

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

**Approved Conservation Advice for**  
***Callistemon pungens***

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

**Description**

*Callistemon pungens*, Family Myrtaceae, also known in the horticultural industry as Callistemon 'Lana', C. 'Gilesii', C. 'Armidale' and C. 'Severn River', is a very distinctive shrub or small tree growing 2–5 m tall. The leaves are 2–3 cm long and have a pungent tip 1–2 mm long, while the flower spike (inflorescence) is 5–6 cm long and 2.5–4.5 cm in diameter with purple stamens (National Herbarium of NSW, 1999–2007). The species is characterised by its purple stamens and small, pungent leaves (Lumley & Spencer, 1990). It flowers over spring and summer, mostly in November.

**Conservation Status**

*Callistemon pungens* 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 *Nature Conservation Act 1992* (Queensland).

**Distribution and Habitat**

*Callistemon pungens* occurs in south-east Queensland and the northern tablelands of north-east NSW. In NSW, it occurs from near Inverell to the eastern escarpment in New England, along rocky watercourses usually with sandy granite (or occasionally basalt) creek beds, and generally among naturalised species. In southern Queensland, it occurs in the Stanthorpe region. This species occurs within Border Rivers and Maranoa–Balonne (Queensland), and Border Rivers–Gwydir, Namoi and Northern Rivers (NSW) Natural Resource Management Regions.

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
- Upland Wetlands of the New England Tablelands and the Monaro Plateau.

**Threats**

The main identified threats to *C. pungens* are habitat loss, weed invasion and excessive fragmentation. Invasion of the species' riparian habitat by the weeds Japanese Honeysuckle (*Lonicera japonica*) and Blackberry (*Rubus anglocandicans*) threaten *C. pungens* in the Stanthorpe Plateau region (Donatiu, 2006), and may be relevant over the wider range.

Fire is a potential threat to the species, particularly in the Stanthorpe Plateau region. Although the fire response of *C. pungens* is not well known, it is reported to re-sprout following fire (Clarke and Knox, 2002). A 5–15 year fire regime is considered to be a suitable fire frequency to prompt resprouting in *Callistemon pungens* (Donatiu, 2006).

**Research Priorities**

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

- Design and implement a monitoring program, and

- Undertake survey work in suitable habitat and potential habitat to locate any additional populations/occurrences/remnants.

### **Regional Priority Actions**

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

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

- Identify populations of high conservation priority.
- Manage threats to areas of vegetation that contain populations/occurrences/remnants of *C. pungens*.
- Ensure chemicals or other mechanisms used to eradicate weeds do not have a significant adverse impact on *C. pungens*.
- Ensure road widening and maintenance activities (or other infrastructure or development activities as appropriate) in areas where the *C. pungens* occurs do not adversely impact known populations.
- Investigate formal conservation arrangements such as the use of covenants, conservation agreements or inclusion in reserve tenure.

#### **Invasive Weeds**

- Develop and implement a management plan for the control of naturalised plants where they pose a threat to *C. pungens* in the local region.

#### **Fire**

- Develop and implement a suitable fire management strategy for *C. pungens*.
- 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 *C. pungens* within the local community.

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

- Undertake appropriate seed collection and storage.
- Undertake seed germination and/or vegetative propagation trials to determine the requirements for successful establishment.
- 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 *Callistemon pungens*.

#### **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.
- Suitably control and manage access on private land.
- Minimise adverse impacts from land use at known sites.
- Protect populations of the listed species through the development of conservation agreements and/or covenants.

### Invasive Weeds

- Identify and remove weeds in the local area, which could become a threat to *C. pungens*, using appropriate methods.
- Manage sites to prevent introduction of invasive weeds, which could become a threat to *C. pungens*, 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 *C. pungens* but highlights those that are considered to be of highest priority at the time of preparing the conservation advice.

### **Information Sources:**

Clarke, PJ & Knox, JE 2002, 'Post-fire response of shrubs in the tablelands of eastern Australia: Do existing models explain habitat differences?' *Australian Journal of Botany*, vol. 50, pp. 53-62.

Donatiu, P 2006, *Stanthorpe Plateau Threatened Flora Recovery Plan 2007-2011*, Queensland Murray-Darling Committee, Toowoomba, Department of Environment and Heritage, Canberra.

Lumley, PF & Spencer, RD 1990, 'Two new species of *Callistemon* R. Br. (Myrtaceae)', *Muelleria*, vol. 7, no. 2, pp. 253.

National Herbarium of New South Wales (1999-2007), *Callistemon pungens* Lumley & R.D.Spencer, New South Wales Flora Online, viewed 11 March 2008, <<http://plantnet.rbgsyd.nsw.gov.au/cgi-bin/NSWfl.pl?page=nswfl&lvl=sp&name=Callistemon~pungens>>.

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.