

Progress Report SP 2014-003

Cat Eradication on Dirk Hartog Island

Animal Science

Project Core Team

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Update requested

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Project Team	granted
Program Leader	granted
Directorate	required

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Context

On Dirk Hartog Island (DHI), the largest island off the Western Australian coast, 10 of the 13 species of native terrestrial mammals once present are now locally extinct most likely due to predation by cats. The island was established as a National Park in November 2009, which now provides the opportunity to reconstruct the native mammal fauna. DHI could potentially support one of the most diverse mammal assemblages in Australia and contribute significantly to the long-term conservation of several threatened species. Eradication of feral cats would be a necessary precursor to any mammal reintroductions.

Aims

Facilitate native fauna reintroductions to DHI through researching feral cat behaviour and susceptibility to baiting programs, implementing a cat eradication program, and developing effective cat monitoring protocols that will allow success of eradication programs to be assessed.

Progress

- There was an estimated population of 439 feral cats (range of 309 – 503) on DHI prior to the eradication program commencing.
- The eradication program commenced in autumn 2014, with broadscale baiting the primary removal effort (>90% baiting efficiency).
- In addition strategic trapping targeted the survivors from the baiting programs and their offspring. Thirty six cats were trapped, with the last cat trapped in the northern zone in October 2016.
- Deployment of detector dogs in southern zone (2016) and northern zone (2017) indicated the absence of cats.
- Ongoing seasonal surveillance programs confirmed the absence of cats in 2017 and 2018 to date. There has been >38,000 km traveled by the surveillance teams on DHI since the last cat activity was recorded.
- Extinction models suggest the probability that feral cats persist on DHI following last year's surveillance surveys was less than 1%.
- The 2018 surveillance program will continue through winter and spring. If no further cat activity is recorded, eradication success will be declared and the reintroduction of native species will commence in late spring 2018.

Management implications

- The biodiversity outcome from this project will be a measurable decline in the cat population on DHI, eventually to zero when eradication is confirmed. This is essential before fauna reconstruction activities can commence. Cat eradication will also assist the conservation of the extant fauna, including three threatened taxa. There is global interest in the outcomes of this project and the techniques used. Knowledge and technology transfer to other agencies contemplating cat eradications on islands will be through presentations and publication of manuscripts in scientific journals.

Future directions

- Undertake seasonal surveillance monitoring for cat presence across DHI and instigate immediate control effort if detected.
- Draft a series of manuscripts for publication relevant to the overall program and techniques developed.