

# Innovative Feral Cat Control Tools

## 1) FELIXER GROOMING TRAP

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### Introduction

- Predation by feral cats (*Felis catus*) is a major threat to fauna reintroductions in Australia.
- Felixers are patented automated, solar-powered devices that spray toxic gel onto cats that is ingested when they groom.
- Feral cats are distinguished from non-target wildlife using an array of range-finding sensors.

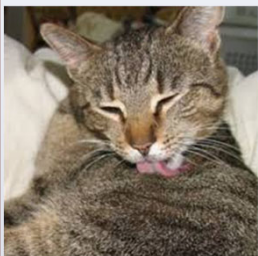


Figure 1. Although cats are reluctant to eat poison baits or enter traps when prey are abundant, cats' fastidiousness for grooming presents a reliable pathway for poison delivery that is exploited by Felixers

This field trial was sponsored by Control Technologies grant from the Australian Government.

### Methods

20 Felixers were trialed in a 24 sq km fenced paddock within the Arid Recovery Reserve in central Australia for 8 weeks.

Approximately 50 feral cats were present.

Six radiocollared cats, a camera grid and 10km of track transects were used to monitor cat activity before & after Felixer deployment.



Figure 2. Reintroduced western quoll killed by feral cat



Figure 3. Felixers detect, distinguish and spray feral cats with toxic gel that is ingested by oral grooming

### Results

- A total of 33 feral cats were sprayed by the Felixers, with poisoning death confirmed for the 3 collared cats that encountered the Felixers.
- Both camera activation and track counts declined by 66% during the 6 week deployment, consistent with death for all sprayed cats.
- Highest efficacy was recorded from Felixers set along fencelines where cat activity was greatest.
- Despite a range of wildlife, including reintroduced bilbies (*Macrotis lagotis*) and boodies (*Bettongia lesueur*) being recorded by Felixer, no non-target firings occurred.

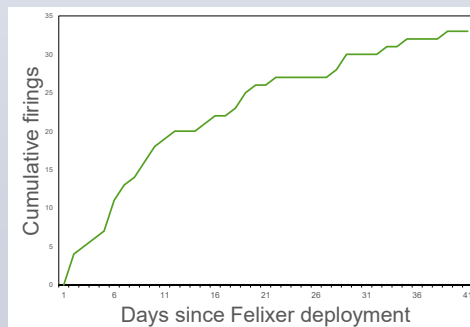


Figure 4: Cumulative firings of Felixers on feral cats within the test paddock



Figure 5: Cat tracks per km before and after Felixers were deployed (arrow)



Figure 5. Image taken by the Felixer at the time of squirting a feral cat. Note the location of the two infrared activation beams that need to be simultaneously intercepted by the target and the gel in flight towards the cat's flank

### Discussion

Felixers proved to be an effective targeted tool that reduced feral cat abundance.

Further trials aim to confirm animal welfare advantages of Felixers, assess the value of inbuilt audiolures and test target specificity with a greater range of wildlife species.

### References

1. Moseby, K.E., Peacock D.E., Read, J.L. (2015). Catastrophic cat predation: A call for predator profiling in wildlife protection programs. *Biological Conservation* 191: 331–340
2. Read, J.L., Bowden, T., Hodgson, P., Hess, M., McGregor, H. and Moseby, K. (2019). Are they safe? Target specificity of Felixer grooming traps. *Wildlife Society Bulletin* DOI 10.1002/wsb.942
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