*Zeus, an Alice Springs Desert Park quoll, inside the release pen*

Charlotte Mills

*PhD student Mel Jensen carrying cage traps for quoll trapping*

Mel Jensen

# Trial Western Quoll release – an update

*Katherine Moseby, Ecological Horizons*

**There have been some interesting developments since 37 Western Quolls were released to the Flinders Ranges National Park in April with the team starting to learn about the quolls habitat, their breeding habits, food preferences, and their biggest threat, the feral cat.**

Since we last reported, the weather has turned cold and wet in the Flinders Ranges and the quolls have gone underground, sheltering in rabbit warrens, rock crevices and holes under tree stumps.

The 37 quolls have been joined by four more quolls – three males and one female – from Alice Springs Desert Park bringing the total to 20 males and 21 females.

The quolls' survival rates and well-being continue to be actively monitored by daily radio tracking a proportion of individuals and regular trapping to assess their condition and breeding status. A plane with wing mounted fixed antennas is used to track quolls from the air once a week.

## Range

Although some quolls moved up to 10 kilometres after release, the majority stayed within a few kilometres of their release site and settled quickly into home ranges.

Females are ranging over a few square kilometres whereas males will travel much further in search of females. Males were released a month after females to encourage them to remain within the release area.

## Pregnancies

During trapping in June and July the team was excited to record its first pouch young with six females now averaging six pouch young each. The pouch young were 17mm long and only a week or so old.

These young will remain in the pouch for around two months and then be deposited in nests where they will be weaned at around 170 days.

## Diet

All captured quolls had maintained or increased in weight since release suggesting food resources are plentiful in the release area, and more than sufficient to support breeding.

Initial diet studies using scats (or poos!) suggest they are feeding on a wide range of food items including house mice, rabbits, carrion, lizards, centipedes, moths and spiders.

More will be learnt about the quolls' food preferences when their scats are collected and analysed under a microscope for animal remains.

**STAY INFORMED**

**To receive a more detailed email update on the quolls' progress send an email to SAAridlands@sa.gov.au with the subject 'Quoll update'.**

## Mortalities

While some mortalities have been recorded – 10 at the time of writing, six females and four males – some deaths were expected as the animals adapt to their new habitat.

Each quoll death provides important feedback to the team on where attention may need to be focussed in the event of a full reintroduction and the extent to which existing land management can support self-sustaining populations.

Bounceback's broadscale fox control has taken foxes out of the picture but, despite targeted control of cats before and during the release, they are proving the biggest threat to the quolls with all but two deaths so far attributed to cat predation (see p.11).

One male quoll fell off a cliff and died due to misadventure while another male died from an injury that may have also been predator-related.

Interestingly, all cat predation deaths have occurred in or near Wilpena Pound while the quolls released several kilometres away on the Wilcolo Track have so far yielded no mortalities; the flat, open ground in the pound may support more rabbits and enable cats to hunt more effectively.

The team remain cautiously optimistic about the project and any decision to proceed with further reintroductions will follow careful evaluation of the trial's success.

*First idnya pouch young recorded*

# Cats and quolls

**Predation by feral cats has been the main cause of mortality since quolls were released into the Flinders Ranges – however some deaths were to be expected and the reintroduction team continues to learn more about interaction between quolls and feral cats.**

In Western Australia, quolls co-exist in fox-free habitats with feral cats, and their natural survival instincts are expected to give the quolls translocated to the Flinders Ranges a fighting chance if and when they encounter cats in the wild.

Prior to the quoll release, intensive trapping and shooting removed 50 feral cats from the release area to give the quolls an opportunity to establish shelters and territories unimpeded from the threat of feral cats.

But, cameras set up around the release site have recorded cats in the vicinity of kill sites suggesting that, as anticipated, new cats have moved into the area.

To date, three cats that are thought to have been responsible for up to six quoll deaths have been trapped or shot, with an additional 10 cats trapped in a monthly trapping program in the Wilpena precinct.

Quoll remains have been found in their stomachs or they have been captured as fresh carcasses and autopsy results and DNA swabs have confirmed cat predation is the cause of death.

So far four different individual cats have been identified as killing quolls; three of these were large male cats over four kilograms in weight and the fourth is yet to be caught.

At present there is no effective broadscale cat control method in Australia and, in contrast to foxes, which readily take poison baits, feral cats are extremely hard to control.

Controlling cats through cage trapping and shooting is very labour intensive and costly; using these control options is only feasible in small areas and will not always be successful.

The team is also trialling the use of Eradicat poison baits but must ensure that these do not impact on the resident quolls.

## THE PARTNERS...

The trial release of 41 quolls to the Flinders Ranges is made possible through South Australia's first public/private environmental partnership. The Foundation for Australia's Most Endangered species (FAME) is leading the drive to raise approximately $1.7 million over a five year period to support the recovery of the species.

Through the 21-year *Bounceback* program, South Australia's Department of Environment, Water and Natural Resources and collaborators have been controlling foxes and goats protecting the habitat in the Flinders Ranges that is needed for the quolls' long term survival.

Thanks to the many volunteers, contractors, donors, land managers and partners of Bounceback and FAME for their support for this project.

**FAME** – the Foundation for Australia's Most Endangered Species – is the only organisation working exclusively to save Australian wildlife from extinction. The reintroduction of the Western Quoll or Idnya to the Flinders Ranges is our largest and most ambitious project to date. It's rare to bring back a species that has been locally extinct for over 100 years. It's even rarer for a wildlife project to happen in the wild, under the protection of one of the most successful feral control programs in the country – *Bounceback*.

We want to prove it's possible, with community support and government cooperation, to bring back wildlife and turn the tide on Australia's dreadful record of mammal extinctions. The return of the Western Quoll can be the first step in the journey to a healthier future for our unique wildlife, and demonstrate that Australia's environment can be improved.

FAME Foundation for Australia's Most Endangered Species Ltd.

**FAME** needs your help to continue this vitally important project and make it the success it deserves to be. If you have already contributed we thank you sincerely. If you are still considering your support please don't wait! These quolls are pioneers and will battle to survive without our help.

**PLEASE SEND YOUR GENEROUS CONTRIBUTION TO FAME'S WESTERN QUOLL PROJECT AS SOON AS YOU CAN.**

**Visit fame.org.au/projects/western-quoll or contact fame@fame.org.au for more information about how you can help.**