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A vast new reserve in South Australia

Ecologist **Dr Steve Morton** is Vice-President of Bush Heritage and conducted the property assessment of Bon Bon Station

As you drive north from Port Augusta in South Australia, the Stuart Highway takes you across country so wide and spacious that you can almost see the curve of the earth. Travelling on towards Coober Pedy under one of the biggest skies in Australia, you pass through swathes of saltbush and bluebush, and stands of mulga and stately myall trees.

It is remarkable country, and knowing that Bush Heritage will shortly become custodian of a big slice, 215 500 hectares in fact, gives me great pleasure. The big slice is Bon Bon Station.

Everyone who drives to Alice Springs along this highway experiences the vastness of this part of South Australia. I have travelled the road many times while living in the Centre but have not had many opportunities to pull off and explore the surrounding bush. Some months ago my wife and I turned off

the highway between Woomera and Coober Pedy to meet the manager of Bon Bon Station, Paul Blight. We spent an enthralling day with Paul, looking over just a small part of this huge property and assessing its potential as a reserve to add to Bush Heritage's expanding network of protected areas.

Conservation significance

Bon Bon is located between the Great Victoria Desert and the large salt pans of Lake Eyre, Lake Torrens and Lake



Clockwise from top: Sturt's desert pea. Bearded dragon sunbakes at Bon Bon. Sunset over bluebush and flowering senna. PHOTOS: STEVE HEGGIE
Thick-billed grasswren. PHOTO: GRAEME CHAPMAN



Gairdner. It has a number of outstanding natural features including a significant freshwater wetland and three ecosystems that are listed, at the state level, as threatened. Major plant communities that are currently poorly reserved also occur here. In future surveys we also expect to find nationally threatened birds such as the elusive and fascinating chestnut-breasted whiteface, which has a very restricted range, and the thick-billed grasswren, which also occurs on Boolcoomatta Reserve to the east. With luck, the kultarr, a dainty yet fierce little marsupial that prefers bare stony plains, will also be found.

Past management

Paul Blight and his family have owned Bon Bon since 1979 and run it as a sheep station. Although the property is permitted to carry up to 23000 sheep, Paul has managed the land conservatively and currently runs about 11 000 head. As we drove across Bon Bon's enormous expanse, Paul constantly pointed out to

us shrubs and grasses that were once overgrazed and were now regenerating. He is proud of his careful management of the land and delighted that his gradual restoration of the native habitats has been rewarded by Bon Bon's being identified as an area worthy of becoming a Bush Heritage reserve.

Vegetation

The most northerly third of the property consists of stony gibber plains and bands of mulga and other acacias. The southern two-thirds supports a fascinating and ever-changing matrix of habitats. There are stunningly beautiful expanses of pearl bluebush *Maireana sedifolia*, some enclosed by patches of shapely western myall *Acacia papyrocarpa*, which form a broken canopy over the bluebush, and patches where myall, mulga *Acacia aneura* and black oak *Casuarina cristata* grow in varying mixes.

Perhaps the most striking aspect of the property is the widespread presence of the western myall. The species

is regenerating well under Paul's management and he told us that young myall plants were establishing in many vegetation types now that the grazing pressure had been reduced. Throughout the region, where heavy grazing by sheep and rabbits still occurs, this degree of regeneration is worryingly rare.

Myall are among the most handsome and graceful of Australian plants. Their drooping shape is wonderfully symmetrical, and the soft, downy sheen of the outer foliage is set off by the roughness of the shaggy trunk and branches. This species left such a distinct impression on me that I found it easy to imagine Bon Bon becoming known principally for its stands of myall.

Landscape features

Bon Bon has very low relief. The Gosse and Wallabyng ranges, which extend into the property, are just a few tens of metres above the plain. There are only a couple of local drainage systems. One of these drainage lines feeds the remarkable wetland at the centre of the property. When full, Lake Puckridge covers an area of approximately 1400 hectares (eight kilometres by



Clockwise from top: Pied stilts flock to Lake Puckridge after rain. The kultarr, a marsupial expected to be found at Bon Bon. PHOTOS: JIRI LOCHMAN/ LOCHMAN TRANSPARENCIES Threatened mulga *Acacia aneura* woodland. Flowering *Frankenia* sp. PHOTOS: STEVE HEGGIE



four kilometres) and is up to seven metres deep. It fills about once every ten years and retains water for about three years. During our visit, there were only a few birds on the water but Paul showed us photos of the flocks of waders and waterbirds that descended on the lake when it filled after good rain in 2007. Bush Heritage's ecologists will be keen to make the journey to explore it further.

Management

Of course there will be management challenges at Bon Bon. Recently, grazing has been kept to a moderate level but there are areas where erosion will need to be controlled and erosion damage repaired. Fire, though rare in this landscape, can be very damaging to saltbush, mulga and myall if it occurs. Thus fire will need to be carefully managed.

Rabbits are few in number but constant work will be needed to keep their population down. Remarkably, goats

appear to be absent. The purchase of Bon Bon by Bush Heritage will ensure that the recovery begun under the Blights' careful management will continue more rapidly when the property is managed solely for conservation.

Please help us to protect Bon Bon

Protecting Bon Bon Station is very important. With your help we will secure spectacular areas of saltbush and bluebush shrublands that urgently need to be conserved, considering how widely these vegetation types are used for grazing. The rare and threatened plant and animal species that live in these habitats will be protected too.

We will also be securing a major freshwater wetland in a region where it has been more common for salt lakes to be protected. Bon Bon is a massive area of inland Australia (80 kilometres by 25 kilometres) and is soon to be dedicated to saving our native biodiversity. What a significant contribution we will be making to expanding our national reserve system!

I drove away from the Bon Bon homestead feeling deep satisfaction that Bush Heritage's supporters will share in the knowledge that Bon Bon's broad plains, vast spaces and classic arid-zone plants and animals will soon be secured for the future.

Bush Heritage Australia gratefully acknowledges the assistance of both the Australian Government's National Reserve System Program and the South Australian Department for Environment and Heritage in providing support for the purchase of Bon Bon Station.



Clockwise from top: Ephemeral Lake Puckridge at Bon Bon. PHOTO: STEVE HEGGIE Southern hairy-nosed wombat. PHOTO: DAVE WATTS/LOCHMAN TRANSPARENCIES Bomb shelter, as constructed by the government in the 1950s on all properties in the Woomera military zone. PHOTO: STEVE HEGGIE Fruit of the sandalwood. Sandalwood tree. PHOTOS: JIRI LOCHMAN/LOCHMAN TRANSPARENCIES



Solving an erosion problem – the fate of Trapper’s Dam

A success story from Carnarvon Station Reserve Manager **Darren Larcombe**

It is usually years, or even decades, before the results of conservation work can be seen in real improvements on the ground. As reserve managers, we are used to being patient and watching and monitoring the land for years before we see the fruits of our labours. So achieving a major conservation goal at Carnarvon Station Reserve in the space of a few weeks was really inspiring. We resolved a major soil erosion problem and restored the natural flow of water from Gorge Gully to the Channin Creek.

Carnarvon Station Reserve in central Queensland was purchased by Bush Heritage and its supporters in 2001. This 59 000 hectare reserve protects

endangered bluegrass grasslands and formerly unreserved poplar box woodlands. The reserve management plan identified soil erosion caused by historical pastoral activities, a poorly constructed spillway on the main dam, and siting of roads, as one of the key threats to these ecosystems. We began managing soil erosion as soon as we took possession of the reserve. Removing the cattle significantly reduced the grazing pressure, which had been a major contributor to the problem.

Trapper’s Dam in Gorge Gully was a significant problem. Built during the mid-1980s as a stock watering point, it not only held a large volume of water that rightly belonged in the Channin Creek system but also had an incomplete spillway that had caused any overflow of water to cut an erosion scar 22 metres

wide along the drainage line. The scar stretched for 280 metres and ranged in depth from two to ten metres; it was a very big hole! As a conservative estimate, that hole equated to the loss of about 37 000 m³ of soil. With no remedial action, this landscape with its endangered vegetation community would continue to deteriorate as the erosion proceeded to undermine the adjacent alluvial plain. Our goal was to prevent further soil loss and halt the destabilisation of the fringing areas.

Planning for the rehabilitation of the site began in 2005. We commissioned an environmental engineer from the University of Melbourne to do a site survey, and sought the advice of local earth-moving contractors. Getting advice about removing the dam proved difficult. We kept getting the same response:



Clockwise from top: Erosion gully caused by Trapper’s Dam spillway. Soil from the dam wall is used to fill the gully. Bush Heritage ecologist Murray Haseler casts the first handful of native grass seed. Seed harvester cutting seed from the reserve. PHOTOS: DARREN LARCOMBE AND GLEN NORRIS

'You want to do *what?!!*' Far more seemed to be known about building dams than about removing them. A number of options were explored but the best and permanent solution involved breaching the dam wall and returning the water to the creek. That involved moving approximately 100 000 tonnes of earth. The Queensland Government assisted with funding from the Biodiversity Incentives Tender, and the Southwest Natural Resource Management contributed through the Nature Assist Program.

Expert staff and volunteers were recruited and a D8 bulldozer was booked for the month of October 2007. The dam had dried out due to the prolonged drought and we hoped that the parched conditions would continue for just a bit longer. Our National Operations Officer Glen Norris used his dozer skills to remove a 240 metre section of dam wall. He used the soil to fill and repair the eroded spillway and construct new contour banks. Expert volunteer John Hansen then took over and used the remaining soil to reshape the surrounding country. Using the tractor, the reserve staff then cut furrows into the contour banks to prevent further erosion and in preparation for sowing. We spread native grass seed harvested earlier in the season from other areas of the property.

The recent heavy rains were the ultimate test of the success of the project. A torrential 900 mm of rain has fallen on the site in the three months since the work was completed. The old dam site now channels water into Channin Creek, which forms the headwaters of the Warrego River, a major feeder system for



Rain pays dividends at Carnarvon Station Reserve

Following the recent rain, the Carnarvon grasslands are producing a bumper crop of native seed and teeming with invertebrates. As we set out to do the next monitoring round we wondered whether this might produce some interesting animals. It did! So far, our pitfall traps have revealed two new species for the



reserve, the pale field rat and the giant water-holding frog. It's great to see these species making a comeback.

the Murray–Darling catchment. Our newly formed and vegetated contour banks held up under the strain and have significantly lessened the silt load flowing into an already stressed river system.

This has been the first soil conservation project of this type undertaken by Bush Heritage on any of its reserves. It required 620 hours of staff and volunteer time. We extend special thanks to Rob Argent for his technical advice, to Glen Norris for his work on the dozer and for imparting his practical knowledge of earthworks, and to John Hansen for his extraordinary skills in earth-moving. Peter

and Margaret Calder did a wonderful job collecting the grass seed required for the revegetation work, using the grass seed harvester generously donated by the Andyinc Foundation. Finally, 'thank you' to our team of 'chook-feeders' for spending a hot afternoon spreading seed. Without your efforts, the contour banks would have washed away in the first heavy rains.

Now we have a newly constructed native grassland that is green and lush and doing its job of holding the soil and helping to further stabilise this once-degraded area.



Clockwise from top: Giant water-holding frog. Pale field rat. PHOTOS: SANDY WALTERS Our new native grassland on the old dam site. Early stages of regeneration. Bush Heritage staff and volunteers spreading seed. PHOTOS: DARREN LARCOMBE



Anchors in the Landscape – three years of achievements

Bush Heritage CEO Doug Humann reports that what Bush Heritage has achieved with funds raised through the Anchors in the Landscape fundraising campaign will have far-reaching consequences for conservation

In just three years the Anchors in the Landscape campaign has raised over \$22.4 million from philanthropic donors and governments. This exceeds our initial target of \$20 million. What a fantastic response from our supporters! Thank you to all our donors, volunteers, supporters and stakeholders for their support and trust, and for giving so generously to make the first stage of the campaign such a resounding success.

The campaign was established in 2005 to fund the first stage of Bush Heritage's ambitious plan: to protect by 2025 one per cent (over 7 million hectares) of Australia's land and water that is of greatest importance for protecting our biodiversity.*

What has been achieved?

The campaign has enabled us to buy and protect over 376 000 hectares of

land and water and has also supported extensive management projects across Bush Heritage's five priority regions. It has allowed us to build the internal capacity of Bush Heritage to manage this additional land and to sustain the growing organisation.

Eleven new reserves were acquired during Stage 1 of the campaign, almost doubling the area of land under Bush Heritage protection to over 720 000 hectares. The recent acquisition of Bon Bon Station has now brought this total to over 936 000 hectares. Bush Heritage reserves now protect more than 225 vegetation communities, including at least 75 that are listed as being of high conservation value. Over 2700 plant species, including at least 250 of conservation significance, and at least 530 animal species, including 194 that are known to be threatened, are now safeguarded on the reserves.

In addition, numerous conservation partnerships with other landholders, conservation groups and Indigenous groups have been developed throughout

Australia as part of our 'Beyond the Boundaries' program.

And now for Stage 2

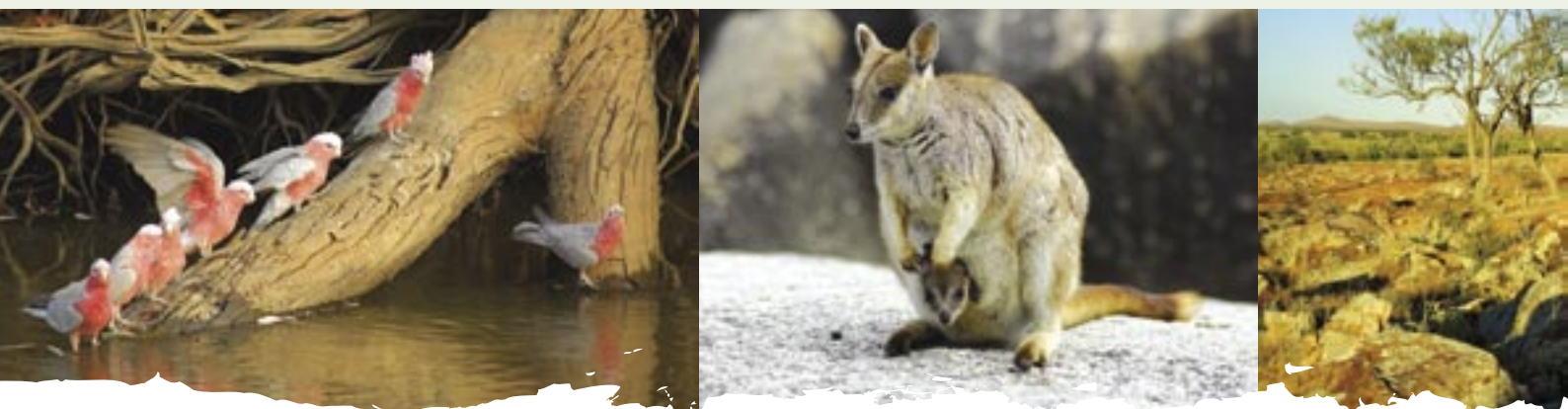
By 2011, Bush Heritage plans to acquire a further one million hectares (more than the entire area acquired since it began in 1991).

As part of the Beyond the Boundaries program, we also plan to help other land-owners to manage at least a further 750 000 hectares.

We are excited by what can be achieved and look forward to working with you again, and engaging new support across Australia and beyond, to achieve the next stage in our vision.

If you would like more information about the next phase of the campaign, please contact Lea-Anne Bradley on lbradley@bushheritage.org.au

*According to a report to the Prime Minister's Science, Engineering and Innovation Council, if we want to protect 80 per cent of Australia's ecosystems then we need to secure another 22 million hectares in reserves. That's another three per cent of Australia's landmass.



Clockwise from top: Nardoo Hills reserves, Vic. PHOTO: JAMES COWIE Gorge Creek Spring, Yourka Reserve, Qld. PHOTO: WAYNE LAWLER/ECOPIX Carpet of wildflowers, Eurardy Reserve, WA. PHOTO: JULIAN FENNESSEY Looking towards Olary Spur, Boolcoomatta Reserve, SA. Mareeba rock wallabies are found at Yourka Reserve, Qld. Galahs come in to drink at Oonartra Waterhole, Boolcoomatta Reserve, SA. PHOTOS: WAYNE LAWLER/ECOPIX

From the CEO

It is because of you, our supporters and partners, that we are well on track to reaching our target of owning, and/or helping to conserve, one per cent of Australia by 2025. We have a big job ahead of us. But with your help we are making rapid progress.

Our most recent acquisition of Bon Bon Station contributes significantly to meeting this target (see pages 1 to 3 for more). It also demonstrates that, with your support, we have the capacity to continue to secure outstanding areas of land and water in strategic locations around Australia.

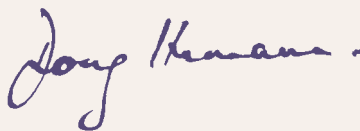
The Australian Government's National Reserve System Program and the South Australian Government have provided tremendous support for Bon Bon, jointly contributing \$3.194 million towards our \$4.6 million target. We welcome these partnerships and hope to build on them further, but your support remains critical. Please continue your financial contributions, as you are the collective powerhouse of this organisation and enable us not only to buy more land for conservation, but also to care for that land for the long term.

Setting up and establishing a new reserve like Bon Bon requires substantial funds. We have a responsibility to provide a safe and comfortable environment for our staff, volunteers and visitors. There are capital costs for infrastructure and equipment, operating costs, which are particularly high in the early years as we tackle the major management issues of pest species and fire, and endowment costs as we set aside funds to underpin the long-term management of each new

property. In addition, as we move to running our business more sustainably, there are other costs. For example, replacing a diesel generator with a new solar power system costs thousands but will save us money over time and reduce our carbon footprint. We could not do this without your help.

You will be encouraged to know that our partnership program is gathering momentum, particularly when it comes to working with Indigenous Australians. Throughout Australia we are now working with many different Aboriginal groups and supporting their efforts to look after their land. We'll provide you with further reports on these developments during the year.

Remember, the Bush Heritage website is a great place to find more information about our activities. You may like to encourage your friends to explore it also. Go to www.bushheritage.org.au



Doug Humann

In memory

Viv Donovan donated in loving memory of her friend **Margaret Grose**, Marjorie Au remembered **Sunny Lane Au**, and Marion Osborne gave for her sister **Irene Claire Harrison**, her brother **Stanley Graham Harrison** and his wife **Daffodil Ruby Harrison**. Judith Roach remembered her brother **Keith William Scott Roach**, 'a well-known and respected Australian bush enthusiast'. Peter Human, together with family and friends, honoured **Rachel Human**, 'a special woman who was a lover of the bush, a conservationist and an exponent of the simple life'. Peter

also donated for his friend of 60 years **Patricia Jackson**, who contributed selflessly for the environment.

Debra Lynne Doenges, 'a photographer and true lover of the bush', was honoured by a friend. Helen Cooke remembered **David La Broog**, and Mrs Sefton her aunt **Elsie Louisa Green**.

Patricia Gallaher gave for her late husband **Ken**, and Jenny Deyzel donated for 'two dear friends' **Mary Bain** and **Barry Edwards**. Penelope Gullan and Peter Cranston remembered Peter's father **John**, 'who developed a love of the Australian bush during two visits in the 1990s'.

In celebration

The 75th birthday of **Jim Houston** and the 20th anniversary of his ordination as an Anglican minister were honoured by his friends. Barry Wilson celebrated the 80th birthdays of **Peter and Christine Fensham**, and David Wardlaw-Kelly the birthday of **Judy Wardlaw**. Friends have honoured the birthdays of **Vicki Waters** and **Graham Fry** with donations to Bush Heritage.

Family and friends celebrated the weddings of **Claire Larter** and **Jeremy Warwick Lloyd** and **Kathy Haskard**, and **Morweena Hodges** and **Jamie MacGillivray**. **Robyn Puckeridge** donates regularly for her grandson **Michael Little** in lieu of birthday and Christmas gifts. Bush Heritage received many other generous donations, particularly over the internet, given in lieu of presents over the Christmas period.

Bush Heritage would like to say a special 'thank you' to **Polly (6)** and **Lucy (3)**, who collected money for Bush Heritage, in their beautifully decorated yoghurt container, from the customers at the RedBeard bakery in Trentham, Victoria.

If you would like to make a gift to Bush Heritage to celebrate a special occasion, visit www.bushheritage.org.au or call 1300 628 873.



Wiry honeymyrtle *Melaleuca nematophylla* at Eurardy Reserve, WA. PHOTO: JULIAN FENNESSEY

