

nature matters



Water
FOR NATURE
PROJECT

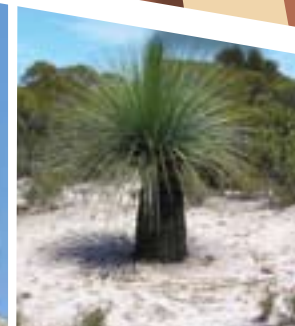
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winter 2008 newsletter of Nature Foundation SA Inc | www.naturefoundation.org.au



“Will you
help
secure
our **future?**”

**Vital
Work
Appeal**



save protect restore



President's Letter | David Moyle AM



GREETINGS TO ALL OF OUR LOYAL members and supporters.

It has been a sad week as I write this with the passing of my father, George, after a wonderful active life of 101 years. Mother is only 95 and very active!

Reflecting on Dad's life this week, it has struck me how much our society and environment changes over one person's (admittedly long) life time, and also how much an individual can have an impact on those changes. We can choose to sit back and let the world go by or try to make a difference. It reminded me also that we have only a relatively short time span to make a difference so do not delay!

My father was a primary school teacher and principal in a number of schools around South Australia. Arriving in Mt Gambier in 1944, he instigated an Arbor Day project to revegetate the Port MacDonnell roadside out of Mt Gambier, organizing the year 7 children to plant, water and care for the trees. The children involved in this work must have developed a love for nature that they have carried through their lives.



Returning to Mt Gambier in more recent years on a Trees For Life trip to deliver seedlings my father had grown, those same trees from 1944 now stand as a mature monument to a forward thinking person who through a simple action made a real difference.

We can all so simply make a real difference right now by helping the Foundation to expand its vital work for nature. I am a volunteer as are all of the many members of the Council, committees, working parties and now the

newly created Friends for Nature. There are inevitable costs to run the Foundation and this current appeal once every year in June enables the Foundation to continue its amazing program of vital works. Making a donation is one way to make a real difference.

Best wishes to all,

David Moyle AM, President

Nature Matters is published in March, June and September.

EDITORIAL TEAM | Brian Haddy & Jenny Paterson

GRAPHIC DESIGN | Michelle Lee

PRINTER | Solito Fine Colour Printers

Letters, articles and wildlife photos are welcomed – please send to Brian Haddy
brian.haddy@naturefoundationsa.asn.au

BOB SHARRAD'S TRIVIA QUESTIONS

- 1 What is an "Itjari-itjari"?
- 2 What is another name (Aboriginal) for the Numbat?
- 3 What colour(s) are Tiger Snakes on the western end of Kangaroo Island?
- 4 Is the Tape-weed that grows in shallow seas off Adelaide an alga?
- 5 What is an immature stage of a grasshopper called?
- 6 The mainland subspecies of the Tammar Wallaby was thought to be extinct. Where was a population found?
- 7 How did the Tammars get to NZ?
- 8 About how many plant species are listed as threatened (endangered or vulnerable) in SA?
- 9 Which plant is vital for survival of the Sandhill Dunnart?
- 10 During which season do you see white snails on fence posts in country SA?

(Answers on page 7)

URBAN BIRDS UPDATE

MANY NATURE FOUNDATION SUPPORTERS contributed to our Urban Birds Appeal in September 2006. Here Professor Chris Daniels reports on how these appeal funds have been put to work.



The Urban birds program at the University of South Australia was funded in 2006/7 with a \$20,000 grant from Nature Foundation SA Inc. This support is enabling us to understand the role of urban birds in the city ecosystem, specifically through three major projects.

The first examines the changes in the dynamic mix of bird numbers and species in the parklands over the past 40 years.

Using a fabulous data base from famous Adelaide ornithologist Robert Whatmough and a range of state-of-the-art analytical technologies, we hope to find out not just which species have come and gone, but why.

The second project will compare species composition found at newly planted revegetated patches with that found in established, revegetated sites and in natural remnants. It is proposed that the types of birds using revegetated sites will change as the newly planted site becomes established and develops; a process termed succession. Succession in assemblages of birds has not been examined in urban plantings and results may add significant information on the value of such programs.

The third project involves determining the presence of avian influenza in migratory waders. The study is looking at the impact of less virulent forms of AI which may affect the ability of long distance travellers such as sandpipers, terns and others to survive the long distance haul from their Northern Hemisphere feeding grounds to their summer holidays on the St Kilda mudflats.

Bird Declines in the Coorong



REPORT BY Dr Dan Rogers
& Dr David Paton -
University of Adelaide

THE COORONG IS A WETLAND OF INTERNATIONAL significance, supporting diverse and abundant waterbird populations. It is a globally important wetland for at least nine bird species, including three long-distance migratory shorebirds. For the Sharp-tailed Sandpiper, the Coorong is the #1 wintering site on Earth, with ~20% of all Sharp-tailed Sandpipers spending the non-breeding season on the Coorong every year.

While the Coorong remains an important bird site, dramatic declines in bird populations have been observed. This is not restricted to any single species or group; waders (sandpipers, plovers), piscivores (fishing birds) and waterfowl (ducks and swans) are equally affected.

Among those species that have exhibited particularly dramatic declines in the Coorong are the Australian Pelican (*Pelecanus conspicillatus*). In the South Lagoon, this iconic species has declined from ~6,000 breeding birds in 1985, to just 300 in 2008 – a decline of 95%.

Furthermore, the remaining bird populations are becoming increasingly restricted to the northern parts of the Coorong, as

the southern areas become increasingly hostile environments for them. The reduction in available habitat, and deterioration in the quality of habitats that remain, are the main reasons for the observed declines.

The primary reason for the observed patterns of decline is a change in the distribution and abundance of key food resources. For example, waterfowl depend primarily on aquatic plants for food. In the Coorong, one plant species, *Ruppia tuberosa*, has historically provided these resources to birds. However, this species has declined dramatically in distribution, due primarily to falling water levels and rising salinity. Similarly, the Smallmouth Hardyhead fish (*Atherinosoma microstoma*), the most abundant and widespread fish in the Coorong, is now absent from the South Lagoon because summertime salinities are too high. This consequently limits the distribution of fish-eating birds such as pelicans and the rare Fairy Tern (*Sterna nereis*) to the North Lagoon and Murray Estuary.



Links to the management of the Murray-Darling

Ultimately, decline in the distribution and abundance of key food resources for birds is dependent on the quality and quantity of water in the Coorong. The Coorong has historically had a salinity gradient ranging from estuarine to hypermarine, and many of its organisms are adapted to these conditions. However, a lack of flows from the Murray to the Coorong have resulted in salinities in the South Lagoon becoming much higher than even these hardy organisms can tolerate. In addition, a lack of flows from the Murray has meant that the Coorong's mudflats are drying out much earlier than they did historically, resulting in a loss of mudflat biota, such as *Ruppia* and aquatic invertebrates.

Only by reinstating adequate environmental flows to the River and Coorong can we hope to restore this unique and important wetland system.

The Nature Foundation seeks your support to continue all the work that we do in saving threatened species, protecting our precious natural environment and supporting revegetation projects.

Much of our work is unglamorous but gives vital behind-the-scenes support to those in the field who are working so hard to Save, Protect and Restore our precious natural environment.

Please give generously and remember that all donations over \$2.00 to Nature Foundation SA

are fully tax deductible.

END OF FINANCIAL YEAR

Vital Work Appeal



Members & Friends events



Please call 8340 2880 to book into any of the following:

Sunday 27th July
Moorunde Bus Tour in association with The Natural History Society of SA - \$55

Thursday 9th October
K1 Winery & Laratinga Wetlands Bus Tour
Visit Mt Barker's renowned Laratinga wetlands and Geoff Hardy's unique K1 Winery for lunch - \$65 each

Thursday 6th November
Annual Dinner at National Wine Centre
Great food, wine and entertainment - a very special evening - \$75 each

Vital Research **RESULTS** MONITORING BANDICOOTS

ARTICLE & PHOTOS BY: Kirstin Long
(Bandicoot Project Officer)
Department for Environment & Heritage

Thanks to our sponsors and supporters, the Nature Foundation can continue to fund a wide range of important conservation research projects every year. Here we profile a project aiming to learn more about the endangered Southern Brown Bandicoot.

HOW DO YOU MONITOR A SMALL marsupial that lives in the densest of vegetation and is primarily active at night? With great difficulty! The Mount Lofty Ranges Southern Brown Bandicoot Recovery Program, with help from Nature Foundation SA, has been trying to improve techniques for monitoring bandicoots.

The Southern Brown Bandicoot is listed as a nationally endangered species and is one of the few medium-sized mammals left in South Australia. Appropriate monitoring techniques are required for us to learn more about the habitat requirements, distribution and abundance of bandicoots and to help us identify what is threatening the species and how these threats can be minimised or eliminated.

Radio-tracking is an ideal monitoring technique to use when information is required on the habitat use and activity patterns of individual animals. Radio-transmitters are typically attached to collars that are fitted around the neck of the study animal. The problem is, bandicoots don't really have necks!

Fortunately, we have been able to modify a technique used with bilbies to enable transmitters to be attached to the tails of bandicoots.

In April and May 2007, ten bandicoots at Scott Creek Conservation Park were successfully fitted with radio-transmitters and tracked for four weeks. A dedicated team of staff and volunteers recorded the locations of the ten animals during the day and night to learn more about their habitat use and activity patterns.

The bandicoots were occupying an area of Stringybark forest with a very dense shrubby understorey, which is typical of all bandicoot habitats. The area covered by each individual, known as its home range, varied from one to four hectares and there was considerable overlap between the home ranges of individuals.



Southern Brown Bandicoot



ABOVE: Fitting a radio-transmitter to the tail of a bandicoot

As well as providing information on the locations of the bandicoots, the radio-transmitters contained movement sensors that allowed field staff to determine if the animals were active or not. This provided fascinating information on a species that is generally considered to be nocturnal. Bandicoots were in fact active during both the day and night, with peaks of activity at mid-morning and between 6pm and midnight. Individuals rested between 2am and 7am (unfortunately the field staff didn't get to do the same!).

Having refined this technique it will now be invaluable to help identify threats to bandicoot populations and determine how we can reduce these threats.



BUSHBANK SA IS A REVOLVING FUND, SET UP BY NFSA to buy, protect, and then on-sell areas of significant vegetation. Land parcels are carefully selected and given Heritage Agreements before they go to their new owners. Net proceeds are returned to the Fund, allowing Bushbank SA to continue purchasing land in need of conservation.

In recent months we have continued to prepare a number of diverse properties for sale and inspected numerous prospective properties in regional South Australia. A new look information pack and revamped website will soon showcase current properties and past achievements.

In recent times we have had success in promoting the excellent work that Bushbank SA has been doing around the State. An Advertiser article and several ABC radio interviews, have generated considerable interest, especially in the Blanchetown Bushland Estate properties which are nearing sale.

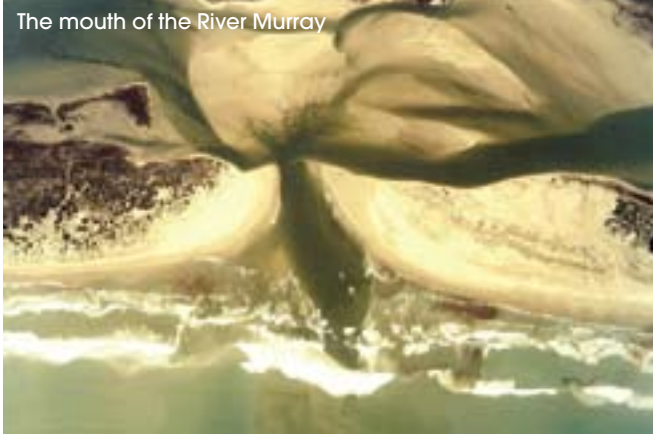
In other excellent news, we have sold another property to enthusiastic conservationists. Point Drummond has now been handed over to new owners who we trust will enjoy this magnificent coastal ecosystem for many years to come.

Information pack and Website: Anyone interested in Bushbank properties can request a Bushbank information pack that outlines the current properties, how the program works and the ongoing work of the Nature Foundation SA.

Additionally, readers can look forward to the soon to be launched new look website that will provide up to date information on all the current properties, past properties, bush management links, and photo's of South Australia's unique and diverse ecosystems. Look out for www.bushbanksa.org.au

Please direct all Bushbank enquiries to Alex Nankivell on (08) 8340 2880

Water FOR NATURE



BY Angela Hawdon | Special Projects Consultant

THE NATURE FOUNDATION HAS SET UP A NEW PROJECT **Water for Nature**. This project will distribute water purchased or donated to **Water for Nature** to watering projects along the River Murray accredited by Natural Resource Management (NRM) Boards.

While we hope to attract State and Federal Government support for this initiative, we are also keen to attract donations of money or water from the corporate sector and from individuals. A generous donation of water entitlement from Mr Greg Toop has helped launch this program.

The program will work in a similar way to the **Bushbank** revolving fund, in that funds or donations of water will be permanent water that we can deliver each and every year to the River Murray. Only a small portion of this water



will be leased to cover our administration costs and ensure water continues to get to the areas that need it most.

We will work with the NRM boards to identify community watering projects that can best apply the water we have on hand.

STOP PRESS As this newsletter was going to print we were negotiating to provide water to Little Duck Lagoon, within the Gurra Gurra wetland complex, just south of Berri.

It is surrounded by a fringe of red gums (*E camaldulensis*) and lignum shrubs (*Muehlenbeckia florulenta*) with an emergent zone of rushes made up of bulrush (*Typha spp.*), common reed (*Phragmites australis*) and water couch (*Paspalum distichum*).

A total of 22 plant species were identified in Little Duck Lagoon during two vegetation surveys (1999-2000). During the 1999 frog census three species of frog were recorded. Water couch is the preferred habitat for the eastern sign-bearing froglet and this is the most abundant reed.

For more information please call Angela at the Nature Foundation on 8340 2880 and keep an eye on our website for the new **Water for Nature** webpage.

Friends for NATURE

BY John Sibly | Vice-President & Publicity Officer

THERE HAVE ALWAYS BEEN FRIENDS OF THE NATURE Foundation from its very early days - to encourage the enthusiasts who got the whole thing off the ground. But now there is a Friends for Nature officially, to give support to the Nature Foundation.

Friends for Nature is not something set in stone. A few of us are supporters who have met twice to see whether such a group might have a role within the Foundation. At our first meeting we elected four of us to get things started, but there is to be no committee as we all thought those interested enough to get involved should be encouraged to come to the meetings.

At a second meeting, in May we found a number of ways we could do things to support the Foundation in activities already planned, such as spending a few hours representing the Foundation at coming public events and helping with our Annual Dinner and auction.



In attendance at Friends for Nature meeting at the Foundation Office were:

- From left: Eliza Bagley (Secretary), Dene Cordes (President), Graham Henley, Kathy Araci, Jeff Loveday, Ric Williams (Treasurer), Brian Haddy (Nature Foundation), John Sibly (Vice-President & Publicity Officer), Janet Cotton, Barbara Hardy, and Jenny Steele Scott

Friends for Nature is very fortunate to have Dene Cordes as President as he has had such broad experience with similar friends' groups.

Our next meeting is on 2nd July, 2008 at 12:30pm at 32 Holden St. Hindmarsh - could see you there. Thereafter, the first Wednesday of the month @ 12:30pm (Lunch Provided)



BELAIR National Park

BY Brian Haddy

A SOUTH AUSTRALIAN ICON

Members and Friends of the Nature Foundation enjoyed a fascinating walk in the Belair National Park earlier this year under the expert guidance of Council member Bob Sharrad, ably assisted by fellow Council member David Hansman.



Sometimes taken for granted by local residents, Belair National Park is an 835ha urban national park reserve located just 13 km from the Adelaide City centre. It was dedicated in 1891, making it the first National Park in South Australia.

In 1909, the then 'Commissioners of Belair Park' issued a small booklet that contained many photos of the Park and notes about its history and management. In 1991, the forerunner of the Nature Foundation, the National Parks Foundation of SA, reprinted this booklet to mark the centenary of Belair's establishment.

Here are some excerpts from this booklet, showing how much some things have changed and others have stayed the same in 120 years...

"To reach the Park there are about six trains from the city each day ... increased on Wednesdays, Saturdays and Public Holidays ... drag trollies from Belair Station to the Chief Oval are Adult, 3d and children 2d ... "

"As a land of refuge for our native flora, the National Park is invaluable. The demand for firewood and the increase in orchards and vineyards are playing havoc with the



PHOTOGRAPH | Brian Haddy

indigenous vegetation of the hills, and many Australian plants which were once common within a reasonable distance of the city have almost disappeared..."

Top Left: Emus at Belair National Park

Top Right: 1909 - Holiday-makers from the city

Above: Dr Bob Sharrad leads a nature walk with members of Nature Foundation SA

Birds of our reserves & open spaces - THE ADELAIDE PARKLANDS

ARTICLE & PHOTO BY David Hansman

Long-billed corellas on dry grassland, northern parklands



Adelaide is fortunate to have retained an extensive area of open space around the city. Although greatly modified (it is doubtful whether any of the original eucalypt woodland with shrubs and

understorey has survived), several habitats are available for birds and other animals. These include playing fields and paddock; small patches of woodland, formal gardens, scattered trees and riverine vegetations.

The open spaces favour larger birds including the Australian magpie, magpie-lark (pee wee), noisy miner, crested pigeon, little raven and several species of parrots, principally Adelaide and eastern rosellas, galahs, little corellas and sulphur-crested cockatoos. In all approximately 70 species

have been recorded, excluding 'vagrants'. Recently a flock of long-billed corellas appeared, the photograph shows the distinctive blood-red markings on face and chest.

Spur-winged plovers, usually in pairs are often seen and, after rain, white ibis are common on fields. On and beside the Torrens River are black and maned ducks, black swans, with an occasional pelican. Rails are common, especially dusky moorhen and purple gallinule, also coot.

What of small passerines? Possibly because there is insufficient shelter and protection afforded by dense vegetation, superb fairy wrens, thornbills and small honeyeaters are uncommon or absent. However, an extensive revegetation program, begun three years ago below the Torrens weir, may provide sufficient density of plants to encourage the return of smaller birds. This 'riverine restoration site' uses species of plants that were once part of the natural environment.

It is a pleasure to acknowledge the help provided by Ms Zoe Drechsler, Biodiversity Officer, Adelaide City Council.

K1 Winery - Kuitpo



LARATINGA WETLANDS & K1 Wine & Lunch Tour

Thursday, October 9th
\$65.00 per head (including GST)

Call Jenny
on 8340 2880
to reserve
your seat.

Members and supporters of the Foundation are invited to join us for one of the highlights of our 2008 event calendar – a bus tour to the renowned Laratinga Wetlands at Mt Barker, followed by a sumptuous lunch and wine tasting at Geoff Hardy's beautiful K1 winery in the Kuitpo Forest. A similar tour last year was fully booked so don't delay if you would like to join us on this environmental discovery tour.

BUSHBLOCK Management

The Nature Foundation is pleased to promote the excellent conservation work being done by so many individuals on their own land. Here we profile the work of Sue Milne and Kerry Sarandis on their Adelaide Hills property.

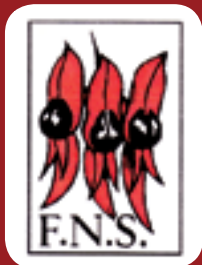
In 2003 we moved to the Hills for a 'tree change' and became owners and bushcarers of a 3.5 acre property, including a large block with stringybark forest and bush understorey. After learning more about the local vegetation, we realized the plants we had were quite diverse and special, with relatively few weeds present (English broom and blackberry).

We pursued the idea of seeking help to improve the block, and were pleased to be given a grant through the Urban Forest Biodiversity program in 2006, funded by the Department of Environment and Heritage. This enabled us to have a consultant compile a plant list of both native plants and weeds. He found 50 native species, 4 of them uncommon to the area, and 15 weeds. A management plan was also designed, including a day of "bushcare" spraying and weed removal by specialists, to start on the larger weed patches. Our agreement was to reciprocate with continuing weed control, thus ensuring the ongoing re-generation of native species.

Two years on, it's very clear that this re-growth is occurring even in dry conditions as we are seeing more new plants. In Spring, we are delighted to see increasing numbers of lilies, orchids and daisies flowering. The weedy areas have diminished dramatically as we have cut much of the dead broom and are monitoring and removing the hundreds of seedlings as they appear. This is a long term plan and we can see significant progress, and are beginning to re-plant the 'bare' areas with indigenous species grown from local seed.

We look forward to the balance of the bush being restored. It's always pleasurable to work (or sit) amongst the trees, the birdlife ever present with cockatoos, lorikeets, kookaburras and now a pair of nesting galahs using the tree hollows. I was told that some of the best cared-for bush, is privately owned. I can understand why, it's rather an addiction (albeit a healthy one!) I think I've been bitten by the "bush bug", but it's quite painless and has many rewards.

Celebrating 125 YEARS



**The Field Naturalists
Society of SA**

is presenting a

FREE PUBLIC LECTURE

BACKYARDS:
THE MOST
IMPORTANT ROOM
IN THE HOUSE

Professor Chris Daniels
School of
Natural Sciences,
University of SA

**Wednesday, August 6th
2008 at 7:45 pm at the
Unley Civic Centre**

Light refreshments
will be served.
Ample parking

RSVP:
by July 25th
to the Secretary,
Jenny Mealor
PH: 8365 2491 or
email: jmealor@chariot.net.au

TRIVIA ANSWERS

- 1 A Southern Marsupial Mole
- 2 Walpurti
- 3 Black
- 4 No, it is a flowering plant
- 5 A nymph
- 6 Kawau Island, New Zealand!
- 7 They were taken there by Governor Grey in the 1860's
- 8 ~ 300!
- 9 Spinifex (Porcupine Grass), a *Triodia* sp.
- 10 Summer, they aestivate to escape the hot, dry conditions

BARBARA HARDY'S 2nd ANTARCTIC TRIP 16th January - 4th February, 2008



ARTICLE & PHOTOS
BY Barbara Hardy

During my second visit to Antarctica, we visited Sir Douglas Mawson's historic Hut at Cape Denison. The site of this location was at Commonwealth Bay directly south of Hobart. Our ship was the "Orion" which carried 94 passengers, and we experienced some very rough conditions on several days on the way across Drake's Passage between Cape Horn and the continent of Antarctica.

Only the roof of Mawson's Hut was visible when we landed at Boat Harbour, and I had the honour of being first to enter the Hut after winning a competition to guess the latitude where we would see the first iceberg. The Hut contained a lot of ice which is gradually being removed by a group of volunteers when they are able to travel to Antarctica. There were lots of Adelie penguins, some sea lions and the birds were wandering



TOP RIGHT: Queuing up for Mawson's Hut
BOTTOM RIGHT: Inside Mawson's Hut

albatross, skuas and snow petrels.

We were very impressed with the story of Mawson's "far-eastern sledging journey" where one of his companions, Belgrave Ninnes, was lost down a deep crevasse. His other companion Xavier Mertz died of an illness thought to have been caused by eating dog livers, when they had almost no food because it had been lost on the sledge with Ninnes. Mawson himself was lucky to survive when he desperately struggled to reach "Alladdin's Cave", a small depot that they had fortunately set up earlier in the journey.



He, and some fellow explorers who had remained behind hoping to rescue him, had to remain in Antarctica for many more months before another ship was able to negotiate the ice to reach and to save them. This was during 1914 when what was known as the "Heroic Age" of early Antarctic exploration in very dangerous conditions.

Mawson eventually returned to South Australia and married his fiancé, Paquita Delprat, who had waited for him anxiously during nearly two years.

I care about conservation in South Australia

My tax deductible donation of \$ _____ is enclosed.

I would like to become a Member of the Foundation ...

Single (\$25) / Couple (\$44) / Family (\$55) - please circle

I would like information about:

Making a bequest / Volunteering / GreenCard Mastercard - please circle

Name: _____

Address: _____

Phone: (h) _____ (w) _____

Mobile: _____ Email: _____

cheque enclosed / paying by credit card - please circle

Mastercard / Visa / Amex / Diners - please circle

Card no. ____ / ____ / ____ / ____

Expiry date _____ Total payment _____ Signature _____

Pay by phone: 1300 366 191, Fax to: (08) 8340 2506

Post to: Nature Foundation SA Inc PO Box 448, Hindmarsh SA 5007

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