

Poster 27

SLOWING THE DECLINES OF NORTHERN AUSTRALIA'S ARBOREAL MAMMALS

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Mammal assemblages have collapsed across much of tropical northern Australia. It was long thought that the Kimberley region was one of the last strongholds for mammals in northern Australia, yet there is evidence that many species have begun to decline in the Kimberley as well. Of the nine most significant declines, six involve arboreal mammal species that rely on tree hollows.

There are numerous anecdotal reports linking these declines with high fire activity and the consequent loss of tree hollows, although empirical evaluations of this hypothesis are conspicuously lacking. We aim to investigate i) how the distribution of hollows relates to local fire histories, ii) how the distribution of tree hollows limits arboreal mammals in the Kimberley, and iii) how artificial nest boxes can be used to bolster populations. Research will focus on three species of arboreal mammals: the brush-tailed rabbit-rat, *Conilurus penicillatus*; the brush-tailed phascogale, *Phascogale tapoatafa*; and the brush-tailed possum, *Trichosurus vulpecula*.

Mike Hitchcock is a PhD student with the Quantitative and Applied Ecology Group, The University of Melbourne. He is currently investigating the decline of arboreal mammals across northern Australia. Passionate about conservation, he would like to bring together scientists, managers, and communities to work towards protecting wildlife.