



THREATENED SPECIES LISTING STATEMENT

Prasophyllum sp. Arthurs Lake (R.Smith DLJ11363)

Tas Herbarium

Mountain leek-orchid

Status

Tasmanian *Threatened Species Protection Act 1995*

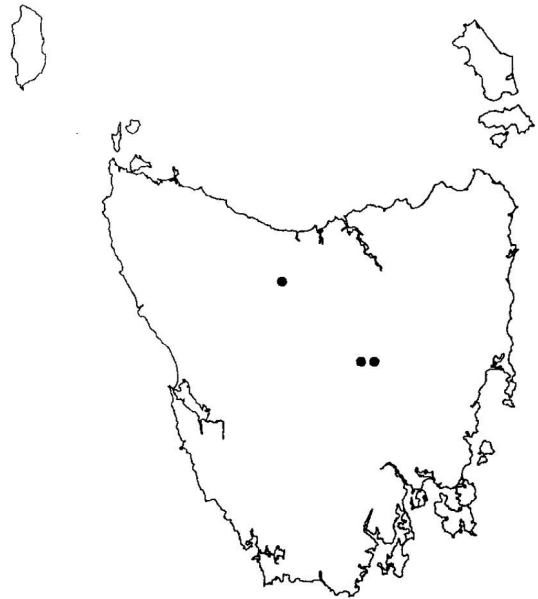
.....endangered

Commonwealth *Environment Protection and Biodiversity*

Conservation Act 1999.....Not listed



Mark Clements



Description

Mountain leek-orchid belongs to a group of orchids commonly known as leek-orchids because the erect hollow leaf has some resemblance to that of a leek. *Prasophyllum* species are deciduous terrestrials with small, fleshy, round or oval tubers and a few fleshy, irregular roots. Most species are dormant over summer and autumn and begin growth in early winter. The single leaf is reddish at the base as opposed to green as in onion orchids (*Microtis*). The flower spike emerges through the side of the leaf above the middle, with the portion of leaf above the point of emergence being free and often withered by the time the flowers open. The flower spike bears many flowers that are held upside-down and are often fragrant. The labellum, often with prominent wavy or frilly margins, produces quantities of nectar on which a wide range of

insects feed. Some of these, particularly native bees, wasps and beetles, are effective pollinators.

The leaf of the mountain leek-orchid is green to yellowish green with a purplish red base, the free part 10 to 18 cm long. It flowers in January and in flower, the plants are 40 to 80 cm tall. They have 10 to 50 flowers in a dense spike 5 to 15 cm long. The ovary is green, sometimes with purplish ribs. The flowers are fragrant, 16 to 20 mm long and 8 to 10 mm wide and are pale green and white, sometimes with pale pink, lilac or purplish tones. The lateral sepals are usually joined in the basal half, parallel or divergent. The petals are 8 to 12 mm long and 2 to 2.5 mm wide and are incurved to spreading. The labellum is abruptly recurved at right angles near the middle, then erect. It has slightly wavy or crinkled margins. The shiny green

callus on the labellum is broadly channeled, and extends three quarters of the way to the labellum apex.

Prasophyllum sp. Arthurs Lake is a distinctive leek-orchid, not easily confused with others.

Distribution and Habitat

Mountain leek-orchid is known only from near Woods Lake and Mt Roland, both sites above 700 m in altitude. It is thought to occupy an area of

less than one hectare in total. In Tasmania, it grows in black loam in the ecotone between wet grassland and eucalypt woodland on moraines. In mainland Australia, it grows on fairly dry, rocky sites and slopes under sparse eucalypt forest.

Prasophyllum sp. Arthurs Lake was originally thought to belong to *Prasophyllum montanum* which is now known to be restricted to Victoria, New South Wales and the Australian Capital Territory.

Important Locations

| Locality | 1:25,000 mapsheet | Year last seen | Area (ha) | Number |
|------------------------------------------|-------------------|----------------|-----------|--------|
| Near Woods Lake –1 or 2 sites | Penny Wihareja | 1993 | | few |
| Mt Roland Mt Roland Conservation Area | Cethana | 1983 | | few |

Threats, Limiting Factors and Management Issues

In Victoria, the mountain leek-orchid is classified as rare with cattle/sheep grazing and altered fire regimes listed as long-term threats. The same threats probably also apply in Tasmania. It is difficult to identify threats due to paucity of information. However, montane leek-orchids, except *Prasophyllum alpinum*, tend to have a very patchy distribution. Compared to the numerous records of *Prasophyllum alpinum*, the paucity of records for this species could well indicate that it is very rare. Its presence “along road to Woods Lake”, a grazing area, indicates that grazing and over-use of fire are likely threats. The Mt Roland plateau appears a safe habitat, but recent talk about a tourist road is of some concern, especially if the species occurs in small patches.

Conservation Assessment

Population Estimate

The mountain leek-orchid is known from only two localities in Tasmania. Though exact numbers are unknown, the number of plants is understood to be very low, most likely less than 50, and will need to be confirmed in future years. The lack of records of this species is not likely to be a result of a spasmodic flowering pattern in response to disturbance such as fire as it flowers freely in the absence of fires.

Reservation Status

Mountain leek-orchid is not represented in a secure reserve.

Assessment Criteria

Mountain leek-orchid meets the criteria for listing as endangered on the Tasmanian *Threatened Species Protection Act 1995* because

- there are less than 250 mature individuals in total

The species was initially listed under the name of *Prasophyllum montanum*, and changed to *Prasophyllum* aff. *montanum* as Tasmanian plants were found to differ from those on mainland Australia.

Recovery Program

Objectives

- prevent the loss or degradation of known populations
- increase the number of known populations through survey

Existing Management

Mountain leek-orchid is not actively managed.

Actions Needed

- pursue management options with landowners/managers to protect populations of the mountain leek-orchid against possible changes in land use that would be detrimental to the species
- verify existing records and monitor populations to determine population size and extent, threats and declines
- establish a mechanism to ensure management intervention when required
- further survey

Information Needed

- investigate possible threats to the species
- determine whether there are any more populations in existence

Management Advice

For the land owner/land manager

- if you own land on which mountain leek-orchid grows, consider some form of long-term protection, e.g. private nature reserve, management agreement, covenant, etc.

For everyone

- search for new populations in January, when the plants are in flower
- help us to monitor known populations, particularly at flowering time

Further Information

Contact details: Threatened Species Unit, Department of Primary Industries, Water and Environment, GPO Box 44 Hobart Tasmania Australia 7001. Ph (03) 6233 6556 fax (03) 6233 3477.

Specialist Advice: Hans Wapstra, Vegetation Section, Department of Primary Industries, Water and Environment

Source Material

References

Jones, D. 2006. *A Complete Guide to Native Orchids of Australia including the Island Territories*. New Holland Publishers (Australia), Sydney.

Jones, D. Wapstra, H., Tonelli, P. and Harris, S. 1999. *The Orchids of Tasmania*. Melbourne University Press.

Jones, D.L. 1998. Contributions to Tasmanian Orchidology –6: A Taxonomic Review of *Prasophyllum* R. Br. in Tasmania, *Australian Orchid Research* 3: 94-134.

Statement Prepared: October 2000. Taxonomy updated October 2011.

Prepared by: Wendy Potts and Hans Wapstra

Review Date: 2005 or as new information is received.

Cite as: Threatened Species Unit 2000. Listing Statement Mountain leek-orchid *Prasophyllum* sp. Arthurs Lake. Department of Primary Industries, Water and Environment, Tasmania.

View: <http://www.dpiwe.tas.gov.au>

& follow the links to Natural Environment, Threatened Species, then List of Threatened Species.

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