

# The Conservation Status Assessment Project



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Environment,  
Land, Water  
and Planning

# What is the CSA Project?

CSA Project is reassessing all Victorian species that are currently rare or threatened.

Aim: To deliver a Single Operational List of threatened species in accordance with the Common Assessment Method (CAM) Memorandum of Understanding.

Currently there are three lists:

- *Environment Protection and Biodiversity Conservation Act 1999* (EPBC)
- *Flora and Fauna Guarantee Act 1988* (FFG)
- Victorian Advisory Lists (non-statutory)

# The Common Assessment Method

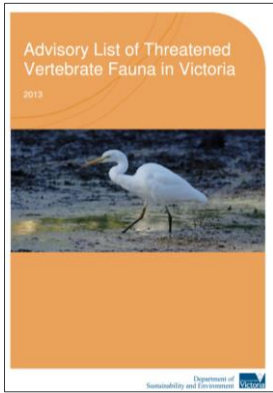
The CAM aims to establish a consistent approach to assessing and listing threatened species and ecological communities across all Australian jurisdictions.

- Based on International Union for Conservation of Nature (IUCN) criteria.
- Assessments conform to standards developed by a national working group representing the jurisdictions.
- Victoria has signed up to the CAM for species but not ecological communities.
- For each jurisdiction there will be a Single Operational List (SOL) which has a national section and a state section (except WA). A species can only be in one of them.

**INTERGOVERNMENTAL  
MEMORANDUM OF UNDERSTANDING**

**AGREEMENT ON A COMMON  
ASSESSMENT METHOD FOR LISTING  
OF THREATENED SPECIES AND  
THREATENED ECOLOGICAL  
COMMUNITIES**

# What is being assessed?



- All species, subspecies and varieties on DELWP's Advisory Lists that are Extinct in the wild, Regionally extinct, Critically Endangered, Endangered, Vulnerable or Rare.
  - DD and NT only included if they are also FFG-listed.
- Species listed as threatened under the FFG Act.
- Excludes species that are:
  - extinct; or
  - have dubious taxonomy; or
  - already “CAM-compliant” e.g. Mountain Pygmy Possum, Helmeted Honeyeater, Hooded Plover, Leadbeater's Possum.
- 2008 taxa being assessed:
  - 197 vertebrates (24 mammals, 90 birds, 38 reptiles, 14 amphibians, 31 fish);
  - 128 invertebrates (marine, freshwater, terrestrial);
  - 1683 plants (including mosses, lichens and fungi).

# The assessment process



## Guidelines for Using the IUCN Red List Categories and Criteria

Version 13  
(March 2017)

Prepared by the Standards and Petitions Subcommittee  
of the IUCN Species Survival Commission.

Citation: IUCN Standards and Petitions Subcommittee. 2017. Guidelines for Using the IUCN Red List Categories and Criteria, Version 13. Prepared by the Standards and Petitions Subcommittee. Downloadable from <http://www.iucnredlist.org/documents/RedListGuidelines.pdf>

THE IUCN RED LIST OF THREATENED SPECIES™

- Assessments use IUCN criteria.
- Each taxon has an expert assessor and reviewer.
- 80 separate experts, from DELWP Biodiversity; DELWP Arthur Rylah Institute; Museums Victoria; Royal Botanic Gardens; universities; consultants; and private individuals.
- Assessments use a commercial software program, RAMAS Red List Pro.
- CSA Project Team undertakes QA.
- On completion, all assessments will be available for public comment. Date TBC.



# The IUCN Criteria

Five criteria (A-E) are used to evaluate if a taxon belongs in a threatened category (i.e. Critically Endangered, Endangered or Vulnerable). All criteria have numerical thresholds, qualifiers, definitions, exclusions, and other conditions.

## Criterion A:

Population size reduction, past and future, based on:

- 3 x generation length or ten years, whichever is longer.
- future reductions up to 100 years.

### 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><b>A1</b> Population reduction observed, estimated, inferred, or suspected in the past where the causes of the reduction are clearly reversible AND understood AND have ceased.</p> <p><b>A2</b> Population reduction observed, estimated, inferred, or suspected in the past where the causes of reduction may not have ceased OR may not be understood OR may not be reversible.</p> <p><b>A3</b> Population reduction projected, inferred or suspected to be met in the future (up to a maximum of 100 years) [(a) cannot be used for A3].</p> <p><b>A4</b> 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>	<i>based on any of the following:</i>		<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 (AOO), extent of occurrence (EOO) and/or habitat quality</p> <p>(d) actual or potential levels of exploitation</p> <p>(e) effects of introduced taxa, hybridization, pathogens, pollutants, competitors or parasites.</p>

## Criterion B:

Geographic range, in either Extent of Occurrence or Area of Occupancy.

Other conditions, i.e. fragmentation, declines, extreme fluctuations (i.e. regular, frequent, up to ten-fold changes – “boom-bust” species)

### B. Geographic range in the form of either B1 (extent of occurrence) AND/OR B2 (area of occupancy)

	Critically Endangered	Endangered	Vulnerable
B1. Extent of occurrence (EOO)	< 100 km <sup>2</sup>	< 5,000 km <sup>2</sup>	< 20,000 km <sup>2</sup>
B2. Area of occupancy (AOO)	< 10 km <sup>2</sup>	< 500 km <sup>2</sup>	< 2,000 km <sup>2</sup>
<b>AND at least 2 of the following 3 conditions:</b>			
(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			

**EoO and AoO are measures of risk, not of actual habitat.**

EoO and AoO are calculated using a standardised formula, based on extant records in the Victorian Biodiversity Atlas (VBA).

## Criterion C:

- Population size;  
and
- C1: thresholds for continuing decline in population size, over 1, 2 or 3 generations  
or
- C2: continuing decline in population size; and size of subpopulations or extreme fluctuations.

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 at 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				



## Criterion D:

Population size, or a small area with plausible future threats.

D. Very small or restricted population			
	Critically Endangered	Endangered	Vulnerable
D. Number of mature individuals	< 50	< 250	D1. < 1,000
D2. <i>Only applies to the VU category</i> Restricted area of occupancy or number of locations with a plausible future threat that could drive the taxon to CR or EX in a very short time.	-	-	D2. typically: AOO < 20 km <sup>2</sup> or number of locations ≤ 5

**Criterion E:** Quantitative Analysis, is not used in this project because it requires a Population Viability Analysis for the species.

- All assessments based on available data
- Each assessor/reviewer provides evidence
- Expert opinion when data is scarce
- Guesses/assumptions are acceptable as long as reasoning is explained.
- Public consultation will invite new evidence.

# What will the project deliver?

A set of assessments that will become the new FFG Threatened List.

All species assessed using the same criteria.

The Threatened List (SOL) will contain a national section and a state section and will contain taxa that are EX, WX, CR, EN, VU.

- National section = EBPC status including Conservation Dependant.
- Victorian section = a species is only included if hasn't been nationally assessed or isn't nationally threatened.

i.e. previously, Plains-wanderer was Vc (EPBC *Vulnerable*; Vic Advisory List *critically endangered*). Under CAM – VU in Australia and Victoria.



# Potential changes to categories

1. The current Flora Advisory List has no critically endangered category.

2. Some species may be **upgraded** because e.g.

- better survey/monitoring data;
- long generation times, so declines are considered back to European settlement;
- improved consideration of climate effects.

Advisory list of rare or threatened plants in Victoria - 2014



Department of Environment and Primary Industries  
VICTORIA



# Potential changes to categories

Some species may be **downgraded** i.e. reduced to Data Deficient or Least Concern (& de-listed from FFG). Reasons may include:

- Better information
- The species has undergone a significant past decline, but is now stable. It has a broad distribution and large population size.
- Some historic declines can't be considered by the IUCN rules:
  - past and/or future decline are calculated on the basis of 3 generations or ten years, whichever is longer.
  - some species have a short generation time e.g. annual plants, some reptiles and amphibians, some small birds and mammals.
  - for some species, declines happened more than ten years ago e.g. in the 19<sup>th</sup> or 20<sup>th</sup> centuries, and populations are now stable or even recovering.



The FFG Scientific Advisory Committee is reviewing assessments.

Public consultation to seek any new information. Date TBC.

- Website containing background documents, FAQs, full list of taxa and results.
- All vertebrate assessments available to view/download.
- Invertebrates and flora assessments by email.
- Only scientific evidence will be considered.

Thank you for your attention.

