

Conserving hosts at the peril of their parasites? Conservation and parasite extinction in the woylie.

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Biography:

Stephanie Godfrey is a Lecturer in the Department of Zoology at the University of Otago. Her research interests span behavioural ecology and disease ecology, and has a particular interest in how conservation activities impact host-parasite associations.

Co-extinction is becoming more widely recognised as a significant threat that is faced by many 'dependent' organisms, including parasites. Parasites may be at even greater extinction risk than other mutualists or symbionts since conservation measures often directly or indirectly result in their removal. The woylie (syn. Brush-tailed bettong, *Bettongia penicillata*) has undergone significant population declines in south-western Western Australia, and the establishment of predator-free sanctuaries and fauna translocations have been at the forefront of the conservation of this species. We evaluate some of the impacts conservation activities have had on the parasite ecology of the woylie, which is host to at least 36 species of parasites. We discuss these impacts in context of the conservation of the species as a whole, and with respect to the potential role of disease in their decline.



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