

Definitions and Criteria for Conservation Significance Fields

Uncommon

Taxa that have either restricted distributions/ranges or relatively few populations and/or individuals but do not qualify as threatened as defined by the modified IUCN criteria under the Tasmanian *Threatened Species Protection Act 1995*.

Criteria

Cited directly from modified criteria now adopted under the TSPA 1995

- B1 The extent of occurrence is less than 80x80km or 2000 km².
- B2 The area of occupancy is not more than 0.5km² (50 hectares).
- B3 Taxa that are not 1 or 2 above, but which have very small and localised populations wherever they occur (generally no-sub-population with an area of occupancy greater than 1 hectare and no more than 1000 mature individuals).

Uncommon Species Assessment Methodology

The assessment commenced in 2009 as part of the Flora Attributes Project and was completed in May 2012.

An initial candidate list of species was created by

Splitting criteria B1 into sub criteria B1a (extent of occurrence less than 80x80km) and B1b (extent of occurrence less than 2000km²) and a separate GIS analysis run for each sub criteria on all native vascular plant species observations from the NVA, (except those listed on the TSPA 1995). All species which had an extent of occurrence of less than 80 x 80 km and/or 2000kms were identified and recorded. All species which met either of these criteria immediately qualified as uncommon.

In addition other criteria were devised to help identify additional species which may qualify as uncommon under criteria B2 and/or B3. The criteria used were

- unlisted FAC species (Flora Advisory Committee List 1994)
- species for which there is less than 100 records
- species which occur only in 1 bioregion
- species in less than 10 grid squares

All species that met one or more of these criteria qualified for the initial candidate list. This initial list comprised 444 species.

This list was then circulated around flora experts for any information about these species that would help to assess them against criteria B2 and B3. Once this information was obtained each species was then assessed against criteria B2 and B3 using species distribution maps generated by the NVA to help determine if they qualified as uncommon or not. Of the 444 species assessed 197 qualified as uncommon. There were 130 species for which there was not

enough information to determine if the species qualified as uncommon but could possibly be uncommon. These were flagged in the NVA in the Native Watch list as Possibly Uncommon. The remaining 177 species as far as could be determined with information at the time, did not meet any of the criteria and thus did not qualify as uncommon.

Highly Sensitive

Taxa that are not rare & threatened but which have biological attributes that make them vulnerable to a specific threat which if subjected to, puts them at high risk of a population collapse in Tasmania. Such species need special consideration. Sensitivity can be to a range of factors, including:

- Phytophthora ;
- Fire (eg conifers, alpine species and obligate seeders);
- Climate change (eg eucalypts with narrow tolerance range);
- Drought (eg wetland species); and
- Weed invasion.

Criteria

The criteria will be a modified version of those used in the National Sustainability Assessment (<http://www.environment.gov.au/biodiversity/trade-use/invitecomment/index.html#open>) adopted by DEWHA in 2008 to assess the sensitivity of Species to commercial harvesting.

Primitive

Taxa that have significant morphological, palaeogeographical or evolutionary features and are thus considered to be important living relicts or exemplars in aspects of evolutionary and earth history.

Criteria

- Have proven evolutionary links with taxa that formed the vegetation of the ancient super continent Gondwana which are considered significant.
- Early fossil evidence of species with close taxonomic affinities to living species within Australia.
- Retaining floral or other morphological characteristics considered to be of important in the evolution of flowering plants and which identify them as important examples of living relicts of ancient flora.
- Long lived species exhibiting evolutionary stasis for example *Lagarostrobos franklinii* (Huon Pine)

And there is either a scientific publication or other scientific data that supports this.

Known source references for primitive

Balmer, J. *et al.* (2004). **A review of the floristic values of the Tasmanian Wilderness Heritage Area.** Nature conservation Report 2004/3. Department of Primary Industries Water and Environment, Tasmania Australia.

Brown, M. J., Hoggins, D.D., & Bayly-Stark, H.J., (1977). **Conservation of Flora in Tasmania: The Status of Plant Species, which are Primitive, Endemic or of Geographical Significance.** Wildlife Division Technical Report 77/4. Parks & Wildlife Service Tasmania.

Carpenter, R. J. (1996). **List of “Primitive or Relictual Species” in some Tasmanian Nature Conservation Regions and RFA Updated List** Unpublished report.

Helsham, (1988). **Inquiry into Lemnathyme & Southern Forests Vol 1.**

Hill, R. S.*et al.* (198) **The Vegetation of Tasmania: Fossil and Living.** Botany Department, University of Tasmania.

Bio-geographic origin

Taxa that have unique or unusual distributions at a particular geographic level (National, state, regional). Eg. a species at the edge of its range such as *Gyrostemon thesioides*.

Criteria

- Occurs in only one region at the National and/or state level and/or regional level
- In Tasmania it is at the limit of its known range and/or is an outlier.
- Is a presumed relict of a once wider distribution of a species.
- Is a migratory species which breeds or forages only in Tasmania

And there is either a scientific publication or other scientific data (e.g. distributional data from National Herbaria or other authoritative data sources) that supports this.

Scientific Significance

Taxa that have attribute/s that have made them the subject of extensive scientific research, for example *Lagarostrobos franklinii* which is of interest for research on climate change due to its slow growth and longevity.

Criteria

- Taxa that have been a common target for research over a long time period and that have been identified as having some significant attribute that make them an important subject for research as it provides key data on some aspect of biology, for example, phylogeny, genetics, evolution and/or a model biological system and for which there are scientific publications to verify this.

Cultural

Taxa for which there is evidence of domestic or ceremonial use by, and/or has some significant cultural or spiritual meaning to, indigenous Australians.

Criteria

- All species identified in Gott 1992.

Introduced Watch List

Taxa that are not native to Tasmania and which have been identified as being potentially or actually invasive and will have or are having a significant and negative impact on agricultural production or on the natural environment.

Criteria

- There is a requirement by law to control or eradicate the species
- The species is the subject of a threat abatement or other plan which has been endorsed at the state and/or national level.
- There is a requirement by law to restrict the movement of the species within or between states.

Native Watch List

Taxa that do not currently qualify for the TSPA 1995 or the EPBCA 2000 but which are very close to qualifying for listing and need to be closely monitored.

Criteria

- The species only just falls short of qualifying for listing.
- The species is under consideration for listing but has not yet been formally nominated.
- The species is newly discovered and there is not yet enough data to make a determination regarding its conservation status.

Reservation Status

An assessment of how well represented species are in the reserve system.

Criteria

- As per Lawrence et al (2008) Reservation Status of Tasmanian Native Higher Plants

RFA priority

Species listed as priority forest dependant species under the Regional Forest Agreement.

Criteria

- As per the RFA Agreement