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Wildlife-rich jewel saved from the bulldozers

Charlotte Francis tells of Bush Heritage's new acquisition in the west.

When Gondwana Link Coordinator Keith Bradby first visited Monjebup North in south-west Western Australia, there was a bulldozer sitting in the middle of a block of bushland. 'A few hundred hectares of valuable sand heath had already been cleared,' says Keith. 'Luckily the bulldozer had broken down, which prevented further clearing taking place.'

Now, thanks to the generosity of our partner The Nature Conservancy and an anonymous donor, Bush Heritage has acquired this wildlife-rich property and will be able to secure its rare and threatened plants and animals for the future. Monjebup North reserve is the sixth property in the visionary Gondwana Link project in Western Australia. A multi-partner initiative, the

aim of Gondwana Link is to conserve, restore and reconnect a 1000 km pathway of native vegetation stretching from the far south-west of Western Australia to the edge of the Nullarbor.

The acquisition of Monjebup North Reserve marks the successful completion of several years of planning and negotiations. The property is prized not only for its high conservation values, but also for its location in the heart of the Fitz-Stirling region (the area between the Stirling Range and the Fitzgerald National Parks). Comprising 1107 ha in total, the reserve is made up of 435 ha of cleared farmland and 672 ha of bushland.

The reserve provides an essential ecological link between Bush



Above: The malleefowl nest found at Monjebup North. PHOTOS: JIRI LOCHMAN.

Heritage's existing Monjebup Reserve to the south and Corackerup Public Nature Reserve to the north. 'With this final acquisition all these bits, together with properties held by other Gondwana Link groups, bolt together to create a large rectangle of healthy bush,' says Keith Bradby.

Working with the former owner in a gradual phase-out of the current lease, Bush Heritage plans to restore the reserve's 435 ha of cleared farmland over the next three years by revegetating with a mix of locally sourced native seed.

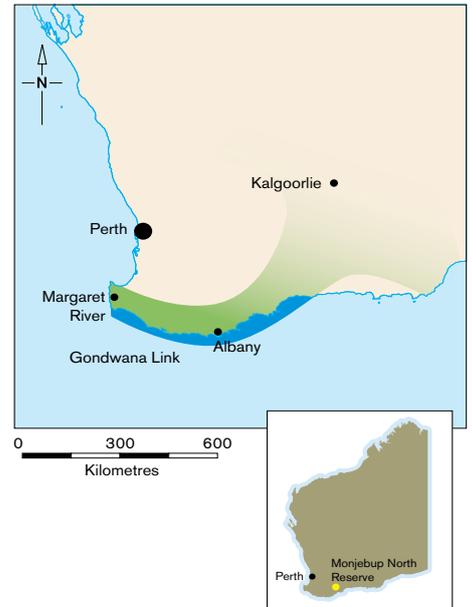
Monjebup North Reserve represents a significant milestone in Bush Heritage's overall goals of restoring ecological integrity in the Fitz-Stirling region. ▶



Left: Mallee woodland.
PHOTO: MARIE LOCHMAN.

Right: Monjebup North is part of the visionary Gondwana Link project, which aims to reconnect fragmented patches of bush in south-west Western Australia.

Below, top to bottom: MaMoort (*Eucalyptus platypus*). PHOTO: MARIE LOCHMAN. Yate swamp undergrowth. Bushy yate (*Eucalyptus lehmannii*). PHOTOS: JIRI LOCHMAN.



'One of the best ways to prepare the landscape to withstand the impacts of climate change is to re-link isolated patches of bush and replant the cleared areas with native vegetation,' explains Bush Heritage Ecologist Angela Sanders. Threatened species that will benefit from habitat restoration work include Carnaby's black cockatoo, the western whipbird and the tamar wallaby.

So far over 8800 ha of land have been brought into conservation management and approximately 1500 ha have been successfully revegetated in the Fitz-Stirling area. At nearby Chereninup Creek Reserve, for example, mallee-feeding birds such as the purple-gaped honeyeater and the southern scrub robin are returning, along with increased numbers of honey possums and pygmy possums.

The on-ground management activities at Monjebup North will focus on the six conservation targets identified in Gondwana Link's Fitz-Stirling region management plan. Five of these occur on the property: creek systems; proteaceous-rich (heath type) communities; mallet and moort woodlands; yate trees; and tamar and black-gloved wallabies. Survey and monitoring work along Monjebup North Creek will look at the health of the creek lines and establish whether freshwater communities – the sixth conservation target – occur here.

Bush Heritage's Gondwana Link Landscape Manager Simon Smale explains how, in collaboration with

other partners such as Greening Australia and neighbouring landowners, the management of Monjebup North will be integrated with that of the other Bush Heritage and partner properties. The initial focus will be on updating the fire management plan and controlling foxes, cats and rabbits. Another priority will be to reduce the spread of phytophthora, a dieback disease that poses a serious threat to heath communities (such as banksia, dryandra, grevillea and hakea) that are a vital food source for native fauna and invertebrates.

Monitoring sites will be set up within the target conservation areas across the reserve to measure the effectiveness of land management activities. 'We will be looking at changes in vegetation, bird and other animal populations,' explains Angela Sanders. 'For example, we will gauge the success of the feral animal control program by monitoring populations of black-gloved and tamar wallabies.'

Initial surveys of parts of the reserve have revealed some rare finds, including an endangered orchid, a eucalypt found only within a 12 km radius, a malleefowl nest on a low cliff line, and a black-gloved wallaby.

'It's amazing that we've discovered so many wildlife species and plant communities in such a limited time' says Angela Sanders. 'We plan to undertake more detailed survey work in the future and it augurs well for exciting discoveries.' ■

We would like to acknowledge The Nature Conservancy and The Nature Conservancy's David Thomas Challenge for their generous support of this work.





Left to right: Salt lake, Charles Darwin Reserve. A cluster of Major Mitchell cockatoos. Regent parrot. PHOTOS: DALE FULLER.

The beating of wings on Charles Darwin Reserve

Ecological Outcomes Monitoring Coordinator, Jim Radford, looks back over the first four years of bird monitoring on Charles Darwin Reserve to reveal some interesting trends.

The unique location of Charles Darwin Reserve, at the junction of two major botanical provinces, is responsible for the extraordinary diversity of plants found there. This diversity of plants and landscapes means that it also supports an abundance of birdlife. More than 100 bird species have been recorded so far. Several of these are threatened – such as the iconic malleefowl and Major Mitchell cockatoo – and many others are of conservation concern, including the Australian bustard, regent parrot, rufous treecreeper and white-browed babbler.

Bush Heritage purchased the reserve in 2003 and we have been monitoring bird populations each spring since 2005, as part of our long-term Ecological Outcomes Monitoring (EOM) program. There are now more than 80 permanent monitoring sites that are representative of the underlying variation in geology, soil type and topography. This monitoring effort, conducted with the help of Bush Heritage supporters and volunteers, provides powerful indicators of ecosystem health and is starting to pay dividends: several interesting trends are emerging that will inform future management.

Trends in species richness and abundance

We detected a 25 per cent increase in total species richness (about two

additional species per site) and a 45 per cent increase in total abundance per site from 2005 to 2006 and 2007. However, both indicators had receded back to 2005 levels by 2008. This pattern was observed for most groups of birds except nectar-feeding birds, which remained high in 2008.

Interpreting these patterns is challenging. The initial increases (2005 to 2007) may be a result of removing stock and controlling feral animals (especially goats), leading to increased plant growth and availability of food resources such as insects, nectar, seeds and fruit. However, this appears to be only part of the story and does not explain the dip in 2008.

Rainfall is a key influence on wildlife, and there is often a lag between good rainfall and increases in bird populations. Rainfall at Charles Darwin Reserve was about average between 2004 and 2006, well below average in 2007 and slightly above average in 2008. The increases detected between 2005 and 2007 were probably a result of our changed land management regimes. However, the decline in many bird groups in 2008 may be a legacy of the very dry conditions in 2007, when breeding success would have been very low and some species may have sought better conditions elsewhere.

Why didn't the nectar-feeding birds also decrease in 2008? Many nectar-feeding birds are highly mobile nomads that traverse the landscape in search of the best feeding patches. Their continued abundance in 2007–08 suggests that,

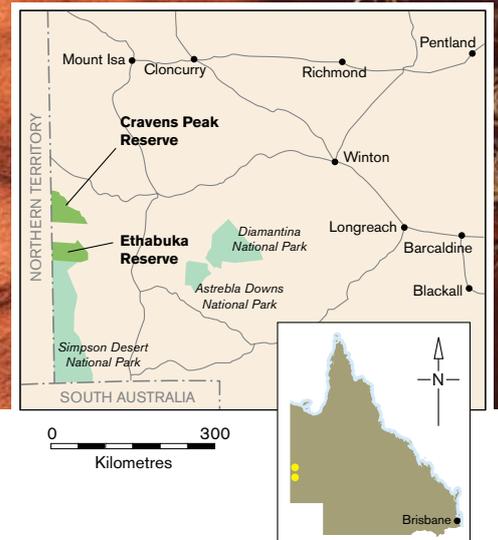
while conditions may have deteriorated, the reserve still contained some of the best feeding areas in the region and was a refuge for birds during stressful times. This demonstrates the importance of considering ecological changes on our reserves within a broader landscape context because species will move around the landscape in response to variations in resource availability. What happens on our reserves will be a product of our management but also of what's happening elsewhere in the region.

The future

Understanding ecological systems and their response to management takes time and patience. The variation in the bird data shows the importance of annual monitoring and taking a long-term perspective so as not to become overly pessimistic or optimistic about year-to-year changes in particular species. Real change may take decades to become apparent. After four years of monitoring, we are starting to build a picture of the 'background' variation due to rainfall and wider landscape factors, against which longer-term change can be compared. As we continue to collect data, we will be able to examine the influence of fire history, grazing management, feral herbivore control and other management interventions on the bird community, and integrate the results of monitoring into the management review process on Charles Darwin Reserve. ■

Bush Heritage's Ecological Outcomes Monitoring program is generously supported by the Macquarie Group Foundation.

Exploring Cravens Peak Reserve



Bush Heritage Visitation Coordinator **Eve Jani** describes the visual, educational and culinary delights of a three-day guided tour of Cravens Peak Reserve in western Queensland.

The engines of our 4WD vehicles roared to life at 8.30am on Saturday 2 August 2009; the convoy snaked away from the reserve's homestead. Destination: Plum Pudding, our base camp for the next two nights.

Not far beyond the homestead gates, Reserve Managers Mark and Nella Lithgow, stopped to identify a natural revegetation site where a fence had been removed.

Our convoy continued north along the McDonald Track, travelling past Gay's Dune, named for Gay Bell whose generous bequest allowed Bush Heritage to secure Cravens Peak Reserve in October 2005. We had explored scats and tracks in the rippled dune and enjoyed sunset drinks here the night before, when John Deer and I – both Visitation Coordinators based in Melbourne – and Mark and Nella, had introduced ourselves to the twelve guests who had travelled from as far away as Mt

Waverley in Victoria and Beachmere in Queensland.

For the next 30 km we travelled through swales, each with their own unique vegetation type, varying from bloodwood, grevillea, hakea, cassia and coolibah to spinifex and even the rarely seen pituri shrub. We drove over sandy red dunes, some up to 10 m high, which form part of the northern edge of the Simpson Desert. Once at Plum Pudding campground, we pitched our tents and instructed the group on etiquette for the 'loo with a view': take the yellow flag in to denote 'occupied' and return it to the post to denote 'vacant'.

On our drive out to the east from Plum Pudding, we stopped at Ocean Bore. The Reserve Managers explained that this working bore supplied water for fire management and herbicide use; meanwhile, we observed a group of zebra finches taking it in turns to keep watch over their mates who drank from

the bore while paying close attention to the group of large strangers looming around their waterhole.

Back at camp we sat around a gidgeewood fire, birdwatching with a sunset drink in hand, as the sky progressed through orange, pink and blue to a stellar night sky. After a camp-oven lamb roast beside the fire, we retired early to bed after our long first day.

On the second morning, the drive to S-bend Gorge took us to the reserve's north-east boundary. We could see evidence of cattle on the other side of the fence, of the ground cover displaying signs of trampling. In the valley of S-bend Gorge, fruit and billy tea were provided to fuel our ascent to view the panoramic vista from the escarpment, with the Mulligan River meandering through the valley below.

As we scrambled through the rocky gorge, Mark pointed out a dingo den and mentioned the findings of a decade-long



Ethabuka Ecological Survey Trek

A procession of camels, red desert sand as far as the eye can see, ecologists hard at work – and you. Australian Desert Expeditions has six places available for intrepid, science-minded travellers who want to experience first-hand, an ecological expedition to Bush Heritage's Ethabuka Reserve in the Simpson Desert. Expeditioners will take part in field research, assisting ecologist Max Tischler and other leading scientists to

gather information on the diverse range of animal species that call Ethabuka home. If you have a keen interest in the workings of a scientific and ecological survey, and you're ready for a challenge, contact Australian Desert Expeditions at www.desertexpeditions.org

Ethabuka Ecological Survey Trek
Dates: 7–22 June 2010 Price: \$5390
including transfers to/from Brisbane



Julia Rau leads the way. PHOTO: ANDREW HARPER.

study of Cravens Peak and Ethabuka Reserve by Professor Chris Dickman's University of Sydney research team (aka the 'rat catchers'). They found evidence of a correlation between an increase in the populations of dingos and of small animals, indicating that, by preying on foxes and cats, dingos contribute to the survival of small marsupials such as the hairy-footed dunnart and the mulgara.

After a restful couple of hours exploring the gorge individually at our own pace, we headed back to base camp, stopping en route to view an erosion site. In the early 1990s, after a heavy, 24-hour downpour, an entire dune was cut in half by run-off from the gibber plain – a tangible reminder of the extremes of weather that can be experienced in Australia's arid zone. Again our day ended around the fire, feasting on camp-oven beef stew with couscous, followed by chocolate baked banana with custard, while guests took it in turn to tell jokes or entertain with some good old Australian bush poetry.

The third and final day of the tour began with packing up camp and heading north towards the Toko and Toomba

Ranges. The convoy meandered over rough gibber plains and through sandy creek beds before arriving at Salty Bore escarpment. Guests could either get a lift in the 'troopy' (troop carrier) or stretch their legs with a steep 50 m climb. Everyone agreed that the extraordinary view from the top was well worth the effort, highlighting again the diversity of landscape on Cravens Peak Reserve.

Our final night back at the homestead ended with a formal dinner (well, as formal as you get in the outback!) and an art auction of plant and landscape sketches completed during the tour, generously donated by two of the guests, the Safstroms. We enjoyed bidding for a keepsake of our trip and knowing the profits would go towards camping equipment on the reserve for future tours. Although a diverse group of people, a bond had formed between us over the last four days, established through our shared experiences and an increased knowledge of what we are helping to protect on Cravens Peak Reserve. ■



Left to right: Enjoying sunset drinks. 'Eco' billy tea with the Lithgows. Zebra finches. Dune driving. PHOTOS: EVE JANI.
Above, left to right: Scats and tracks in Gay's Dune. PHOTO: EVE JANI.

Guided Tours

Why not join one of our guided tours?

JUNE

Reserve: *Cravens Peak Reserve, Qld*

Date: Wed 9–Sun 13

Format: Accommodation in the reserve homestead on first and last nights; other nights camping. Breakfasts and dinners provided. 4WD convoy tour over high sand dunes with short walks through tracks and over rocky terrain. **Requirements:** A medium level of fitness; strictly high-clearance 4WD to reserve, BYO lunches and camping equipment. **Nearest town:** Boulia, 124 km **No. of places:** 13 **Cost:** \$750 supporters/\$850 non-supporters

AUGUST

Reserve: *Bon Bon Station Reserve, SA*

Date: Fri 20 – Mon 23

Format: Share accommodation provided or option to camp near homestead. Breakfasts and dinners provided. 4WD convoy tour through challenging terrain with occasional short walks. **Requirements:** A medium level of fitness; strictly high-clearance 4WD to reserve, BYO lunches (and camping equipment if you chose to camp). **Nearest town:** Glendambo, 100 km **No. of places:** 10 **Cost:** \$730 supporters/\$830 non-supporters

SEPTEMBER

Reserve: *Nardoo Hills reserves, Vic.*

Date: Saturday 25

Format: Morning tea on arrival and walking tour (some uneven ground) with Reserve Manager. 2WD access to reserve. **Requirements:** A medium level of fitness is required. BYO lunch. **Nearest town:** Wedderburn, 12 km **No. of places:** 25 **Cost:** \$30 supporters/\$40 non-supporters

For a full list of guided tours for 2010 and information about other forms of visitation, refer to our website, www.bushheritage.org.au/getting_involved_visit.

Please note that bookings are essential for all visits to our reserves. To book your place on any of the tours listed above, please contact us on 1300 NATURE (1300 628 873) or email visits@bushheritage.org.au



Above, left to right: Fire workshop at Kabulwarnamyo: Wardekker rangers work with scientists to research how traditional fire practices can reduce carbon emissions. Wardekker, Djelk and Wanga Djakamirr rangers and other stakeholders gathered to discuss strategic regional weed management. PHOTOS: LYNDALL MCLEAN

Working together for Conservation on Country

The Wardekker traditional lands in the Northern Territory have recently been declared an Indigenous Protected Area. Indigenous Programs Officer **Emma Ignjic** explains Bush Heritage's involvement.

As part of our Conservation on Country program, Bush Heritage works in partnership with the Wardekker people of the West Arnhem Plateau, which borders Kakadu National Park in the Northern Territory. The partnership started three years ago when Bush Heritage, along with WWF-Australia, provided support to produce a conservation management plan – a vital part of the process for declaring an Indigenous Protected Area (IPA).

IPA status provides a way for Wardekker people to protect their traditional country and conserve high-value conservation lands as part of the National Reserve System. It also provides ongoing funding for land management employment opportunities which delivers tangible improvements in the health and wellbeing of Indigenous communities. However, additional funding and resources are required to enable Wardekker people to leverage other opportunities to care for their country and communities. Bush Heritage has supported the development of effective, sustainable governance mechanisms for the management of both Wardekker IPA and the adjacent Djelk IPA, as well as the establishment of a legal framework and endowment

fund so supporters can help to finance future conservation actions.

The Arnhem Plateau is a massive sandstone escarpment, deeply carved with rugged gorges. This magnificent bioregion encompasses diverse ecological communities such as distinctive sandstone rainforests, mixed eucalypt woodlands and floristically rich sandstone heathlands. The plateau is highly significant for numerous nationally and locally listed threatened species including the bustard, northern quoll, black wallaroo, the Arnhem Land rock-rat and Oenpelli python. Many species here occur nowhere else in the world, including 172 plant species, three birds, twelve reptiles, five mammals, three fish, two frogs and many invertebrates.

For millennia this abundant landscape has been the home country of the Wardekker traditional owners (Bininj Kunwok clans who collectively refer to themselves as the Stone Country people). The health and rich biodiversity of the area has been shaped, maintained and cared for through ongoing traditional land management practices.

Aboriginal people dispersed from their country following the Second World War and now the Arnhem Plateau bioregion is facing a number of significant threats, including altered fire regimes (more

frequent, extensive hot fires), increased numbers and distribution of feral animals (principally pigs and buffalo) and the spread of weeds (giant sensitive plant, mission grass and gamba grass), which have invaded vast areas of eucalypt open forest, greatly increasing fuel loads and leading to more destructive fires.

In September last year Bush Heritage congratulated the Wardekker people on the declaration of their country as the Wardekker IPA. Along with the neighbouring Djelk IPA, this substantial protected area encompasses more than two million hectares of Aboriginal land, an area marginally bigger than both Nitmiluk and Kakadu National Parks combined.

This is an opportunity for management to be driven by the Indigenous custodians, as part of the process of reoccupying the Arnhem Plateau and re-establishing land management regimes informed by their ecological knowledge and cultural imperatives, along with contemporary Western science. A high level of consultation and cooperation between all sectors of the community will achieve the protection and effective management of this outstandingly diverse and rich region. ■

From the CEO

The acquisition of Monjebup North Reserve in Western Australia, announced in this newsletter, completes an important landscape link in the Gondwana Link project and brings to 32 the number of reserves owned by Bush Heritage nationally.

This is Bush Heritage's first acquisition in over twelve months, following consolidation in the face of the global financial crisis. With your help we have withstood the uncertainties of that period and strengthened Bush Heritage's staffing and processes. Bush Heritage now owns and manages almost 1 million ha of land and, through various partnership agreements, supports the management of a further 2.5 million ha for nature conservation. Currently we are doing the groundwork for further strategic acquisitions and for the development of key partnerships which will be rolled out over coming months.

The Gondwana Link project and the acquisition of Monjebup North are a good illustration of the way in which Bush Heritage works. Every property Bush Heritage becomes involved with is significant in its own right for the plants and animals, or communities, that it protects. Each forms part of a broader picture in a landscape context. Each property is connected to a range of partnerships that contribute to more effective management, both for the reserve itself and, we hope, for the broader landscape. And particular properties also contribute in individual ways: a number of recently acquired reserves are helping to build resilience in the face of climate change. Monjebup North, for example, is part of a connected landscape across more than 32 km of south-western Australia which will afford increased protection for species as diverse and important as the carpet python, black-gloved and tamar wallabies and honey possum.

No Bush Heritage reserve or partnership can exist without the financial assistance that you, our regular supporters, provide. This enables our professional staff, working with volunteers and partners, to identify, assess, acquire and then manage properties – for the long term. This is no easy task, as it involves considering how these areas can best be managed for the next 100 years or more while also dealing with the immediate land-management issues. Over summer our reserves have experienced the extremes of fire and flood, but reserve management staff and volunteers have again come up trumps. If you have access to the internet you can read more about this online.

Thank you for your continuing support of Bush Heritage as we move towards our 2025 vision of owning or managing 1 per cent of Australia.



Doug Humann, CEO



Left to right: A scaly visitor (the long-snouted lashtail), Eurardy Reserve, WA. PHOTO: ELIZABETH LESCHIED. Honey possum. PHOTO: JIRI LOCHMAN

In memoriam

Many family and friends of **Nicola Loffler** donated in her memory; she was a passionate defender of the environment. Merrill Brandenburg donated in memory of **Clive Davis** of Corinda.

Friends and family made gifts in memory of **Mark Lyons**, a keen bushwalker and avid conservationist. Jenny Whyte donated in memory of her dear friend, **Pat Newton**, who was 'a great companion on many camping trips'.

Bill and Gaye Austin donated in memory of **Janet Milton** for the preservation of the Australian bush. Andrew Mulcahy gave a gift in honour of the life of **Denis Callan**,

and Robert and Patricia Perry gave in memory of **Mervyn Perry**.

Helen Simpson made a donation in memory of **Norma Bartlett** on behalf of the Deepdene Scottish Country Dance Group, of which Norma was a member and former president. Norma and her family were keen conservation supporters. Family and friends of **Fay Frances McDougall** donated in her memory.

Samantha Knight donated in memory of **Margaret Harmer**, Warren Hobbs donated in memory of **Margery Isabel Hobbs**, Stephen Wootton gave in memory of **Peter Le Grand**, and Jackie Lee donated in memory of **Frank Lee**.

In celebration

Tristan Blakers donated in honour of **Andrew Blakers** and **Heather Neilson**. Andrew Johnson made a donation for **Kinara Johnson's** birthday 'to help save the Tasmanian devils'.

Tracey Palmer made a gift in the name of **Phill Matson**. Family of **Clive Huxtable** donated on his behalf.

Loris Quantock gave in honour of **Paul Ibbetson**, and Margaret Carlton made a gift in the name of **Ben Carlton**. Natalie Whong and Lee McMichael both gave gifts in honour of their colleagues.

