

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

Approved Conservation Advice for
***Adenanthos ellipticus* (Oval-leaf Adenanthos)**

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

Adenanthos ellipticus, Family Proteaceae, also known as Oval-leaf Adenanthos, is an erect, tall, slender, open shrub that grows to 5 m tall. The leaves are 2–5 cm long and 5–15 mm wide, and some may have a slight lobe at the tip. Young leaves and branchlets have short leaves lying flat against the surface; these leaves tend to disappear as the plant ages. Flowers are solitary, orange-red or cream in colour and 2.5 cm long. These are held on 8 mm long stalks in the leaf axils. Flowering occurs from August to January and is possibly intermittent, including May (Robinson & Coates, 1995; Brown, et al., 1998; DEC, 2008; DEWHA, 2008).

Conservation Status

Oval-leaf Adenanthos 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). The species is also listed as declared rare flora under the *Wildlife Conservation Act 1950* (Western Australia).

Distribution and Habitat

Oval-leaf Adenanthos is endemic to Western Australia and is known from three populations within the Fitzgerald River National Park in the Albany district in the State's south coast region. Of these populations, two occur within the Shire of Ravensthorpe and one within the Shire of Jerramungup. The total number of mature, flowering plants is estimated to be 5600. The extent of occurrence is approximately 89 km², with the area of occupancy likely to be less than 0.31 km²; however, there is insufficient data available to determine any trends.

Oval-leaf Adenanthos often grows in shallow, humus-rich siliceous soils over outcropping quartzite in dense scrub. This species is found growing with Coastal Jugflower (*Adenanthos cuneata*) and Veined Adenanthos (*A. venosa*); however, Oval-leaf Adenanthos is predominant on higher slopes (Robinson & Coates, 1995; Brown et al., 1998; DEC, 2008; DEWHA, 2008). 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 Oval-leaf Adenanthos is inappropriate fire regimes, as this species is sensitive to fire in the vegetative and flowering phase.

The main potential threats to the species include invasive weeds and disease. Invasive weeds, such as climbers, are believed to have a negative impact on the species as well as vegetation in associated habitat. Field observations also suggest that the species is highly susceptible to dieback caused by *Phytophthora cinnamomi*.

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; monitor seedling development.
- 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.
- Undertake seed germination and/or vegetative propagation trials to determine the requirements for successful establishment.
- Clarify the species' susceptibility to dieback caused by *Phytophthora cinnamomi*.

Regional and Local Priority Actions

The following priority recovery and threat abatement actions can be done to support the recovery of Oval-leaf Adenanthos.

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.
- Minimise adverse impacts from land use at known sites.
- Identify populations of high conservation priority.
- If further populations are found, investigate formal conservation arrangements, management agreements and/or covenants on private land, and for crown and private land investigate inclusion in reserve tenure if possible.

Invasive Weeds

- Ensure chemicals or other mechanisms used to eradicate weeds do not have a significant adverse impact on Oval-leaf Adenanthos.
- Identify and remove weeds in the local area (specifically climbing weed species), which could become a threat to Oval-leaf Adenanthos, using appropriate methods.
- Manage sites to prevent introduction of invasive weeds, which could become a threat to the species, using appropriate methods.

Fire

- Develop and implement a suitable fire management strategy for Oval-leaf Adenanthos.
- Identify appropriate intensity and interval of fire to promote seed germination.
- Provide maps of known occurrences to local and state Rural Fire Services and seek inclusion of mitigative measures in bush fire risk management plans, risk register and/or operation maps.

Diseases, Fungi and Parasites

- Implement suitable hygiene protocols to protect known sites from further outbreaks of dieback caused by *Phytophthora cinnamomi*.
- If necessary, implement appropriate management actions to minimise the adverse impacts of existing *Phytophthora cinnamomi* infestations.

Conservation Information

- Raise awareness of Oval-leaf Adenanthos within the local community. Distribution of fact sheets to visitors to the National Park may potentially lead to further sightings of the species and reduce trampling that may occur.

Enable Recovery of Additional Sites and/or Populations

- Undertake appropriate seed collection and storage.

This Conservation Advice was approved by the Minister / Delegate of the Minister on: 16/12/2008

- Investigate options for linking, enhancing or establishing additional populations.
- Implement national translocation protocols (Vallee et al., 2004) if establishing additional populations is considered necessary and feasible

This list does not necessarily encompass all actions that may be of benefit to Oval-leaf Adenanthos, 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

- Declared Rare and Poorly Known Flora in the Albany District (Robinson & Coates, 1995),
- Threat Abatement Plan for Dieback caused by the root-rot fungus *Phytophthora cinnamomi* (EA, 2001),
- Fitzgerald River National Park Management Plan 1991–2001 (CALM, 1991), and
- Fire Management Strategy for the Wilderness Zone of the Fitzgerald River National Park, 1999–2001 (CALM, 2003).

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.

Department of Conservation and Land Management (CALM) 1991, *Fitzgerald River National Park Management Plan 1991-2001*, Management Plan No. 15, Department of Conservation and Land Management for the National Parks & Nature Conservation Authority, Western Australia.

Department of Conservation and Land Management (CALM) 2003, *Fire Management Strategy for the Wilderness Zone of the Fitzgerald River National Park, 1999–2001*, Department of Conservation and Land Management, Western Australia.

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

Department of the Environment, Water, Heritage and the Arts (DEWHA) 2008, *Species Profile and Threats Database (SPRAT: Adenanthos ellipticus (Oval-leaf Adenanthos)*, Department of the Environment, Water, Heritage and the Arts, viewed 24 June 2008, <http://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=4570>.

Environment Australia (EA) 2001, *Threat Abatement Plan for Dieback caused by the root-rot fungus Phytophthora cinnamomi*, Biodiversity Group, viewed 24 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.

Vallee, L, Hogbin, T, Monks, L, Makinson, B, Matthes, M & Rossetto, M 2004, *Guidelines for the Translocation of Threatened Plants in Australia* (2nd ed.), Australian Network for Plant Conservation, Canberra.