

WA Felixer trial in the presence of northern quolls: preliminary results.

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Northern quolls were identified as a potentially problematic non-target issue for using Felixers to control feral cats in Western Australia. In collaboration with Roy Hill and FMG, the Department of Biodiversity, Conservation and Attractions (DBCA) have been trialling three Felixer units in the Pilbara to determine their safety and efficacy.

Our key goals for the Pilbara trials can translate into a several step process;

1. Are the Felixers sufficiently target specific (i.e. not recognising other species, particularly threatened species such as northern quolls, as targets)?
2. Are they effective at reducing cat numbers?
3. Does this translate into a positive effect on threatened species (e.g. northern quolls or bilbies)

We used three Felixers in photo-only mode, paired with Reconyx cameras, for six months in high-density quoll habitat in order to address the first aim. In that time there were almost 200 independent instances of northern quolls crossing in front of the Felixers, of which 0 were identified as targets. There were also 19 other species (birds, mammals, reptiles) that were not targeted (Fig 1). The only species that were targeted were feral cats and one individual domestic dog, about the size of a jack russell. We did not have very many instances of feral cats, surprisingly it looks to be only two individuals that crossed the cameras on six occasions (Fig 2).

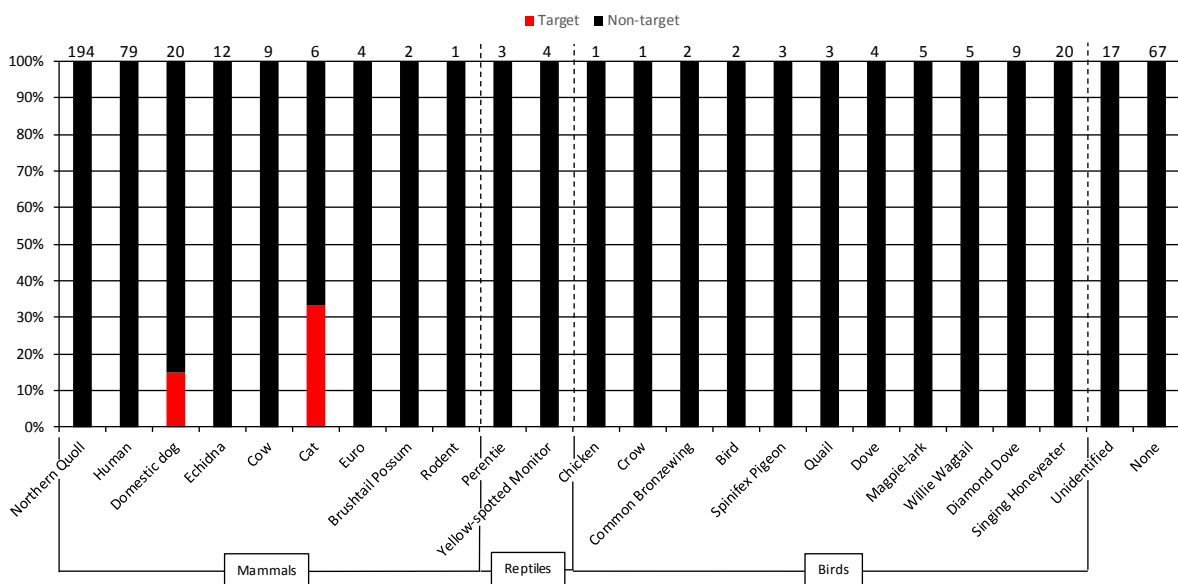


Figure 1. Summary of targeting results showing whether an animal was designated by Felixer units as a target (Red) or non-target (Black). Results shown as what proportion of total detections of a species

were determined to be targets, values on the top of the bars are total detections for each species. Only 2 individual cats were determined

This trial appears to have satisfied our first criteria, that the Felixers are not incorrectly targeting other species present at these Pilbara sites. Validation of goals 2 and 3 are required.

In order to answer the next questions, the Felixers will be placed somewhere with cats and quolls, where the live 1080 trial can take place once approvals are secured. The criteria for this are for it to be: not publicly accessible, away from towns and communities, away from other non-target issues (e.g. domestic dogs) and ideally with long-term data for cats and northern quolls. We will deploy the units for a further non-toxic trial period and later with 1080 toxin. All units can be trialled together at this site for the trial duration (3-6 months, subject to approvals) in order to determine the effectiveness at reducing cat populations, and if there is a subsequent response from threatened species.



Figure 2. Photos from the WA Pilbara trial of Felixers operating in photo-only mode in the presence of northern quolls. Clockwise from top left: A feral cat correctly identified by the Felixer as a target, a northern quoll correctly identified by the Felixer as a non-target, northern quolls regularly spent time investigating the units.