

RESTORE LAKE PEDDER FACT SHEET

Threatened flora species



Coordinated by
Lake Pedder Restoration Inc.
www.lakepedder.org

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This fact sheet provides a summary of the current state of threatened flora species and their habitat in the catchment of the Huon-Serpentine Impoundment. The information includes the threatened flora species that were recorded before flooding, their current status and the main opportunities and potential risks of the restoration of Lake Pedder for the species.

The area surrounding the original Lake Pedder had at least 160 higher plant species from 55 plant families present. At the time, fifty-nine of these recorded species were known to occur only in Tasmania.

Seven threatened flora species were recorded in the area before flooding, of these, three species remain listed on threatened species legislation today; the other four species have been either found to not meet the criteria for threatened species, or the taxonomic classification of the species has changed.

Pedder Bristlewort (*Centrolepis pedderensis*)



Image: Richard Schahinger

Current status of species and habitat

This species was not known from any other location at the time of flooding of Lake Pedder. Subsequent surveys have confirmed this species is endemic to southwest Tasmania located the species at Sanctuary Lake, Lake Gordon and the margins of the Huon and Picton Rivers. The species is believed to be extinct at the Lake Pedder and Gordon River sites.

The Pedder Bristlewort grows at the margins of lakes and rivers in areas subject to seasonal inundation and drying. At Sanctuary Lake, west of Lake Pedder, this species grows on quartz gravels in areas that flood to depths of up to 40 cm, while sites along the Huon and Picton River sites are also prone to periodic flooding.

The current highly-regulated and non-seasonal water levels of the current Huon-Serpentine Impoundment would limit habitat for this species and numerous targeted surveys have not located further populations in suitable nearby habitats.

The Pedder Bristlewort is currently listed on the following legislation:

Threatened Species Protection Act 1995: endangered

Environment Protection and Biodiversity Conservation Act 1999: endangered

Opportunities and potential risks of restoration of Lake Pedder

Restoration of Lake Pedder is likely to result in:

- increased potential habitat for the Pedder Bristlewort in the drained lake margins of the restored lakes that are subject to natural wetting and drying processes
- increased potential habitat in the riparian margins of the restored downstream rivers (Huon and Serpentine) due to restoration of more-natural flooding and deposition regimes that may provide habitat.
- Initial impact the species on the Huon River through erosion scouring of plants and habitat, however flood events are also likely to transport sediment, seed and vegetative material downstream allowing the establishment of new colonies in suitable habitats.

Knowledge gaps and essential knowledge and studies required

Additional information on propagation techniques for potential ex-situ transplants and suitability of vegetative propagule transfer for restoration should be obtained.

This species may be useful for targeted planting and restoration purposes if sufficient seed was able to be collected.

Shortleaf Milligania (*Milligania johnstonii*)



Image: Rob Wiltshire

Current status of species and habitat

This species was not known from any other location at the time of flooding of Lake Pedder. Subsequent surveys have concluded that this species is endemic to Tasmania and found in moist sand or mud on the margins of heath or sedgeland in the south-west. The Shortleaf Milligania is also locally abundant in alkaline pans around the Maxwell, Hardwood and Giblin River Valleys of Tasmania.

The Shortleaf Milligania is currently listed on the following legislation:

Threatened Species Protection Act 1995: rare

Opportunities and potential risks of restoration of Lake Pedder

Restoration of Lake Pedder is may result in:

- increased potential habitat for the Shortleaf Milligania in the drained and naturally hydrologically fluctuating riparian margins of the restored lakes, rivers and tributaries subject to natural wetting and drying processes
- limited impact to recolonising plants due to altered fire regimes because this species is likely to be resilient to fire impacts and is likely to regenerate following such disturbance and colonise gaps.

Knowledge gaps and essential knowledge and studies required

Additional information on propagation techniques for potential ex-situ transplants and suitability of vegetative propagule transfer for restoration should be obtained.

This species may be useful for targeted planting and restoration purposes if sufficient seed was able to be collected.

Dune Buttercup (*Ranunculus acaulis*)



Image: Richard Schahinger

Current status of species and habitat

The Dune Buttercup was known from the wet sands of Lake Pedder and surrounding lakes. Within Tasmania the species is now restricted to the west and northwest coast, where it grows in seepage areas on the seaward sides of dunes. Apart from Tasmania, the Dune Buttercup also occurs in New Zealand and southern Chile.

The Dune Buttercup is currently listed on the following legislation:

Threatened Species Protection Act 1995: rare

Opportunities and potential risks of restoration of Lake Pedder

Whilst restoration of Lake Pedder may result in suitable wet sand habitat on the dunes for the Dune Buttercup, the lack of local or even regional seed sources would likely mean re-establishment would only occur from ex-situ plantings or seedlings.

Knowledge gaps and essential knowledge and studies required

Additional information on propagation techniques for potential ex-situ transplants and suitability of vegetative propagule transfer for restoration should be obtained. This species may be useful for targeted planting and restoration purposes if sufficient seed was able to be collected.

Western Cushion-Bristlewort (*Centrolepis monogyna* previously *Centrolepis paludicola*)

Current status of species and habitat

The Western Cushion-Bristlewort was not known from any other location at the time of flooding of Lake Pedder. However, the species complex currently has 604 observations largely in the west and south-west of Tasmania. This species is not listed under current legislation.

Research is currently being undertaken to clarify the taxonomic status of this species and *Centrolepis paludicola* although the current Census of Tasmanian Vascular Plants resolves this species as *Centrolepis monogyna*.

Watertuft (*Trithuria filamentosa* previously *Hydatella filamentosa*)

Current status of species and habitat

The Watertuft currently has 123 observations in the south-west and the Central Plateau of Tasmania. This species is not listed as threatened under current legislation.

Currant Bush (*Leptomeria glomerata*)

Current status of species and habitat

The Currant Bush currently has 129 observations in the west of Tasmania, the Central Plateau and two mainland observations. This species is not listed as threatened under current legislation.

Alpine Marshwort (*Liparophyllum gunnii*)

Current status of species and habitat

The Alpine Marshwort currently has 137 observations in the west and Central Plateau of Tasmania and New Zealand. This species is not listed as threatened under current legislation.

Further Reading

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<https://www.threatenedspecieslink.tas.gov.au/pages/milligania-johnstonii.aspx>. Department of Primary Industries, Parks, Water and Environment, Tasmania. Accessed on 2/1/2020.
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<https://lakepedder.org/thescience>

This factsheet is one of a series commissioned by Lake Pedder Restoration Inc. and prepared by Dr Anita Wild and colleagues to understand the impacts of the full ecological restoration of the original Lake Pedder and surrounding ecosystems in the Tasmanian Wilderness World Heritage Area. Released August 2020.

For more information go to www.lakepedder.org.