

## Pairing biological control species: cochineal insects *Dactylopius* (Hemiptera: Dactylopiidae) with prickly pears *Opuntia* (Cactaceae) within the South Australian Adelaide and Mount Lofty Ranges

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**Summary** South Australia successfully led the 2010 nomination of the opuntoid group of cacti as Weeds of National Significance (WoNS). The National Coordinator Program that followed identified biological control programs that had been applied early last century in Queensland and New South Wales as key examples of how this weed could again be managed. In 2013 funding for the WoNS National Coordinator Program ceased. The South Australian Adelaide and Mount Lofty Ranges (AMLR) Natural Resources Region continued the work, conducting a series of rudimentary oviposition preference trials. Naturalised populations of cochineal insects, *Dactylopius opuntiae* Cockerell (Hemiptera: Dactylopiidae) and *Dactylopius ceylonicus* Green (Hemiptera: Dactylopiidae),

were tested as biological control agents on a range of *Opuntia* spp. The susceptibility of nine species of *Opuntia* was observed following inoculation with two discrete populations of *D. opuntiae*, and one of *D. ceylonicus*. The observations were used to design the establishment of 15 nursery sites on the nine *Opuntia* targets throughout the AMLR Region, using both *D. opuntiae* and *D. ceylonicus*. Nursery sites were strategically located in easily accessible public locations to form the basis for a future expansion of the distribution program. The next step in the program is to develop a community-driven mechanism to access and translocate the agents across the wider landscape.

**Keywords** Weeds of National Significance (WoNS), cochineal insects, *Dactylopius*, *Opuntia*.