

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

**Approved Conservation Advice for
Isopogon fletcheri (Fletcher's Drumsticks)**

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

Description

Isopogon fletcheri, Family Proteaceae, also known as Fletcher's Drumsticks, is an erect, stout shrub growing up to about 1–1.5 metres high. Yellowish or creamy-green flowers occur in spring and are crowded into dense globular drumstick-like heads held upright at the ends of thick stems (Fairley, 2004; DECC, 2005). Leaves are leathery, entire, narrow lance-shaped, approximately 12 cm long and 2 cm wide and have a blunt point. Fruit is a rounded woody cone about 2 cm across (Fairley, 2004; DECC, 2005).

Conservation Status

Fletcher's Drumsticks 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). This species is also listed as vulnerable under Schedule 2 of the *Threatened Species Conservation Act 1995* (NSW).

Distribution and Habitat

Fletcher's Drumsticks is restricted to a small area in the Blackheath district of the Blue Mountains, NSW (DECC, 2005). The entire known population occurs within the Blue Mountains National Park (DECC, 2005), within the Hawkesbury–Nepean (NSW) Natural Resource Management Region.

Fletcher's Drumsticks grows in moist sheltered cliffs within the spray zone of a waterfall. It also occurs in dry sclerophyll forest and heath on sandstone, although confined to sheltered, moist positions.

The distribution of this species overlaps with the following EPBC Act-listed threatened ecological communities:

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland, and
- Temperate Highland Peat Swamps on Sandstone.

Threats

The main identified threats to Fletcher's Drumsticks include habitat loss, environmental and demographic uncertainty, and pathogens such as dieback caused by *Phytophthora cinnamomi* (DECC, 2005).

Research Priorities

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

- Develop and implement a monitoring program.
- Undertake survey work in suitable habitat and potential habitat to locate any additional populations/occurrences.
- More precisely assess population size, population dynamics and ecological requirements.
- Undertake seed germination and/or vegetative propagation trials to determine the requirements for successful establishment.

Regional Priority Actions

The following regional priority recovery and threat abatement actions can be done to support the recovery of Fletcher's Drumsticks.

Habitat Loss, Disturbance and Modification

- Identify populations of high conservation priority.
- Manage threats to areas of vegetation that contain populations/occurrences/remnants of Fletcher's Drumsticks.
- Ensure road widening and maintenance activities (or other infrastructure or development activities as appropriate) involving substrate or vegetation disturbance in areas where Fletcher's Drumsticks 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.

Diseases, Fungi and Parasites

- Implement the appropriate hygiene protocols recommended in the Threat Abatement Plan for Dieback Caused by the Root-rot Fungus *Phytophthora cinnamomi* (EA, 2001) to protect known sites from further outbreaks of dieback.

Conservation Information

- Raise awareness of Fletcher's Drumsticks within the local community, including increasing knowledge of threats and the role of humans in spreading *Phytophthora cinnamomi*.

Enable Recovery of Additional Sites and/or Populations

- Undertake appropriate seed collection and storage.
- 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.

Local Priority Actions

The following local priority recovery and threat abatement actions can be done to support the recovery of Fletcher's Drumsticks.

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.
- Control access routes to suitably constrain public access to known sites on public land.
- Minimise adverse impacts from land use at known sites.

Diseases, Fungi and Parasites

- Implement the appropriate hygiene protocols recommended in the Threat Abatement Plan for Dieback Caused by the Root-rot Fungus *Phytophthora cinnamomi* (EA, 2001) to protect the species from further outbreaks of dieback caused by *Phytophthora cinnamomi*.

This list does not necessarily encompass all actions that may be of benefit to this species 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

- Blue Mountains National Park Fire Management Strategy (NSW NPWS, 2000) and Plan of Management (NSW NPWS, 2001),

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- Blue Mountains City Councils Megalong Reserve Draft Management Plan (BMCC, 2007), 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:

Blue Mountains City Council (BMCC) 2007, *Megalong Reserve Draft Management Plan*, viewed 16 December 2007, <<http://www.bmcc.nsw.gov.au/download.cfm?f=F2DC35F3-423B-CE58-A789B255A9202144>>.

Department of Environment and Climate Change (DECC) 2005, *Threatened species profile database, Isopogon fletcheri*, viewed 16 December 2007, <<http://www.threatenedspecies.environment.nsw.gov.au/tsprofile/profile.aspx?id=10440>>.

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Fairley, A, 2004, *Seldom seen rare plants of greater Sydney*, New Holland, Australia.

New South Wales National Parks and Wildlife Service (NSW NPWS) 2000, *Blue Mountains National Park Fire Management Strategy*, viewed 10 December 2007, <http://www.nationalparks.nsw.gov.au/PDFs/FMS_BlueMountainsNP.pdf>.

New South Wales National Parks and Wildlife Service (NSW NPWS) 2001, *Blue Mountains National Park, Plan of Management*, viewed 10 December 2007, <http://www.nationalparks.nsw.gov.au/PDFs/pom_final_bluemountains.pdf>.

Vallee, L, Hogbin, T, Monks, L, Makinson, B, Matthes, M & Rossetto, M 2004, *Guidelines for the Translocation of Threatened Plants in Australia - Second Edition*, Australian Network for Plant Conservation, Canberra.