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

Approved Conservation Advice for *Epacris sparsa*

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

Description

Epacris sparsa, Family Epacridaceae, also known as Sparse Heath, is a small erect shrub to 0.9 m high. Leaves are elliptical to ovate with slightly thickened margins. Stems have cup-shaped leaf scars with slightly pubescent (hairy) branchlets. Flowers are cream to greenish-white, appear from May to June and are followed by capsules ripening in September (DECC, 2005a).

Conservation Status

Epacris sparsa 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

Most known populations of *E. sparsa* occur within Blue Mountains National Park, NSW. Four populations are also known from the lower Grose River area, Avoca Vale Reserve (Buralow Creek; largest population with 150 plants), south-west of North Richmond, and at Linden Creek below Faulconbridge Point (Powell & James, 1993; Fairley, 2004). The species occurs within the Hawkesbury–Nepean (NSW) Natural Resource Management Region (DECC, 2005a).

This species is found at the base of rock faces in the riparian flood zone in pockets of damp sandy clay soils derived from exposed shale lenses between Hawkesbury Sandstone beds. The sites are frequently subject to high moisture from wind driven spray and would be inundated during periods of high rainfall (Powell & James, 1993).

In rocky sites, the scrub vegetation is dominated by *Tristaniopsis laurina, Leptospermum trinervium, Allocasuarina littoralis, Acacia longifolia, Grevillea sericea* and *Lomandra fluviatilis*. In wetter, more sheltered sites, typical species include *Callicoma serratifolia, Backhousia myrtifolia, Austromyrtus tenuifolia, Leucopogon lanceolatus, Lomandra montana, Todea barbara, Sticherus flabellatus and Dracophyllum secundum* (NSW NPWS, 2000).

The distribution of this species overlaps with the “White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland” EPBC Act-listed threatened ecological community.

Threats

The main identified threats to the species are pollution; increased urban runoff; sedimentation; weed invasion; and fire (DECC, 2005a).

The main potential threats to the species include changes to hydrology and the potential for changes in riparian habitats resulting from climate change.

Research Priorities

Research priorities to inform future regional and local priority actions include:

- Investigation of germination, propagation and ecology of the species (DECC, 2005b),
- Long-term research of populations to measure the adaptability of the species over time to changes in the environment (DECC, 2005b), 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 *Epacris sparsa*.

Habitat Loss, Disturbance and Modification

- Identify populations of high conservation priority.
- Manage threats to areas of vegetation that contain populations/occurrences/remnants of *Epacris sparsa.*
- Ensure chemicals or other mechanisms used to eradicate weeds do not have a significant adverse impact on *Epacris sparsa.*
- 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.

Fire

- Develop and implement a suitable fire management strategy for *Epacris sparsa.*
- 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 *E. sparsa* within the local community, particularly with respect to pollution and sedimentation threats.

Enable Recovery of Additional Sites and/or Populations

- 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.
- Undertake appropriate seed collection and storage.

Local Priority Actions

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

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.
- Manage any disruptions to water flows.

Invasive Weeds

- Identify and remove weeds in the local area, which could become a threat to *E. sparsa*, using appropriate methods, such as hand removal or herbicide spraying.
- Manage sites to prevent introduction of invasive weeds, which could become a threat to *E. sparsa*, using appropriate methods.

Fire

- Implement an appropriate fire management regime for local populations.

This list does not necessarily encompass all actions that may be of benefit to *E. sparsa*, 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 Threatened Species Priority Action Statement (DECC, 2005b),
- Blue Mountains Fire Management Strategy (NSW NPWS, 2004), and
- Blue Mountains National Park Plan of Management (NSW NPWS, 2001).

Information Sources:

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

Department of Environment and Climate Change (DECC) 2005a, *Threatened species profile database, Epacris sparsa*, viewed 11 March 2008, <http://threatenedspecies.environment.nsw.gov.au/tsprofile/profile.aspx?id=10274>.

Department of Environment and Climate Change (DECC) 2005b, *Epacris sparsa - Priority actions* (NSW Threatened Species Priority Action Statement), viewed 11 March 2008, <http://www.threatenedspecies.environment.nsw.gov.au/tsprofile/pas_profile.aspx?id=10274>.

New South Wales National Parks and Wildlife Service (NSW NPWS) 2000, *Threatened species profile, Epacris sparsa*, viewed 11 March 2008, <http://www.nationalparks.nsw.gov.au/PDFs/TSprofile_Epacris_sparsa.pdf>.

New South Wales National Parks and Wildlife Service (NSW NPWS) 2001, *Blue Mountains National Park, Plan of Management*, viewed 11 March 2008, <http://www.environment.nsw.gov.au/resources/parks/pomFinalBluemountains.pdf>.

New South Wales National Parks and Wildlife Service (NSW NPWS) 2004, *Blue Mountains National Park Fire Management Strategy*, viewed 11 March 2008, <http://www.environment.nsw.gov.au/resources/parks/FMSBlueMountainsNP.pdf>.

Powell, JM & James, TM 1993, *Epacris sparsa* (Epacridaceae) reinstated, *Telopea*, vol. 5, no. 2, pp. 376.

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.