

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

Approved Conservation Advice for
***Persoonia marginata* (Clandulla Geebung)**

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

Description

Persoonia marginata, Family Proteaceae, also known as Clandulla Geebung, is a decumbent shrub growing to 20–60 cm tall (Weston, 1995), with yellow flowers. The flowering period varies, with flowers recorded in spring (Blombery & Maloney, 1992), January to February (Weston, 1995), December and winter (DECC, 2005). Few seedlings have been seen in natural populations (Blombery & Maloney, 1992), though the species has a persistent soil-stored seed bank (DECC, 2005). Fruit is likely to be dispersed by large birds such as currawongs and large mammals such as kangaroos and possums (DECC, 2005).

Conservation Status

Persoonia marginata 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

Persoonia marginata is known from the central tablelands and central coast of NSW (Weston, 1995; DECC, 2005). The core of its distribution is within Clandulla State Forest, west of Kandos, with disjunct populations occurring to the north at Dingo Creek and Mount Dangar within the Wollemi and Goulburn River National Parks; to the south within Ben Bullen State Forest, south-east of Capertee; and to the south-east at Devils Hole within Parr State Recreation Area, north of Colo Heights (DECC, 2005). The species occurs within the Central West, Hawkesbury–Nepean and Hunter–Central Rivers (NSW) Natural Resource Management Regions (DECC, 2005).

The species inhabits dry sclerophyll forest and woodland on sandstone (Harden, 1991; Weston, 1995; DECC, 2005) in heavier clayey, gravelly loam derived from Permian rocks (Blombery & Maloney, 1992), at approximately 700 m altitude on low ridges (Harden, 1991; Blombery & Maloney, 1992; Weston, 1995). Associated canopy species include *Eucalyptus punctata*, *E. sparsifolia*, *E. rossii*, *E. fibrosa* and *E. crebra*. The understorey generally comprises a shrub layer of medium density that can include *Acacia buxifolia*, *A. terminalis*, *A. verniciflua*, *Exocarpos strictus*, *Pultenaea microphylla*, *Dillwynia phyllicoides*, *Platysace ericoides*, *Persoonia linearis* and *Grevillea ramosissima*. There is a grassy ground layer of low to medium density (supporting *Chionochloa pallida*, *Lomandra filiformis* var. *coriacea*, *Dianella revoluta* and *Chrysocephalum apiculatum*) (NSW NPWS, 2000). The species appears to respond well to disturbance, with greater densities found along the edges of tracks and in areas disturbed by forestry activities (DECC, 2005).

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 *P. marginata* include habitat loss and degradation due to forestry activities, road/trail construction and maintenance, recreational activities, frequent fire, weed invasion (DECC, 2005) and spread of fungal pathogens (NSW NPWS, 2000).

The fire response of adult plants varies, with the species sometimes resprouting after fire and at other times killed by fire (DECC, 2005). Fire helps to create niches for the establishment of new plants, enabling increased light to reach the soil seed bank and, possibly, helps to liberate seed from germination inhibitors (NSW NPWS, 2000).

Research Priorities

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

- Design and implement a monitoring program.
- Undertake survey work in suitable habitat and potential habitat to locate any additional populations/occurrences/remnants, particularly at Dark Corner, on private land near Clandulla; within Wollemi NP; within Goulburn River NP; and between Clandulla State Forest and Dark Corner to verify distribution (DECC, 2005).
- Research into the species response to disturbance and fire (DECC, 2005).
- Research into germination of the species and the role of pollinators (DECC, 2005).

Regional Priority Actions

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

Habitat Loss, Disturbance and Modification

- Identify populations of high conservation priority.
- Manage threats to areas of vegetation that contain populations/occurrences/remnants of *P. marginata*.
- Ensure chemicals or other mechanisms used to eradicate weeds do not have a significant adverse impact on *P. marginata*.
- Ensure road widening and maintenance activities (or other forestry, infrastructure or development activities) involving substrate or vegetation disturbance do not adversely impact on known populations.
- 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 *P. marginata*. The species is thought to require fire no more than once every 10 years (NSW RFS, 2004).
- Avoid Hazard Reduction Techniques that include slashing, tree removal or trittering (NSW RFS, 2004).
- 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 *P. marginata* within the local community.

Diseases, Fungi and Parasites

- Develop and implement suitable hygiene protocols to prevent further outbreaks of fungal pathogens.

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Enable Recovery of Additional Sites and/or Populations

- Undertake appropriate seed collection and storage.
- Investigate options for linking, enhancing or establishing additional populations.
- Undertake seed germination and/or vegetative propagation trials to determine the requirements for successful establishment.
- 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 *P. marginata*.

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.
- Develop and implement a management strategy for forestry activities in areas where the species is known to occur (DECC, 2005).
- Develop and implement habitat management strategies to control threats, including fire, recreational use, rubbish dumping and weed control (DECC, 2005).

Invasive Weeds

- Identify and remove weeds in the local area, which could become a threat to *P. marginata*, using appropriate methods.
- Manage sites to prevent introduction of invasive weeds, which could become a threat to *P. marginata*, using appropriate methods.

Fire

- Implement an appropriate fire management regime for local populations.
- Include or review the hazard reduction conditions on the Threatened Species Hazard Reduction List (DECC, 2005).

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

- Wollemi National Park Fire Management Strategy (DEC, 2005) and Management Plan (NSW NPWS, 2001a),
- Goulburn River National Park Fire Management Plan (DEC, 2004) and Management Plan (NSW NPWS, 2003a),
- Parr State Conservation Area Plan of Management (NSW NPWS, 2001b) and Fire Management Strategy (NSW NPWS, 2003b), 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:

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