An extraordinary story of a rock-wallaby colony

In the early 1980s, a fortuitous phone call about a colony of black-flanked rock-wallabies living on a Wheatbelt farm led to not only a productive scientific study but also to an, at times, frustrating conservation exercise.

by Natasha Moore and Jack Kinnear

The widespread colonisation of the Western Australian Wheatbelt occurred in three acts: first came the explorers, then the shepherds with their flocks, and then those hardy pioneering families who were tasked by the government of the day with stripping the landscape of its native vegetation to plant crops.

In retrospect, we know that the clearing also robbed native animals of their natural habitats and caused many extinctions. But it now appears that the loss of many native animals may have in fact been inevitable, regardless of the clearing, as the coming of the feral cat and fox would have sealed their fate regardless. One species that managed to survive the clearing—albeit in much reduced numbers—is the black-flanked rock-wallaby (*Petrogale lateralis lateralis*). Indeed, we know the rock-wallaby would have thrived despite the clearing—if there were no foxes. How do we know this? Because of a phone call that set in train a series of events that, even now, is still being played out.

Saga's first act

The phone call in the early 1980s was from the famous Western Australian naturalist Harry Butler, who had heard about a previously unknown population of black-flanked rock-wallabies from a family in the central Wheatbelt. Jack Kinnear and Michael Onus, from the then Department of Fisheries and Wildlife, now the Department of Environment and Conservation (DEC), set off to investigate. On arrival at Querekin, in the Shire of Bruce Rock, they noted an abandoned homestead nestled in a small cul-de-sac of rock outcrop, and a nearby cluster of farm buildings housing the usual array of farm machinery facing a deeply fragmented section of the outcrop. But this scene and circumstances were extraordinary; for alongside this typical farmyard setting lived a population of black-flanked rock-wallabies—a species that is now restricted to small populations in a handful of areas scattered across the state.

Previous page
Main The wallaby colony habitat at Querekin Rock.
Photo – Natasha Moore/DEC
Inset Black-flanked rock-wallaby.
Photo – Simon Cherriman

Left Black-flanked rock-wallaby.
Photo – DEC/WWF

Below The old homestead at Querekin.
Photo – Natasha Moore/DEC

On greeting the owners, Jack and Michael learned that, while carrying out their farm activities, the owners would routinely see as many as 16 rock-wallabies, but the sightings had been gradually declining. On inspection, the owners discovered that a fox had made its den at the base of the outcrop. The owners poisoned the fox, and the rock-wallaby numbers stabilised at eight.

A halcyon era remembered and lost

When they asked the owners about the history of the site, Jack and Michael were referred to Nigel Beaton who was raised on the property. His father had started clearing the property in 1908. Nigel fondly related playing on the rocks with his siblings as a child and counting 100 rock-wallabies on one day alone. During the night Nigel and his family would hear the wallabies hopping along the verandas. If someone forgot to remove the ladder to the hayloft, the rock-wallabies would climb up and get stuck into the hay. Whenever a loaded wagon of bagged wheat passed by, the rock-wallabies would hop on board and feed on any spilled wheat. Moreover, they always seemed to be in good condition. This harmonious situation persisted for about 20 years until a slow decline set in after the introduction of foxes in the 1930s.

When the farm was sold in 1983, it was left unoccupied for several months and, without fox control, it wasn't long before the rock-wallaby population suffered. Indeed, by 1990 the Querekin rock-wallaby population was extinct. Keen on rectifying the situation, new owners at the farm asked the then Department of Conservation

Right DEC devised a feeding device that would help sustain the rock-wallaby population without feeding rabbits as well.

Below Captured on night vision: two black-flanked rock-wallabies use the feeder.
Photos – Natasha Moore/DEC

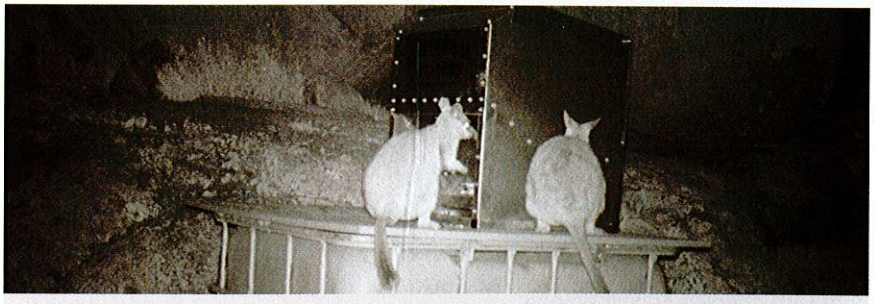
and Land Management (now DEC) to repopulate the site with rock-wallabies, and 10 animals were introduced, with the site routinely baited for foxes. What happened after that was a mixed blessing: from an experimental research viewpoint the results were priceless; from a management perspective the results were an unwelcome distraction producing near intractable dilemmas. Why? The rock-wallaby population exploded and became an absolute pest to the farmers.

Having run out of space on the rock, the rock-wallabies occupied the nearby farm buildings. They trashed the old homestead, devoured the chooks' food and made a general nuisance of themselves. Night was playtime as they climbed over the machinery, leaving their calling card in the form of droppings which contaminated the harvest machinery. A fence was partly erected around the rock, which eliminated the nuisance factor, but the consequences for the rock-wallaby population were disastrous.

Without access to unlimited shelter and agricultural food and water, the wallaby population again plummeted. Some 96 of the wallabies were removed to create new populations at other sites, but the damage had been done. The rock-wallabies had overgrazed the area, leading to an unpalatable weed invasion and consequent starvation. They needed food supplements to help them survive while plans were put in place to have the remaining population translocated. But this too posed problems—how to provide food to rock-wallabies without feeding rabbits and causing a rabbit plague? DEC's Natasha Moore devised a solution—elevate the feeders and exploit the wallabies' spectacular leaping ability. The population is now fit and healthy while it awaits translocation to a more suitable environment.

Lessons learnt

What have we gained over the years from this little saga? Apart from the current untenable situation, we now know that, in the absence of foxes, rock-wallabies thrived for more than 20 years (1908–1930s) in an intimate agricultural setting, despite the clearing that had occurred around it—evidence of their adaptability and resilience to habitat change. We have also been able to create a new population of rock-wallabies genetically augmented by introducing new 'blood' from individuals in other rock-wallaby populations. Increasing the genetic diversity in this way helps increase the likelihood of creating a population with a more robust genetic makeup to cope with future challenges such as climate change. And, most importantly, once translocated, we have a back-up population of rock-wallabies should another population be lost, thus adding to the future viability of the species as a whole.



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Volume 28 Number 3 AUTUMN 2013

contents

46 Bill Wills and the nature of memory

Memories of life on the Nullarbor Plain reveal a once-thriving suite of mammals that has now all but disappeared.

52 Controlling cats: the work continues

Controlling cats to protect our native animals is proving no easy task, so research into baiting programs continues.

59 An extraordinary story of a rock-wallaby colony

A rock-wallaby population clings to life in an unlikely setting.

Regulars

3 Contributors and Editor's letter

15 Bookmarks

The Canoe and Kayak Guide to Western Australia
Biodiversity monitoring in Australia
Guide to the Great Western Woodlands

44 Feature park

Serpentine National Park

31 Endangered

Quindanning spider orchid

62 Urban Antics

Mozzies

Publishing credits

Executive editor Madeleine Clews.

Editors Samille Mitchell, Joanna Moore.

Scientific/technical advice Kevin Thiele, Lachie McCaw, Keith Morris, Michael Rule.

Design and production Gooitzen van der Meer, Lynne Whittle, Peter Nicholas, Natalie Curtis.

Illustration Gooitzen van der Meer.

Cartography Promaco Geodraft.

Marketing Cathy Birch.
Phone (08) 9334 0296 or *fax* (08) 9334 0432.

Subscription enquiries
Phone (08) 9219 8000.

Prepress and printing GEON, Western Australia.

ISSN 0815-4465

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 *LANDSCOPE* catalogue.

Department of
Environment and Conservation