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# Blooming marvellous – 20 years of private conservation

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Bush Heritage is celebrating the release of scientific data summarising its conservation successes over two decades.



#### Credit: Annette Ruzicka

It may surprise many of us to learn the extent of land protected for conservation in Australia. Approximately 12 per cent of the continent – 98 million hectares – is reserved national parks and indigenous lands, privately protected habitat on farms, and land-holdings run by non-profit conservation organisations.

Bush Heritage purchases properties and manages them for conservation on a non-profit basis. Since 1990, when Senator Bob Brown put the down payment on what was to become the first property in the Liffey Valley in Tasmania, the organisation has gradually contributed 947 000 hectares to Australia's protected areas<sup>2</sup>. It has a target of an additional 5.9 million hectares over the next 15 years.

Monitoring programs that measure conservation outcomes for vegetation and wildlife are part of the Bush Heritage model. The recently released report, *Their Future in Our Hands*, presents some of the successes from 20 years of conservation action by Bush Heritage. It also documents the partnerships that Bush Heritage is developing with indigenous land managers, such as the Wunumbal and Gaambera people, who hold native title over parts of the Kimberley that include 350 000 ha of declared Indigenous Protected Area.

The story told by the report is particularly good for bird species. Fifty per cent of Australia's native bird species (more than 400), and 12 per cent of those nationally threatened, are found on Bush Heritage's reserves.



Credit: Peter Morris

Dr Jim Radford, the organisation's Science and Monitoring Manager, says this is especially evident at Boolcoomatta reserve, a 63 000-hectare former sheep station in South Australia's arid rangelands, purchased in 2006.

'In only three years, we were seeing really dramatic increases in many of the small shrubland-dependent bird species,' he says. 'The important thing at Boolcoomatta is that these improvements were seen before the rains came. So, it was a really good indicator that removing the stock was allowing that recovery.'

Outgoing CEO, Mr Doug Humann, has run Bush Heritage for the past 15 years. For him, big improvements in reserve biodiversity from simple measures such as stock removal and control of feral animals (mostly foxes and cats) are now a familiar outcome.

'The recovery of native flora after stock removal is not surprising to me, particularly where stocking levels have been high, and particularly in arid lands/semi arid lands and rangelands where the soil structure is so affected by livestock and introduced herbivores,' he says. 'And, now that I've seen it repeatedly on a number of properties, nor is it surprising to see a return in many of the shrubland birds.'



Credit: Annette Ruzicka

The report also holds good news for the protection of native plant and mammal species. Bush Heritage reserves are home to 25 per cent of Australian native plant species. On the Nardoo Hills Reserve in southern Victoria, these include

the robust greenhood orchid, listed as nationally extinct and not seen since 1941. In their new partnership with the Wunumbal–Gaambera Corporation, Bush Heritage has assisted in the development of a Healthy Country Plan, which guides rangers in their daily tasks managing an Indigenous Protected Area in a remote region of the Kimberley that is home to 102 plant species found nowhere else on Earth.

Members of 124 mammal species are now protected on Bush Heritage reserves, including 14 per cent of nationally listed threatened mammals. Among them is the yellow-footed rock wallaby – sighted at Boolcoomatta – and the grey-bellied dunnart, a tiny carnivorous marsupial, which has returned to revegetated sites at Chereninup Creek Reserve in south-west Western Australia, 430 kilometres south-east of Perth.



Credit: Annette Ruzicka

### **Finding the hotspots**

Bush Heritage selects target properties by tapping into government-funded science on priority conservation areas. It aims to complement the existing Australian government reserve planning framework, the National Reserve System (NRS). This divides Australia up into 85 bioregions (IBRA bioregions), each a large, geographically distinct area of similar climate, geology, landform, vegetation and animal communities. The Wet Tropics and the Nullarbor Plain are examples of IBRA bioregions.

The NRS aims for 10 per cent of the land mass of each IBRA bioregion to be protected, across all vegetation types. Bush Heritage criteria also consider the IBRA bioregions, but first look for the major vegetation groups that have less than 15 per cent of their total area in the bioregion protected in the NRS system. State-based priorities are then considered: for example, whether the vegetation community is listed as threatened under state legislation. Significant historical clearing of a particular vegetation type is factored in, such as is the case for 'grassy woodland' in south-east Australia.

Dr Radford explains that there are many other ways in which private conservation organisations such as Bush Heritage can complement government led conservation.

'We can garner support and resources through various philanthropic means and foundations that might not be available to governments, and we can use that to leverage the support we do get from the government through the NRS system, enabling us to build a larger reserve system overall.

'Sometimes we can gain access to land that may not be available to governments purely because the landholder may have a beef with government, or not like the idea of selling to government. And, we can often act more nimbly and be a bit more responsive, if there's an immediate threat to secure high-conservation value land. But, that's predicated on having the research in place to know that this is a block of land that is important to protect.'

Employed ecologists and other conservation professionals, as well as a vital team of dedicated volunteers, all help Bush Heritage assess properties, and design and manage its conservation programs.



Credit: Peter Morris.jpg

### Partnering for improved science

Professor Hugh Possingham – a supporter of Bush Heritage as a private donor – is also Director of the Australian Research Council Centre of Excellence for Environmental Decisions at the University of Queensland, where his group works on decision support systems for conservation. He would like to see Bush Heritage improve the scientific authority of its results by including control sites in its monitoring programs. This could be through setting aside areas of reserves where conservation measures (such as stock removal and feral animal control) are not carried out, or conducting parallel monitoring on neighbouring properties not managed for conservation.

'If you don't have that control data, then technically what you've done is not scientifically valid,' says Prof. Possingham. 'Despite that technicality, the good-news stories are likely, given improvements in the vegetation conditions.'

Mr Humann acknowledges that this is a good point, and one that Bush Heritage's conservation scientific advisory committee, board and management level have given a lot of thought to.

'The fact is, we can't impose equivalent monitoring regimes on neighbouring properties without their consent and cooperation, and that is something we are working towards,' he says. 'For example, as part of our partnership with the North Australian Pastoral Company in western Queensland, we have established monitoring sites on pastoral properties adjoining our reserves there.'

A similar Bush Heritage monitoring project on Charles Darwin Reserve in Western Australia is recording reptiles and small mammals in sites with and without fox control.



Credit: Annette Ruzicka

'We have very good relationships with adjoining landholders,' says Mr Humann. 'The nature of our work is to develop partnerships and collaborations with them, so that we can begin to gather this sort of information.'

Before joining Bush Heritage in 2008, Dr Radford was a research academic. 'I enjoyed research, but I didn't feel that I was making enough of a contribution,' he admits. 'When I began working for Bush Heritage, I really started to feel that I was making a tangible difference.' If Bush Heritage achieves its long-term goal of protecting 7.7 million hectares by 2025 – that's one per cent of Australia – it will certainly have made a tangible difference to national biodiversity protection.

# Key Bush Heritage successes

- 1. 947 500 hectares of biodiverse land saved from clearing, logging, grazing or mining
- 2. 550 000 hectares of poorly protected vegetation saved from clearing
- 3. Threats reduced for more than 4700 plant species
- 4. More than 830 mammal, bird, reptile and frog species have higher levels of protection
- 5. 73 threatened animal species and 92 threatened plant species face a reduced risk of extinction
- 6. 14 per cent of all of nationally threatened native mammals are less threatened by extinction
- 7. 50 per cent of Australian birds protected in Bush Heritage reserves.



 $1 See \ http://www.environment.gov.au/parks/nrs/about/index.html$ 

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