Progress Report STP 2017-047 (FY 2018-2019)

Ecological responses of the northern quoll to a large-scale feral cat baiting program in the western Pilbara region, Western Australia

Animal Science

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Project Team	required
Program Leader	required
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This project builds on an existing large-scale feral cat baiting and northern quoll (*Dasyurus hallucatus*) monitoring program in the Pilbara being undertaken by the department in partnership with Rio Tinto. The broader aims of the project are to: (1) investigate the nature of feral cat and northern quoll interactions at the landscape scale; (2) investigate how northern quolls may benefit from cat control; (3) assess the impact of the baiting program on the abundance of feral cats; and (4) explore means by which baiting protocols may be optimised.

Pre and post-baiting deployments of camera traps have been made across the baited and reference localities in 2017 and 2018 to calculate cat densities. Preliminary results indicate a reduction in cat numbers across the baited property, although high levels of reinvasion by cats was detected in early 2018. Demographic data has been obtained from four extended quoll trapping periods, hair and tissue samples have been collected for stress hormone analysis and genetic analysis, respectively. A further northern quoll foraging behaviour experiment was also completed in 2017. Data collected during this project to date was presented at the 2017 Australian Wildlife Management Society conference.