

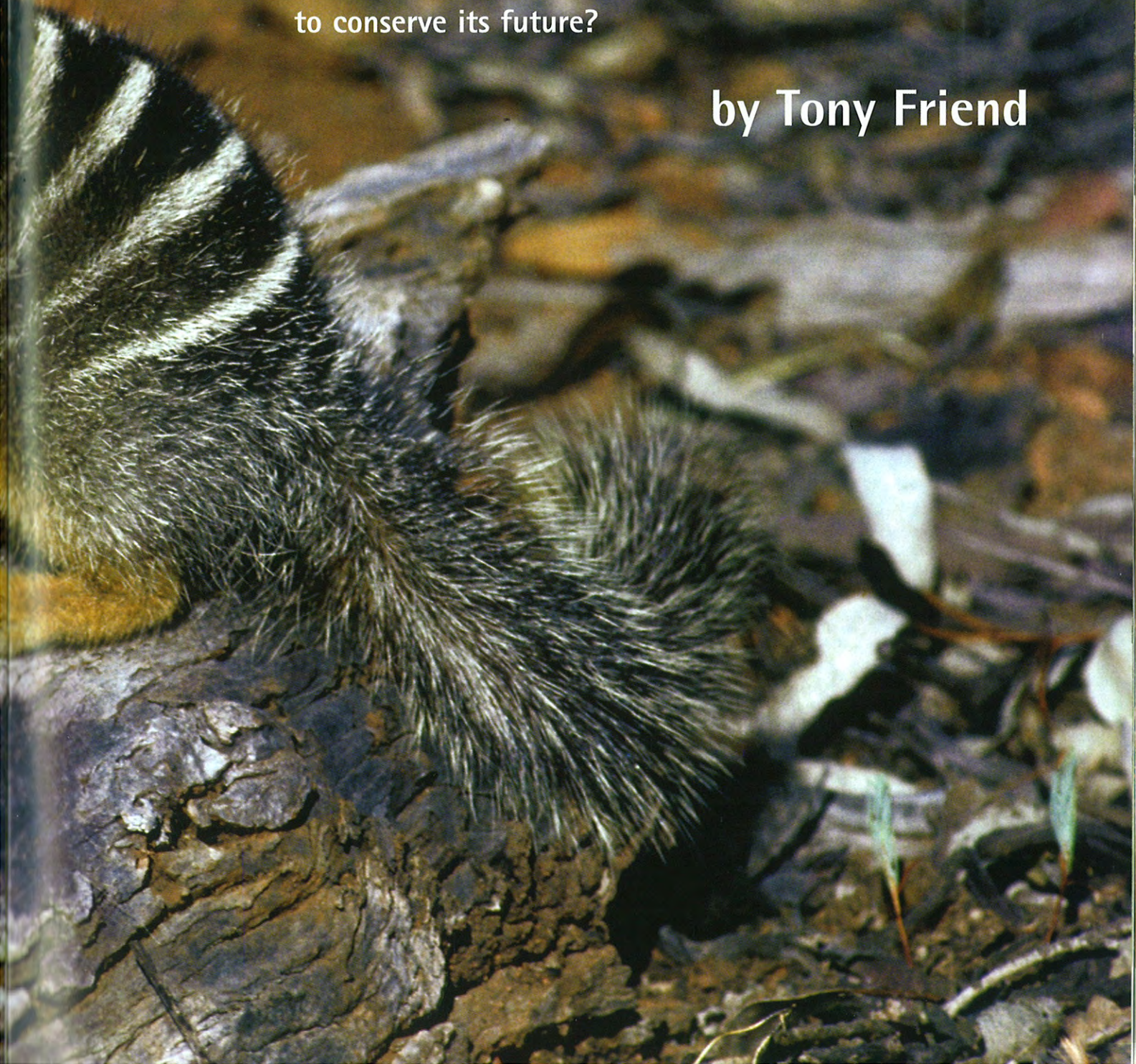


The numbat

back by popular appeal

Western Australia's State animal emblem has teetered on the brink of extinction and experienced population ups and downs ever since. But what is the status of this iconic native marsupial today and what is being done to conserve its future?

by Tony Friend



In the early 1980s, one of the world's most beautiful animals almost became extinct. By 1985, only two tiny populations of numbats (*Myrmecobius fasciatus*) remained on the entire planet. An animal that had been found right across southern Australia, from inland New South Wales to the west coast of the continent, had dwindled to about 300 individuals in the far south-western corner of its range. Its demise followed the spread of the introduced European red fox across the continent, from its point of introduction in southern Victoria. The small termite-eating marsupial had disappeared from South Australian mallee country, from the red dunes of central Australia and from most of the rich Western Australian farming belt, where more than 90 per cent of the bush had been cleared.

A species in decline

There had been many warnings of the imminent extinction of this little animal. Naturalist and collector Gerard Krefft had trouble finding a specimen of the numbat in his year



camped near the confluence of the great Murray and Darling rivers in 1857. Hedley Finlayson documented the rapid decline of the numbat and numerous other small marsupials in the north-west of South Australia and adjacent areas between 1933 and 1950. He related these declines to the spread of the red fox.

In the 1940s, natural history author Charles Barrett, writing about the southern agricultural area around Kojonup, predicted it would not be long before the numbat joined the long list of casualties of European settlement. There was a brief revival of medium-sized marsupials in the south-west in the 1950s, following

the reduction in fox numbers due to the high use of 1080 poison to control rabbits. However, in the 1970s, following the successful introduction of myxomatosis, poison-baiting to control rabbits became unnecessary, fox numbers rose, and once again marsupial numbers plummeted.

Numbats have always been in the public eye. The colourful appearance of this small animal, combined with its daytime activity, led to a high awareness of its presence in the south-western farming regions it frequented. In 1935, Eva Wills, a resident of the Brookton area, became the first person to document the nesting burrow of the numbat. In the late 1950s, when CSIRO wildlife researcher Dr John Calaby set out to compile all available information on the numbat in the south-west, he gleaned many anecdotal records from local residents. Added to collection data from specimens in the Western Australian Museum, he was able to build up a comprehensive picture of the numbat's decline and persistence.

Calaby's factual account of numbats in the south-west, published in 1960 in the Proceedings of the Zoological Society of London, did not include information he gathered from Aboriginal people during his trips to desert areas. He did share some of these experiences with author Jill Morris, however, who constructed a charming children's story, *Rusty the Nimble Numbat*, around his information about the discovery of a numbat in the Everard Ranges in north-western South Australia.

Into the spotlight

The adoption of the numbat as WA's mammal emblem in 1973 was very timely, as its most dramatic



Previous page

Main A juvenile numbat in a watchful pose on a log in Dryandra Woodland.

Photo - Jiri Lochman

Left An adult numbat stands close to a log refuge.

Photo - Sharon Wormleaton



Above In early June, numbat young are still attached but are quite large. They will be deposited in a nest in early August.

Above right Numbat habitat in Tutanning Nature Reserve.

Right A male numbat showing the red stain of the scent-marking gland on the upper chest.

Photos – Sharon Wormleaton



decline followed soon afterwards. This symbolic status must have helped raise awareness of the numbat in the eyes of the public and their political representatives. When numbat numbers crashed in the late 1970s, concern rose within the WA community and calls were made for something to be done. This concern generated a successful recovery program, which led eventually to the establishment of eight new numbat populations spanning the breadth of Australia (see 'Numbats forever', *LANDSCOPE*, Spring 2001).

One of the first actions, in the early 1980s, was to gather current information on numbat distribution by appeals to the public, followed by on-ground surveys, which involved searching for the distinctive diggings made by numbats as they feed on termites in their underground galleries. This campaign generated many recent

sighting reports that were verified by finding numbat diggings but showed that the decline and extinction of numbat populations was still occurring. During the 1980s, numbats became extinct in the northern jarrah forest between the Brookton Highway and Jarrahdale, on the Swan Coastal Plain around Jandakot and in jarrah forest west of Collie. By the mid-1980s, numbats survived only at Dryandra, near Narrogin, and Perup, near Manjimup.

An experiment in fox control carried out at Dryandra using the selective poison 1080 showed that removal of foxes was followed by a steep rise in numbat numbers. The recovering Dryandra population was used to provide numbats for translocation to other areas. Using wild-to-wild translocations, new numbat populations were established at Boyagin Nature Reserve near Brookton and Dragon Rocks Nature Reserve south-east of Hyden. Some numbats were taken into captivity at the Department of Environment and Conservation's (DEC's) Woodvale Research Centre so that breeding methods could be developed. The colony was then transferred to Perth Zoo and captive breeding began to contribute significantly to the recovery effort. Successful reintroductions were carried out, using both wild and captive-bred



numbats, to the Batalling forest block east of Darkan, and Tutanning Nature Reserve near Pingelly. The presence of numbats on display at Perth Zoo from the mid-1980s put numbats in the public spotlight and the development of a new display in the late 1980s, showing these animals in a natural setting, has helped educate Perth residents and visitors about the numbat ever since.

Fifteen Dryandra numbats made the flight to South Australia in 1994 and were released at the fenced Yookamurra Sanctuary, then owned by Earth Sanctuaries Limited. The presence of highly visible numbats at Yookamurra was a great boon for public



Left A young numbat peers from the safety of a hollow stump.

Photo – Sharon Wormleaton

Below left A young feral cat inside a den log, which was surrounded with remains of numbats, goannas and birds, in Dryandra Woodland.

Photo – Karen Rusten/DEC



wildlife habitat, protection of wildlife habitat from the effects of *Phytophthora* dieback and broadscale fox baiting through the *Western Shield* program. The species recovery work, however, had been funded largely by Australian Government grants and the impact of the withdrawal of this funding has been felt already and seems set to continue.

Community steps in

The most exciting recent development in popular support for numbat recovery was the formation of the Perth-based community group 'Project Numbats' in the early 2000s. The 160-member group supports numbat recovery and works to raise public awareness of the numbat and its plight. Through fundraising activities such as running sausage sizzles in schools, selling merchandise with a numbat theme and a wine marketing scheme, the group raises funds, and a significant proportion of these are passed on directly to the recovery program. This money has supported the purchase of radio-collars and the charter of radio-tracking aircraft used to locate wayward numbats. Given the shortage of funds from other sources, this was very timely and funding from Project Numbats has enabled the completion of necessary tasks on several occasions.

The current numbat translocation site under the numbat recovery program and *Western Shield* is Cocanarup Timber Reserve, near Ravensthorpe and adjacent to Fitzgerald River National Park. Numbats from Perth Zoo and Dryandra have been released in the area each December since 2006, breeding has been recorded and one young numbat born in the area has been captured. All signs indicate that

awareness of the species. Many parties of school children visited Yookamurra from nearby Adelaide and had their first encounter with these remarkable animals. A community group 'Save the Numbats' started in South Australia to support the reintroduction of numbats to that state and raise money for radio-collars by selling chocolate numbats and other merchandise.

In the late 1990s, Jill Morris incorporated the story of the numbat research and recovery programs into her new children's book *Numbats Run!* This book illustrates the numbat in its present-day status, providing readers with snippets of information about numbat ecology, other animals that share its habitat, including its predators,

and how the research and recovery programs are going.

Between 1989 and 2009, Australian Government funding became available for numbat recovery through several threatened species funding schemes. Threatened mammals, regarded as iconic species, had been supported well through these grants. Funding schemes changed dramatically in 2009 with the introduction of a new approach by the Australian Government. Single species recovery programs are no longer funded, but landscape-scale initiatives that address threatening processes and aim to improve overall habitat quality are supported. This is an approach that has been employed by DEC for many years, and includes fire management of



Above John Tucker from the Friends of the Fitzgerald River National Park community group and Canadian volunteer Cass Stabler radio track numbats with DEC officer Karen Rusten at Cocanarup Timber Reserve.

Photo – Andy Chapman

the translocation has been successful. The local community group Friends of the Fitzgerald River National Park, have supported the Cocanarup translocation most generously. Their main task is the monthly tracking of each individual numbat, reducing the number of monitoring trips needed from the DEC base in Albany.

Earth Sanctuaries Limited carried out the successful translocations to two fenced sanctuaries, Yookamurra in South Australia and Scotia in New South Wales. These properties were acquired by the Australian Wildlife Conservancy (AWC) in 2003 and their management continues to strongly support the recovery of threatened mammals. The fence at Scotia has been completely upgraded and a second section freed from foxes, cats and rabbits. AWC has recently moved some numbats from the first to the second area. Another numbat translocation

is proposed by the Arid Recovery project, into its fenced area at Roxby Downs in South Australia during the next year or two.

An uncertain future

So how is the numbat faring now and what does the future hold? In 2005, a workshop held as part of the International Union for the Conservation of Nature's Global Mammal Assessment changed the numbat's classification in the Red List of Threatened Species from vulnerable to endangered, despite the increase in populations, based mainly on the uncertain status of the very important Dryandra population. Numbers of numbats at Dryandra fell after the initial rapid increase with fox removal and have not recovered. In fact the numbat sighting rate during the 2009 annual survey was the lowest since 1981, before fox control. It is suspected that feral cats have been favoured by the lack of foxes (see 'Will curiosity kill the cat?', *LANDSCOPE*, Autumn 2007) and certainly evidence of the predation of numbats by cats at Dryandra has increased recently.

While the numbat is actually in a better position through the work of

government agencies, non-government organisations, community groups and individuals, the threat posed by feral cats needs to be addressed urgently. Fenced sanctuaries may have to be used more widely until a solution for the cat problem is found. It is likely that other small to medium-sized native mammals in the south-west are under threat from cats. There is strong support from the community for the recovery of iconic species such as the numbat, woylie (*Bettongia penicillata*) and Gilbert's potoroo (*Potorous gilbertii*). With the extinction of a tiny bat, the Christmas Island pipistrelle (*Pipistrellus murrayi*) in 2009, Australia lost its first native mammal since the last thylacine died (See 'New tools for fighting ferals' on page 24). Let's work together to prevent the loss of any more.

Tony Friend is a principal research scientist with the Department of Environment and Conservation based in Albany, and chair of the Numbat Recovery Team. He can be contacted on (08) 9842 4523 or by email (tony.friend@dec.wa.gov.au).

- 46 Captivating Kalbarri
Take a journey to this remarkable place, which features river and ocean views as well as stunning gorges.
- 54 The ant, the butterfly, the leafhopper and the bulldozer
An amazing story of three species cohabiting in the Wheatbelt.
- 59 Conserving roadside vegetation
Roadside plant communities play an important role in conserving native flora and providing wildlife corridors.

Regulars

- 3 Contributors and Editor's letter
- 15 Bookmarks
The Nature of Ice
Kalbarri
Find that Flower
- 30 Feature park
Porongurup National Park
- 39 Endangered
Meelup granite community
- 62 Urban Antics
Real muppets

Publishing credits

Executive editor Madeleine Clews.

Editors Joanna Moore, Samille Mitchell and Rhianna King.

Scientific/technical advice

Kevin Thiele, Paul Jones, Keith Morris.

Design and production Gooitzen van der Meer, Peter Nicholas and Natalie Jolakoski.

Illustration Gooitzen van der Meer.

Cartography Promaco Geodraft.

Marketing Estelle de San Miguel.

Phone (08) 9334 0296 Fax (08) 9334 0432.

Subscription enquiries

Phone (08) 9334 0481 or (08) 9334 0437.

Prepress and printing GEON, Western Australia.

© ISSN 0815-4465

All material copyright. No part of the contents of the publication may be reproduced without the consent of the publishers.

Please do not send unsolicited material, but feel free to contact the editors.

Published by the Department of Environment and Conservation (DEC), 17 Dick Perry Avenue, Kensington, Western Australia.

Visit DEC online at www.dec.wa.gov.au to search the new *LANDSCOPE* catalogue.



Department of Environment and Conservation

Our environment, our future 