

## **Progress Report SP 2003-005**

# **Development of effective broad-scale aerial baiting strategies for the control of feral cats**

**Animal Science**

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**Project status as of July 18, 2018, 10:15 p.m.**

Update requested

**Document endorsements and approvals as of July 18, 2018, 10:15 p.m.**

**Project Team**

granted

**Program Leader**

granted

**Directorate**

granted

# Development of effective broad-scale aerial baiting strategies for the control of feral cats

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## Context

The effective control of feral cats is one of the most important native fauna conservation issues in Australia. Development of an effective broad-scale baiting technique, and the incorporation of a suitable toxin for feral cats, is cited as a high priority in the National Threat Abatement Plan for Predation of Feral Cats, as it is most likely to yield a practical, cost-effective method to control feral cat numbers in strategic areas and promote the recovery of threatened fauna.

## Aims

- Design and develop a bait medium that is readily consumed by feral cats.
- Examine bait uptake in relation to the time of year, to enable baiting programs to be conducted when bait uptake is at its peak and therefore maximise efficiency.
- Examine baiting intensity in relation to baiting efficiency to optimise control.
- Examine baiting frequency required to provide long-term and sustained effective control.
- Assess the potential impact of baiting programs on non-target species and populations and devise methods to reduce the potential risk where possible.
- Provide a technique for the reliable estimation of cat abundance.

## Progress

- Analysis of bait composition continues with the objective of further improving bait uptake. Chemical synthesis of several compounds that elicit a chewing response by cats has been achieved. In addition, natural sourcing of these compounds is being undertaken to reduce costs of production. One of these compounds is being assessed in bait uptake trials. Modification of the bait production facility is to occur in the near future, which will allow further improvement to bait palatability and longevity in the field.
- The five-year feral cat baiting programs on the Fortescue Marsh has been completed. All campaigns have resulted in statistically significant declines in cat occupancy rates in the baiting area. Recommendations for future baiting programs to maximise effectiveness have been submitted and a manuscript reporting the work has been submitted for publication.
- Effectiveness of seasonal baiting strategies is continuing to be assessed under the temperate climatic conditions of the south-west at sites including Cape Arid and Fitzgerald River National Parks. The program involves the assessment of baiting effectiveness in autumn, winter and spring to provide the optimal baiting strategy for this region.
- Stage 1 of the management plan for the control of cats on Christmas Island has been completed with all domestic cats now desexed, microchipped and registered. Stage 2 of the plan is continuing and involves the removal of all stray/feral cats from residential areas and surrounds. Stage 3 of the plan, island-wide eradication of feral cats, is underway and control efforts will continue until 2020 prior to a surveillance period to confirm eradication success.
- An encapsulated 1080 toxin bait (*Hisstory*) is being tested this year in the Kimberley as a baiting option where non-target species may be considered at risk from the 1080 direct injected *Eradicat*® baits.
- Work continues on improving and refining cat lure options. A collaborative project is being undertaken with Phillip Island Nature Park (Victoria) to investigating visitation and re-visitation rates to audio lure and olfactory attractants.

## Management implications

- Development of effective baiting methods across climatic regions will ultimately provide efficient feral cat control at strategic locations across the state and lead to conservation benefits.
- Successful eradication of feral cats from a number of islands off the Western Australian mainland has occurred over the past ten years (i.e. Hermite, Faure and Rottnest islands), allowing the persistence of the native fauna on these islands and enabling effective reintroductions of mammals where appropriate. Eradication of cats on Dirk Hartog Island and Christmas Island, and the techniques developed during the course of these programs, will significantly improve the conservation of biodiversity in Western Australia.

## Future directions

- Continue refinement of bait medium to improve bait consumption by feral cats.
- Analyse baiting effectiveness at the various research sites and refine the method of operation where necessary to optimise baiting efficacy.
- Further investigation of bait consumption by non-target species and devise methods to minimise risk (e.g. toxin encapsulation).
- Refine and optimise cat lure options.