

Veronica notabilis

forest speedwell

TASMANIAN THREATENED SPECIES LISTING STATEMENT



(specimen from the Tasmanian Herbarium)

Scientific name: *Veronica notabilis* F.Muell. ex Benth., *Fl. Austral.* 4: 511 (1868)

Common name: forest speedwell

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

Status: *Threatened Species Protection Act 1995:* **endangered**
Environment Protection and Biodiversity Conservation Act 1999: **Not listed**

Distribution: Biogeographic origin: **not endemic to Tasmania**
Tasmanian Natural Resource Management regions: **North, (Cradle Coast)**
Tasmanian IBRA Bioregions (V6): **Ben Lomond, (West)**

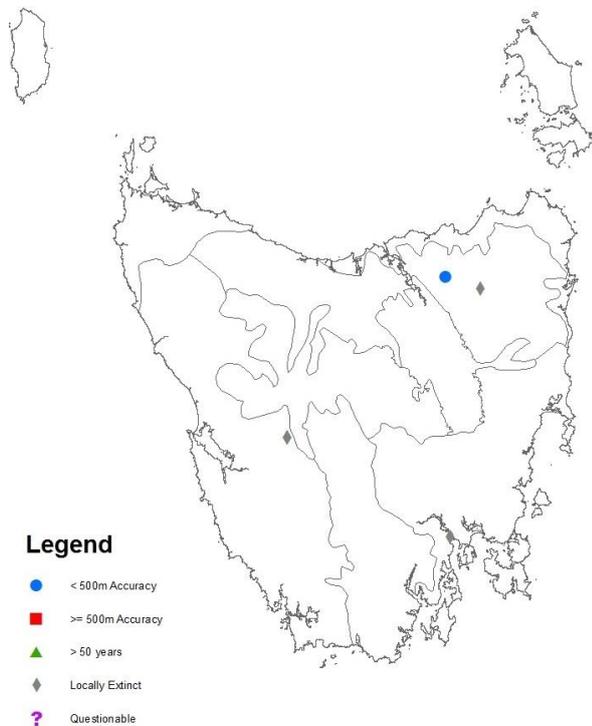


Figure 1. Distribution of *Veronica notabilis* in Tasmania, showing IBRA bioregions (V6)



Plate 1. *Veronica notabilis*
(specimen from the Tasmanian Herbarium)

SUMMARY: *Veronica notabilis* (forest speedwell) is a perennial herb that occurs in wet sclerophyll forest and woodland and rainforest. It was thought to be extinct in Tasmania until the recent recognition of a 1996 specimen from Mount Arthur in the north of the State, the species having previously been known from historical collections from two other locations in the State. Surveys are required to relocate the Mount Arthur subpopulation and determine abundance, threats and management needs. Extension surveys are also warranted in suitable habitat at other locations where the species had been collected previously. The presumed restricted area of occupancy and low abundance of the species would make it susceptible to losses from chance or inadvertent events.

flowering branches that are between 20 to 60 cm high. The leaves are 2 to 6 cm long, 1 to 2.5 cm wide, stalked and oval to lance-shaped with coarsely toothed margins. The upper and lower leaf surfaces are scattered with short hairs. The flowers are lavender or white with darker veins and are arranged on stalks in succession along the axils of the upper leaves, the oldest flower usually at the base. The fruit is a capsule that is grooved on one side.

[description based on Briggs & Barker 1999, Cochrane 1980, Curtis 1967]

Confusing species

Veronica notabilis is not easily confused with other *Veronica* species in Tasmania.

IDENTIFICATION AND ECOLOGY

Veronica species are a group of annual or perennial herbs. *Veronica notabilis* is a shade tolerant species, with insects the most likely pollination vector (A. Hingston pers. comm.). There are currently 33 taxa in the Plantaginaceae family native to Tasmania with *Veronica notabilis* one of 10 native *Veronica* taxa in Tasmania (de Salas & Baker 2019) and one of four listed on Schedules of the Tasmanian *Threatened Species Protection Act 1995*.

Survey techniques

Surveys for *Veronica notabilis* are best undertaken during its peak flowering period, October to early February.

Description

Veronica notabilis is a perennial herb with creeping stems and erect (or nearly so), hairy,

DISTRIBUTION AND HABITAT



Figure 2. Distribution of *Veronica notabilis* (*Atlas of Living Australia*, downloaded 10/10/2018)

On mainland Australia, *Veronica notabilis* occurs in Victoria, New South Wales and the Australian Capital Territory (Figure 2).

Table 1. Population summary for *Veronica notabilis* in Tasmania

	Subpopulation	Tenure	NRM region	1:25000 mapsheet	Year last (first) seen	Area occupied (ha)	Number of individuals
1	Mount Arthur	Mount Arthur Regional Reserve	North	Patersonia	1996	unknown	unknown
2	St Patricks River	?	North	?	1845	local	presumed extinct
3	Loddon River	Franklin-Gordon Wild Rivers National Park*	Cradle Coast	Loddon	1910? (1845)	unknown	presumed extinct

*Tasmanian Wilderness World Heritage Area

In Tasmania, the species has been recorded from Mount Arthur, with historical records from the St Patricks River and Lodden River areas. A specimen taken from the Royal Tasmanian Botanical Gardens in 1892 is believed to have been from a cultivated plant given that habitat at this site at the time of collection was atypical for a natural occurrence of the species (Figure 1, Table 1).

On mainland Australia, *Veronica notabilis* is known from wet sclerophyll forest, tall eucalypt forest and rainforest. The Mount Arthur occurrence was growing in *Eucalyptus delegatensis* forest (Hingston and Cameron 1997), on rock in low forest with shrubs at an altitude of 880 m.

POPULATION PARAMETERS

Estimates of relevant parameters used for the application of extinction risk criteria for *Veronica notabilis* in Tasmania are shown below followed by justification of the estimates:

Number of subpopulations: <5 (3 known, 1 extant)

Number of locations: < 5 (3 known, 1 extant)

Extent of occurrence: < 1ha

Area of occupancy: < 1 ha

Area of occupancy (as per IUCN criteria): 12 km²
(4 km² extant)

Number of mature individuals: < 250

While on mainland Australia, *Veronica notabilis* is often described as widespread and locally common, this species has seldom been collected in Tasmania with the only recent record from Mount Arthur in 1996, despite it not being easily confused with other Tasmanian native species. Curtis (1967) described *Veronica notabilis* as 'local at St Patricks River' though this and the Loddon River occurrences are presumed extinct given the lack of records since the mid-1800s and early 1900s. It is likely that species would have been detected if it was locally common given the survey effort in the widespread potential habitat present in the World Heritage Area, and in areas subject to forestry and other development activities.

The Mount Arthur occurrence was detected during a study of the vegetation communities of Mount Arthur in which surveys were

conducted for species in 63 quadrats with a diameter of 20 m, located at the corners of a 250 m grid placed across Mount Arthur at altitudes above 900 m above sea level. *Veronica notabilis* was detected in one of the 12 quadrats mapped as *Eucalyptus delegatensis* forest indicating a reasonable survey effort for the higher altitude sites at least.

Thick bushy growth hampered an attempt to access the site in 2018 (Roy Skabo pers. comm.). While abundance information is deficient, the current best estimate of the number of mature individuals is fewer than 250, occupying less than 1 ha, with a single extant subpopulation/location extending less than 1 ha.

RESERVATION STATUS

Veronica notabilis occurs in the Mount Arthur Regional Reserve and a historical collection was made in the Franklin-Gordon Wild Rivers National Park in the Tasmanian Wilderness World Heritage Area (Table 1).

CONSERVATION ASSESSMENT

Veronica notabilis was listed as extinct on Schedules of the Tasmanian *Threatened Species Protection Act 1995* when the Act came into effect. However, it no longer qualifies as extinct given the existence of a verified specimen taken from the wild during the past 50 years. As such, and despite limited information, the species was downlisted to endangered in 2019, meeting the following criteria:

D: Total population extremely small or area of occupancy restricted, and

1. total population estimated to number fewer than 250 mature individuals;
2. total population with an area of occupancy less than 1 ha and typically in five or fewer locations that provide an uncertain future due to the effects of human activities or stochastic events, and thus capable of becoming extinct in a very short time period.

THREATS, LIMITING FACTORS AND MANAGEMENT ISSUES

The Tasmanian distribution of *Veronica notabilis* is an edge-of-range occurrence, being the southernmost in Australia. Little is known about the Tasmanian occurrence of the species which was presumed extinct until the recent emergence of a specimen collected in 1996. Surveys to relocate the species will be required to determine threats to the species and management issues. The Mount Arthur extant occurrence is unlikely to be at risk from anthropogenic activities given its high altitude occurrence and presence in a Regional Reserve. Similarly, its presence in a National Park in a World Heritage Area is unlikely to be at risk if the species has persisted at the Loddon River site. However, the St Patricks River occurrence may have suffered from land clearing or inadvertent losses from forestry activities, exacerbated by the poor knowledge of the exact location of the occurrence. The presumed small and highly localised occurrences of the species mean that the risk of inadvertent destruction due to chance events is high.

MANAGEMENT STRATEGY

Management objectives

The main objectives for the recovery of *Veronica notabilis* are to relocate the species, increase the number of known subpopulations through survey, and determine threats to the species and management issues.

What has been done?

The identity of the 1996 specimen from Mount Arthur was verified by staff at the Tasmanian Herbarium.

What is needed?

Agencies, groups or individuals may assist with some or all of the following recovery actions. Coordinated efforts may achieve the best and most efficient results.

- provide information and extension support to relevant Natural Resource Management committees, local councils, government agencies, the local community and development proponents on the locality,

significance and management of known subpopulations and potential habitat,

- determine the status of the Mount Arthur subpopulation, and conduct extension surveys in potential habitat radiating out from the known site,
- conduct extension surveys in potential habitat in the Loddon River and St Patricks River locations,
- if rediscovered, collect seed for long-term conservation storage at the Tasmanian Seed Conservation Centre based at the Royal Tasmanian Botanical Gardens.

REFERENCES

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View: www.naturalvaluesatlas.tas.gov.au
www.dpipwe.tas.gov.au/threatenedspecieslists
www.threatenedspecieslink.tas.gov.au/

Contact details: Threatened Species Section, Department of Primary Industries, Parks, Water and Environment, GPO Box 44 Hobart Tasmania Australia 7001.

threatenedspecies.enquiries@dpiw.tas.gov.au

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