

ROCK-WALLABIES

of Yardie Creek

RESEARCH AND TOURISM GO HAND IN HAND

Soft brown eyes no longer gaze in numbers down the canyons of Cape Range. The inhabitants of the limestone 'fortress' have been plundered by aliens over the last 50 years leaving a small, timid population of the Western black-footed rock-wallabies. Thanks to local tour guides, there is now a key to eradicate the predator and return the sentinels to their platforms high above.

by Jack Kinnear

Neil and Rhonda McGregor, who operate Yardie Creek Tours in the Cape Range National Park, were winners of the Environmental Tourism category in the 1995 Sir David Brand Award for Tourism.

The award not only recognises the McGregors above others in the industry for the service they provide to tourism in the area, it also acknowledges their valuable contribution to the conservation of the environment—a contribution much valued by scientific staff with the Department of Conservation and Land Management (CALM).

For the past five years, the McGregors have been involved in collecting data for a fox-control experiment that had been implemented by Science and Information Division staff at the Woodvale Research Centre, in conjunction with staff from CALM's Environmental Protection Branch and Exmouth District. CALM staff had previously surveyed Cape Range National Park for western black-footed

rock-wallabies (*Petrogale lateralis lateralis*) to estimate their abundance and distribution. What was found was typical; once abundant throughout the entire range, the animals had become restricted to some gorges within the park, and on Ningaloo Station to the south. Moreover, their numbers were few, probably because of predation by foxes.

Seeking to be cost-effective, the next asked question was: 'How often do we have to bait such a large area to control foxes?'

Studies by CALM indicated that two baitings per year might be sufficient to control foxes, thus enabling the rock-wallabies to increase their numbers, and this is where the McGregors have made a vital contribution. They became involved when they were asked to record all rock wallabies sighted during the course of their nature tours along Yardie Creek, and since 1990, they have diligently entered their sightings into a computer database.

When Neil and Rhonda count rock-wallabies during a tour along Yardie Creek Gorge, they're essentially carrying out a line transect, which is a technique employed by ecologists to estimate the abundance, or changes in abundance, of plants or animals.

Thus, if the experimental two-baitings-a-year program has worked according to plan, the McGregors would have recorded more rock-wallabies each year, and this trend would be clearly evident from their database.

With such a large amount of data, there still is a great deal of analysis to be done, but the outcome can be surmised.

There was good news and there was bad news. The good news was that the sightings of rock wallabies had steadily increased for three years following the implementation of twice-yearly baitings. However, from Neil and Rhonda's database, it was clear that the 1994 sightings were down; there was a mini-



A popular tourist destination, Yardie Creek cuts deep into the Cape Range, in the southern part of the National Park.

Photo – Marie Lochman



Left: Fox-baiting in the Cape Range is helping to increase the numbers of western black-footed rock-wallabies.
Photo – Geoff Taylor/Lochman Transparencies

Below left: Tour operators Neil and Rhonda McGregor regularly count rock-wallabies during their boat tours.
Photo – Tony Tapper

Below: Neil McGregor enters the day's count on his home computer.
Photo – Tony Tapper

Bottom: Western black-footed rock-wallabies are a key attraction for visitors to the Cape Range.
Photo – Jiri Lochman

population crash as 30 per cent of the animals seen during 1993 went missing during the tourist off-season. Fortunately, the decline was only temporary, as the trend throughout 1994 and 1995 is upward.

We know the decline was real because of the quality of the data. This is because the line transect along Yardie Creek is so highly replicated—a statistician's dream.

Given the above scenario, what can we conclude about the effectiveness of CALM's twice-yearly baiting experiment? Is it adequate?

The Yardie Creek data, being so extensive, allows scientists to conclude, with certainty, that the population did increase following the introduction of fox control. But what caused the mini-crash of 1993?

Briefly, the evidence suggests that the six-month interval between baitings is too long. This lengthy interval allows foxes to re-invade an area, and provides ample time for them to kill enough rock-

wallabies to reverse previous gains. But this does not happen every year; bouts of predation can happen sporadically, and there is no way to predict when such events will happen. The solution is to increase the baiting frequency to four times a year, thereby removing offending foxes before they do too much damage.

There are good reasons to continue fox baiting in the Cape Range, not only from a conservation viewpoint, but also for economic reasons. A conspicuously abundant population of rock-wallabies contributes to the tourism potential of the Exmouth region.

The tour along a spectacular, picture-postcard gorge is a memorable experience in itself, but even more so when visitors see at close range, infant rock-wallabies peering out of pouches or snuggled up next to proud mothers.

Neil and Rhonda readily concede that the presence of rock-wallabies is one of the key attractions of their tour. It's

good for business to have more rock-wallabies about, and from CALM's viewpoint, its good conservation as well.

This is eco-tourism at its best; an example of a government agency and the private sector having a common interest in promoting the welfare and abundance of wildlife.

Jack Kinnear is a principal research scientist with the Department of Conservation and Land Management's Science and Information Division (Woodvale), and has been carrying out research into the causes of the decline of western black-footed rock-wallabies since 1979.

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Visitors can walk in the treetops along a series of walkways, platforms and stairways at the new Forest Heritage Centre in Dwellingup. (See page 10.)



A major survey of the Carnarvon Basin has recently been completed by staff from CALM, the WA Museum and the University of WA. What did they find? (See page 15.)

LANDSCOPE

VOLUME ELEVEN No. 2 SUMMER ISSUE 1995-96



It was a very good year in the Wildflower State. Find out just how good in our story on page 38.



Australia has its own families of songbirds that are very different from their European namesakes. See 'True Blue Birds' on page 45.



Quokkas were once widespread on WA's mainland, but the most visible populations are now found on just two islands. 'Where Have All the Quokkas Gone?' (See page 49.)

FEATURES

- THE FOREST HERITAGE CENTRE**
TAMMIE REID & MANDY CLEWS 10
- PATTERNS IN NATURE**
ALLAN BURBIDGE & NORM MCKENZIE 15
- LIVING WITH LOGGING**
IAN ABBOTT & PER CHRISTENSEN 21
- SERPENTINE NATIONAL PARK**
DAVID GOUGH, PAUL BROWN,
DAVID LAMONT & WAYNE TAYLOR 28
- ROCK WALLABIES OF YARDIE CREEK**
JACK KINNEAR 36
- THE WILDFLOWER STATE**
NEVILLE MARCHANT 38
- TRUE BLUE BIRDS**
LES CHRISTIDIS & ALLAN BURBIDGE 45
- WHERE HAVE ALL THE QUOKKAS GONE?**
ELIZABETH SINCLAIR & KEITH MORRIS 49

REGULARS

- IN PERSPECTIVE** 4
- BUSH TELEGRAPH** 6
- ENDANGERED McCUTCHEON'S GREVILLEA** 44
- URBAN ANTICS** 54

COVER

Western black-footed rock-wallabies are on the increase in Yardie Creek, thanks to a CALM fox-baiting program. Their numbers are being monitored by local tour operators Neil and Rhonda McGregor. See our story on page 36.

Illustration by Philippa Nikulinsky



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Design and production: Maria Duthie, Sue Marais

Finished art: Gooitzen van der Meer

Illustrations: Gooitzen van der Meer, Philippa Nikulinsky

Cartography: Promaco Geodraft

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Colour Separation by Prepress Services

Printed in Western Australia by Lamb Print

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Published by Dr S Shea, Executive Director
Department of Conservation and Land Management,
50 Hayman Road, Como, Western Australia 6152.