

**Approved Conservation Advice for**  
***Scaevola macrophylla* (Large-Flowered Scaevola)**

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

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**

*Scaevola macrophylla*, Family Goodeniaceae, also known as Large-Flowered Scaevola, is an erect herb, covered with rough hairs, that is woody at the base, and can grow to 0.4 m high. The leaves are ovate or lanceolate, ending in a point, and mostly toothed. The flowers are blue or purple, almost sessile, in a terminal, leafy spike, at first very dense, but afterwards lengthening. The flowering period is from September to October (Bentham, 1868; Western Australian Herbarium, 2006).

**Conservation Status**

The Large-Flowered Scaevola is listed as **critically endangered**. This species is eligible for listing as critically endangered under the *Environment Protection and Biodiversity Conservation Act 1999* (Cwlth) (EPBC Act) as it has undergone a very severe reduction in numbers, the estimated total number of mature individuals is zero as the species only exists as soil-stored seed, and it has a very restricted geographic distribution which is precarious for its survival, given the nature of ongoing threats (TSSC, 2009).

The Large-Flowered Scaevola is also listed as declared rare flora under the *Western Australian Wildlife Conservation Act 1950*, and is managed as critically endangered (according to IUCN criteria) by the Western Australian Government.

**Distribution and Habitat**

The Large-Flowered Scaevola is endemic to Western Australia. It is known from three populations in the Cape Riche area, near Albany, approximately 480 km south-east of Perth (DEC, 2009).

The species was last recorded in 1987, where it was recorded as 'locally abundant' (DEC, 2009). Anecdotal information suggests this species had an area of occupancy less than 1 km<sup>2</sup> (DEC, 2009).

The species is considered still to exist as soil-stored seed (DEC, 2009).

The Large-Flowered Scaevola grows in rocky loam soil with the parent soil material being laterite. The species occurs in association with *Verticordia* (Featherflowers) and *Kunzea* (Kunzeas) species. It is thought to be a short lived species that recruits post fire (DEC, 2009).

The species occurs within the Esperance Plains IBRA Bioregion and the South Coast Natural Resource Management region. The distribution of this species is not known to overlap with any EPBC Act-listed threatened ecological community.

**Threats**

The main identified threat to the species is inappropriate fire regimes which may affect the long-term viability of the species (DEC, 2009).

## **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 geographic distribution, ecological requirements, and the relevant impacts of threatening processes, including:
  - factors that trigger or influence germination and recruitment
  - the pollination biology of the species and the requirements of pollinators
  - seed viability
  - longevity of plants and time taken to reach maturity
  - the reproductive strategies, phenology and seasonal growth of the species
  - the species' response to disturbance (e.g. fire)
  - other relevant mortality and morphological data for the species.
- Undertake survey work in suitable habitat and potential habitat during the September to October flowering period to locate any populations/occurrences/remnants.
- Undertake seed germination trials to determine the requirements for successful establishment.

## **Priority Actions**

The following priority recovery and threat abatement actions can be done to support the recovery of the Large-Flowered Scaevola.

### **Habitat Loss, Disturbance and Modification**

- Monitor suitable habitat and sites where the species was known to previously occur, to identify key threats.
- Ensure there is no disturbance in areas where the Large-Flowered Scaevola was known to previously occur, excluding necessary actions to manage the conservation of the species.
- Control access routes to suitably constrain public access to known sites on public land.
- Minimise adverse impacts from land use (including grazing pressure) at known sites.
- If found on land other than reserves, Investigate formal conservation arrangements, management agreements and covenants on private land, and for crown and private land investigate inclusion in reserve tenure if possible.
- Monitor the progress of recovery, including the effectiveness of management actions and the need to adapt them if necessary.

### **Fire**

- Develop and implement a suitable fire management strategy for the habitat of the Large-Flowered Scaevola.
- Identify appropriate intensity and interval of fire to promote seed germination.
- Where appropriate, 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 the Large-Flowered Scaevola within the local community through signage, posters, and fact sheets/information brochures to be distributed to local naturalist groups, relevant authorities and volunteer organisations.
- Frequently engage with private landholders and land managers responsible for the land on which populations previously occurred and areas of suitable habitat, and encourage these key stakeholders to contribute to the implementation of conservation management actions.

### **Enable Recovery of Additional Sites and/or Populations**

- Undertake appropriate seed collection and storage.

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

This list does not necessarily encompass all actions that may be of benefit to the Large-Flowered Scaevola, but highlights those that are considered to be of highest priority at the time of preparing the Conservation Advice.

**Information Sources:**

Bentham G (1868). Flora Australiensis 4:98.

DEC (Department of Environment and Conservation) (2009). Records held in DEC's declared flora database and rare flora files. Western Australian Department of Environment and Conservation, Western Australia.

TSSC (Threatened Species Scientific Committee) (2009). Listing advice for *Scaevola macrophylla* (Large-Flowered Scaevola).

Vallee L, Hogbin T, Monks L, Makinson B, Matthes M and Rossetto M (2004). Guidelines for the translocation of threatened plants in Australia - second edition. Australian Network for Plant Conservation, Canberra.

Western Australian Herbarium (2006). FloraBase – the Western Australian flora. Department of Environment and Conservation. Available on the Internet at:  
<http://florabase.calm.wa.gov.au/>