

RESEARCH DIRECTIONS

The dingo and the dusky hopping mouse

Dr Michael Letnic, of the School of Natural Sciences, is undertaking research that will shed light on how the presence of dingoes in an arid region might provide benefits for the conservation of small native mammals. This project is supported by a Margaret Middleton Fund Award from the Australian Academy of Science.

'The disruptions to ecological processes in Australia caused by species such as rabbit, red fox, domestic cat and livestock have been devastating', says Dr Letnic. 'Since British colonization in 1788 these animals have contributed to the mass extinction of native rodents from our continent's arid regions. There is some evidence emerging which suggests that dingoes may provide benefits for the conservation of these native animals, for example, by killing foxes which prey on rodents. It's also possible that by dingoes reducing larger animals like kangaroos, more food and plant cover would be available for these small rodents.'

This project will focus on the dusky hopping mouse, a native rodent in arid Australia, which is listed as a Vulnerable Species by the Australian Government, having undergone a major decline in the last 100 years. This study will take place in the Strzelecki Desert in adjacent areas situated on either side of the dingo fence in NSW - where dingoes are rare - and South Australia - where dingoes are common. By comparing the evidence of dingo, fox and hopping mouse activity in carefully measured and gridded areas over a set period of time, the researchers aim to find out: whether the rate of direct killing by predators is lower where dingoes are common, if the foraging efficiency of hopping mice is greater in the presence of dingoes, and if hopping mice have better nutrition and less dietary stress in the presence of dingoes.



The results of this research will enhance efforts to conserve the dusky hopping mouse and other threatened mammals by providing wildlife managers with the knowledge required to make informed decisions on species recovery programs. These programs could simulate the ecological functions of dingoes in places where it is not possible to have them in the landscape.

Project Title: How do dingoes provide conservation benefits for the dusky hopping mouse?

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Contact Details: m.letnic@uws.edu.au

http://www.uws.edu.au/natural_sciences

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