

Threatened Species of the Northern Territory

SLATER'S SKINK

Liopholis slateri

Conservation status

Australia: Endangered

Northern Territory: Vulnerable



Description

Slater's skink is a medium-sized, smooth bodied lizard with an average snout-vent length of 85 mm, although large individuals grow up to 97 mm. It has a short snout and large head. The upperbody is light to medium brown with each dorsal scale having a black edge. In combination these scales form a series of conspicuous black longitudinal striations on the back and onto the base of the tail. The flanks may be salmon-pink and the underbody is cream to greyish-blue.

Distribution

Two subspecies have been described; *E. s. slateri* from the southern Northern Territory (NT) and *E. s. virgata* from northern South Australia (SA). The SA subspecies is known from only four specimens; three collected in 1896 from the Oodnadatta area, the other collected in 1914 between Oodnadatta and Everard Range. No other specimens of this subspecies have been located.

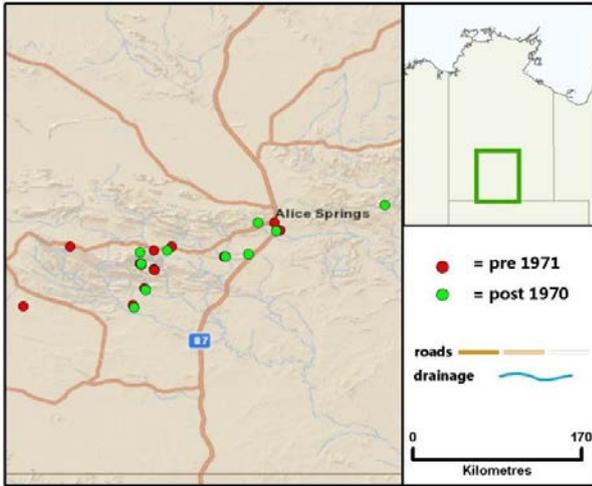
The NT subspecies has been collected from four locations in the Finke and MacDonnell Ranges bioregions centred on Alice Springs. In the 1960s, the subspecies appears to have been abundant around Alice Springs.

Fifty-eight specimens were collected at the type locality 5 km South of Alice Springs (1964-65), another 32 specimens at the junction of Ellery Creek and Jerimah Creek, adjacent tributaries of the Finke River near Hermannsburg (1964), and a single specimen on the Palmer River on Tempe Downs Station (1965).

Since the 1960s numbers have declined dramatically at several of these sites. Surveys of the three localities listed above, plus nearby sites, failed to locate any individuals during 1995 and 1999-2000.

The only records between 1989 and 2003 were seven animals captured at six locations in Finke Gorge National Park during surveys in 1995- 2000. During 2004 and 2005 the species was located at five sites in the MacDonnell Ranges bioregion West of Alice Springs including new locations on Owen Springs Reserve and West of Hermannsburg.

Conservation reserves where reported:
Finke Gorge National Park, Owen Springs Reserve, West MacDonnell National Park, Henbury Station and Illamurta Springs Conservation Reserve and.



Known locations of Slater's skink

Ecology

In general, little is known about the ecology of this lizard. At most sites, Slater's skink occurs in shrubland and open shrubland on alluvial soils close to drainage lines. Although all historical sites have been in open floodplain type situations, a number of the more recently located populations, including Loves Creek, occur on minor drainages in among stony hills.

Slater's skink is a burrowing species and digs complex burrow systems under small shrubs, particularly several species of native fuschia (*Eremophila* spp.), and occasionally under tussock or hummock grasses and fallen timber. The burrows are dug into the low pedestal of soil that usually builds up beneath these plants. The species is diurnal and crepuscular and feeds on arthropods. Females give birth to live young.

Conservation assessment

Based on the post 2006 surveys, the total population is clearly larger and more widespread than previously thought. Much of the concern for the conservation of Slater's skink has been based on the disappearance of the species in the 1970s from a site just south of Alice Springs, where it was formerly abundant. The establishment of a

monoculture of the environmental weed Buffel Grass (*Cenchrus ciliaris*) has been implicated in this extinction. However, aside from one very small sub-population at Illamurta Springs, which may now be extinct, there is no additional evidence of population decline or range contraction over the last two decades.

However, given that Buffel Grass is regarded as a possible threat and is still spreading rapidly throughout the distribution of Slater's skink, it qualifies as **Vulnerable** (under criteria B1ab(i,ii,iii,v)+2ab(i,ii,iii,v), C2a(i) due to:

- extent of occurrence <20 000 km²;
- area of occupancy <2 000 km²; severely fragmented occurrence; and inferred decline in extent of occurrence,
- area of occupancy, quality of habitat, and
- number of mature individuals.

Threatening processes

No threatening processes have been positively demonstrated, although degradation of its alluvial habitat as a result of invasion by the introduced Buffel Grass appears the most likely cause of the species' extinction from the Alice Springs type locality. This weed has radically altered the vegetation structure and species composition of drainage systems in Central Australia. Buffel Grass is now the dominant ground cover in many alluvial systems throughout Central Australia.

Conservation objectives and management

A national Recovery Plan for the species was adopted in November 2005 (Pavey 2004). Outstanding and newly identified actions include:

- i. protect populations through the localised management of Buffel Grass;
- ii. assess size of known populations;

- iii. establish a standardised monitoring program for representative populations; and
- iv. community education and information.

Complied by

Peter McDonald
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References

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