

Ammannia multiflora Jerry-jerry

Taxonomy

Ammannia multiflora Roxb.

Current conservation status

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

Proposed conservation status

Endangered in Victoria

Criterion B2ab(ii,iii,iv,v)c(iv)

Species Information

Description and Life History

The taxon is an erect herb to 60 cm tall, rigidly-branched. Leaves oblong-linear to lanceolate or oblanceolate, 0.5-5 cm long, 1.5-8 mm wide, entire; apex acute; base cordate-auriculate. Flowers 4-12 in short, usually dense cymes or clusters; peduncle to 6 mm long; pedicel 0.5-3 mm long; hypanthium broadly campanulate, 1-1.5 mm diam., appendages small or absent; sepals broad, triangular, c. 0.2 mm long; petals obovate, 0.5-1 mm long, caducous (sometimes absent), usually pink to purple; stamens exserted. Capsule globose, 1.5-2.5 mm diam., exserted slightly from hypanthium, red, dehiscent irregularly. The taxon flowers throughout the year (VicFlora 2018).

Generation Length

The generation length of *Ammannia multiflora* is estimated to be 2 to 8 years. The taxon is an annual herb growing after draw-down of wetland habitats in semi-arid areas. Suitable conditions are generally considered likely to arise over the designated time interval over much of the relevant habitats, even if it was possibly originally more frequent in the restricted eastern outlier at Barmah.

Distribution

The taxon is mostly confined in Victoria to the Murray River floodplain in the north-west, with disjunct occurrences known from Kerang and Barmah areas, for example (VicFlora 2018).

Habitat

The taxon occurs in herbland in sites prone to inundation (VicFlora, 2018).

Threats

Threats to this taxon include the impacts associated with climate change, such as decreased rainfall, extreme temperatures, decreased frequency, and amplitude and duration of flooding. The taxon is also threatened by the inappropriately timed use of environmental water and the impacts of feral animals, notably horses and pigs and pugging of wetlands by cattle and other stock.

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> <ul style="list-style-type: none"> (a) direct observation [except A3] (b) an index of abundance appropriate to the taxon (c) a decline in area of occupancy, extent of occurrence and/or quality of habitat (d) actual or potential levels of exploitation (e) the effects of introduced taxa, hybridization, pathogens, pollutants, competitors or parasites 			

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.

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 136 km², based on 2 x 2 km grids derived from accepted, post-1970 records in the Victorian Biodiversity Atlas (VBA).

The taxon is inferred to be severely fragmented, as it is restricted to small patches of suitable habitat associated with wetlands which are dispersed over a wide area.

and is suspected to have a continuing decline in (ii), (iii), (iv) and (v), based on the current and projected impact of the identified threats.

It is estimated to have extreme fluctuations in (iv) above. As is the case with other annuals of drawdown habitats, it is anticipated that numbers will vary substantially between different inundation events.

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 as Data Deficient

There is insufficient evidence to determine the number of mature individuals. The taxon is subject to extreme fluctuations in population size.

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:

Eligible under criterion D2 as Vulnerable

The taxon is estimated to be very restricted.

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

References

DEPI (2014). *Advisory list of rare or threatened plants in Victoria - 2014*. Department of Environment and Primary Industries, Melbourne.

VicFlora (2018). Flora of Victoria, Royal Botanic Gardens Victoria: *Ammannia multiflora*. Retrieved from: <https://vicflora.rbg.vic.gov.au/flora/taxon/7e022829-0c40-45ac-b987-78048e6cfa2>