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The next reserve: A biodiversity 'Hot Spot'

Granite hills, creek valleys, sand plains, natural salt lakes, a profusion of wildflowers, threatened wildlife and plants. These may be protected soon in the next Bush Heritage Reserve.

Southwest Western Australia is listed as one of the world's 25 biodiversity 'hot spots'*. The region is renowned for its remarkable vegetation communities, where vivid displays of bizarre plants bring visitors from around the world. With over 5,400 known plant species and new species still being discovered, it is like nothing else on earth.

Tragically, only about 10% of the original vegetation remains in this southwest agricultural region, and it is a priority for protection. Further land clearing for agricultural and residential development, damage by feral animals



and lack of fire management still threaten many of these remnants.

Bush Heritage and its supporters have a wonderful opportunity to protect a part of this unique and internationally important ecosystem. With invaluable help from colleagues in Western Australia, Bush Heritage has recently assessed over 20 properties for potential acquisition. Four have been short-listed and a new Bush Heritage Reserve is imminent, but it is people like you that

will make this a reality -- with some exciting and unexpected assistance.

With negotiations underway, a special donor has committed a substantial sum for a purchase in the Southwest. This is not an outright gift but a pledge to match dollar for dollar the donations from Bush Heritage supporters. What a wonderful way to make your donation even more effective. What ever you can give, Bush Heritage will receive double that amount.

Let's not waste this wonderfully generous offer and the opportunities that it presents. Please join this new, exciting and innovative partnership, and we'll protect another outstanding example of Australia's remarkable natural heritage.

* biodiversity 'hot spots' are internationally recognized areas of exceptionally high species richness and endemism identified by the US-based Conservation International. Southwest Western Australia also features in the World Wide Fund for Nature's Global 200 Ecoregions and Birdlife International's 'Important Bird Areas'





Common name: Austral Cornflower

Scientific name: *Stemmacantha australis*

Conservation status:

National: Vulnerable

Queensland: Vulnerable

The austral cornflower was once widespread throughout the grasslands of eastern Australia. It is now extinct in Victoria and New South Wales as a result of intensive grazing and cultivation. In Queensland its occurrence on roadside strips has maintained viable populations outside pastoral areas.

The austral cornflower occurs on Carnarvon Station Reserve and has been found close to the homestead on areas which have been lightly grazed. With further surveys, we expect to find the species in the black soil bluegrass communities.

The ability of the species to increase rapidly after fire and to recover after the removal of stock, where grazing has been light to moderate, will aid its reestablishment at Carnarvon Station Reserve.

Managing Carnarvon's grasslands

Joss Bentley is currently preparing the Carnarvon Station Reserve Management Plan

The purchase of Carnarvon Station in central Queensland, with its endangered bluegrass (*Dichantheum sericeum*) communities and other grasslands, presents Bush Heritage with the challenge of managing these important natural resources.

Grassland management as a science is still developing, but we know that the species composition and structure of grassland is easily changed by different management techniques. Such changes also affect the animals and birds which depend on it.

Choosing the management actions which will ensure that Carnarvon's grasslands maintain the greatest biodiversity, while key species are protected, is not straightforward. For example, the existing bluegrass downs, which are of such high conservation value, are a rich mixture of grasses and smaller herbs and forbs. Although we wish to encourage the healthy growth of all these species, the survival of the understorey plants depends upon the management of the dominant grasses. If the grasses are allowed to form a dense and moribund sward, the species beneath will not survive. Many of the small understorey plants have conservation significance themselves as well as being an important food source for wildlife.

Preventing the grasses from completely dominating the ecosystem may be achieved by the use of grazing or fire. Both of these management tools need to be used carefully however, as they can have both beneficial and detrimental effects and can change the composition

of the grassland. Over-grazing may result in the loss of understorey species such as the threatened austral cornflower *Stemmacantha australis* (see Species Update). Such species are highly palatable to stock and may be preferentially eaten. Similarly, some plants, such as those found in the endangered vine scrubs, may be eliminated by fire if the fire escapes from the grasslands into these scrubs. Furthermore, if burning is either too frequent or not frequent enough species may be lost.

Yassom Flora and Fauna Reserve and Terrick Terrick National Park in Victoria, provide interesting examples of how management actions can modify native grassland.

Before being declared reserves, both properties grazed sheep on "unimproved" native pastures. Terrick Terrick was grazed at low to moderate stocking rates and Yassom was grazed heavily at times. A balance between stock, vegetation and wildlife had been established over more than 100 years and the properties supported an abundance of rare and threatened species. The nationally endangered plains-wanderer was one of them. This small bird lives only in sparse native grasslands where bare ground between plants enables it to forage for insects and seeds and run from danger.



From the CEO

The events in the USA on 11 September and subsequent developments have had a profound effect on most of us. In the days following, I made a personal decision not to travel as planned to the USA where I had been invited by The Nature Conservancy to attend a Global Leadership Summit. However, we are continuing to develop our relationships with TNC and other partners. I do have a steely resolve to ensure that our gains for the natural world provide a positive perspective for people of this generation as we all work for a more certain future for the next generation.

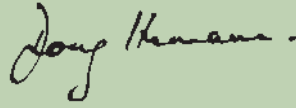
Your support for Bush Heritage has not wavered. Thank you and a special thanks to those who have already responded to our request to join the Friends of the Bush and become regular monthly donors.

We are in for another exciting year. Bush Heritage has been pursuing land acquisition opportunities across the length and breadth of the country with personnel in the Northern Territory, New South Wales, Queensland and Western Australia providing information to assist our search. Bedding down the management on Carnarvon Station Reserve and improving our conservation management generally are high priorities. The appointment of Stuart Cowell to a newly created position as Conservation Programs Manager increases our capacity in these important areas.

At the end of October, the Bush Heritage Annual General Meeting coincided with a Board meeting in Hobart. The Annual Report for 2000-01 was tabled and a proposal for a new constitution considered. Information on both is available from the Hobart Office.

My pre-election meetings with all the major political parties indicated that, whatever the outcome of the Federal Election, there will be a conducive climate for our work to continue. Interesting opportunities are before us and I look forward to reporting on them over the next year.

In the meantime, Seasons Greeting to you all. Please continue to support our vital work, in whatever way, and in whatever capacity, you can.



P.S. We have enclosed a Christmas gift card. It is a great way of giving a meaningful gift to a friend, and the environment.

Karen Alexander leaves the Board



The recent October Board meeting was touched with some sadness as Karen Alexander attended for the final time as a member of the

Board. Her influence on the organisation has been profound. In the early years, Karen was seen as someone who could take Bush Heritage to a new level. As President, a position she held for four years, she guided the Board into the role of strategic governance rather than daily management, and so the organisation grew with its eye firmly on the big picture. Throughout these structural changes her skills as a communicator brought together the variety of views towards the common goal.

For the five years that Karen served on the Board of Bush Heritage the organisation expanded rapidly but always on a sound footing. Reserves increased from four to thirteen and staff from two to twelve. She leaves now with Bush Heritage a dynamic, effective and visionary organisation, directed and staffed by skilled, prudent and experienced people. The Board, staff and supporters thank her and wish her well.

Managing Carnarvon's grasslands (cont'd)

When the reserves were established, stock was removed completely from Yassom Flora and Fauna Reserve, but not from Terrick Terrick National Park. Within four years, the thickening vegetation had eliminated the plains-wanderers and crowded out some threatened plants at Yassom. Low stocking densities have been maintained at Terrick Terrick and so have plains-wanderers, threatened plants and threatened reptiles.

Both these case studies are relevant to Carnarvon Station Reserve, where our aim is to maintain high levels of diversity within the grasslands, while protecting individual species of high conservation value. Cattle have been on Carnarvon for many years now, and have been an integral part of the ecosystem. Although Bush Heritage had intended to maintain grazing by cattle, we have recently decided to manage the grassland biodiversity primarily through the use of fire. To this end we have developed a fire management plan for the Reserve.



Nevertheless, given the current state of knowledge, management will necessarily be partly by trial and error, hence the absolute necessity of a thorough and rigorous monitoring program, the results of which will feed back into our management programs. This raises the possibility that at some point in the future, our monitoring results may suggest that the reintroduction of low intensity grazing may be appropriate. We will keep you informed as the work continues and share our progress in protecting Carnarvon's grassland biodiversity.

Bush Heritage reserve selection criteria

Joss Bentley heads the Reserve Management Unit and is involved in the selection of Bush Heritage land purchases.

The criteria that Bush Heritage uses for assessing and prioritising land for purchase are enshrined in Bush Heritage's Land Acquisition Policy. A copy of this policy is available on Bush Heritage's website (www.bushheritage.org). In summary, this policy states that Bush Heritage will seek to purchase land that:

- contributes to the survival of a high diversity of species or communities, or of rare and threatened species and communities, or the natural processes that maintain them



- has acceptable management costs which Bush Heritage can meet
- complements other conservation initiatives; such as enhancing the survival of a species or community which is poorly reserved or where the land may contribute to the long term viability of another protected area.

There is a high degree of agreement between Bush Heritage's Land Acquisition Policy and the principles suggested by Rod Fensham (see Our future reserves). Aesthetics are not used as an assessment criterion, while the degree of threat, as well as biodiversity values and reservation status, are



- is threatened, and will not otherwise be protected
- will result in a reserve that is viable and robust, ensuring that the values for which the land was purchased can be protected in the long term

considered. Not all properties that Bush Heritage buys will have the outstanding aesthetic qualities of properties such as Carnarvon Station, but they will be vitally important for the protection of Australia's biodiversity.

Volunteer Rangers Program, Carnarvon Station Reserve

Enjoy the magnificent scenery of the remote Carnarvon Station Reserve while working to protect this wonderful natural asset.

Have you got a month or more to spare? As a volunteer ranger you are provided with a vehicle, accommodation and training, if necessary, and then you manage your own conservation/management project. Current projects include building, renovations, fencing and weed control projects.



Contact Nathan Males for details, ph 03 6223 2670 or nmales@bushheritage.asn.au

The Australian Bush Heritage Fund Annual Report for 2000-01 is now available from the Bush Heritage National Office (ph 03 6223 2670).

Our future reserves

Rod Fensham is Principal Botanist at the Queensland Herbarium, and is a supporter, adviser and regular volunteer scientist for Bush Heritage.

The acquisitions of the Australian Bush Heritage Fund should be directed to where they can make the biggest improvement to the status of Australian biodiversity. Precisely how this can be most efficiently achieved is worthy of a brief analysis, particularly as the readers of this newsletter are those that make such acquisitions possible.

The key principle is that Bush Heritage activities should be directed to acquisition and subsequent management which will alleviate some real threat and protect our poorly conserved landscapes with their distinct biodiversity. The most widely acknowledged threat to biodiversity is direct habitat destruction as a result of vegetation clearance for agriculture. Thus, the purchase of land that is under imminent threat from habitat clearance is one obvious target. Vegetation clearance is not the only threatening process as introduced predators, weeds and over-grazing have had a massive toll on our biodiversity.



The second principle for reserve selection may be that the area has biodiversity values that are not already protected by the existing network of Australian reserves. This is a fundamental goal but to my mind needs to be also considered in relation to the degree of threat. In terms of plants, many of the most diverse ecosystems are under no particular threat. The world heritage areas of western Tasmania and the wet tropics of Queensland (except the coastal lowlands and the Atherton Tableland) are examples of landscapes that are already well protected. The sandstone landscapes of eastern Australia, rich with the floral icons we know and love, are not as well protected by reservation but are too infertile to attract development.

The appreciation of the Australian bush for most donors probably comes through bush walking in National Parks. The places that made a big impression on me and probably other donors are full of breath-taking scenery. There may be a temptation for Bush Heritage to reinforce these preconceived notions of protected areas. However, the reality is that many of the most threatened landscapes that provide habitat for our most endangered wildlife are not that sexy or charismatic to our mind's eye.

The last stronghold of the northern hairy-nosed wombat is a small remnant of poplar box woodland in flat “cattle country”. Here it rains sufficiently rarely to appear dry and dusty most of the time, but not rarely enough to have the aesthetically stunning bare earth tones of our arid lands. When I take visitors for a tour of these landscapes they are usually disappointed. It just does not seem to excite the psychological nerves that many of us have inherited from our European ancestry or our bushwalking youth. Of course, when you get to know these landscapes they are very diverse (although it may be a plethora of grasses rather than banksias) and they vary in subtle ways. It is the harmony of composition in any area of bush that is the essence of true beauty.

Bush Heritage should select its reserves with our increasingly threatened biodiversity in mind. Inevitably this will mean that there may be acquisitions unable to be advertised with glossy photos of waterfalls and rugged ranges, but that is because Bush Heritage would be doing the job with which it has been entrusted.



Special donations

Janice Marshall gave a donation to Bush Heritage to “celebrate her first grandchild, **Ruby**, daughter of Cress and Ali, knowing that with such environmentally aware parents Ruby will surely grow up to appreciate and benefit from the work of the Australian Bush Heritage Fund”.

Robert Love has given in memory of **Daria Love** who loved everything to do with the Australian bush and Robin Sevenoaks gave in memory of her parents, **Jack and Isabel Sevenoaks**, “who first gave me a love of the bush and of organic veggie gardening - with love and thanks”.

Virginia Duigan gave in memory of those **Australians who died on 11 September 2001** in New York and Pennsylvania.

Thanks

Our special thanks to the **Friends School** in Hobart for their generous donation raised from a plain clothes day at school and to all those people who have so generously offered equipment and furniture to Carnarvon Station Reserve following our request in the last newsletter.

Special trek to Nepal

World Expeditions is offering a 21-day Nepal trek exclusively to Bush Heritage supporters. As a way of supporting our work, World Expeditions are offering the trip at cost price – only \$3,820 – with \$600 of this amount going to Bush Heritage as a donation. Airfares are included and the low price does not mean any reduction in service. The trip departs on the 16 November 2002 and returns 4 December 2002, and includes ten days trekking, three days at Chitwan National Park, and a balance of village life, forests and mountains. The itinerary and more details are available from World Expeditions in Melbourne (ph 1300 720 000), from Bush Heritage (ph 03 6223 2670) or our website at www.bushheritage.org and follow the links from the home page. Bookings to World Expeditions only.

If you ever dreamed of trekking in Nepal here is the opportunity of a lifetime, to go with an experienced and reputable company, at minimal cost while you are making a valuable donation to support Bush Heritage.



New staff member

Stuart Cowell has recently joined Bush Heritage as the Manager, Conservation Programs. Stuart worked previously as a Research Scientist with CSIRO Sustainable Ecosystems in Townsville, focussing on issues of integration in natural resource planning and management. He has worked across the Top End, on the Great Barrier Reef and in Tasmania. He has extensive experience working with Aboriginal people and organisations, having worked with the Carpentaria Land Council, the Goolburri Land Council (relevant to Carnarvon Station Reserve) and the Indigenous Land Council. He is experienced in natural resource management issues applicable to our current and future activities. Stuart will be moving to Hobart with his partner Louise and young daughter, Ashleigh.



buying back
the bush

Return to: **Australian Bush Heritage Fund, Reply Paid 101, Hobart TAS 7001**

Freecall: 1800 677 101 Fax: (03) 6223 2680 Email: info@bushheritage.asn.au Website: www.bushheritage.org

Office address: 2 Kelly Street Battery Point TAS 7004 Phone: (03) 6223 2670

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