

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

**Approved Conservation Advice for**  
***Eucryphia wilkiei***

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**

*Eucryphia wilkiei*, Family Eucryphiaceae, is a shrub growing to 3–4 m tall with a dense, rounded crown. The leaves are opposite and either simple or with 2–5 leaflets, on stalks to 5 mm long. Leaf/ leaflet blades are elliptic-oblong to lance-shaped, 19–43 mm long and 3–12 mm wide, and silky hairy when young. Mature leaves are glossy green above, with a depressed midrib and 12–20 pairs of lateral veins distinctly visible on the underside. The flowers are in the leaf axils, on stalks that elongate to 10 mm at flowering. The four sepals are overlapping, 8–9 mm long, the outermost pair densely woolly. The four petals are broadly ovate, 12–15 mm long, with a rounded apex. The capsule is woody, approximately 10 mm long, with 7–9 valves (Forster & Hyland, 1996).

**Conservation Status**

*Eucryphia wilkiei* 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), as *Eucryphia* sp. (M.Godwin C1158; Mt Bartle Frere). *Eucryphia wilkiei* is also listed as vulnerable under the *Nature Conservation Act 1992* (Queensland).

**Distribution and Habitat**

*Eucryphia wilkiei* is known only from one population on the eastern summit area of Mt Bartle Frere in north-eastern Queensland, where it occurs from 1200–1400 m altitude in microphyll vine thicket among large granite boulders. This population occurs within the Wooroonooran National Park, where it is recorded as locally common (Forster & Hyland, 1996; Queensland Herbarium, 2008). The population size and extent of occurrence of this species are unknown.

This species occurs within the Wet Tropics 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 potential threats to *Eucryphia wilkiei* include climate change; irregular damage caused by cyclones and storms (Forster & Hyland, 1996); recreation activities; and track maintenance. The species occurs only at the top of Mt Bartle Frere and could therefore be affected by climate change (Hilbert et al., 2001). The population occurs adjacent to a walking track and may be affected by human trampling and track maintenance activities (P. Forster, 2008, pers. comm.).

**Research Priorities**

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

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- Design and implement a monitoring program or, if appropriate, support and enhance existing programs.
- Undertake survey work in suitable habitat and potential habitat to locate any additional populations/occurrences/remnants.
- More precisely assess population size, distribution, ecological requirements and the relative impacts of threatening processes.

### **Regional and Local Priority Actions**

The following regional and local priority recovery and threat abatement actions can be done to support the recovery of *E. wilkiei*.

#### **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 visitors and track maintenance activities do not adversely impact on known populations.
- Minimise adverse impacts from land use at known sites.
- Control access routes to suitably constrain public access to known sites on public land.

#### **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.

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

- Wet Tropics Conservation Strategy: the conservation, rehabilitation and transmission to future generations of the Wet Tropics World Heritage Area (WTMA, 2004).

This prescription was current at the time of publishing; please refer to the relevant agency's website for any updated versions.

### **Information Sources:**

Forster, PI & Hyland, BPM 1996, 'Two new species of *Eucryphia* Cav. (Cunoniaceae) from Queensland', *Austrobaileya*, vol. 4, no. 4, pp. 589–596.

Forster, PI (Queensland Herbarium EPA), Personal communication, 29 July 2008.

Hilbert, DW, Ostendorf, B & Hopkins, MS 2001, 'Sensitivity of tropical forests to climate change in the humid tropics of north Queensland', *Austral Ecology*, vol. 26, pp. 590–603.

Queensland Herbarium 2008, specimen label information, viewed 8 June 2008.

Vallee, L, Hogbin, T, Monks, L, Makinson, B, Matthes, M & Rossetto, M 2004, *Guidelines for the Translocation of Threatened Plants in Australia* (2<sup>nd</sup> ed.), Australian Network for Plant Conservation, Canberra.

Wet Tropics Management Authority (WTMA) 2004, Wet Tropics Conservation Strategy: the conservation, rehabilitation and transmission to future generations of the Wet Tropics World Heritage Area, WTMA, Cairns.