

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

**Approved Conservation Advice for
Acacia recurvata (Recurved Wattle)**

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

Acacia recurvata, Family Mimosaceae, also known as Recurved Wattle, is a dense domed spreading shrub growing to 2.5 m high and 1–3 m across (Cowan & Maslin, 1999; Orchard & Wilson, 2001). The dark green to dull grey-green leaf-like phyllodes are narrow, growing to 2.5-4 cm long and 4-8 mm wide (Orchard & Wilson, 2001; World Wide Wattle, 2005). The small, golden, globular flower heads are paired (Brown et al., 1998) and borne in June–July (Brown et al., 1998; Cowan & Maslin, 1999; Patrick & Brown, 2001). Young pods have been collected in September (Patrick & Brown, 2001) and mature pods in October (Cowan & Maslin, 1999).

Conservation Status

Recurved Wattle is listed as **endangered**. This species is eligible for listing as endangered 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 endangered under Schedule 1 of the *Endangered Species Protection Act 1992* (Cwlth). The species is also listed as rare (declared rare flora – extant) under the *Wildlife Conservation Act 1950* (Western Australia).

Distribution and Habitat

Recurved Wattle is endemic to Western Australia, where it is restricted to four locations in the Coorow–Three Springs area, south-east of Geraldton (Orchard & Wilson, 2001; Patrick & Brown, 2001; Western Australian Herbarium, 2007). This species is reserved in Dookanooka Nature Reserve (Orchard & Wilson, 2001), where, in 1992, the population supported an estimated 100 plants in good condition (Patrick & Brown, 2001). This species occurs within the Northern Agricultural (Western Australia) Natural Resource Management Region.

Recurved Wattle grows on or near breakaways in Broombush (*Melaleuca uncinata*) shrubland, or in Wandoo (*Eucalyptus wandoo*) open woodland along watercourses in sandy clay and hard granitic clay-loam (Cowan & Maslin, 1999; Paczkowska & Chapman, 2000; Orchard & Wilson, 2001).

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

Threats

The main identified threat to Recurved Wattle is dieback caused by the root-rot fungus *Phytophthora cinnamomi* (Brown et al., 1998).

The main potential threats to Recurved Wattle include weed invasion (Desmond & Chant, 2001; ANRA 2007); increasing fragmentation; loss of remnants; and inappropriate fire regimes (ANRA, 2007). Recurved Wattle is thought to be an obligate seeder (plants are killed by fire and are dependant on seed for regeneration) (Cochrane et al., 2002).

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, fire ecology, 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.

Regional and Local Priority Actions

The following priority recovery and threat abatement actions can be done to support the recovery of Recurved 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.
- Ensure that the road verge population is appropriately marked (Patrick & Brown, 2001).
- Ensure road widening and maintenance activities involving substrate or vegetation disturbance where Recurved Wattle occurs do not adversely impact known populations.
- Protect further populations of the listed species through the development of conservation agreements and/or covenants.
- Control access routes to suitably constrain public access to known sites on public land.
- Suitably control and manage access on private land.
- Minimise adverse impacts from land use at known sites.

Fire

- Develop and implement a suitable fire management strategy for Recurved Wattle.
- 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.

Invasive Weeds

- Identify and remove weeds in the local area, which could become a threat to Recurved Wattle, using appropriate methods.
- Ensure chemicals or other mechanisms used to eradicate weeds do not have a significant adverse impact on the Recurved Wattle.
- Manage sites to prevent introduction of invasive weeds, which could become a threat to Recurved Wattle, using appropriate methods.

Diseases, Fungi and Parasites

- Establish and implement dieback hygiene procedures to protect known sites from further outbreaks of dieback caused by the root-rot fungus *Phytophthora cinnamomi* (Brown et al., 1998; Patrick & Brown, 2001).

Conservation Information

- Raise awareness of Recurved Wattle within the local community; maintain liaison with appropriate landowners and the Shire (Patrick & Brown, 2001).

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Enable Recovery of Additional Sites and/or Populations

- Undertake appropriate seed collection and storage according to the protocols of the Threatened Flora Seed Centre at the Western Australian Herbarium (Patrick & Brown, 2001).
- 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 Recurved 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

- Declared Rare and Poorly Known Flora in the Moora District (Patrick & Brown, 2001), and
- Threat Abatement Plan for Dieback Caused by the Root-Rot Fungus *Phytophthora cinnamomi* (EA, 2001).

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

Information Sources:

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