

A rabbit control case study, by Dean Rasheed.

Rabbit and Goat eradication on Arkaba Station 1984-2009

Arkaba Station lies between the Elder Range and Wilpena Pound in the Flinders Ranges, South Australia. It is typical of the country loved by painter Sir Hans Heysen, who described the ranges as 'the bones of nature laid bare'. In the local Adnyamathanha language Arkaba means 'land of abundance'.

My wife Lizzie and I bought the 24,500-hectare (60,000-acre) property in 1984. Moving from a busy life in London to join me at Arkaba was a big step for Lizzie. The lack of internal roads and the rough country made getting around and mustering somewhat adventurous, but Lizzie quickly adapted to station life. She grew up in Norfolk, UK, and could handle both horses and motorbikes confidently.

I had flown over Arkaba many times and knew it was infested with rabbits, but we could see the potential if they could be removed. On the ground, the degradation caused by rabbit and goat infestation was evident and we began control programs in 1985.



Denuded hillsides, typical of pre-rabbit control times, showing where warrens have been ripped.

Image: PIRSA

Myxomatosis was active in the Flinders spasmodically, however it was having less impact than in earlier decades. Ripping warrens using crawler tractors would become our main line of attack. Arkaba was held under a perpetual lease which gave us, and the bank, enough security to warrant the big investment needed for rabbit control.

I purchased our own tractor, which we operated regularly during this period. We also hired contractors with much larger machines as budgets allowed. Fortunately, we were able to use these contractors most years - sometimes for up to a three-month period.

Our first obstacle was the challenging terrain, including the southern wall of Wilpena Pound and the Elder Range to the west. There was considerable effort put into planning the program, especially the movement of machines and the sequence of treating the various paddocks. Aerial surveying helped with the planning as well.

Experienced dozer driver, Spencer McCourt, was always ready to experiment and we improved our techniques over time:

- We designed ripper boots, like a 'winged keel', for use in light soils. In the right conditions, it meant we didn't have to cross-rip, saving half the time.
- We varied the spacing between tines, using narrower set-ups in moister soils.

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Spencer McCourt ripping a rabbit warren. Image: PIRSA

I learned how to manufacture and use explosives, which became invaluable in the most difficult terrain where it was impossible to take a bulldozer. I sometimes used fumigation as well, but it proved difficult and was not as successful as explosives.

Another success factor was using my working dogs as spotters. They became adept at leading a tractor to the next warren. We soon discovered that many rabbits are found outside of warrens and the dogs proved useful in flushing them out.



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Dean Rasheed and warren detector dogs.

We would sometimes rip up to 130 warrens in a single day. Because Arkaba was heavily infested we were, in effect, cultivating many thousands of acres over this period, which greatly enhanced the regeneration process. We were fortunate to have such a wonderful natural seed source on Arkaba.

In some of the treated areas we would contour plough and introduce seed that I purchased from WA. The aim was to reintroduce salt bush into areas where I suspected it once had thrived. These techniques are expensive and we had limited success!!

One of the most significant ingredients for a successful program is the follow-up. Inspecting recently treated areas for possible re-opening of warrens is vital. These openings were easily treated with phostoxin tablets carried on a motorbike.

Goats were another feral pest, especially in the Elder Range, and we removed many thousands of them over the same period as our warren ripping. We mustered on horseback and also used skilled marksmen.

We were surprised how quickly the country responded once rabbits and goats were controlled. Within a few years it was evident that groundcover was greatly improved and we saw all types of native plants reappearing. Of-course weeds can flourish as well and we used short bursts of heavy grazing by wethers to control horehound.

When we took Arkaba over, it ran around 4,000 sheep and the country was in poor condition. After rabbit control, the land was healthier and we ran 7,500 sheep and 200 cattle.



Healthy, productive country following rabbit control.

Our rabbit control led to a reduction in feral cats as well. We stopped seeing tell-tale bird feathers around the troughs.

In 1995, when we were mustering the eastern side of Arkaba and preparing for our September shearing, we began seeing rabbit carcasses and realised that Calicivirus had arrived.

I consider myself to have been fortunate to have had support from Professor Brian Cooke and Nicholas Newland and many other people from government departments during this period. They also helped set up several successful field days on Arkaba that were very well attended.

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The regeneration of many plant species over this period demonstrates how resilient the landscape is. I have a particular fondness for the return of the Bullock Bush or Rosewood (*Alectryon oleifolius*).

The benefits to the environment were clear to see and I like to think that our efforts were instrumental in getting programs like 'Operation Bounceback'* started.

I retired and we sold the majority of Arkaba in 2009, but retained a section that we still care for, planting a variety of different native trees.

Arkaba station is now run as a private nature conservation area in conjunction with luxury tourism. The shift from grazing land to conservation speaks for itself about the success of the management programs we began in 1985.

Dean Rasheed, 2022
Editorial: Peter Day

'Bounceback' is a landscape scale conservation program supported by governments on parks and sanctuaries, Aboriginal-owned land and pastoral properties in the Flinders, Olary and Gawler ranges.

