Eucalyptus risdonii

Eucalyptus risdonii. B. Craven.

FAMILY: MYRTACEAE

BOTANICAL NAME: *Eucalyptus risdonii,* Hook.f., *London J. Bot*. 6: 477 bis (1847)

COMMON NAME: Risdon peppermint

COMMONWEALTH STATUS: (*EPBC Act*) Not Listed

TASMANIAN STATUS: (*TSP Act*) rare

Description

This tree is distinctly bluish-green (glaucous) in colour and often grows to between 3-8 metres. The trunk is smooth, though circular leaf scars often remain until the first layer of bark is totally shed. After this stage, the trunk is ash-grey and streaked with cream. **Leaves:** The juvenile and adult leaves are similar in form and arranged oppositely along the stem. They are stalkless with the basal parts wrapped around the stem. The leaves are very glaucous, lance-shaped in outline and have a pointed tip. The pair of adult leaves measure between 6-10 cm long. **Floral arrangement:** The flowering parts (umbels) have between 5-15 flowers and are located in the axils (where the stem meets the leaf) of the leaves. The flower stalks are circular and between 7-12 mm long. The buds are stalked, club-shaped, glaucous and between 5-8 mm long. **Fruit:** The capsule is pear-shaped and between 8-10 mm in diameter. The openings on the upper surface of the capsule are level or enclosed. **Distinguishing characteristics:** This species is the only known example in the subgenus *Monocalyptus* that retains the juvenile foliage form on reproductive branches (description from Curtis 1975). **Confusing species:** *Eucalyptus risdonii* intergrades with *Eucalyptus tenuiramis* but can be distinguished from this species by the higher proportion of individuals with fruit at nodes with juvenile foliage.

Eucalyptus risdonii flowers. R. Wiltshire.

Distribution and Habitat

Eucalyptus risdonii is endemic to Tasmania and is found within the greater Hobart region at Risdon and Grass Tree Hill. The most northerly population occurs near Mangalore. This species is found on Permian mudstone from sea level to 150 metres. Habitat includes low open forest on very sunny ridges and north-west facing upper slopes (Curtis 1975, Williams & Potts 1996).

Key Sites and Populations

Eucalyptus risdonii occurs in approximately 60 main stands, which in 1992 were found to occupy approximately six relatively discrete areas of Permian mudstone (Wiltshire 1992). These six areas can be regarded as populations and occur at the Government Hills, Natone Hill, Rokeby Hills, the hills behind Howrah, the lower Meehan Range west of Cambridge and the hills in the Meehan Range to the east of Risdon Vale and Grasstree Hill. Several large stands were confirmed on a series of hilltops north of Grasstree Hill Road in 1998. Two other populations have recently been discovered, extending the known range of *Eucalyptus risdonii* further north and west of initial records. The most northerly population near Mangalore extends over approximately ½ a hectare, whilst the other population near Bridgewater is much larger, encompassing approximately 30 hectares.

The most extreme form of *Eucalyptus risdonii* is restricted to the Government Hills near Risdon and this population consists of relatively small patches that contain up to 70,000 trees and mallee clumps in total. The populations at Natone Hill and Mangalore are the smallest and contain up to 200 trees each (Wiltshire 1992, Threatened Species Unit records).

Known Reserves

Known from the East Risdon State Reserve, Knopwood Hill Nature Recreation Area, Meehan Range Nature Recreation Area and the Mount Direction Conservation Area.

Ecology and Management

Eucalyptus risdonii is easily cultivated on a wide variety of sites. In natural stands, its restriction to generally north-west facing slopes on mudstone derived soils is suggestive of an improved competitive ability in extremely dry habitats. A developmental delay in the changeover to mature foliage may be an adaptation to cope with extremely dry habitats.

This species can regenerate from lignotubers and epicormic buds after disturbance. Recruitment occurs after seed is released from the canopy after fire. Fire is vital as it controls competition from other plant species, however if too frequent a reduction in seed can occur. This species is known to hybridise with neighbouring patches of *Eucalyptus amygdalina* (black peppermint), especially where the boundaries are drier. This may be due to stress that causes change in the flowering time of *Eucalyptus amygdalina*.

Eucalyptus risdonii is believed not to have suffered a significant decline in its range since European settlement (Wiltshire 1992). However, it is currently threatened by subdivision due to its proximity to Hobart.

Firing does not represent a significant threat to *Eucalyptus risdonii,* as seedlings recruited after fire will generally replace the small proportion of lignotubers killed by fire (Potts & Reid 1986). The majority of individuals will resprout from surviving

lignotubers. A fire free period is required however, for seedlings to attain sufficient size to be able to withstand fire. Frequent firing may also contribute to the degradation of stands due to changes in soil structure and associated erosion and there may be long-term consequences for the species in the recent conversion of many stands to the mallee form. Reversion to the tree form would reduce the risk of frequent fires though long fire free intervals would be required for stems to attain sufficient size to resist damage by fire.

While *Eucalyptus risdonii* stands are subject to significant harvesting for firewood, seed and foliage, the ability to regenerate from coppice regrowth reduces the risk of extinction by these activities. However, harvesting and other activities including dumping of rubbish are degrading many stands. Weed problems are confined to areas of nutrient enrichment caused through dumping of garden refuse. The spread of weeds is generally prevented by the dry, nutrient poor soils characteristic of natural stands.

A draft management plan has been prepared for *Eucalyptus risdonii.*

Insects are the most likely pollination vector for this species (A. Hingston pers. comm.).

Conservation Status Assessment

There is no immediate need for reassessment of *Eucalyptus risdonii.* Recent taxonomic work indicates that this taxon may be more appropriately described as a subspecies of *Eucalyptus tenuiramis.*

Eucalyptus risdonii forest is considered to be a rare forest community under the RFA.

Further Information

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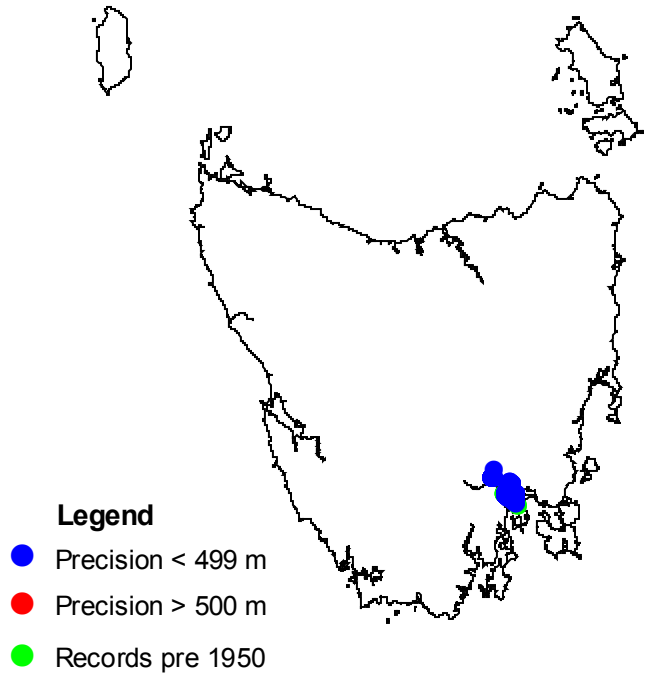
Tasmanian Distribution

(As per Threatened Species Unit, January 2003)



1:25 000 Map Sheets

Broadmarsh, Hobart, New Norfolk, Richmond.

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