

Approved Conservation Advice
(s266B of the *Environment Protection and Biodiversity Conservation Act 1999*)

Approved Conservation Advice for
Andersonia sp. Two Peoples Bay (G.J.Keighery 8229) (Two Peoples Bay Andersonia)

This Conservation Advice has been developed based on the best available information at the time this Conservation Advice was approved; this includes existing plans, records or management prescriptions for this species.

Description

Andersonia sp. Two Peoples Bay (G.J. Keighery 8229), Family Epacridaceae, also known as Two Peoples Bay Andersonia, is a compact bushy shrub up to 40 cm high. The dark green, densely packed leaves (up to 15 mm long) are slightly contorted due to being fused to sheathing bases. The tubular flowers are pale blue outside, bearded white inside and surrounded by pointed, white calyx lobes (Brown et al., 1998).

Andersonia sp. Two Peoples Bay (G.J. Keighery 8229) was described as *Andersonia pinaster* in 2007 (see CPBR, 2008).

Conservation Status

Two Peoples Bay Andersonia is listed as **vulnerable**. This species is eligible for listing as vulnerable under the *Environment Protection and Biodiversity Conservation Act 1999* (Cwlth) (EPBC Act) as, prior to the commencement of the EPBC Act, it was listed as vulnerable under Schedule 1 of the *Endangered Species Protection Act 1992* (Cwlth). Two Peoples Bay Andersonia is also listed as declared rare flora under the *Wildlife Conservation Act 1950* (Western Australia).

Distribution and Habitat

Two Peoples Bay Andersonia is known to occur only around the Two Peoples Bay area in the Albany district, Western Australia. The species is known from seven populations: one is split into two subpopulations, another into three subpopulations and one into four subpopulations, giving a total of 13 different locations where this species occurs. Nine of these locations occur in conservation estates, two occur on private property and two occur on road verges. Populations at three locations have decreased over time and populations at four have increased; there is insufficient information to determine the population trend at the other six locations. Of these locations the habitat in one is considered poor. Nine locations are considered to have moderately disturbed habitats; three of these have improved in quality over time and one has declined in quality over time. The habitat status of the other three locations cannot be determined (DEC, 2008). The species is known to produce large quantities of tiny seed (10 000 seeds per gram) and so at first may increase in number in areas opened up by dieback, but then succumb to the disease itself.

Two Peoples Bay Andersonia grows in deep sands supporting low, open heath (Brown et al., 1998). This species occurs within the South Coast (Western Australia) Natural Resource Management Region.

The distribution of this species is not known to overlap with any EPBC Act-listed threatened ecological communities.

Threats

The main identified threat to Two Peoples Bay Andersonia is dieback caused by *Phytophthora cinnamomi*. So far this has been addressed by actions included spraying with phosphonate (Robinson & Coates, 1995).

The main potential threat to the species is inappropriate fire regimes. This species is killed by fire and regenerates from seed stored in the soil, but seed may not persist in the soil for long periods as it appears to be weak-walled (DEC, 2008).

Research Priorities

Research priorities that would inform future regional and local priority actions include:

- Design and implement a monitoring program or, if appropriate, support and enhance existing programs.
- More precisely assess population size, distribution, ecological requirements and the relative impacts of threatening processes.
- Undertake survey work in suitable habitat and potential habitat to locate any additional populations/occurrences/remnants.
- Continue to research the effects of the spray phosphonate (used for dieback) on Two Peoples Bay Andersonia (Robinson & Coates, 1995).

Regional and Local Priority Actions

The following priority recovery and threat abatement actions can be done to support the recovery of Two Peoples Bay Andersonia.

Habitat Loss, Disturbance and Modification

- Monitor known populations to identify key threats.
- Monitor the progress of recovery, including the effectiveness of management actions and the need to adapt them if necessary.
- Identify populations of high conservation priority.
- Ensure road widening and maintenance activities (or other infrastructure or development activities) involving substrate or vegetation disturbance in areas where Two Peoples Bay Andersonia occurs do not adversely impact on known populations.
- Control access routes to suitably constrain public access to known sites on public land.
- Minimise adverse impacts from land use at known sites.
- Investigate formal conservation arrangements, management agreements and covenants on private land, and for crown and private land investigate inclusion in reserve tenure if possible.

Fire

- Develop and implement a suitable fire management strategy for Two Peoples Bay Andersonia, for example, the development of a controlled burning program (DEC, 2008).
- Provide maps of known occurrences to local and state Rural Fire Services and land managers and seek inclusion of mitigative measures in bush fire risk management plans, risk register and/or operation maps.

Diseases, Fungi and Parasites

- Develop and implement suitable hygiene protocols to protect known sites from further outbreaks of dieback caused by *Phytophthora cinnamomi*.
- Monitor existing management actions (including spraying with phosphonate) and if necessary, implement additional management actions to minimise the adverse impacts of existing *Phytophthora cinnamomi* infestations.

This Conservation Advice was approved by the Minister / Delegate of the Minister on: 1/10/2008

Conservation Information

- Raise awareness of Two Peoples Bay Andersonia within the local community.

Enable Recovery of Additional Sites and/or Populations

- Undertake appropriate seed collection and storage.
- Investigate options for linking, enhancing or establishing additional populations.

This list does not necessarily encompass all actions that may be of benefit to Two Peoples Bay Andersonia, but highlights those that are considered to be of highest priority at the time of preparing the conservation advice.

Existing Plans/Management Prescriptions that are Relevant to the Species

- Threat Abatement Plan for Dieback caused by the root-rot fungus *Phytophthora cinnamomi* (EA, 2001), and
- Wildlife Management Plan No 20, Declared Rare and Poorly Known Flora in the Albany District (Robinson & Coates, 1995).

These prescriptions were current at the time of publishing; please refer to the relevant agency's website for any updated versions.

Information Sources:

Brown, A, Thomson-Dans, C & Marchant, N (eds) 1998, *Western Australia's Threatened Flora*, Department of Conservation and Land Management, Western Australia.

Centre for Plant Biodiversity Research (CPBR) 2008, Australian Plant Name Index, viewed 22 July 2008, <http://www.anbg.gov.au/cgi-bin/apni?taxon_id=276485>.

Department of Environment and Conservation (DEC) 2008, Records held in the Declared Flora Database and rare flora files, WA Department of Environment and Conservation (DEC).

Environment Australia (EA) 2001, *Threat Abatement Plan for Dieback caused by the root-rot fungus Phytophthora cinnamomi*, Biodiversity Group, viewed 13 June 2008, <<http://www.environment.gov.au/biodiversity/threatened/publications/tap/phytophthora/pubs/phytophthora.pdf>>.

Robinson, CJ & Coates, DJ 1995, *Declared Rare and Poorly Known Flora in the Albany District*, Wildlife Management Plan No 20, Department of Conservation and Land Management, WA.