



Aprasia striolata Striped Worm-Lizard

Taxonomy

Aprasia striolata Lütken, 1863

Current conservation status

Listed as threatened under the *Flora and Fauna Guarantee Act 1988* (SAC 2001)

Categorised as Near threatened in the 2013 Advisory list of threatened vertebrate fauna in Victoria (DSE 2013).

Proposed conservation status

Endangered in Victoria

Criterion B2ab(i,iii,iv,v)

Species Information

Description and Life History

From Robertson and Coventry (2019): Like others in the genus, the Striped Worm-Lizard is believed to be diurnal and largely fossorial, sheltering within the substrate, under rocks, logs and ground debris, and within the subterranean galleries of small ants. It feeds predominantly on the larvae and pupae of small ants, with up to 185 prey items having been found in one individual. This taxon may vocalize with high-pitched squeaks when molested. Unlike other *Aprasia* spp., it may be that this taxon is aseasonal in its reproduction, as gravid females and males with enlarged testes have been found in all seasons - this requires further investigation in Victoria. Females lay two elongate, soft, parchment-shelled eggs.

Generation Length

The generation length of the Striped Worm-Lizard is inferred to be 4 to 5 years. This is based on the observation of a congener (*A. parapulchella*) that males reach sexual maturity in the third year and females in the fourth year. The lizards are suspected to be relatively long-lived and females produce a clutch of two eggs.

Distribution

From Robertson and Coventry (2019): Within Victoria, the Striped Worm-Lizard occurs in the extreme south-western area of the Big Desert, south through the Little Desert, the Grampians, various patches of south-western heathlands, to the coastal dunes west of Portland. It also occurs in southern Western Australia and South Australia.

Habitat

Within Victoria, the Striped Worm-Lizard inhabits sandy and other friable soils in the Heathland, Dry Sclerophyll Forest and Coastal Scrub ecosystems.

Threats

The taxon is mostly distributed on private land. Historically, a large proportion of the habitat of this taxon in western Victoria has been cleared for agriculture and tree plantations (softwoods and eucalypt). It is likely that some areas continue to be affected by such clearing, noting that the Victorian Planning Provisions regulate the clearing of

Aprasia striolata Striped Worm-Lizard

native vegetation on private land in Victoria and include tighter restrictions in cases involving the habitat of threatened species. Additionally, removal of rocks might detrimentally affect this taxon. It may persist on roadsides in some areas; clearing or mismanagement of these roadsides will affect populations. Too frequent fires have impacted and continue to impact heathland habitat. Introduced predators (cats, dogs, foxes) may be possible threats.

IUCN Criteria

Criterion A. Population size reduction. Population reduction (measured over the longer of 10 years or 3 generations) based on any of A1 to A4			
	Critically Endangered	Endangered	Vulnerable
A1	≥ 90%	≥ 70%	≥ 50%
A2, A3, A4	≥ 80%	≥ 50%	≥ 30%
<p>A1 Population reduction observed, estimated, inferred or suspected in the past and the causes of the reduction are clearly reversible AND understood AND ceased.</p> <p>A2 Population reduction observed, estimated, inferred or suspected in the past where the causes of the reduction may not have ceased OR may not be understood OR may not be reversible.</p> <p>A3 Population reduction, projected or suspected to be met in the future (up to a maximum of 100 years) [(a) cannot be used for A3]</p> <p>A4 An observed, estimated, inferred, projected or suspected population reduction where the time period must include both the past and the future (up to a max. of 100 years in future), and where the causes of reduction may not have ceased OR may not be understood OR may not be reversible.</p> <p style="text-align: center;"><i>based on any of the following:</i></p> <p>(a) direct observation [except A3]</p> <p>(b) an index of abundance appropriate to the taxon</p> <p>(c) a decline in area of occupancy, extent of occurrence and/or quality of habitat</p> <p>(d) actual or potential levels of exploitation</p> <p>(e) the effects of introduced taxa, hybridization, pathogens, pollutants, competitors or parasites</p>			

Evidence:

Ineligible under Criterion A

There is insufficient evidence to determine whether there has been or will be a reduction in population sufficient to meet any threshold for Criterion A.

Aprasia striolata Striped Worm-Lizard

Criterion B. Geographic range in the form of either B1 (extent of occurrence) and/or B2 (area of occupancy)			
	Critically Endangered Very restricted	Endangered Restricted	Vulnerable Limited
B1. Extent of occurrence (EOO)	< 100 km ²	< 5,000 km ²	< 20,000 km ²
B2. Area of occupancy (AOO)	< 10 km ²	< 500 km ²	< 2,000 km ²
AND at least 2 of the following 3 conditions:			
(a) Severely fragmented OR Number of locations	= 1	≤ 5	≤ 10
(b) Continuing decline observed, estimated, inferred or projected in any of: (i) extent of occurrence; (ii) area of occupancy; (iii) area, extent and/or quality of habitat; (iv) number of locations or subpopulations; (v) number of mature individuals			
(c) Extreme fluctuations in any of: (i) extent of occurrence; (ii) area of occupancy; (iii) number of locations or subpopulations; (iv) number of mature individuals			

Evidence:

Eligible under Criterion B2 as Endangered

The Area of Occupancy (AoO) across the taxon's range is estimated to be 200 km², based on 2 x 2 km grids derived from accepted, post-1970 records in the Victorian Biodiversity Atlas.

Considering the limited dispersal ability of the taxon, barriers to dispersal, and the lack of habitat between extant populations, populations are severely fragmented.

It is suspected to have a continuing decline in (i), (iii), (iv) and (v) above. Much of the taxon's habitat is subject to ongoing threats and changes, as a result of various agricultural pursuits. The habitat has been fragmented by timber plantations, and too frequent fires have and continue to impact heathland habitat. Because the habitat is continuing to decline, the population size is also likely to decline.

Criterion C. Small Population size and decline				
		Critically Endangered	Endangered	Vulnerable
Number of mature individuals		< 250	< 2,500	< 10,000
AND at least one of C1 or C2				
C1	An observed, estimated or projected continuing decline of at least (up to a max. of 100 years in future):	25% in 3 years or 1 generation (whichever is longer)	20% in 5 years or 2 generations (whichever is longer)	10% in 10 years or 3 generations (whichever is longer)
C2	An observed, estimated, projected or inferred continuing decline AND least 1 of the following 3 conditions:			
(a)	(i) Number of mature individuals in each subpopulation	≤ 50	≤ 250	≤ 1,000
	(ii) % of mature individuals in one subpopulation =	90 – 100%	95 – 100%	100%
(b)	Extreme fluctuations in the number of mature individuals			

Aprasia striolata Striped Worm-Lizard

Evidence:

Ineligible under Criterion C as Data Deficient

There is insufficient evidence to determine the number of mature individuals. The animals are cryptic, fossorial, and there have been no targeted surveys. All observations are opportunistic.

Criterion D. Very small or restricted population ^α			
^α	Critically Endangered ^α	Endangered ^α	Vulnerable ^α
Number of mature individuals (observed or estimated) ^α	<50 ^α	<250 ^α	<1,000 ^α
D2. Only applies to the VU category [¶] Restricted area of occupancy or number of locations with a plausible future threat that could drive the species to critically endangered or Extinct in a very short time. ^α	- ^α	- ^α	D2. Typically: [¶] AoO < 20 km ² or number of locations ≤ 5 ^α

Evidence:

Ineligible under Criterion D

There is insufficient evidence to determine the number of mature individuals.

Criterion E (Quantitative Analysis) was not addressed as the taxon does not have a detailed Population Viability Analysis.

References

DSE (2013) *Advisory List of Threatened Vertebrate Fauna in Victoria 2013*. Department of Sustainability and Environment, Melbourne

Robertson, P. and Coventry, A. J. (2019). *Reptiles of Victoria: A Guide to Identification and Ecology*. CSIRO Publishing. Clayton South

SAC (2001). Flora and Fauna Guarantee Scientific Advisory Committee: Final Recommendation on a Nomination for Listing. Nomination No. 510 *Aprasia striolata*