

# Threatened Species of the Northern Territory

## GREAT DESERT SKINK TJAKURA

### *Egernia kintorei*

#### Conservation status

Australia: Vulnerable

Northern Territory: Vulnerable



Photo: Steve McAlpin

#### Description

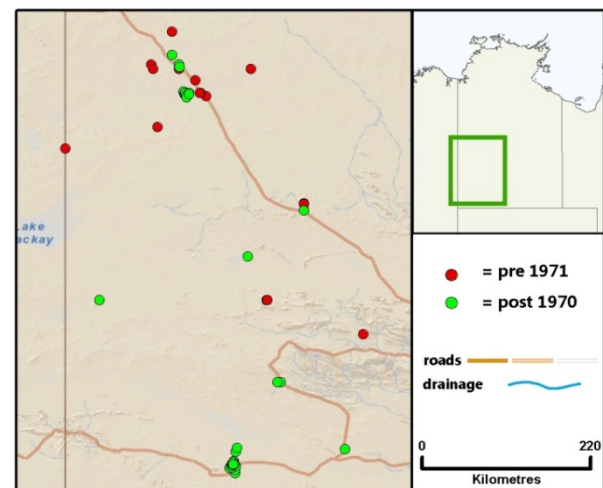
The great desert skink is a large, smooth bodied lizard with an average snout-vent length of 200 mm (maximum of 440 mm) and a body mass of up to 350 g. Males are heavier and have broader heads than females. The tail is slightly longer than the snout-vent length. The upperbody varies in colour between individuals and can be bright orange-brown or dull brown or light grey. The underbody colour ranges from bright lemon-yellow to cream or grey. Adult males often have blue-grey flanks, whereas those of females and juveniles are either plain brown or vertically barred with orange and cream.

#### Distribution

The great desert skink is endemic to the Australian arid zone. In the Northern Territory (NT), most recent records (post 1980) come from the western deserts region from Uluru-Kata Tjuta National Park north to Rabbit Flat in the Tanami Desert. The Tanami Desert and Uluru populations are both global strongholds for the species.

Outside the NT it occurs in North West South Australia and in the Gibson Desert and

southern sections of the Great Sandy Desert of Western



Known locations of great desert skink.

Australia. Its former range included the Great Victoria Desert, as far west as Wiluna, and the Northern Great Sandy Desert.

#### Conservation reserves where reported:

Uluru-Kata Tjuta National Park, Watarrka National Park and Newhaven Reserve (managed for conservation by the Australian Wildlife Conservancy).

## Ecology

The great desert skink occupies a range of vegetation types with the major habitat being sandplain and adjacent swales that support hummock grassland and scattered shrubs. In the Tanami Desert, it also occupies paleodrainage lines on lateritic soils supporting *Melaleuca* shrubs.

It is an omnivore that feeds on a wide variety of invertebrates (particularly termites), small vertebrates, and the leaves, flowers and fruits of plants.

The great desert skink is a livebearer that gives birth to one-to-five young between December and February.

It is a communal species that digs complex burrow systems to a depth of >1 m and with a diameter (of the entire burrow system) of up to 10 m. Up to ten individuals may share a large burrow system which can have 5-10 entrances. Latrines, where animals defaecate over an area of 1-3 m<sup>2</sup>, are located at the surface of occupied burrows.

## Conservation assessment

The maximum size of each population of great desert skink in the NT has been estimated as 2250 in the Tanami Desert, 500 in Uluru-Kata Tjuta National Park and 350 in land surrounding Yulara (McAlpin 2001). This total represents about 50 percent of the global population of the species.

Although the species no longer occurs in eastern parts of its former range in the NT, there is a lack of information on population trends at any sites. However, it can be reasonably inferred that there is a high likelihood that remaining populations will be subjected in the near future to the same threats that have extirpated populations elsewhere. Given this premise, the species

qualifies as **Vulnerable** (under criteria C2a(i)) due to:

- population <10,000 mature individuals;
- continuing decline, observed, projected or inferred, in numbers; and
- no population estimated to contain more than 1000 mature individuals.

## Threatening processes

No single factor has been demonstrated to have caused the decline of the great desert skink; however, several potential threatening processes have been identified.

Habitat homogenization as a consequence of the cessation of traditional land management practices may be a serious threat throughout much of its range. Large scale, intense wildfires that result from a lack of patch burning can devastate or fragment local populations. Predation by feral cats and the European fox may also be a serious threat, as could predation by native predators such as the dingo or raptors (particularly in recently burnt areas). Rabbits also have the potential to dig up burrow systems.

## Conservation objectives and management

A national Recovery Plan for the species was adopted in 2001.

Management priorities for the species in the NT, as set out in the Recovery Plan, are:

- i. to assess causal factors in the recent decline or local extinction of the species in particular locations, and to determine critical habitat;
- ii. to manage by 2010 the population in Uluru-Kata Tjuta National Park to maintain or improve population levels (as measured by number of active burrows) against an initial baseline figure derived from five seasons of monitoring;

- iii. to improve community knowledge of the species and to improve community involvement in its recovery management;
- iv. to determine the best fire regime that leads to sustained or increased populations of great desert skink;
- v. to reduce number, extent and impact of severe wildfires over the next decade; and
- vi. to implement feral predator control programs that result in sustained reductions in feral predator populations in Uluru-Kata Tjuta National Park over the next 10 years.

### Compiled by

Chris Pavey

Simon Ward [updated December 2012]

### References

Cogger, H.G. (2000). *Reptiles and Amphibians of Australia* 6th edition. (Reed New Holland, Sydney.)

Horner, P. (1992). *Skinks of the Northern Territory*. (Northern Territory Museum of Arts and Sciences, Darwin.)

McAlpin, S. F. (2001). *A Recovery Plan for the Great Desert Skink (Egernia kintorei), 2001-2011*. (Arid Lands Environment Centre, Alice Springs).

Storr, G.M. (1968). Revision of the *Egernia whitei* species-group (Lacertilia, Scincidae). *Journal of the Royal Society of Western Australia* **51**, 51-62.