

Advice to the Minister for the Environment, Heritage and the Arts from the Threatened Species Scientific Committee (the Committee) on Amendments to the list of Threatened Species under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)

1. Scientific name (common name)

Chionohebe ciliolata (Ciliolate Hebe)

2. Description

The Ciliolate Hebe forms dense, compact cushions up to 30–40 cm in diameter, with small white flowers set amongst light green foliage. Its leaves are up to 4 mm long with a small tuft of hairs at the end.

3. National Context

In Australia, *Chionohebe ciliolata* is restricted to Tasmania, where it is known from a single location at Hamilton Crags on the Ben Lomond plateau in the state's north east.

The species also occurs in New Zealand (Ratkowsky & Ratkowsky, 1974; Wagstaff & Garnock-Jones, 2000), from near Nelson to Fiordland (Allan, 1982). The species is not considered to be under threat in New Zealand (Hitchmough, 2002).

This species is currently listed as rare in Tasmania, but will be considered for transfer to vulnerable.

4. How judged by the Committee in relation to the EPBC Act criteria

The Committee judges the species to be **eligible** for listing as **vulnerable** under the EPBC Act. The justification against the criteria is as follows:

Criterion 1 — It has undergone, is suspected to have undergone or is likely to undergo in the immediate future a very severe, severe or substantial reduction in numbers

The Ciliolate Hebe occurs wholly within the Ben Lomond National Park in north eastern Tasmania. While the National Park is a reserve for the conservation of alpine flora communities, it is also a focus for downhill skiing in Tasmania (Parks & Wildlife Service, 1998).

Management within Ben Lomond National Park has been split into two zones (Parks & Wildlife Service, 1998), a 'natural zone' managed by the Tasmanian Parks and Wildlife Service (PWS), and a 'skifield development area zone' managed by the Ben Lomond Skifield Management Authority (under the *Ben Lomond Skifield Management Authority Act 1994*).

The area known to support this species is included within the natural zone (Parks & Wildlife Service 1998). The management objectives of this zone are to:

- preserve environmental features and processes in a substantially unaltered and undisturbed condition;
- use the zone as a benchmark against which areas subject to development and concentrated use can be monitored; and
- consistent with the forgoing, allow a range of compatible tourism and recreational activities.

In reference to the last point, it is PWS policy to limit facilities in the 'natural zone' above 1240 m ASL to signs and marked walking tracks or cross-country skiing routes (Parks & Wildlife Service, 1998). The Ciliolate Hebe is found at altitudes of 1470–1530 m ASL.

While the species grows 200–300 m east of the ‘skifield development area zone’ (Parks & Wildlife Service, 1998), the topography and management of the area in which it occurs make it unlikely that recreational activities will cause a reduction in numbers and area of this species. While climate change may be a significant future threat, the severity of climate change, and its impact upon this species is unknown. Expansions to the skifield area and inappropriate development of the Ben Lomond plateau could also potentially cause a decline in the numbers of this species, however this threat is not imminent under current park management regimes.

Due to a lack of historical survey information, there are no quantitative data available to indicate past trends in the population size of the species, nor any current evidence to suggest that the species will continue to decline at a particular rate. Therefore the species is **not eligible** for listing in any category under this criterion.

Criterion 2 — Its geographic distribution is precarious for the survival of the species and is very restricted, restricted or limited

Intensive botanical surveys of the of the Ben Lomond plateau and other alpine areas indicate that the Ciliolate Hebe exists as a single population within the Ben Lomond National Park (Davies & Davies 1989, 1990; DPIWE, unpubl. data, 2005). The species’ extent of occurrence is 0.17 km², and its area of occupancy is 0.03–0.04 km² (DPIWE, unpubl. data, 2005). Given its occurrence in a protected National Park, the Committee considers the species’ geographic distribution to be limited. The risk of human effects or catastrophic events make this species’ extent of occurrence precarious for its survival, Therefore the species is **eligible** for listing as **vulnerable** under this criterion.

Criterion 3 — The estimated total number of mature individuals is limited to a particular degree and: (a) evidence suggests that the number will continue to decline at a particular rate; or (b) the number is likely to continue to decline and its geographic distribution is precarious for its survival

The total population of the Ciliolate Hebe in Australia is estimated to be 1500–2000 mature individuals (DPIWE, unpubl. data, 2005), and is therefore limited. However, due to a lack of historical survey information, there are no quantitative data available to indicate past trends in the population size of the species, nor any current evidence to suggest that the species will continue to decline at a particular rate. Therefore, the species is **not eligible** for listing under this criterion.

Criterion 4 — The estimated total number of mature individuals is extremely low, very low or low

The total population of the Ciliolate Hebe in Australia is not low. Therefore, the species is **not eligible** for listing under this criterion.

Criterion 5 — Probability of extinction in the wild

No quantitative (statistical) analyses have been carried out to estimate a probability of extinction of the species in the wild over a relevant timeframe. Therefore the species is **not eligible** for listing in any category under this criterion.

5. CONCLUSION

Conservation Status

The Ciliolate Hebe is known from a single population of 1500–2000 mature plants on the Ben Lomond plateau in Tasmania's northeast. The extent of occurrence of this species is 0.17 km² and its area of occupancy is 0.03–0.04 km². The limited geographic distribution of the Ciliolate Hebe species is vulnerable to human effects or catastrophic events. In the future, the species could also be threatened by climate change, expansions to the skifield area or inappropriate development of the Ben Lomond plateau. Therefore, the species is eligible for listing as **vulnerable** under criterion 2.

Recovery Plan

The Committee recommends that the Crowded Leek-orchid not have a recovery plan at this time. The Ciliolate Hebe occurs entirely within a managed National Park, therefore the approved Conservation Advice for the species provides sufficient direction to implement priority actions and manage key threats.

6. Recommendations

- i) The Committee recommends that the list referred to in section 178 of the EPBC Act be amended by including in the list in the vulnerable category:

***Chionohebe ciliolata* (Ciliolate Hebe)**

- ii) The Committee recommends that there not be a recovery plan for this species.

Associate Professor Robert J. S. Beeton

Chair

Threatened Species Scientific Committee

References cited in the advice

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