



## Foraging Ecology and Habitat Use of Slater's Skink (*Egernia slateri*): An Endangered Australian Desert Lizard

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Slater's Skink, *Egernia slateri*, is nationally endangered with a severely restricted range on desert river floodplains in central Australia. Little is known about the specific habitat requirements and behaviour of this species, and consequently what factors pose the greatest threat to its continued persistence. The lack of information on the ecology of *E. slateri* largely results from an absence of records from the mid-1970s onward, including its disappearance from sites where it was formerly abundant. A conservation management programme has now been developed for *E. slateri* as part of the national recovery plan for the species that was adopted in 2004. During field surveys undertaken between 2004 and 2008, seven small and highly fragmented populations of *E. slateri* were located within the MacDonnell Ranges and Finke bioregions of central Australia. These findings gave us the opportunity to assess the ecology of the species for the first time.

In this study, we provided the first details of the diet, habitat use and behaviour of the species as a basis for understanding reasons for its decline and implementing further management options.

We found that ants (35.0% volume, 95.5% occurrence) and termites (Isoptera, 23.3% volume, 63.6% occurrence) were the major prey of adult *E. slateri*. Other important prey included Coleoptera, Orthoptera, and spiders. *Egernia slateri* depended on soil mounds formed at the base of shrubs as habitat in which to dig burrows. Ninety-five percent of *Eremophila* shrubs sampled in two subpopulations were mounded, and 58% of the mounded shrubs had lizard burrows. Behavioural observations indicate that *E. slateri* is largely solitary with a group size of one (94% of bouts), except for three observations of adult–juvenile associations. Animals were active in the day, with basking individuals present more than five hours post sunrise. Overall, the study revealed that *E. slateri* is a species occurring in small populations in very restricted habitat. These factors alone make it highly vulnerable to decline. It also faces imminent threats to its persistence as a result of the high level of disturbance (especially weed invasion) on floodplains in central Australia. The species is therefore one of Australia's most threatened reptiles.