass of wine on arrival. Additional glasses or bottles of our award-winning wines will be available for purchase throughout the afternoon and night.

Purchase tickets here: <u>eventbrite.com.au/e/summertwilight-night-pertaringa-tickets-169231811905</u>

Boost to KI landowners from the Prince Albert II of Monaco Foundation

Through Nature Foundation establishing a fund, nearly 10,000 trees and shrubs have been planted on Kangaroo Island this year, with thanks to the efforts of KI Native Plant Nursery with funding from the Prince Albert II of Monaco Foundation.

These plantings will have a significant impact on the island's landowners who are beginning to rebuild their lives and livelihoods after the devastating 2019-20 bushfires that burnt half of Kangaroo Island, destroying significant habitat and put already endangered species at even greater risk through loss of food resources (Glossy Black-cockatoo) and habitat (including Australia's most endangered mammal, the KI Dunnart).

The funding enabled the nursery to propagate suitable species for planting and provide them to landholders free of charge, together with guards that will assist in the plants' survival.

To date, the funding has supported 19 Kangaroo Island landholders to plant almost 10,000 trees and shrubs and protect them from hungry stock, kangaroos, possums and wallabies with plant guards. The seedlings will grow to replace windbreaks and shelterbelts that protect stock, in particular lambing ewes, from inclement weather. Landowners have also revegetated areas to mitigate erosion caused through the burning of native vegetation across hillsides and coastal sand dunes. They have also replanted new areas on their properties



to provide habitat and food for animals, such as the endangered Glossy Blackcockatoo and the honey bee.

"We are very grateful that the Prince Albert II of Monaco Foundation will continue to provide funding

over the next five years. Most landholders have only just finished rebuilding the boundary fences destroyed in the fires and many are still in temporary accommodation and only just beginning to rebuild their homes," says Veronica Bates, KI Native Plant Nursery Manager.

"It's only when they've finished rebuilding their basic infrastructure that they can begin to replace shelterbelts and windbreaks and revegetate areas. Knowing that the funding will still be around in the coming years is really valuable."

Artist in Residence program

- beautiful images from our nature reserves

Nature Foundation's Artist Residency Program was launched in 2019. It 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;
- to support the work of participating artists with an interest in remote natural environments, by providing them with opportunities for substantial visits to Nature Foundation's major Reserves.

The Residency Program seeks to attract artists with an emerging professional profile, producing high-quality work inspired by nature.

Jane Rusden is the second artist to be awarded a residency. An experienced traveller in remote outback country, Jane spent two weeks at Witchelina during May 2021. Her sensitive observation of nature is reflected in the wonderful images of birds and vegetation which her visit inspired.



She writes:

Spending two weeks on an artist residency at Witchelina allowed me to include my passions for art, birds, zoology and outback adventure. Waking up in my tent with the birds' morning chorus, listening to the species I could recognise and those I couldn't and wanted to identify.

I began to get a sense of the interplay between species in the incredibly harsh environments that make up Witchelina. The daily rhythms revolving around water, or rather the severe lack of it. The Little Corellas and Galahs around my campsite flew out to feed every day and late afternoon, spending the rest of their time near the water tank. They cautiously watched me with the intense curiosity typical of parrots, as I went about my day.

My art practice involved laying paper directly on the ground, where with water, a seriously precious resource, it would mould to the rocky, ancient earth. My inks and water colours flowed as I imagined water would flow after the deep past or after rain. Salt influencing pigment, as it does the mud around the edges of waterholes. Wind threatened to whisk paper away and blow it over huge rugged distances, so I used rocks to hold it down, which the water might pool around, and then ants and other insects came for a drink. And so the art became part of the landscape for a short time.

Some of Jane's Witchelina portfolio can be viewed on the Nature Foundation website. A mix of watercolours, mixed media, and prints, they are available for sale.

A third residency has recently been awarded to Adelaide-based artist John Whitney, who will be travelling to Hiltaba in April 2022. For enquiries about the Residency Program or about works for sale, please visit the website, or contact the Program's co-ordinator, Lange Powell (M: 041 786 7299; or E: powellan@internode.on.net).

Nature Foundation wishes to acknowledge one of its members, Tony Everett AAM (Australian Antarctic Medal), who died in June.

Tony and his partner Alison Hastings first became involved with Nature Foundation through an invitation from Rotational Managers Inara and Lange Powell to join a small working bee at Hiltaba Nature Reserve in September 2015.

Around the fire ring after the evening meal, Chris Reed, Property General Manager, addressed the gathered throng about Hiltaba and his role in managing the infrastructure there and at Witchelina. His apologetic remark that "I leave efforts to save the three-legged penguins to the science and environment experts", drew Tony in, because of his own background as a carpenter/builder, and his seven trips to Antarctica: six of them as an 'over-winterer', spending 12-18 months away each time, participating in Australia's Antarctic construction and maintenance programs. Tony was, however, committed to the welfare of penguins, as he'd voluntarily assisted wildlife researchers in Antarctica, and sometimes this involved catching, weighing and counting penguins.

Rotational Manager Maria Reed resourcefully set Tony to work to try to repair the many ailing 1950s-vintage window winders in the Shearers' Quarters and accommodation cottages, but many could not be fixed. Tony offered to source replacements and then he and Alison donated and installed them. By then they were both hooked and assisted Lange and Inara on rotation at Hiltaba, helping make windmill blade signs for the Hiltaba Walking Trails, and even covered a gap in the Rotational Managers' roster at Witchelina for a few days.

Subsequently, Tony and Alison joined a number of Rotational Managers and volunteers in the Heritage Stone Restoration project to restore the walls of the Old Cookhouse at Witchelina and later, they ordered and installed the windows in the Cottage. They planned to install windows in the Cottage too, but Tony became unwell and had to be content with providing measurements and advice to Rotational Manager, Peter Forward and his crew, who very ably did the job.

Tony and Alison's last trip was to the Witchelina Grand Working Bee in 2017, however they continued their interest in the infrastructure of Hiltaba and Witchelina by donating a tank to each of the Reserves, and more window winders, and whenever Chris and Maria visited Tony and Alison for coffee, there

Vale **Tony Everett**



Above: Alison and Tony outside the old cooks' house. Credit: Trish Fairley. Above right: Tony installing windows in the old cooks' house. Credit: Alison Hastings. were gifts of tools and equipment from Tony's well-stocked workshop. When Tony became ill again in February this year, he and Alison had already paid to participate in the Nature Foundation tour to Kangaroo Island in March. They donated their fees to Nature Foundation and expressed the wish that the donation be used for windows and building materials for the restoration of the Hiltaba woolshed.

Several friends from Nature Foundation visited Tony in hospital, for which both he and Alison were grateful. After Tony died, Alison knew he would have liked all their friends to be invited to donate to Nature Foundation, and so this was included in the death notice, and Nature Foundation was invited to be present at Tony's wake to receive any donations there. Donations totalling \$1,100 were gratefully received.

Alison was honoured that Chris Reed agreed to give a eulogy at the wake, which several Board members, staff and volunteers attended. Alison hopes to continue her involvement with Nature Foundation.

When did you start volunteering with Nature Foundation?



Volunteer Profile

Rosalie McCarthy

Although I have been a member for many years, when I retired in mid-2019 I was excited to have more time to contribute in a hands-on way, and so I started volunteering in January of this year

What do you do in your role with Nature Foundation?

I have been assisting Claire Fuller, manager of the Revitalising Private Conservation in SA program, a pilot program which administers grants to Heritage Agreement landholders. It has been enormously interesting and worthwhile. In addition, I have helped at events such as the 2021 Quiz Night fundraiser and visited several Nature Foundation properties, where I've participated in working bees and other activities, which I've really enjoyed.

Can you tell me a bit about your background?

Before retiring, I worked in several SA Government departments in communications, and policy development and implementation. Prior to that I worked in the private sector in marketing and administrative roles.

My qualifications include a degree in Business and a post-graduate Certificate in Journalism. I have a range of hobbies and interests that I now enjoy in my retirement. One of these is photography (I have a Certificate in Commercial Photography from TAFE) and another is painting and drawing. For many years I have acted as Publicity Officer for a community art group. Being involved in such community activities is something I enjoy.

What inspired you to volunteer with Nature Foundation? How did you become involved with Nature Foundation?

In the early 1980s I developed a keen interest in conservation, as I became aware of the need for improved habitat and species protection, around the world but particularly here in South Australia.

I supported several environmental organisations over the years, including Nature Foundation. What I particularly like about Nature Foundation is that it is based in South Australia and supports scientific research that is so important to gaining a better appreciation of the natural habitat with the goal of giving it the best chance to survive and thrive into the future.

What do you find most rewarding about volunteering with Nature Foundation?

Volunteering has been a wonderful experience and very rewarding, and most of all I have really enjoyed meeting other members, staff, volunteers, land holders and other stakeholders who share a heartfelt commitment to and interest in protecting the environment.

I have been made to feel very welcome and included, have had fun, and have learnt a lot from people who are happy to share their knowledge. Visiting Nature Foundation's properties, such as Hiltaba, Watchalunga, Para Woodlands and Murbpook Lagoon has been a highlight.

I look forward to visiting Witchelina some time and continuing to being involved in Nature Foundation events and activities, in any way I can help.



naturefoundation.org.au

Upcoming Events

We are excited to announce the following upcoming events!

Please note all dates are indicative, subject to COVID, with confirmation and further details closer to the time.

4 March 40th year Celebration Event

8 March Women in Conservation Breakfast (on International Women's Day)

21–26 March Kangaroo Island Member Tour

22–23 April
 Open Day at Para Woodlands (on Earth Day Weekend)
 26 April–1 May
 Witchelina Grand Working Bee (including travel days)

3 June TBC Macquarie Luncheon

27 July Mid-year Member Update / Welcome to New Members

12–17 September Witchelina Member Tour

25 September

to early October Nature Festival events (TBC) **27 October** Annual General Meeting

VOLUNTEERS

We are currently seeking people to provide executive support to some of our committees or working groups.

BUSHLAND FOR SALE

Have you dreamt of owning your own natural wonderland? Our Blanchetown Bushland Estate provides a unique opportunity to purchase a 900 ha block of mallee woodland just minutes from the River Murray and alive with native flora and fauna. We have three allotments remaining. For more information visit our website at naturefoundation.org.au/conservation/bushbank-sa.

ITEMS NEEDED - CAN YOU HELP?

If you are able to donate, fund or loan any of the following items, or provide the funds to acquire them, please phone 08 8340 2880 or email info@naturefoundation.org.au

- · Water entitlements to assist our Water For Nature Program
- Land for nature conservation
- 1 weather station for Hiltaba and 5 for Witchelina to enable us to match changes in vegetation health with rain, temperature and other measures
- · Acoustic monitoring devices for bats and birds.





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