

Craspedia preminghana

preminghana billybuttons

TASMANIAN THREATENED SPECIES LISTING STATEMENT



Image by Richard Schahinger

Scientific name: *Craspedia preminghana* Rozefelds, *Telopea* 9(4): 816 (2002)

Common name: preminghana billybuttons (Wapstra *et al.* 2005)

Group: vascular plant, dicotyledon, family **Asteraceae**

Status: *Threatened Species Protection Act 1995:* **endangered**

Environment Protection and Biodiversity Conservation Act 1999:
Endangered

Distribution: Endemic: **Endemic to Tasmania**

Tasmanian NRM Region: **Cradle Coast**

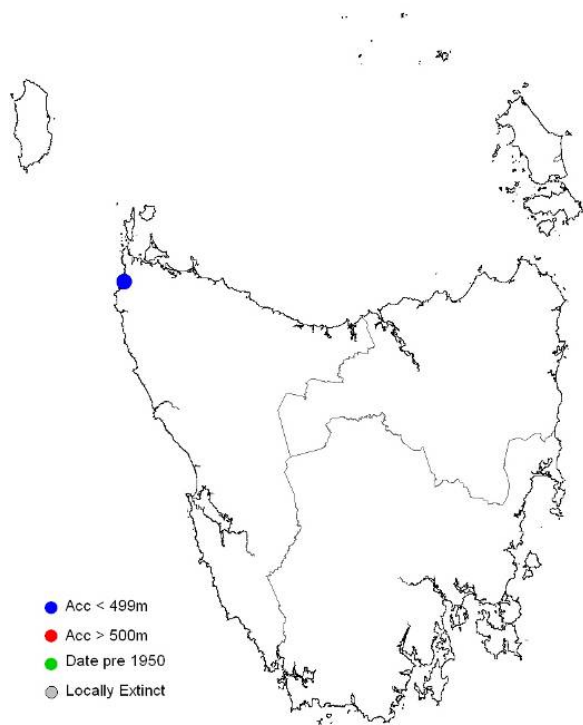


Figure 1. Distribution of *Craspedia preminghana*



Plate 1. *Craspedia preminghana*
(Image by Richard Schahinger)

IDENTIFICATION & ECOLOGY

Craspedia preminghana is a robust herb in the Asteraceae (daisy) family. It has one to three flowering stems to 30 cm high arising from ground level, with white flowers in compound heads (Plate 1). It is known from a single subpopulation at Mount Preminghana in Tasmania's far northwest.

The species recruits from seed, and is also likely to resprout from a perennating rootstock. The longevity of its soil-stored seed is unknown. As with other Asteraceous species, *Craspedia preminghana* may colonise disturbed areas. Insects are the most likely pollination vector (A. Hingston pers. comm.). It is best identified during its flowering period, October to January.

Description

Craspedia preminghana is a robust herb with 1 to 3 flowering stems. Its roots are thick and covered with fine brown hairs. The leaves are mostly basal, roughly spoon-shaped, 13 to 20 cm long and 2 to 3.4 cm wide, dull green on top and light green below, and have entire margins (Plate 2). The mid vein of the leaf is prominent, and the upper leaf surface is scattered with hairs. The leaves produce a lemon-mint scent when crushed. The inflorescence consists of a compound flowerhead at the end of stems up to 30 cm high. Each flowerhead is about 2 cm in diameter and consists of 25 to 40 partial heads, each of which contains 3 to 6 creamy-white honey-scented florets. The dry fruit is 1.5 to 1.7 mm long, and has scattered glandular hairs, with a covering of fine silky hairs. The pappus, hairs at the apex of the fruit that aid in wind dispersal, consists of 11 to 16 colourless plumose bristles about 3 mm long.

[description from Rozefelds (2002)]

Confusing Species

There are two other white-flowered species of *Craspedia* in Tasmania, both of which grow in sub-alpine to alpine areas (Rozefelds 2002). *Craspedia alpina* has leaves that are quite soft with woolly hairs, whereas those of *Craspedia preminghana* are almost hairless, while *Craspedia glabrata* has much smaller flowerheads.

DISTRIBUTION AND HABITAT

Craspedia preminghana is endemic to Tasmania. It is known only from the steep southern flanks of Mount Preminghana, where it grows among wind-pruned coastal scrub on outcrops of Tertiary basalt (Plate 3). Associated scrub species include *Correa backhouseana*, *Banksia marginata* and *Leucopogon parviflorus*. The altitude range is 40 to 90 m above sea level.

Craspedia preminghana has a linear range of about 400 m, an extent of occurrence of about 0.02 km², and an area of occupancy of less than 0.1 ha (Table 1).



Plate 2. Leaves of *Craspedia preminghana*



Plate 3. Cliff-face habitat of *Craspedia preminghana*

Table 1. Population summary for *Craspedia preminghana*

	Subpopulation	Tenure	NRM region	1:25 000 mapsheet	Year last (first) seen	Area of occupancy (ha)	Number of mature plants
1	Mt Preminghana	Tasmanian Aboriginal Land and Sea Council	Cradle Coast	Cameron	2007 (1989)	< 0.01	c. 200

NRM region = Natural Resource Management region.

POPULATION ESTIMATE

Craspedia preminghana is known from a single location. The species' cliff-face habitat makes precise estimates of numbers problematic, but there are thought to be fewer than 200 mature plants (Rozeffelds 2002).

Extension surveys of similar habitat in northwestern Tasmania have failed to locate additional subpopulations. The likelihood of *Craspedia preminghana* being discovered elsewhere is considered to be very low given the conspicuous nature of the species and the lack of suitable habitat.

RESERVATION STATUS

The only known subpopulation occurs on land administered by the Tasmanian Aboriginal Land and Sea Council (TALSC). The area was declared an Indigenous Protected Area in 1999 and is part of the National Reserve System.

CONSERVATION ASSESSMENT

Craspedia preminghana was listed as endangered on the schedules of the Tasmanian *Threatened Species Protection Act 1995* in 2004 under criterion D:

- Total population estimated to number less than 250 mature individuals.

THREATS, LIMITING FACTORS & MANAGEMENT ISSUES

Craspedia preminghana is threatened by physical disturbance to its cliff-face habitat, invasion by exotic species and stochastic events. The species' habitat would appear to afford it protection from grazing by native animals, which has been demonstrated to impact

negatively on other *Craspedia* species in Tasmania (Bridle & Kirkpatrick 2001).

Physical disturbance: A small proportion of the subpopulation is at risk from rock falls, though this is considered an unlikely scenario.

Invasion by exotic species: Areas of bare soil near the top of the species' cliff-face habitat are known to be occupied by thistles (*Cirsium* spp.), limiting recruitment opportunities for *Craspedia preminghana* (Schahinger 2007, pers. comm.).

Stochastic events: The small size of the only subpopulation places the species at a considerable stochastic risk of extinction.

MANAGEMENT STRATEGY

What has been done?

Extension surveys: Searches have been conducted in suitable habitat in northwestern Tasmania, including Woolnorth (McMahon 1999; Rozeffelds 2002).

Ex situ conservation: Stock plants have been propagated from seed and are being held at the Royal Tasmanian Botanical Gardens.

Management objectives

The main objective for the recovery of *Craspedia preminghana* is to maintain the viability of the only known subpopulation and promote conditions for the species' successful recruitment.

What is needed?

- provide information and extension support to the Cradle Coast Natural Resource

Management committee and TALSC on the locality, significance and management of the known *Craspedia preminghana* subpopulation and areas of potential habitat;

- incorporate measures for the protection of the species and its habitat into the Plan of Management for the Preminghana Indigenous Protected Area;
- collect seed for long-term conservation storage at the Tasmanian Seed Conservation Centre;
- monitor the known subpopulation on a biennial basis to determine the level of recruitment and/or plant loss; and
- conduct extension surveys of similar habitat in northwestern Tasmania.

BIBLIOGRAPHY

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- Rozefelds, A.C. (2002). A new species and new combination in *Craspedia* (Asteraceae) from Tasmania. *Telopea* 9(4): 813–819.
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Prepared in 2009 under the provisions of the Tasmanian *Threatened Species Protection Act 1995*. Approved by the Secretary and published in January 2010.

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Permit: It is an offence to collect, disturb, damage or destroy this species unless under permit.