Jasmin Packer

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Jasmin Packer is currently finalising her PhD under the supervision of Professor Sue Carthew, Charles Darwin University/University of Adelaide, Associate Professor Jose Facelli, University of Adelaide, and Dr David Paull, University of New South Wales. Her main research interests include biodiversity conservation, restoration ecology, ecological modelling, citizen science and native-exotic dynamics. Interactions between exotic and native species are increasing worldwide, and understanding these complex dynamics is essential if we are to successfully tackle the conservation challenges of the future. Jasmin's PhD research investigates one of these challenges, the effect of weeds on native fauna persistence. Our research in the Mount Lofty Ranges of South Australia, a biodiversity hotspot and 'canary landscape' for temperate woodlands, takes a local and global view. It uses exotic blackberry (*Rubus anglocandicans)* and small mammal communities as a case study to develop a model that brings together individual, population, community and ecosystem approaches to assess the net effect of weeds on native fauna persistence. Our key findings are that weeds can act as positive ecosystem engineers in degraded ecosystems and support small mammal communities where they would otherwise be locally extinct. We found that blackberry is critical habitat for small mammal communities and the recruitment of juvenile southern brown bandicoots. We are now planning the next stage of our research, which will include developing strategies to maximise regeneration of native vegetation with blackberry control where it provides native fauna habitat.

Jasmin is also a member of the Invasive Species Research Chapter of the Ecological Society of Australia, the Weed Management Society of South Australia Inc., and several community bushcare groups. She has presented her preliminary PhD findings at the 2012 SA Weeds Conference, and as invited seminars to: the National Blackberry Taskforce, Australia; Chinese Academy of Science, China; Institute of Plant Science, Bern University, Switzerland; Southern Brown Bandicoot Recovery Team (Government of South Australia); and numerous community groups.

Thanks to the generous support of the CAWS Student Travel Award, Jasmin is presenting her PhD findings at two international weed conferences in 2013 (abstracts accepted for both): **Symposia on *Biological Invasions: how to reconcile science, management and policy,* XI INTECOL International Congress of Ecology** in London, UK; and **The 24th Asian-Pacific Weed Science Society Conference** in Bandung, Indonesia. Our research group is very keen to discuss our findings and link with others who are interested in weed and native fauna interactions. Please email j.packer@adelaide.edu.au if you have stories to share, want to know more, or are interested in developing collaborations to better understand and tackle the urgent conservation challenge of managing weeds when they provide habitat for native fauna.

Photos: southern brown bandicoot (*Isoodon obesulus*) seeking refuge in blackberry (Rubus anglocandicans), G Nathan; juvenile yellow-footed antechinus (*Antechinus flavipes*), G. Nathan; J. Packer checking mammal traps in blackberry, R.Dalton