

Arid Recovery project at Roxby Downs

The Arid Recovery Reserve, located 20kms north of Roxby Downs in South Australia, is based around a 60 square kilometre fenced Reserve from which all rabbits, cats and foxes have been removed.

Four locally extinct native mammal species have been reintroduced into the Reserve to date, and the Reserve is now a base for research into ecosystem recovery and landscape-scale feral species control.

One such research project, led by Katherine Moseby, looked into improving control methods for rabbits around the outside of the Reserve. The Foundation for a Rabbit Free Australia kindly donated funds to assist Arid Recovery to promote the results of this research.

Rabbits were radio-collared in winter and summer and their activity, home range and habitat use was recorded. The results have now been written up as a scientific paper and have given us an important insight into how rabbits behave in the arid zone.

Radio-tracking data revealed that home range sizes were larger in winter than summer but there was no difference between male and female home ranges. Larger home ranges in winter means rabbits may be more likely to find poison oat trails within their home range and



Fumigating rabbit burrows with Phostoxin tablets is an effective means of rabbit control

oat trails could be laid further apart than in summer.

Rabbits dug their warrens in the dunes but often foraged on the swales at night. Their activity pattern followed a daily pattern in both summer and with highest warren use between 11.00am and 5.00pm in summer and 9.00am and 3.00pm in winter.

One of the most interesting findings was that rabbits spent more than 60% of their time on the surface during the day even during the hot afternoon in summer.

This high level of diurnal surface activity means that warren fumigation may be largely ineffective and that fumigation should be conducted during the times of highest warren use as stated previously.

We also looked at the response of rabbits to human disturbance and found that more than 70% of surface rabbits would not retreat to a burrow when disturbed during the day, instead running and sheltering under vegetation on the surface. When humans were accompanied by dogs this greatly increased the chance of rabbits retreating to burrows.

Finally we compared different control methods when retrieving our radio-collars and found that fumigation with Phostoxin tablets was the most effective.

Any future rabbit control at Arid Recovery will include fumigation with Phostoxin during the times when most rabbits are down their burrows and we will use dogs to chase rabbits down burrows.

Thanks to students Anthony Pieck, Serena De-Jong and Michelle Foate for their contributions to the project.



One of the radio-collared rabbits