

# Threatened species of the Northern Territory

## Howard River toadlet

### *Uperoleia daviesae*

#### Conservation status

##### Australia: Vulnerable

Environment Protection and Biodiversity Conservation Act 1999

##### Northern Territory: Vulnerable

Territory Parks and Wildlife Conservation Act 1976



Credit: C. Jolly

#### Description

The Howard River Toadlet is a small species of *Uperoleia*, measuring only 17–23 mm in snout-vent length. The dorsal surface has numerous pale brown tubercles, surrounded by black, and a narrow yellow to pale red mid-vertebral stripe. The ventral surface is cream and the groin is orange-red. The toes are unfringed and have only slight basal webbing.

Its short raspy call of 22 pulses distinguishes it from other sympatric species of *Uperoleia*<sup>1</sup>.

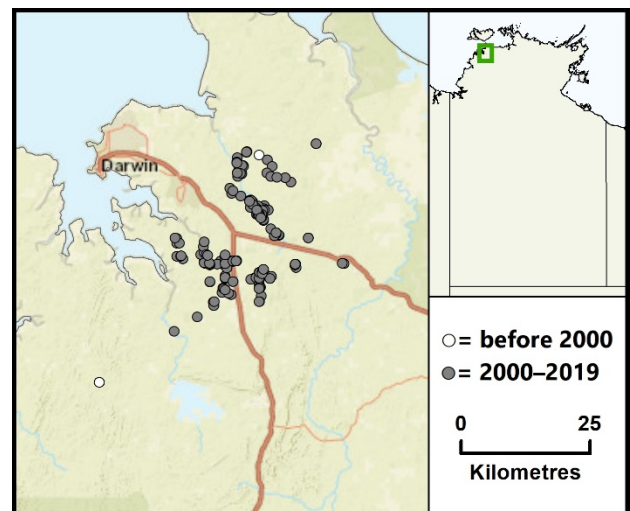
#### Distribution

The Howard River Toadlet is endemic to the Northern Territory and was discovered in 2000. It is known from only a relatively small number of specimens and chorus recordings. Results from recent surveys suggest that the species is confined to sandsheet heathland within the catchments of the Howard River, Elizabeth River, Berry Springs, Sunday Creek and the base of the Gunn Point peninsula close to Darwin<sup>2-5</sup>. Sandsheet heathlands are associated with alluvial plains, drainage lines and seepage zones.

NT conservation reserves where reported: None.

#### Ecology and life-history

The Howard River Toadlet evidently has fairly specialised habitat requirements. It is known only from sandy inundated areas with sandsheet heath, areas of sandy soils with short vegetation that is inundated in the wet season, or in adjacent woodlands dominated by *Melaleuca*. Little else is known of the ecology of the species.



Caption: Known localities of the Howard River Toadlet in the NT ([nrmmaps.nt.gov.au](http://nrmmaps.nt.gov.au))

Male Howard River Toadlets are typically found calling in small numbers, amidst choruses of other, more numerous, frog species<sup>2</sup>.

<sup>6</sup>.Price, O., Milne, D., Tynan, C., 2005. Poor recovery of woody vegetation on sand and gravel mines in the Darwin region of the Northern Territory. *Ecol. Manag. Restor.* 6, 118–123.

## Threatening processes

Urban expansion is a significant threat to the Howard River Toadlet, as its entire distribution occurs in the peri-urban growth region of Darwin. Habitat loss and degradation due to sand mining also threatens the species<sup>4</sup>.

## Conservation objectives and management

Recent research has provided data to help delineate the distribution and identify the habitat requirements of the Howard River Toadlet. This research provides an important baseline for ongoing monitoring, which will help guide sand mining operations within the habitat of this species. Current knowledge is insufficient to provide much guide to management beyond protecting known localities from development and sand mining.

Further research is required to understand the ecology of the Howard River Toadlet to ensure that all requirements of the species can be maintained alongside sustainable development.

## References

- <sup>1</sup> Young, J.E., Tyler, M.J., Kent, S.A., 2005. Diminutive new species of *Uperoleia* Grey (Anura: Myobatrachidae) from the vicinity of Darwin, Northern Territory, Australia. *J. Herpetol.* 39, 603–609.
- <sup>2</sup> Fisher, A., Mahney, T., Mackay, L., Tynan, C., Dostine, P., Young, S. Fegan, M., 2011. Assessment of the terrestrial vertebrate fauna of the Weddell area. Final Report, July 2011.
- <sup>3</sup> Dostine, P.L., Reynolds, S.J., Griffiths, A.D., Gillespie G.R., 2013. Factors influencing detection probabilities of frogs in the monsoonal tropics of northern Australia: implications for the design of monitoring studies. *Wildl. Res.*, 40, 393–402.
- <sup>4</sup> Reynolds, S. 2012. Caring for Our Country. Surveys for Howard River Toadlet (*Uperoleia daviesae*). EcOz Environmental Services, Darwin, Northern Territory.
- <sup>5</sup> Clancy, M. 2019. Modelling the distribution of the Howard Springs Toadlet (*Uperoleia daviesae*) Unpublished Honours Thesis, The School of BioSciences, University of Melbourne, Parkville, Victoria.