

A statement for the purposes of approved conservation advice
(s266B of the *Environment Protection and Biodiversity Conservation Act 1999*)

Approved Conservation Advice for
***Acacia denticulosa* (Sandpaper Wattle)**

This Conservation Advice has been developed based on the best available information at the time this conservation advice was approved.

Description

Acacia denticulosa, Family Mimosaceae, also known as Sandpaper Wattle, is an erect open shrub to 4 m high with yellow curved flower spikes (DEWHA, 2007). The bark is smooth and grey on the main trunk and rough, warty and dark reddish on the branchlets. The leaves are round, wavy, stiff and sandpapery. The seeds pods are linear, light brown and wrinkled and may be straight or slightly curved (Hopper et al., 1990; Brown et al., 1998).

Conservation Status

Sandpaper Wattle 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 rare flora under the *Wildlife Conservation Act 1950* (Western Australia) and on the *Wildlife Conservation (Rare Flora) Notice 2006(2)* (Western Australia).

Distribution and Habitat

Sandpaper Wattle occurs in the wheatbelt region of south-western Western Australia, from east of Mt Churchman, south to near Nungarin and west to Wongan Hills. This species occurs within the Avon (Western Australia) Natural Resource Management Region. It is known from eight populations over a range of 180 km. The species is conserved in Karroun Hill Nature Reserve. Sandpaper Wattle usually grows in shallow sandy soils or in loams, silts or clay and is sometimes associated with granite hills and outcrops. It rarely grows on sandplains (DEC, 2007; DEWHA, 2007).

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

Threats

The main identified threats to Sandpaper Wattle include prolonged drought (Brown et al., 1998); broad scale vegetation clearing; grazing pressure; exotic weeds such as Bridal Creeper (*Asparagus asparagoides*), Saffron Thistle (*Carthamus lanatus*) and Cape Tulip (*Moraea flaccida*); changed fire regimes; and changed hydrology (Beecham, 2004; Avon Catchment Council, 2005).

Broad scale vegetation clearing is continuing with local governments removing natural vegetation for improved access, road works and road safety. In areas of private land ownership, grazing needs to be controlled. Fire impact due to escape from poorly contained crop stubble burns is common. This affects remnant bush, reserves, riparian vegetation and tree plantings (Avon Catchment Council, 2005).

The main potential threat to Sandpaper Wattle may occur through prolonged droughts altering the hydrology of an area, leading to increased salinity.

Research Priorities

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

- Design and implement a monitoring program, and

- Undertake survey work in suitable habitat and potential habitat to locate any additional populations/occurrences/remnants.

Regional Priority Actions

The following regional priority recovery and threat abatement actions can be done to support the recovery of Sandpaper Wattle.

Habitat Loss, Disturbance and Modification

- Identify populations of high conservation priority.
- Manage threats to areas of vegetation that contain populations/occurrences/remnants of Sandpaper Wattle.
- Ensure chemicals or other mechanisms used to eradicate weeds do not have a significant adverse impact on Sandpaper Wattle.
- Ensure road widening and maintenance activities (or other infrastructure or development activities as appropriate) in areas where Sandpaper Wattle occurs do not adversely impact on known populations.
- Manage any changes to hydrology that may result in changes to the water table levels, increased run-off, sedimentation or pollution.
- Investigate formal conservation arrangements such as the use of covenants, conservation agreements or inclusion in reserve tenure.

Invasive Weeds

- Develop and implement a management plan for the control of weeds, including Bridal Creeper, Saffron Thistle, Cape Tulip and introduced grasses in the local region.

Trampling, Browsing or Grazing

- Develop and implement a stock management plan for roadside verges and travelling stock routes.
- Develop and implement a management plan for areas that are traditionally grazed by domestic animals

Fire

- Identify appropriate intensity and interval of fire to promote seed germination.
- Develop and implement a suitable fire management strategy for Sandpaper Wattle.
- 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.

Conservation Information

- Raise awareness of Sandpaper Wattle within the local community.

Enable Recovery of Additional Sites and/or Populations

- Undertake appropriate seed collection and storage.
- Undertake seed germination and/or vegetative propagation trials to determine the requirements for successful establishment.

Local Priority Actions

The following local priority recovery and threat abatement actions can be done to support the recovery of Sandpaper Wattle.

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.

- Monitor number of individuals in populations and if a reduction is detected, take appropriate action to prevent further losses.
- Control access routes to suitably constrain public access to known sites on public land, especially within Karroun Hill Nature Reserve.
- Suitably control and manage access on private land.
- Minimise adverse impacts from land use at known sites.
- Manage any disruptions to water flows.
- Protect populations of the listed species through the development of conservation agreements and/or covenants.

Invasive Weeds

- Identify and remove weeds (especially Bridal Creeper, Saffron Thistle, Cape Tulip and introduced grasses) in the local area, which could become a threat to Sandpaper Wattle, using appropriate methods.
- Manage sites to prevent introduction of invasive weeds, which could become a threat to Sandpaper Wattle, using appropriate methods.

Trampling, Browsing or Grazing

- Prevent grazing at known sites on private property through exclusion fencing or other barriers.
- Prevent grazing at known sites on leased crown land through exclusion fencing or other barriers.

Fire

- Implement an appropriate fire regime for local populations.

This list does not necessarily encompass all actions that may be of benefit to Sandpaper Wattle, 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

- The Avon Natural Resource Management Strategy (Avon Catchment Council, 2005), and
- Avon Wheatbelt 1 (AW1 – Ancient Drainage subregion) (Beecham, 2004).

Information Sources:

Avon Catchment Council 2005, *The Avon Natural Resource Management Strategy - The Regional Natural Resource Management Strategy for the Avon River Basin*, Avon Catchment Council, viewed 11 March 2008, <http://www.avonnrm.org.au/regional_strategy>.

Beecham, B 2004, Avon Wheatbelt 1 (AW1 – Ancient Drainage subregion), in *A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions in 2002*, eds JE May & NL McKenzie, Dept. of Conservation and Land Management, Kensington, Western Australia, viewed 11 March 2008, <http://www.naturebase.net/pdf/science/bio_audit/avon_wheatbelt01_p7-35.pdf>.

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

Department of Environment and Conservation (DEC) 2007, *Acacia denticulosa - FloraBase*, viewed 11 March 2008, <<http://florabase.calm.wa.gov.au>>.

Department of the Environment, Water, Heritage and the Arts (DEWHA) 2007, *Acacia denticulosa - Species Profile and Threats Database*, Department of the Environment, Water, Heritage and the Arts, viewed 11 March 2008, <<http://www.environment.gov.au/sprat>>.

Hopper, SD, vanLeeuwen, S, Brown, AP & Patrick, SJ (eds) 1990, *Western Australia's Endangered Flora and other plants under consideration for declaration*, Department of Conservation and Land Management (Western Australia), Perth.