Removing rabbits to restore large-scale natural habitat and wildlife

Who's in the team?

University of Tasmania research team

· **Prof Menna Jones** (wildlife ecologist) – project leader
· **Dr Lizzie Wandrag** (plant ecologist) – project leader
· **Dr Jeroen Jansen –** postdoctoral researcher studying cat and quoll movements in relation to the current and past removal of rabbit warrens and the natural connectivity between ranges.
· **Camille Eckel –** PhD student studying soil, seed banks, and vegetation to understand the limits to plant establishment in the semi-arid environment through a lens of restoration.
· Wildlife PhD student – to study the mammals, birds and reptiles to understand the potential and limits to recovery in response to warren removal.

Department for Environment and Water - SA Parks and Wildlife and Bounceback - rabbit and other grazing management

· Rob Brandle (Senior Ecologist)
· Matt Heard (new Bounceback Coordinator) and Geoff Axford (Bounceback Project Officer)
· James Tomlinson (Bounceback Ranger)

SA Arid Lands Landscape Board - extension beyond the park and communications materials

· Jodie Gregg-Smith (General Manager)
· Dr Elisa Sparrow (Senior Community Ecologist)
· Dr Declan Morris (Community Ecologist)
· Alana Anderson (Field Officer)
· Claire McKenry (Community Landscape Officer)

Newsletter update May 2025

Welcome to the first newsletter on restoration research in the Flinders Ranges.

The project goal is to gain further insight into how rabbit warren removal can be used as a conservation tool for the Flinders Ranges and beyond to other landscape types across Australia.

Building on research started in 2013, in the next three years the Australian Research Council Linkage grant will support field research to examine how feral cats and reintroduced western quolls respond to the removal of large patches of rabbit warrens and evaluate the potential and limitations of restoration of plants and soils, and the invertebrate and vertebrate fauna they support.

The study will compare sites across the landscape that includes warren removal that has taken place across a time scale from ripping being done this year, to 30 years ago.

This work will focus on the Ikara-Flinders Ranges National Park and adjacent properties, including Arkaba Conservancy. The team will take these findings to study connectivity and restoration across the Flinders Ranges from Hawker to Vulkathunha-Gammon Ranges National Park and Arkaroola Sanctuary.

Camille Eckel, left, and Dr Jeroen Jansen, right.

We acknowledge the Adnyamathanha traditional owners, Bounceback Program and the Foundation for Australia's Most Endangered Species, who are invaluable supporters.

This project is supported with funding from the Australian Government under the National Environmental Science Program.

What's happening?

The field team started in March, to prepare for warren removal in May. Jeroen put GPS collars on cats and quolls across the park and at Arkaba around the sites to be ripped. Camille is busy doing pre and post-ripping plant surveys and taking soil samples.

Once this urgent work is completed and draft plans for the coming years are in place, we will hold our first workshop by Zoom, likely in August. This will be an opportunity for everyone to contribute ideas and help co-design the project.


Image: Camille Eckel

What's challenging?

How we frame our thinking about the potential for restoration in a seasonally hot and arid environment, that has suffered 200 years of degradation: over-grazing, soil loss, invasive species and a resulting loss of native species?

What are the constraints on and limits to recovery, if soils are degraded and many original fauna and flora species are extinct?


Image:Abbey Dean

What's interesting?

Feral cats roam widely across the Flinders landscape. Jeroen has put eight satellite collars on cats which provide better tracking capability than standard collars. Jeroen receives an email alert each morning with each cat's location.

In the image on the right, Jeroen has plotted one cat collared north of Wilpena Pound travelling more than 74km in a large loop out to Lake Torrens and back across the Pound.

Another cat collared on Arkaba Conservancy south of Wilpena Pound has moved around the Pound and onto the National Park.