

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

**Approved Conservation Advice for**  
***Lasiopetalum joyceae***

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

**Description**

*Lasiopetalum joyceae*, Family Sterculiaceae, is an erect shrub, growing to 2 m tall. Leaves are 3–9 cm long, the upper surface is dark-green and smooth, with veins visible but not prominent. The lower surface is covered with dense whitish to rusty hairs. Flowers are in clusters of three to four and are pink to red-brown and hairy (Harden, 1990).

**Conservation Status**

*Lasiopetalum joyceae* 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 vulnerable under the *Threatened Species Conservation Act 1995* (NSW).

**Distribution and Habitat**

*Lasiopetalum joyceae* grows in heath on sandstone, on lateritic to shaley ridgetops. This species occurs within the Hawkesbury–Nepean (NSW) Natural Resource Management Region. It is currently known from 34 sites on the Hornsby Plateau between Berrilee and Duffys Forest. Seventeen of these sites are within reserves, although many are located at the reserves' edges. The total population is estimated to be fewer than 3000 individuals and is highly fragmented. Only five sites have more than 200 plants and the remainder have 100 or fewer (NSW Scientific Committee, 2002).

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

- Shale/Sandstone Transition Forest,
- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland, and
- Turpentine-Ironbark Forest in the Sydney Basin Bioregion.

**Threats**

The main identified threats to *L. joyceae* are too-frequent hazard reduction burns and general habitat degradation due to proximity to residential areas, park boundaries and fire trails (NSW Scientific Committee, 2002).

The main potential threat is to smaller populations which may be threatened by catastrophic events (NSW Scientific Committee, 2002).

**Research Priorities**

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

- Design and implement a monitoring program,
- Research into fire and disturbance response of *Lasiopetalum joyceae*, and
- Undertake survey work in suitable habitat and potential habitat to locate any additional populations/occurrences.

### **Regional Priority Actions**

The following regional priority recovery and threat abatement actions can be done to support the recovery of *Lasiopetalum joyceae*.

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

- Manage threats to areas of vegetation that contain populations/occurrences/remnants of *Lasiopetalum joyceae*.
- Ensure residential development, road widening and maintenance activities (including for fire trails) in areas where *L. joyceae* occurs do not adversely impact on known populations.

#### **Fire**

- Develop and implement a suitable fire management strategy for *Lasiopetalum joyceae*.
- 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.

#### **Conservation Information**

- Raise awareness of *L. joyceae* within the local community.
- Ensure agencies undertaking fire trail or easement maintenance activities are aware of the species, its location and habitat.

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

- Investigate options for linking, enhancing or establishing additional populations.
- Implement appropriate national translocation protocols (Vallee et al. 2004) if establishing additional populations is considered necessary and feasible.
- Undertake appropriate seed collection and storage.
- Maintain *ex-situ* populations reported to be in cultivation at Adelaide Botanic Gardens (SA) and Mt Annan Botanic Gardens (NSW) (CHABG, 1994).

### **Local Priority Action**

The following local priority recovery and threat abatement actions can be done to support the recovery of *Lasiopetalum joyceae*.

#### **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.
- Protect populations of the listed species located outside reserves through the development of conservation agreements and/or covenants.

#### **Fire**

- Implement an appropriate fire management regime for local populations.

This list does not necessarily encompass all actions that may be of benefit to *L. joyceae*, 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**

- NSW Priority Action Statement for *Lasiopetalum joyceae* (DEC, 2005).

### **Information Sources:**

Council of Heads of Australian Botanic Gardens (CHABG) 1994, *Census of plants in Australian botanic gardens*, Australian National Botanic Gardens, viewed 11 March 2008, <<http://www.anbg.gov.au/chabg/census/census.html>>.

Department of Environment & Conservation NSW (DEC) 2005, *Lasiopetalum joyceae* - Priority actions (NSW Threatened Species Priority Action Statement), viewed 11 March 2008, <[http://www.threatenedspecies.environment.nsw.gov.au/tsprofile/pas\\_profile.aspx?id=10451](http://www.threatenedspecies.environment.nsw.gov.au/tsprofile/pas_profile.aspx?id=10451)>.

Harden, GJ 1990, *Lasiopetalum joyceae* Blakely, PlantNET - The Plant Information Network System of Botanic Gardens Trust, Sydney, Australia, viewed 11 March 2008, <<http://plantnet.rbgsyd.nsw.gov.au/cgi-bin/NSWfl.pl?page=nswfl&lvl=sp&name=Lasiopetalum~joyceae>>.

NSW Scientific Committee 2002, *Final Determinations of the NSW Scientific Committee 1999-2002*, viewed 11 March 2008, <<http://www.nationalparks.nsw.gov.au/npws.nsf/Content/Lasiopetalum+joyceae+a+shrub+-+vulnerable+species+listing>>.

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.