The black-flanked rock-wallaby: Cape Range National Park

by Sonja Creese

The black-flanked or black-footed rock-wallaby (*Petrogale lateralis lateralis*) was once widespread throughout Western Australia. However, due to local extinctions, its range has declined to a few isolated populations and it is now listed as 'Vulnerable'. Introduced grazing species, such as the feral goat, are thought to compete with the rock-wallabies for food and shelter resources. A study funded by DEC and Murdoch University was conducted from January to December 2006 at Pilgonaman and Mandu Mandu Gorge in Cape Range National Park, Exmouth. The purpose of the work was to provide preliminary information to help determine if the feral goat and the euro are competing with the black-flanked rock-wallaby for food resources.

The results of the scat analysis indicated that a significant dietary overlap of plant species occurred between black-flanked rock-wallabies, euros and feral goats in Pilgonaman Gorge and Mandu Mandu Gorge in both summer and winter. Of the identified species of plants in the scats collected from Pilgonaman Gorge, *Myrtaceae* sp., *Sida* sp., *Cenchrus ciliaris* and *Ptilotus obovatus* were consumed by all three mammals. Five plant species were consumed by feral goats and rock-wallabies and only one species overlapped for euros and rock-wallabies. Of the identified species of plants in the scats collected from Mandu Mandu Gorge, only one identified plant species was consumed by all three mammals and an overlap of three species occurred for the black-flanked rock-wallaby and the feral goat. Furthermore, no identified plant species were found to be consumed only by the black-flanked rock-wallaby at either gorge.

Right Pilgonaman Gorge. Photo – Sonja Creese

Far right Black-flanked rock-wallaby with joey. Photo – Nick Thake

The dietary overlap was found to be more significant between feral goats and rock-wallabies which is particularly disturbing as rock-wallabies are highly dependent on the plant species occurring within their rocky habitat for food resources as they have a limited home range. Feral goats are likely to be a greater potential competitor with rock-wallabies during severe, dry conditions when food resources are restricted. More research is needed to determine if there is greater stress on the rock-wallaby populations during extended periods of drought. Anecdotal evidence from field observations suggests that the presence of feral goats near rock-wallaby refuge sites visibly distresses black-flanked rock-wallabies and may alter their normal foraging behavior. More observation is required to substantiate this theory.

Evidence of predation by foxes on rock-wallabies was also observed on numerous occasions throughout the study.

DEC actively undertakes measures to reduce the feral goat populations in Cape Range National Park. However, only with follow up research after a significant reduction in goat numbers could a true measure of the impact of competition from feral goats on populations of rock-wallabies in Cape Range National Park be determined.

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Udamung is ringing with Mogumber bells

by Gillian Stack

Darwinia carnea is an attractive plant with large pendulous flowers, which are pale green flushed with pink. There are two forms of *Darwinia carnea*, and these seem likely to be described as separate subspecies in the future. One form is found near Mogumber, and is commonly known as the Mogumber bell. The other form is located near Narrogin (known as the Narrogin bell), with no populations known between these two extremes.

One wild population is known from the Mogumber area, spread over three private properties, where *Darwinia carnea* grows in lateritic gravel and brown loam on massive laterite breakaways in open low woodland over heath. This population is at risk from isolated events that may cause local extinction, and also lacks security of tenure. For these reasons, a translocation was initiated under the Natural Heritage Trust-funded Biodiversity Hotspots project. Udamung Nature Reserve was selected as the translocation site, based on its combination of suitable habitat, security of tenure and lack of threats. The wild population occurs within DEC's Avon-Mortlock District, while the translocation site is located approximately 15 kilometres to the south, within DEC's Perth Hills District.

An unusually high number of plants for translocation (400) were produced by the Botanic Gardens and Parks Authority's Nursery, which had anticipated higher mortality at the nursery stage. These vigorous plants were planted, fenced and reticulated with the assistance of a large team including staff from DEC's Perth Hills District, Avon-Mortlock District, Swan

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Right Translocated young Mogumber bell, already flowering.

Far right Natural location of Mogumber bell on top of lateritic ridges.

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