

Cats, fire and small mammals on the Tiwi Islands

Project 1.1.12

Animals are disappearing in Northern Australia

Many animals have disappeared from large areas of Northern Australia. Animals that were once widespread, such as possums and bandicoots, now only occur in small areas.

A lot of work has been done to try and figure out what is causing these animals to disappear. People now think that the main reasons are too many hot fires and feral cats.

Finding out what is happening on the Tiwi Islands

Compared to other areas, the animals on the Tiwi Islands seem to be doing well. But we were worried that important animals like possums (wuninga) and bandicoots (kipopi) might also disappear from the Tiwi Islands. So, in 2013, we started a project to learn more about Tiwi animals, and to make sure Tiwi animals remain healthy.

The project involves the Tiwi Land Council and Tiwi Land

Rangers working with researchers from the University of Melbourne and Charles Darwin University. We are also using animal survey information that was collected by the Northern Territory Government in years gone by.

We first wanted to know if there are as many animals on the Tiwi Islands as there used to be. We also wanted to know what things could be done to help Tiwi Island animals.

KEY MESSAGES

Animals are disappearing in Northern Australia.

Some of the animals on the Tiwi Islands are also declining.

There are fewer bandicoots (kipopi), brush-tailed rabbit-rats and black-footed tree-rats (yintumunga).

Possum (wuninga) numbers have stayed the same.

New research is looking at how to help animals on the Tiwi Islands.



Hugh, Jose and Colin with some animal monitoring equipment – a camera trap and a hair tube.



Northern Brown Bandicoot. Photo: Alaric Fisher



Possum. Photo: Hugh Davies



Black-footed tree-rat. Photo: Hayley Geyle



Brush-tailed rabbit-rat. Photo: Hugh Davies

What have animal surveys found?

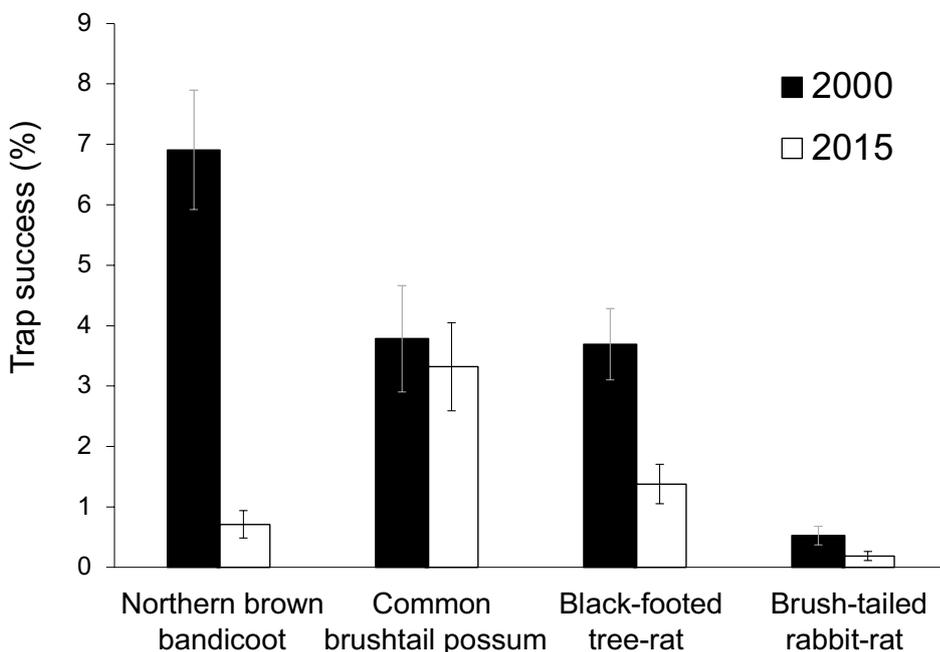
We compared animal surveys that were done in 2000 with surveys done in 2015. We found fewer bandicoots (kipopi), brush-tailed rabbit-rats and black-footed tree-rats (yintumunga), but about the same number of possums (wuninga). This is what the surveys showed:

Bandicoots (Kipopi) - The trapping rate was down by 90%. So for every 10 bandicoots trapped on the islands in 2000, in 2015 we caught only 1.

Brush-tailed rabbit-rats - The trapping rate was down by 64%. So for every 10 brush-tailed rabbit-rats we trapped in 2000, in 2015 we caught about 4.

Black-footed tree-rat (yintumunga) - The trapping rate was down by 63%. So for every 10 black-footed tree-rats we trapped in 2000, in 2015 we caught about 4.

Possums (Wuninga) - numbers have not really changed, which is great news.



Graph 1: Numbers of animals caught in traps in 2000 and 2015. (Trap success means for every 100 hundred traps, how many animals were caught.)

Our work so far suggests that animals might be disappearing from the Tiwi Islands like they have from other areas in northern Australia. If nothing is done, it is possible that animals such as bandicoots, brush-tailed rabbit-rats and black-footed tree-rats could disappear from the Tiwi Islands. If this happens, an important part of Tiwi culture will be lost.



What could be causing the problem?

We now want to know what is causing the declines. We have found that brush-tailed rabbit-rats are not being trapped in areas where there are feral cats, which suggests that cats might be the problem.

Brush-tailed rabbit-rats and black-footed tree-rats have also mainly been found in areas with thicker vegetation, so managing fire to provide more areas with thicker vegetation could also help. The thick vegetation might help because it makes it harder for cats (and other predators) to hunt in these areas.

Researchers from Charles Darwin University are looking at if a lack of tree hollows is a problem for some mammals and if nest boxes can help. This is a nest box from the Cobourg Peninsula that was being used by an endangered black-footed tree-rat and her babies.
Photo: Leigh-Ann Woolley

Cats caught on camera on the Tiwi Islands



Learning more about cats

Feral cats are a big problem for Tiwi animals. But before we can work on the feral cat problem we need to know more about them. Over the next few years we are doing more work to find out:

1. Where are feral cats on the Tiwi Islands?
2. How many feral cats are there?
3. Can we reduce the impact of feral cats by using fire?

We have already started to answer these questions.

Last year we found lots of cats at Pickataramoor, but none at Ranku. This year we will work out how many cats are in other areas of the Tiwi Islands. We will then be looking at fire management to see if a particular way of burning can help protect native animals from cats.

Land Ranger Colin doing early burns.
Photo: TLC



More Information

If you want to talk to someone about the research project you can talk to:

Kate Hadden
08 8944 8416

Willie Rioli
0488 949 809

Hugh Davies
Charles Darwin University
0417 828 202

The research project is being funded by the Threatened Species Recovery Hub of the Australian Government's National Environmental Science Programme and the Norman Wettenhall Foundation. The project partners are the Tiwi Land Council, Tiwi Land Rangers and Charles Darwin University.



Researcher Hugh Davies holding a brush-tailed rabbit-rat.