

Acacia victoriae subsp. *victoriae* Bramble Wattle

Taxonomy

Acacia victoriae subsp. *victoriae* Benth.

Current conservation status

Categorised as Rare in the 2014 Advisory list of rare or threatened flora (DEPI 2014).

Proposed conservation status

Endangered in Victoria

Criteria A2abce+4abce; B2ab(iii,v)

Species Information

Description and Life History

This is a moderately long-lived tall shrub to small tree, 2-5(-9) m high, evergreen and adventive in most of its occurrences in Victoria. Branchlets glabrous or sometimes hairy, often pruinose. Phyllodes variable, linear to narrowly oblong, lanceolate or narrowly elliptic, c. 2-5 cm long and 2-8 mm wide and 2-13 times as long as wide, straight or incurved, green to grey-green or glaucous, usually glabrous; midrib prominent, lateral veins usually obscure; gland more or less basal, obscure or prominent; stipules spinose, commonly only bases persisting at mature nodes, 2-12 mm long. Inflorescences normally racemose but peduncles sometimes subtended by a secondary phyllode, rachis 1-10 cm long, slender; peduncles mostly twinned, 6-18 mm long, slender, glabrous, sometimes hairy; heads prolific, globular, 15-30-flowered, creamy-white to pale lemon-yellow. Flowers 5-merous; sepals free, narrowly spatulate. Pods narrowly oblong, to 8 cm long, 9-16 mm wide, chartaceous, glabrous; seeds transverse, more or less globose, 4-6 mm long, brown, mottled blackish, funicle short, thick and scarcely arillate. Flowers around September (VicFlora 2016).

Generation Length

The generation length of *Acacia victoriae* subsp. *victoriae* is inferred to be 20 to 60 (midpoint 40) years. This is a rapidly growing perennial shrub to small tree of arid to semi-arid habitats. Individual plants of 20+ years old are known, with a longevity of at least 70-80 years. This is far longer if they are clonal or vegetatively reproducing or resprouting.

Distribution

In Victoria, the taxon was formerly restricted to the far north-west of the state, near and west of Mildura. However, in recent decades it appears to have spread farther to the south, at least to the southern Mallee near Rainbow and a handful of sites in between to the northern margins of the Wimmera. It is most often found on roadsides and similarly disturbed sites that are not subject to cropping or other agriculture. It is nowhere common within the reserves system, reaching its greatest abundance as a roadside adventive in the roadsides of the horticultural country around Mildura.

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Habitat

The taxon is found in a number of situations, including mildly salinized, on red loamy sands, in the most arid parts of this state. Its original habitat was presumably open semi-arid non-eucalypt woodlands and the highest margins of the floodplain forests and woodlands.

Threats

Key threats to the taxon include rabbit browsing of recruits, weed invasion and competition during recruitment, and roadside maintenance, including the establishment of firebreaks and weed spraying. It is palatable to browsing mammals, notably Rabbits, and also to defoliating insects (particularly Processionary Caterpillars). Browsing mammals are not usually found in the taxon's Victorian occurrences, but they presumably hamper the spread of this taxon into parks and reserves and also into non-agricultural sites. The taxon is fire-susceptible, but it regenerates post-fire freely if there is adequate time to set viable seed before the fire.

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>based on any of the following:</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>
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Evidence:

Eligible under Criterion A2 as Endangered

The population reduction over the past 60 to 180 years is inferred to be 30 to 50% (midpoint 40%, based on (a), (b), (c) and (e) above.

The taxon has suffered a historic decline, as a result of land clearing and browsing by introduced herbivores. Its occurrence on roadsides suggests that it was once more widespread.

The causes of the reduction may not have ceased, be understood or be reversible.

Eligible under Criterion A4 as Endangered

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The population reduction over any 60 to 180 year period, including both past and future (up to 100 years in the future), is estimated to be 30 to 50%, based on (a), (b), (c) and (e) above. The causes of reduction may not have ceased, be understood or be reversible.

The taxon has suffered a historic decline. It is believed to be slowly increasing its population in Victoria, but any records from roadsides are likely to be at risk.

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 B1 and B2 as Vulnerable

The Extent of Occurrence (EoO) across the taxon's range is estimated to be 5,303 km², based on accepted, post-1970 records from the Victorian Biodiversity Atlas (VBA).

The Area of Occupancy (AoO) across the taxon's range is estimated to be 50 km², based on 2 x 2 km grids derived from accepted, post-1970 records in the VBA.

The taxon is suspected to have eight locations. Due to its common occurrences in highly disturbed landscapes, notably irrigation landscapes around Mildura, idiosyncratic activities which are very tightly geographically restricted are possible, even likely.

It has a continuing decline in (iii) and (v) above, as a result of the identified threats. The area of habitat may also be reduced, particularly on roadsides.

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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			

Evidence:

Ineligible under Criterion C

It is inferred that there are 350 to 1,000 (midpoint 500) mature individuals, but this qualifier is too weak and other thresholds under this criterion have not been met.

Criterion D. Very small or restricted populations		Critically Endangered	Endangered	Vulnerable
Number of mature individuals (observed or estimated)		< 50	< 250	< 1,000
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.		-	-	D2. Typically: AoO < 20 km ² or number of locations ≤ 5

Evidence:

Ineligible under Criterion D

It is inferred that there are 350 to 1,000 (midpoint 500) mature individuals.

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

References

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