**Progress Report SP 2015-016**

# Improved fauna recovery in the Pilbara – assessing the uptake of feral cat baits by northern quolls, and their associated survivorship

**Animal Science**

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## Project status as of Oct. 10, 2018, 11:31 a.m.

Approved and active

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| **Project Team** | granted |
| **Program Leader** | granted |
| **Directorate** | granted |

# Improved fauna recovery in the Pilbara – assessing the uptake of feral cat baits by northern quolls, and their associated survivorship

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## Context

The northern quoll (*Dasyurus hallucatus*) is one of a suite of terrestrial mammal species that has declined in the Pilbara over the last 100 years. Predation by feral cats is regarded as one of the most significant threatening processes for this Vulnerable listed species. The development of the *Eradicat®* bait has provided the opportunity to control feral cats at a landscape scale in the southwest of Western Australia but questions remain as to the potential risks of broadscale cat baiting programs on northern quolls and other native carnivores in the Pilbara. The trial baiting program undertaken on the Yarraloola pastoral lease in 2015 demonstrated that the *Eradicat®* bait presents a low risk to northern quolls. Based on this evidence, the project has entered phase two, the large scale implementation of *Eradicat®* baiting trials over 145 000 ha of Yarraloola on an annual basis until at least 2019. Monitoring programs will measure its success in reducing cat numbers and the recovery of priority species, including the northern quoll.

## Aims

- Assess the field uptake of *Eradicat®* feral cat baits by northern quoll and impact on survivorship in the Pilbara.
- Develop an effective cat control strategy that will benefit the northern quoll and other threatened species in the Pilbara.

## Progress

- A research permit was granted by Australian Pesticides and Veterinary Medicines Authority to aerial bait ~150 000 ha of Yarraloola with*Eradicat®* annually, until 2019.
- Sixty camera trap sites were set on both Yarraloola (baited) and Red Hill (reference site) for 25 nights both before and after baits were distributed to monitor feral cat occupancy.
- *Eradicat®* feral cat baiting of 144 000 ha area on Yarraloola was undertaken. Monitoring of individual *Eradicat®*baits using camera traps indicated few non-target species took these baits. Northern quolls did sample the occasional bait but learnt very rapidly to ignore them (i.e. become bait-shy). There was no evidence quolls were harmed by sampling toxic baits.
- Northern quoll populations were monitored at 18 trapping sites at both Yarraloola and Red Hill. Capture rates of quolls on both properties were equally low, with quolls continuing to survive and breed within the baited area with no apparent negative impacts.

## Management implications

- The lack of impact of *Eradicat®* on northern quolls in the Pilbara has means that landscape control of feral cats using aerial baiting with *Eradicat®* can be used for feral cat management in areas where this species occurs in Northern Australia.
- Development of sound trapping methodology for monitoring northern quoll numbers in areas of relatively low abundance will improve monitoring of threat abatement programs.

## Future directions

- The broadscale *Eradicat®* feral cat baiting program will continue over Yarraloola on an annual basis until at least 2019.

- Continue the use of camera traps in a before-after-control-impact (BACI) design to monitor the effect of *Eradicat®* baiting on feral cats at Yarraloola.
- Continue monitoring northern quolls using established trapping sites at both Yarraloola and Red Hill to detect changes in population size as a response to on-ground management actions.
- Pursue registration of *Eradicat®* feral cat baits for operational use in areas where northern quolls are present.