

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

**Approved Conservation Advice for
Budawangia gnidioides (Budawangs Cliff-heath)**

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

Description

Budawangia gnidioides, Family Epacridaceae / Ericaceae, also known as Budawangs Cliff-heath, is a small rhizomatous creeping shrub with stiff sharp-pointed leaves. The hairy stems grow to about 50 cm long, usually spreading through cracks in rock-faces or along sandy ledges below cliffs. The plant flowers from September to February, with shortly tubular white flowers 4–5 mm long produced among the leaves towards the ends of the stems (Powell, 1992; Telford, 1992).

Conservation Status

Budawangs Cliff-heath 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 '*Budawongia gnidioides*'. The species is also listed as vulnerable on Schedule 2 of the *Threatened Species Conservation Act 1995* (NSW).

Distribution and Habitat

Budawangs Cliff-heath occurs only in the northern Budawangs Range and associated sandstone plateau escarpments in south-eastern NSW, west of Ulladulla, over a range of less than 100 km (Briggs & Leigh, 1996). The range of Budawangs Cliff-heath occurs mostly within Morton National Park (Powell, 1992; Telford, 1992). It inhabits moist cliff-line niches, growing in skeletal soil usually below rock overhangs in sites adjacent to open forest or heathland. Associated species include Weeping Baeckea (*Baeckea linifolia*), Coral Fern (*Gleichenia rupestris*), and King Fern (*Todea barbara*). This species occurs within the Southern Rivers (NSW) Natural Resource Management Region.

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
- Natural Temperate Grassland of the Southern Tablelands of NSW and the Australian Capital Territory.

Threats

The main identified threats to Budawangs Cliff-heath are the narrow distributional range of the species, which renders it vulnerable to increasing fragmentation and loss of remnants, although this is somewhat mitigated by its presence within Morton National Park.

Disturbance by bush-walkers is also a threat, with previous damage to populations by park visitors having been observed in caves and under rock overhangs used for camping. This has included uprooting of plants to use for bedding and for lighting camp-fires (Telford, 1992; NPWS, 2001).

The main potential threats to Budawangs Cliff-heath include vegetation clearing, changed fire regimes, goat (*Capra hircus*) browsing, and hydrological change (ANRA, 2008).

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.
- Undertake seed germination and/or vegetative propagation trials to determine the requirements for successful establishment.
- Identify and assess threats associated with feral animals and grazing pressures.

Regional Priority Actions

The following regional priority recovery and threat abatement actions can be done to support the recovery of Budawang's Cliff-heath.

Habitat Loss, Disturbance and Modification

- Monitor the progress of recovery, including the effectiveness of management actions and the need to adapt them if necessary.
- Manage any changes to hydrology that may result in changes to the water table levels or increased run-off.
- Manage any disruptions to water flows.
- Monitor populations around popular caves (NPWS, 2001).

Fire

- Develop and implement a suitable fire management strategy for Budawang's Cliff-heath. Fire is not recommended more than once every seven years and fire-prevention measures such as slashing and vegetation removal should be avoided in areas known to contain populations of this species (DECC, 2008).
- 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.

Trampling, Browsing or Grazing

- Develop and implement a management plan for the control and eradication of goats in the region (EA, 1999).

Conservation Information

- Raise awareness of Budawang's Cliff-heath within the local community, particularly among the visitors to Morton National Park. Provide information to bush-walkers in the form of a fact sheet or brochure in order to seek their cooperation in preventing uprooting, burning, trampling or other disturbance of plants within the Park.

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.

Local Priority Actions

The following local priority recovery and threat abatement actions can be done to support the recovery of Budawang's Cliff-heath.

Habitat Loss, Disturbance and Modification

- Control access routes to suitably constrain public access to known sites on public land, particularly around caves and rock overhangs used for camping.

This conservation advice was approved by the Minister / Delegate of the Minister on 3 July 2008

- Minimise adverse impacts from land use at known sites, particularly from uprooting, camping, and trampling by walkers.
- Close caves if public access is having adverse impacts on Budawang's Cliff-heath (NPWS, 2001).
- Follow recommendations of the Morton National Park (Central) Draft Fire Management Strategy (DECC, 2008) for local populations.

Trampling, Browsing or Grazing

- Prevent grazing pressure at known sites through exclusion fencing or other barriers

This list does not necessarily encompass all actions that may be of benefit to Budawang's Cliff-heath, 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

- Morton National Park, Budawang National Park Plan of Management (NPWS, 2001),
- NSW Priority Action Statement for *Budawangia gnidioides* (DECC, 2005),
- Threat Abatement Plan for Competition and Land Degradation by Feral Goats (EA, 1999),
- Budawang's Walking and Camping Strategy (DECC, 2007), and
- Morton National Park (Central) Draft Fire Management Strategy (DECC, 2008).

These prescriptions were current at the time of publishing; please refer to the relevant agency's website for any updated versions.

Information Sources:

Australian Natural Resources Atlas (ANRA) 2008, *Biodiversity Assessment—South Eastern Highlands, Species at risk and the Threatening Process*, Canberra, viewed 30 March 2008, <<http://www.anra.gov.au/topics/vegetation/assessment/vic/ibra-seh-species-threats.html>>.

Briggs, JD & Leigh JH 1996, *Rare or Threatened Australian Plants*, CSIRO Publishing, Collingwood, Victoria, p. 52.

Department of Environment & Climate Change NSW (DECC) 2005, *Budawang's Cliff-heath—Priority actions* (New South Wales Threatened Species Priority Action Statement), viewed 30 March 2008, <http://www.threatenedspecies.environment.nsw.gov.au/tsprofile/pas_profile.aspx?id=10111>.

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Powell, JM 1992, 'Budawangia', in *Flora of New South Wales*, ed. GJ Harden, University of NSW Press, Kensington, NSW, vol. 3, pp. 410–411.

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