

Spring 2014 newsletter of Nature Foundation SA Inc

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naturematters

[SAVE | PROTECT | RESTORE]



SPRING APPEAL 2014

Threatened Flora & Fauna
of the River Murray

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President's Letter

BOB LOTT, PRESIDENT



Hello to all of our Friends and Supporters

First let me say a great thankyou to those of you who were able to support this year's Vital Works Appeal, the results were most pleasing the total donated is \$64,241.

Our final appeal for 2014 is the Threatened Flora & Fauna of the River Murray Appeal. Through the wonderful work that is being done through our Water For Nature initiative it has become apparent that we have

achieved staggering results in the regeneration of Black Box trees (Please refer Page 3). The scientific community is very excited at our results as it is the first time in scores of years that Black Box seedlings have not died after early growth following big floods. This success, together with the great results we have also achieved with regeneration of River Red Gums and Lignum bushes, bodes well for the creatures which rely on these macro plants for their existence.

We have started what could be considered a minor miracle in those areas at which we have carried out environmental watering along the Murray, carrying out research projects in these areas to assist in the protection many Threatened Species will continue this exciting work.

Watchalunga

This stunning property, which comprises 18.4% of the total Fleurieu Peninsula swamplands on which we have paid our deposit and signed contracts a year ago, has had its changed boundaries finally approved by the Alexandrina Council and the Development Assessment Commission. We look forward to staging an Open Day so that our membership can appreciate what an amazing opportunity we have to support the threatened species on this part of the River Murray system.

Our New PATRON

What a coup! The NFSA Council is very proud and excited to announce that Mr Reg Nelson, Managing Director of Beach Energy the Foundation's premier financial supporter, has agreed to become one of our Patrons (Please refer Page 5). Some two years ago Reg Nelson was made a Fellow of the Foundation, he and his most successful company has continued to support our work by paying for the costs associated with the employment of our senior ecologist, Dr Greg Johnston.

Funding from national sources such as Caring for Our Country and the Biodiversity Fund no longer exists under the present Federal Government and the State Government is struggling with budget constraints so it is vitally important that when the Resource Industry is required to pay Significant Environmental Benefits every-time it disturbs native vegetation that your Foundation presents itself as an expert group to assist those within the resource industry acquit their third party obligations to the *Native Vegetation Act*. Reg Nelson has been integral to the success NFSA has achieved in forming partnerships with major players in the Resource Industry. It is fit and proper that the Foundation recognise Reg Nelson for this support.

In Marketing parlance '**what a team**' we are so honoured to have as our Patrons **Barbara Hardy AO** (our Co-Founder) **Dick Smith AO** (Famous Environmentalist) and **Reg Nelson** (Philanthropist).

Ediacara Fossils

There is a growing movement to form a group of interested parties to purchase and manage the world famous and internationally important fossil beds in the Flinders Ranges, described by Sir David Attenborough as the "beginning of life on this earth". We are very much at the forefront of this movement. I hope to give an indication of important progress in this project in our next Newsletter.

Allan Holmes resignation

I must pay tribute to the wonderful body of work conducted by Allan Holmes at the helm of DEWNR over the last 20 years. A personally committed environmentalist and believer in the need to preserve, protect and restore habitat for the future the news that Allan has retired is a shock to us.

Allan was a Councillor of NFSA for some five years and has always been available to listen to what we have to say but, more particularly, he has worked towards and valued the partnerships formed between Government and NFSA. Allan always recognised that the way forward in the future for the Environment lay in the formation and strengthening of private - public partnerships.

Get well Greg Johnston

On behalf of you all, I wish Greg Johnston all the very best wishes as he struggles with a serious medical condition. Greg is a very valued member of Nature Foundation SA and we are all thinking of Greg at this time.



Welcome!

CAROLINE NEFIODOVAS
SEB BUSINESS DEVELOPMENT MANAGER

Caroline has 15 years' experience in business development, marketing and project office roles and has worked closely with the private sector and all tiers of government. Bringing a strong customer service focus, Caroline is driven by the desire to work with industry and effect positive environmental outcomes. Caroline studied Environmental Science at the University of Adelaide and holds a Diploma in Project Management.



Front cover image

Regent Parrot

Credit: Helga Kieskamp



BARBARA HARDY – CO-FOUNDER AND PATRON AND BOB LOTT - PRESIDENT NATURE FOUNDATION SA

33 Years of Making a Difference

Nature Foundation SA began as a small voluntary organisation, formerly known as the National Parks Foundation SA Inc.

Founded on 14th October 1981 by Dr Mark Bonnin AM, Mr Warren Bonython AO, Mr David Cleland, and Ms Barbara Hardy AO, the Foundation grew from a steering committee, members of which were invited by Dr Bonnin to meet in the Australian Medical Association Council in North Adelaide where his office was located.

It was decided that a Foundation should be established with a constitution and rules, and that incorporation would be necessary. Solicitor Mr John Branson prepared a draft constitution. The aim of the Foundation would principally be fundraising, and those funds would be directed to the purchase of significant native bushland, and to assist the management of national parks in South Australia. The first appeal was held in February 1983 with almost 2000 letters sent out as well as a promotional article in The Advertiser written by journalist Kym Tilbrook. A total of \$15,274 was raised. So commenced the journey of a small band of passionate people working hard to fundraise, and to make a difference to conserving South Australia's unique biodiversity.

In the early days Nature Foundation SA was run from an office at 2nd Floor, 100 Currie Street. Barbara Hardy was grateful for the help of Helen Jaensch and a wonderful group of volunteers, and remembers the challenge of housing records in the basement of a building with no lift. Volunteer Mr Geoffrey Pollard recalls helping with newsletter mail outs from the Currie Street (& later the Hindmarsh) Office. Mr Pollard said that he enjoyed volunteering with the Foundation because "it was never a chore, we felt we were working towards a common goal and were helping a worthwhile cause." After more than a decade of running the Foundation through voluntary efforts a grant was received from the Government to employ a part time Executive Officer. Today the Hindmarsh office has 6 full time and 2 part time staff and there are regional staff managing the Hiltaba and Witchelina properties as well as the Water For Nature initiative. The catchcry to 'Save, Protect and Restore' is as true today as it was 33 years ago. The Council's aims have expanded over the years and now include major initiatives such as Water For Nature and Bushbank SA. It has three major fundraising appeals each year, two of which are directed towards a specific environmental need, and the third helps cover the operational costs of running the Foundation.

Left to right: John Branson, Barbara Hardy AO, David Cleland, Beryl Quayle (Honourary Minutes Secretary) Warren Bonython AO and Dr Mark Bonnin AM (Inaugural President) - circa 1986.

Nature Foundation SA Co-founder Dr Barbara Hardy AO said that "Now more than ever we need to act to look after our precious environment. I encourage everyone to get out and connect with nature, and do their bit to show they care. I also encourage everyone to support Nature Foundation SA. You can become a member, donate, volunteer your time - whatever you can contribute will be very gratefully received." There are so many people and groups that deserve recognition for their support and assistance over the years - too many to name individually but our sincere thanks go to you all - volunteers, members, donors, bequestors, supporters, sponsors, corporate and philanthropic grant providers, partners, volunteer committee and council members and staff past and present - to each and every supporter we sincerely thank you.

From humble beginnings Nature Foundation SA continues to grow, and make a difference - heres to celebrating our 50th anniversary and beyond!

INTRODUCING OUR NEW PATRON: REG NELSON

Nature Foundation SA is delighted to announce that Mr Reg Nelson, Managing Director of Beach Energy, has agreed to become a Patron of the Foundation, a title which recognises high profile supporters who will 'champion' the Foundation and its conservation values and goals.

Reg said, "I am honoured to become a Patron of Nature Foundation SA and to support South Australia's largest non-government conservation land manager. I have worked closely with the Foundation through my role at Beach Energy since 2008, and have been particularly delighted for Beach to have been a major participant in the purchase of Witchelina Nature Reserve in 2010. Nature Foundation SA has consistently delivered real conservation outcomes and I place great value on the Foundation's knowledge of the conservation industry."

Mr Bob Lott NFSA President said "We are thrilled to make this announcement; Reg Nelson understands what we do first hand and will be a wonderful Nature Foundation SA ambassador. Reg honours the philosophies of Reg Sprigg, famed South Australian geologist and conservationist, who had a great influence in the founding of Beach Petroleum, the forerunner of Beach Energy."

In appreciation of his outstanding support, Reg has previously been made a Fellow of the Foundation and is a member of the College of Nature Champions, a committee which advises the Foundation Council and helps direct its fundraising efforts in the corporate sector. Mr Nelson joins our two wonderful Patrons – our much beloved Dr Barbara Hardy AO and Mr Dick Smith AO.



Reg Nelson - Managing Director, Beach Energy Limited
BSc, Hon Life Member Society of Exploration Geophysicists, FAusIMM, FAICD

Reg is an exploration geophysicist with experience in the minerals and petroleum industries spanning more than four decades. He has been recognised by these industries, notably through honorary Life Membership of the Society of Exploration Geophysicists (awarded in 1989), the Prime Minister's Centenary Medal for services to the Australian mining industry (awarded in 2002) and the Australian Petroleum Production and Exploration Association's Reg Sprigg Gold Medal (awarded in 2009) for outstanding services to the Australian oil and gas exploration and production industry. He has also been recognised for his support of environmental and conservation matters by the Nature Foundation of South Australia through the honorary award of Life Membership in 2010 and being nominated as a Fellow in 2012. Reg has wide experience in technical, corporate and government affairs throughout Australia and internationally, particularly in the petroleum and mineral industries, and was formerly Director of Mineral Development for the State of South Australia. He was a director for eight years of APPEA, recognised as the principal oil and gas industry body for Australia, and was Chairman of its board of directors from 2004 to 2006. Reg is presently Managing Director of Beach Energy Limited, a significant ASX 100 Australian listed oil and gas explorer and producer, which has a strong Australian base and expanding global activities.

ECOTOURISM UPDATE

CHRIS REED – NFSA COUNCILLOR AND CHAIR, PROPERTY MANAGEMENT COMMITTEE

Hiltaba

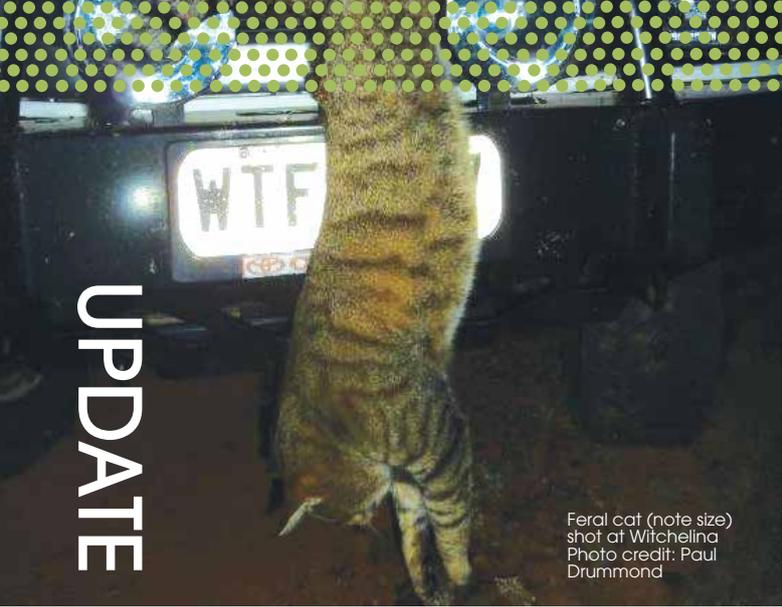
The Betty and Bob Lewis Walking Trail, a 4km trail that starts from Pretty Point car park, has been marked out. Campsites will be within the Pretty Point zone parking area and camping will be available in the near future.

Witchelina

Bookings for the Witchelina Wildflower Tour have been solid with camping available – given the interest another tour may be run in October. Please contact the NFSA office for dates. This is the start of the controlled and managed tourism initiative for both Witchelina and Hiltaba and we'll keep you updated on developments.

Polycalymma stuartii
(Poached-egg Daisy)
close up





UPDATE

Feral cat (note size) shot at Witchelina
Photo credit: Paul Drummond

ALEX NANKIVELL - CONSERVATION PROGRAMME MANAGER WITH FERAL PEST UPDATE FROM PAUL DRUMMOND (FERAL CONTROL OFFICER)

Witchelina

Feral pests

Witchelina is well into an early spring and all the emu chicks seem to have hatched within a week or two of each other and can be seen in groups of twenty or more under the feet of the males. 75% of the female cats removed were pregnant with 5-6 kittens and one female fox was pregnant with seven cubs, this really demonstrates how good a condition these animals are in.

Witchelina now has four remote area monitored cat traps in operation in the fight against feral cats. Developed by Arid Recovery and Observant this system will allow managers to monitor traps from the Homestead saving travelling time and fuel and allowing trapping to be done much further away. This system will complement the current baiting and spotlighting programmes and target areas frequently inhabited by cats and dense vegetation that can't be spotlighted effectively. In the 3 weeks of operation it has caught three cats.

Cat numbers seem to have stabilized and may be reducing slowly. The good condition and rabbit numbers has seen three male cats removed on the last two trips topping the scales at over 6kg and one cat from Hiltaba weighing in at 6.570kg. Wild dogs are elusive this time of year most likely due to breeding with only the odd track in the sand seen. Numbers will become more apparent later in the year when pups emerge from the den and start moving around their territories. Foxes are now hard to find on Witchelina and numbers have been very low for some time, mostly due to the comprehensive baiting program conducted. In the early years it wasn't uncommon to remove 10 or more foxes a night, now it is a surprise to see one or two a trip.

Boundary Fence Inspection

The Witchelina Management Plan identifies the need to maintain good boundary fencing to prevent stock incursions. Members of the Mount Lofty Rangers Four Wheel Drive Club kindly volunteered their time to do a southern boundary fence inspection from Pug Hut gate to Lake Torrens in July under the leadership of Mark Curtis.

The four car seven member team recorded the condition of the fence line with much of it in need of substantial repair if not replacement. The information gathered will enable the Foundation to make some well informed decisions about re-fencing this very remote and challenging section of Witchelina.



UPDATE

ALEX NANKIVELL
NFSA CONSERVATION PROGRAMS MANAGER

Hiltaba

In the spring 2013 edition of Nature Matters we ran an article detailing how the Gawler Ranges National Park had set up exclosures to measure the impact of euro and goat grazing (not rabbits) on the Gawler Ranges Mintbush (*Prostanthera florifera*). The Mintbush is endemic to the Gawler Ranges and evidence shows it has been heavily impacted by grazing euro's in areas where goats and rabbits are not present (where scats are absent). Inside these exclosures plants are flowering and regenerating well whereas outside of the exclosures plants are heavily grazed.

During the 2014 Hiltaba Working Bee a group of volunteers constructed large steel exclosures made from reinforcing mesh. When placed in in the rocky granite hills where the plant grows, the sites will be monitored annually in August when the species is flowering. We will measure the abundance of plants inside and outside the exclosures with the results providing valuable information regarding the level of grazing impact occurring. This raises the question - what is eating the Gawler Ranges Mintbush? By identifying and quantifying the abundance of faecal pellets present around the exclosures we will then be able to zero in on the herbivore responsible. If goats are found to be causing the problem we will increase goat control. If euros are found to be the source, a reduction in native herbivores will need to be considered. This decision would not be taken lightly and a sound scientific basis required to justify such a decision. This would be achieved by monitoring the change in kangaroo populations (euro, red and western grey) and comparing this relationship with the abundance of Gawler Ranges Mintbush outside of exclosures. By doing this we will be able to identify at what point in time grazing by herbivores begins to negatively impact on the Gawler Ranges Mintbush, a key environmental indicator of the health of the rocky granite hills at Hiltaba.



Building a exclosure during the Hiltaba Grand Working Bee - May 2014

WATER FOR NATURE

UPDATE

During 2013-14 Water For Nature was successful in delivering environmental water to four sites (refer table below). We also completed works for watering Loxton Riverfront Reserve, and Thiele's Flat but decided not to water because there had been good rainfall over autumn.

WATER FOR NATURE
IAN ATKINSON – CEO NATURE FOUNDATION SA



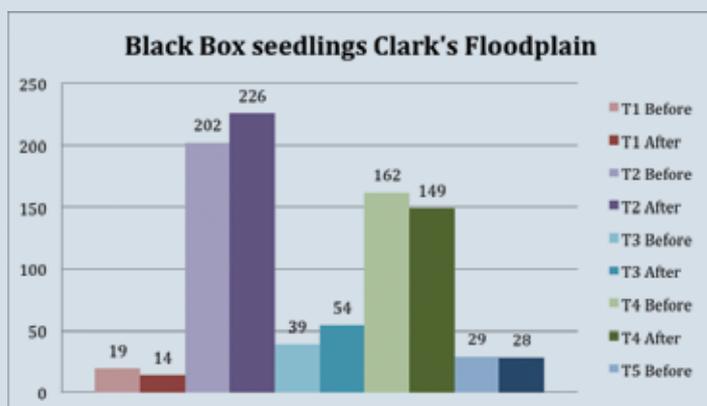
WFN sites watered in 2013-14	Mega Litres (ML) of water use*
Johnson's Waterhole Renmark	104
Clark's Floodplain Berri-Loxton	45
Rilli Reach Loxton	23
Ramco River Terrace Ramco	10
TOTAL	182

*Rounded to whole MLs

Survival of Black Box seedlings (that arose from the 2011 and 2012 flooding events in the region) continues to be a particular focus of WFN. To measure success we use Transects for monitoring and the results below are for areas we have watered at Clark's Floodplain. As you can see in some instances seedling numbers have gone up, either because new seedlings have grown, or more likely seedlings that were hard to see initially are now much easier to spot because they have grown into healthy specimens. We also believe that we have been successful in causing the germination of new seedlings which is wonderful news. It can't be proven conclusively however the photo to the right shows young seedlings on the edge of a shallow floodrunner we watered in 2013 when it was just bare ground.



Black box seedlings
Credit Anne Jensen



Whilst most of the sites are principally about watering the floodplains, Johnsons Waterhole near Renmark is a significant site for water birds and frogs. The picture to the right shows this 4 Ha waterhole brimming with water and attracting birds not long after it was filled.

To quote from the monitoring report "A range of species from different functional (water bird) groups have been represented at the site including a few species of conservation significance. This indicates that a range of habitat and food types are present at the site."



Johnsons Waterhole
Credit: Teagen McKillop

SIGNIFICANT ENVIRONMENTAL BENEFIT (SEB)

BOB LOTT – PRESIDENT NFSA

Witchelina Nature Reserve has been recognised by the Native Vegetation Council as being both an offset and credit (offset) for future offsets for clearance within the SA Arid Lands NRM region. Importantly we are managing Witchelina to achieve landscape scale conservation which is only possible because of its size at over 400,000 hectares. A number of Mining, Oil and Gas companies have opted to discharge their SEB liabilities to Witchelina including both Arrium Mining and Senex Energy which have operations in the north east pastoral district of the state in the SA Arid Lands NRM region in similar country.

Without this support our long term efforts at Witchelina would simply not be possible. We value all SEB contributions but would like to talk specifically here of Arrium and Senex both of whom have contributed significant SEB funds - Senex (or as it was previously known, Victoria Petroleum) made a contribution towards the purchase of Witchelina Station in 2010 and Arrium is supporting conservation activity.

Current SEB contributions provide practical financial assistance in meeting the objectives of the Management Plan for Witchelina Nature Reserve. This drives the achievement of environmental gains and conservation outcomes including the priority issues of reduction of total grazing pressure and predation control.

An ongoing monitoring program that records changes in species diversity and abundance of flora and fauna over time is important for demonstrating the environmental improvements on the property. Improvements will be quantified, and the NFSA will demonstrate specifically how a Significant Environmental Benefit is being achieved, while also continually adapting and improving management techniques in response to the trends shown in the monitoring program. We will feature other SEB contributors in future Newsletters.

Arrium Mining



Arrium Mining and Materials (previously One Steel) is an ASX listed international mining and materials company with

sales revenue of \$7.007 billion (2014 Financial Year), and approximately 10,000 employees.

Arrium Mining is Nature Foundation SA's third biggest SEB contributor, with operations located in the Middleback Ranges near Whyalla, and Southern Iron which includes the Peculiar Knob tenement located approximately 90 km from Coober Pedy.

In 2011 Arrium Mining sought a biodiversity offset strategy for its habitat disturbance at the Peculiar Knob Iron Ore Mining Project. The vegetation clearance created an SEB obligation under SA law, and also triggered the Commonwealth Environment Protection and Biodiversity Conservation (EPBC) Act. This is because the EPBC listed Thick-billed Grasswren (Eastern subspecies) (*Amytornis textilis modestus*) was going to be distributed by the company's activities.

Fortunately Witchelina Nature Reserve was considered equivalent land habitat to the area where vegetation clearance took place at Peculiar Knob, and as it is Thick-billed Grasswren habitat, the birds became a major focus of the strategy.

The biodiversity offset strategy consists of two aspects: on-ground reduction of predation impacts due to feral cats and foxes, and a research component designed to improve knowledge of the biology, distribution, and environmental preferences of the Thick-billed Grasswren in arid South Australia. The program will run for four years as a partnership with Flinders University.

Nature Foundation SA is assisting Arrium Mining, as a Third Party Provider of offsets, to meet their obligations under both State and Commonwealth law.

www.arrium.com

Senex Energy



Senex Energy Limited is an S&P/ASX 200 Australian energy company with a long-standing history in the oil and gas

industry. Senex has a diversified portfolio of oil and gas assets in Australia's Cooper, Eromanga and Surat Basins.

Based in Brisbane, Senex is a major oil producer in the South Australian Cooper-Eromanga Basin and is working towards developing gas resources in these locations. The company works with landholders, traditional owners, regulators, and other stakeholders to progress exploration activities with minimal environmental and social impacts.

Senex is committed to ensuring that projects and operations are conducted in an environmentally responsible manner. This is achieved by systematically developing activity specific environmental assessments, and implementing environmental controls with performance standards. Environmental performance is monitored as part of the Company's integrated management system.

Victoria Petroleum NL (the former name of Senex) and Stuart Petroleum Ltd (acquired by Senex in 2011) were part of a group of five resource companies that contributed close to 20% of the purchase of Witchelina Station back in 2010.

Nature Foundation SA is working with Senex in a meaningful and significant way to grow the conservation efforts we are undertaking. By discharging Significant Environment Benefit offsets through a partnership with Nature Foundation SA, Senex is supporting our long term commitment to;

- protect and restore land with exceptional biodiversity value,
- helping to save threatened species' habitat and ,
- building wildlife corridors.

We thank Senex for supporting the Foundation and being part of creating a positive environmental legacy for South Australia.

www.senexenergy.com.au

FAUNA PROFILE: THICK-BILLED GRASSWRENS

The endemic Thick-billed Grasswren (TBGW) is a highly cryptic and elusive bird species that occurs in the arid zones of Australia.

The Thick-billed Grasswren is declining and is considered a threatened species under the *EBPC ACT* (2000), yet little is known about what factors underpin this pattern. The SEB funded research conducted by PhD students Marina Louter and Amy Slender from Flinders University at Witchelina Nature Reserve investigates the effects of habitat quality and individual quality on nesting success and dispersal in the threatened Thick-billed Grasswren.

Understanding the ecological factors that determine the distribution and reproductive success in a threatened species is essential to providing a scientifically informed approach to their conservation management.



Marina Louter holding a Juvenile TBGW and an adult male TBGW caught on Witchelina Station
(Photo by Valeria Zanollo)



An adult female TBGW, with its characteristic rufous patch underneath the wing
(Photo by Marina Louter).

FLORA PROFILE: ACACIA TOONDULYA- TOONDULYA WATTLE

DR GREG JOHNSTON - NFSA CONSERVATION ECOLOGIST

The Toondulya Wattle is one of seven species that are endemic to the Gawler Ranges. They are tall wispy blonde shrubs that grow on top of hills in the Nature Foundation's Hiltaba Reserve.

Living on isolated hill tops presents these plants with some challenges. One challenge is how to find a mate. Wattle relies on insects to carry pollen from the male of one plant to the female part of another plant so they can reproduce. Toondulya Wattle was discovered less than a decade ago and not surprisingly we know very little about them.

One of the mysteries surrounding this plant is what pollinates them. Whatever the insect pollinators are, we know they must have certain characteristics. They must be small enough to get a worthwhile nectar meal from the small wattle flowers and yet strong enough to fly between wattles that live on different hilltops. They must also have a life cycle that matches the short July through August flowering season of the Toondulya Wattle. Without the pollinator the wattle cannot reproduce likewise the pollinator cannot live without the wattle. Such relationships are key to a functioning ecosystem.

Hiltaba is the only reserve in the world that conserves Toondulya Wattles and how Nature Foundation SA manages Hiltaba will determine the future of the Toondulya Wattle and the other organisms that rely on it.



Photo credit: Dr Tony Robinson -
SEG flora survey August 2013

CONSERVATION GENETICS OF AN ENDANGERED MARSUPIAL, THE SOUTHERN BROWN BANDICOOT.

RESEARCHER: DR YOU LI
UNIVERSITY OF ADELAIDE PHD STUDENT

Research funded through the Roy & Marjory Edwards Scholarship

What was the aim and purpose of your project?

This project applied a combination of genetic markers to investigate population genetic structure, gene flow/dispersal and genetic distinctiveness of the Southern Brown Bandicoot in SA. The project results have increased our knowledge of the genetic connectivity of populations in fragmented landscapes and provided valuable baseline genetic information for the conservation management of the species.

Summarise the results of your project.

The results of population genetic analysis in the two landscapes showed significant population genetic structuring at a fine spatial scale, gene flow and dispersal was limited and generally only among neighbouring sites. Sites in the central Mount Lofty Ranges were more genetically differentiated than Bandicoots distributed over a similar spatial scale in the Mount Burr Range. These analyses suggested that gene flow/dispersal was limited to a higher degree in the Mount Lofty Ranges compared to Mount Burr, possibly due to the heavily modified landscape in the former area. The findings of the phylogeographic analysis showed two distinct lineages in SA/Victoria which should be considered as separate evolutionary units and managed separately for conservation purposes.

What is the most exciting thing about this work?

Bandicoots from the Mt Lofty Ranges and Kangaroo Island are genetically distinct from Bandicoots from south-east SA/southern Victoria. They may represent two distinct sub-species or even species. Although the work isn't easy, sometimes even frustrating when there's nothing in the cage for days, seeing pouch young would make everything worthwhile – I was lucky to witness newborns crawling to the pouch!

Full version on line at <http://www.naturefoundation.org.au/grants/projects/>



Left: Southern Brown Bandicoot juveniles in the pouch.
Credit: Peter Hatcliffe

Southern Brown Bandicoot juvenile
Credit: Bo Li



HABITAT USE OF THE WESTERN BARRED BANDICOOT (*PERAMELES BOUGAINVILLE*) WITHIN THE ARID RECOVERY RESERVE

RESEARCHER: MISS MELISSA JENSEN, UNIVERSITY OF ADELAIDE HONOURS STUDENT. SUPERVISOR: ASS PROF DAVID PATON AND DR KATHERINE MOSEBY

What was the aim and purpose of your project?

The aim was to develop an understanding of the habitat use of the Western Barred Bandicoot within the Arid Recovery Reserve. Specifically, this study aimed to: (1) investigate whether Bandicoots are more prolific in areas containing high densities of leaf litter and whether these areas are used disproportionately more than areas with low litter; (2) determine whether Bandicoots avoid areas used extensively by Burrowing Bettongs, whose digging activities are believed to be, in part, contributing to the dispersal of leaf litter; and (3) establish the home range location and sizes, diurnal nest site locations and patterns of use by the Western Barred Bandicoot within the Arid Recovery Reserve.

Summarise the results of your project.

At the Arid Recovery Reserve, Western Barred Bandicoot activity was consistent between the two exclosures and did not appear to be affected by the presence of Burrowing Bettongs. Based on the results of my track quadrats, Western Barred Bandicoot activity within the reserve was not concentrated around, neither dependant on areas of high leaf litter. Bandicoot nests were smaller than those recorded at Heirisson Prong, but were constructed in a similar fashion. Bandicoots showed a preference for nest site shrubs with greater litter depths, greater litter cover percentages and lower canopy heights. However, the positioning of nests in areas which are easily accessible to potential predators suggests that control of feral predator species may remain a high priority for the successful reintroduction of the Western Barred Bandicoot to new locations.

What is the most exciting thing about this work?

I have learnt so much during this experience; I fine-tuned my radio tracking skills, learnt how to identify the tracks of a range of arid zone species, learnt how to safely capture and handle and process threatened and endangered species which I had not worked with before.

I am hopeful that my research has provided a preliminary understanding of how the Western Barred Bandicoot uses its habitat within the Arid Recover Reserve, and may offer a sound base for future research into carrying capacities of fenced reintroduction programs and for determining the location of any future reintroduction of this species.



Western Barred Bandicoot
Credit: Caitlin Weatherstone

SEPTEMBER IS 'SAVE OUR NATIVE ANIMALS' MONTH – HELP US HELP THEM

PATRICK MENTZEL – FUNDRAISING AND MARKETING MANAGER

Australia has the greatest mammalian extinction rate in the world. Close to home, nineteen native mammal species have gone extinct on Witchelina Nature Reserve. Eleven of these species still occur elsewhere, often in small remnant populations but eight mammals that once lived on Witchelina are globally extinct and 11 locally extinct (including the Western Barred Bandicoot – refer our Research Profile on Melissa Jensen's work opposite page).

Nature Foundation is running a 'Save Our Native Animals' Online campaign in September to help support our conservation work - active management for conservation is crucial to Save, Protect and Restore our reserves, and to prevent future extinctions.

WHAT: 'SAVE OUR NATIVE ANIMALS' ONLINE CAMPAIGN

WHEN: SEPTEMBER 2014 — Biodiversity Month

WHY: You'll help provide valuable funds for Nature Foundations SA to support conservation activities

HOW: Join up now and start raising funds through 'Everyday Hero' <http://everydayhero.com.au/charity/view?charity=1462>

WHAT: What do you have to do? It's easy—just Connect with Nature/ Reduce your Footprint. You decide what you want to do—but whatever it is make it count

Suggestions include:

- Recycle: bottles/cans/metals (and donate funds to Nature Foundation SA)
- Reconnect with nature: walk, run, cycle—climb Mt Lofty (or Mt Everest if so inclined)
- Reduce: minimal packaging foods—stop drinking alcohol/coffee/soft drinks
- Reuse: plastic bags, clothes, furniture or get creative — Run the City to Bay and raise funds for Nature Foundation SA www.city-bay.org.au

PLEASE HELP NATURE FOUNDATION SA 'SAVE OUR NATIVE ANIMALS'

Contact Nature Foundation SA on 8340 2880 or email us for further information at NatureFoundationSA@nfsa.org.au



Plains Rat (*Pseudomys australis*) one of the native species found at Witchelina
Credit: EBS Ecology www.ebsecology.com.au

VALE Cynthia (Bunty) Bonython

Bunty Bonython (nee Eyres) passed away in June aged 93 years. Married to Warren Bonython AO (now deceased - Co-Founder of Nature Foundation SA) for 71 years, Bunty, mother of Simon, Veryan and Alice, was a talented artist and horse-woman in her younger years and had a deep interest and love of history. Her written works include *A Brief History of Beaumont House* and two books about St George's Church Magill.

The Foundation particularly wishes to recognise the support that Bunty gave to the Foundation. Bunty attended all major functions for the Foundation was a great support to the office holders and staff. Nature Foundation SA extends our most sincere condolences to the Bonython family.

VALE Stewart Patterson

Mr Stewart Patterson, respected elder of the Adnyamathanha people, passed away on the 25th June with his funeral held in Beltana on July 10. A skilled cattleman and horseman, he spent time droving and worked on many stations in SA including Witchelina just as well as in Queensland. Stewart was a singer songwriter and the Remembrance Card distributed to the huge crowd who attended his funeral included the lyrics to a song written by Stewart called 'My ringin' days are done'. Nature Foundation SA Inc recognises the significance of Witchelina to Adnyamathanha culture and the ongoing connection of its people to the land. Nature Foundation SA have consulted closely with Adnyamathanha elders including Stewart and his wife Beverley

about the Witchelina Management Plan and the conservation work being undertaken there including how to incorporate indigenous conservation knowledge into conservation planning and on-ground management. Nature Foundation SA would like to acknowledge the collaboration between Stewart, Beverley, Yarta Warli and the Nature Foundation SA to identify areas of cultural significance to Adnyamathanha Traditional Owners and their families and wish to continue to work toward protecting cultural sites at Witchelina in memory of Stewart Paterson and for future generations of Adnyamathanha children.

ANNUAL MEMBERSHIP REMINDER

Membership due January 1, 2015.

Nature Foundation SA has these additional ways for you to support our great work:

Support us by becoming a member, introducing new members and/or continuing your membership.

Mail membership

Individual \$30
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Nature Foundation SA

To purchase your lottery tickets call: (08) 8448 5660

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To be drawn on Wednesday 3rd December 2014 at 1pm

FRIENDS OF NATURE FOUNDATION SA

JOHN SIBLY – PRESIDENT’S REPORT

What turned out to be a highlight for the Friends was our Annual General Meeting on 1.4.14 which we held in the evening at the Sheoak Cafe in Belair.

Twenty-eight members, partners and friends attended and, in the intimate atmosphere and provided with the most tasty of dishes and drinks, a great time was had by all.

Of particular pleasure was the attendance of Roger and Raelene Schmitke who drove down from Waikerie to join us. As well, David Moyle, Bob Sharrad and Alex Nankivell from the Foundation also made their contributions to a most interesting night.

Committee member Kaz Herbst, with a small party, visited Witchelina for several days in July for monitoring and maintenance.

NATURE FOUNDATION EVENTS CALENDAR 2014

NFSA – Annual General Meeting

Thursday 23th October, 5:30pm start



Meeting followed by refreshments. The Annual General Meeting will be held at Holden Street Hindmarsh for members and includes highlights of research supported by NFSA.

Left: Dr Bob Sharrad (NFSA Councillor) with PhD research speaker at the 2013 AGM

Nature Foundation SA Christmas Dinner – Adelaide Oval

Saturday 29rd November, 7.00 - 11.30pm



Venue: Adelaide Oval – Premiership Suite
Christmas event for all members, donors and supporters. Entertainment, three course dinner and silent auction (Venue capacity - 100 people)

Credit: Adelaide Oval

*Please note that some dates may be subject to change

For further information please call 8340 2880 or email naturefoundationsa@nfsa.org.au



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