

## RE-INTRODUCTION OF THE BILBY - RESEARCH IMPLICATIONS

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Bilby re-introductions offer the potential to experimentally examine hypotheses proposed to explain the decline of medium sized native mammals in the spinifex lands. None of the hypotheses proposed by researchers: a) predation by Feral Cats and the Red Fox; b) altered fire regimes; and c) habitat degradation by the European Rabbit and stock, in isolation, fully explain the decline or present distribution of the Bilby. All are implicated, the degree to which the factors operate and interact vary in parts of the Bilby's range.

Successful conservation and management of the Bilby will require determining acceptable levels of predator activity, tolerable stocking rates and preferred fire regimes. Transplant experiments can provide this information and a relatively cheap and effective means of establishing and monitoring released Bilbies is being developed. The fate of released individuals, the production of young and use of native foods may be monitored in relation to natural or manipulated levels of predators, stock or rabbits and different fire regimes. Bilbies are well suited to re-introductions or transplant experiments. They are relatively hardy but docile animals to handle, they breed rapidly and are easily kept in captivity. Captive bred animals may be retrapped readily in the field.