

Progress Report SP 2003-005

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

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Project Team

granted

Program Leader

granted

Directorate

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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

- Refinement of bait composition is continuing with the objective of further improving bait uptake. A series of pen trials have just been completed, where tests were performed to determine if replacement of chicken fat in the bait matrix with beef tallow would improve bait palatability and also longevity as suggested in recent literature. This was proven not to be the case. Plant material has also been submitted to a laboratory in the United States of America for a process called "critical distillation". The plant elicits a chewing response in cats and it is hoped that the oil derived from "critical distillation" will enhance bait palatability and as a consequence bait consumption.
- Analysis of GPS radio-collar data, from across a number of sites across Western Australia, has been conducted to assess whether bait encounter rate can be increased by modifying bait deployment. A manuscript has been prepared for publication.
- Refinement of the trapping technique to minimise risk to non-targets yet maintain effectiveness in feral cat capture is ongoing. A Standard Operating Procedure for cat trapping is now being developed and a manuscript drafted for publication.
- Trials of a bait that minimises the risk to wild dog/dingo hybrids while maintaining its effectiveness for feral cat control are being conducted. The utility of Apomorphine, a rapidly acting emetic, which causes dogs to vomit but has no effect on cats is currently being examined as an emetic. The emetic would be incorporated into the plastic polymer that encases the toxin. Results to date have demonstrated that ingestion of this bait by cats results in death; trials with dogs will be undertaken later this year.
- Work continues on improving and refining several cat lure options. A collaborative project is being undertaken with colleagues in Victoria to investigate visitation and re-visitation rates to olfactory attractants.

Management implications

- Development of effective baiting methods across climatic regions will ultimately provide efficient feral cat control at strategic locations across mainland Western Australia and lead to significant 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. Successful eradication of feral cats on Dirk Hartog Island will now enable reconstruction of the native mammal fauna there and restore habitat and ecosystem processes.

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 investigate bait consumption by non-target species and devise methods to minimise risk (e.g. toxin encapsulation).
- Refine and optimise cat lure options.