

## Tasmanian Oak and Victorian Ash, part 3 of 3 parts

### *Eucalyptus obliqua* - Messmate

#### The original eucalypt

It was the first eucalypt described by botanist and it gave us the name Eucalypt.



flowers and fruit

Note the unequal leaf base

L'Héritier recognised the specimens as belonging to a new genus which he called *Eucalyptus* and gave the name *Eucalyptus obliqua* to the species. Because of the little caps covering the buds of this specimen, the name eucalypt was derived from the Greek *eu*, meaning "well", and *calyptos*, meaning "covered". The specific epithet (*obliqua*) is from the Latin *obliquus* ("oblique"), in reference to the leaf bases of unequal length.

It is also known as messmate stringybark, brown top, brown top stringbark. It is a widely distributed eucalypt and can be found on Kangaroo Island is South Australian, Tasmania, Victoria, New South Wales to southern Queensland.

#### Description

Tree height varies depending upon the rainfall and soil type - from 90m in the higher rainfall areas to a mallee form in heaths in Victoria and South Australia. It forms a lignotuber. The trunk is up to 3m in diameter and has thick, rough, stringy or fibrous bark.



Messmate with the odd Mountain Ash

A specimen was first collected in 1777 by David Nelson and William Anderson during Cook's third expedition. Not Joseph Banks on Cook's first expedition.

An aside – Banks did collect a specimen of the farmer's friend but was not described until a few decades ago. It was wrongly thought to be an introduced weed.

The collections were made at Adventure Bay on Bruny Island, Tasmania. The specimens were sent to the British Museum in London, where they were examined by Charles Louis L'Héritier de Brutelle.

Branches more than 80mm in diameter have stringy bark and thinner branches have smooth greenish or greyish bark.

Young plants and coppice regrowth have glossy green, broadly egg-shaped to lance-shaped leaves that are 60–210mm long and 23–85mm wide. Adult leaves are the same shade of glossy green on both sides, lance-shaped to curved, 60–220mm long and 15–70mm wide. The flower buds are arranged in leaf axils in groups of between seven and fifteen or more on an unbranched peduncle. Mature buds are oval to club-shaped, 4–9mm long and 3–5mm wide with a conical to rounded operculum.

Flowering occurs in most months and the flowers are white. The current tallest known specimen in Tasmania is 86m tall. Trees up to 98.8m tall have been recorded in the past.

### **Distribution and habitat**

It occurs from sea level up to elevations of 1475 meters in the Northern Tablelands of New South Wales. The climate is humid or subhumid, with temperatures ranging from cool to warm, and annual rainfall ranging from 500 to 2400 millimeters. Severe winter frosts are common, severe drought extremely uncommon.

It occurs on a wide range of soils in hilly or mountainous areas. In cool mountainous areas it forms tall open-forest with other *Eucalyptus* species such as *E.fastigata* (brown barrel), *E.nitens* (shining gum), *E.cypellocarpa* (mountain grey gum), *E.viminalis* (manna gum), *E.radiata* (narrow leafed peppermint), *E.regnans* (mountain ash) and *E.delegatensis* (alpine ash). It hybridise with Mountain Ash, Alpine Ash, Shinning Gum, Smithton Peppermint (*E.nitida*) and White Peppermint (*E.pulchella*).

### **Humming with bees**

The flowers are small and white and often go unnoticed – but not by bees, which are often attracted to the trees in such large numbers that the trees seem to be humming.

### **A tough customer**

The species is renowned for its adaptations to stress, particularly fire. Its thick stringy bark protects the trunk during bushfires, and under the bark are dormant (or “epicormic”) buds that allow the rapid establishment of a leafy canopy after fire or other stresses such as grazing. These buds often sprout very soon after a fire and are the first sign the forest is beginning to regenerate.

During the most recent ice age, Tasmania and the mainland were connected by a land bridge that subsequently disappeared under Bass Strait. The populations of *E. obliqua* in Victoria and Tasmania were then connected but in the 10,000 years since they have been separated by the strait, the individual trees growing on the mainland have retained a lignotuber, while those in Tasmania did not. This reflects the better growing conditions in Tasmania for messmate, and less need or stress adaptations.

### **Good wood**

It is a fine quality hardwood that can be used for building house frames, furniture making and floors.

It is not the densest or hardest eucalypt timber, but is hard enough to make beautiful and durable flooring that polishes to a rich honey or golden colour.

### Timber properties

Heartwood is a pale brown. Sapwood is pale yellow, usually distinguishable from the heartwood. Texture is moderately coarse but even with the grain sometimes interlocked. Growth rings are visible but not prominent and gum veins common. Heartwood may contain 2% by weights of polyphenols likely to stain alkaline surfaces brown. "Pencil streak" stains sometimes present

It has a Green Dry (GD) of 1080kg/m<sup>3</sup> and Air Dry (ADD) of 780kg/m<sup>3</sup>. Slow in drying and likely to check. Some collapse may occur. Shrinkage is 5% radial and 11% tangential and after reconditioning 3.5% radial and 6.5% tangential.

It is slightly denser and harder than *E.regnans*

It splits easily, and is easily worked, glued and stained; it is also suitable for steam bending. Fuming with ammonia gives a grey colour to the surface.

### Comparison of the 3 species

Property	Alpine Ash	Mountain Ash	Messmate
Green Dry density	1050 kg/m <sup>3</sup>	1030 kg/m <sup>3</sup>	1080 kg/m <sup>3</sup>
Air Dry density	620 kg/m <sup>3</sup>	680 kg/m <sup>3</sup>	780 kg/m <sup>3</sup>
Durability Class	4	4	3
Steam bending	Yes	Yes	Yes
Heartwood colour	Pale pink or pale yellowish brown	Pale pink or pale straw	pale brown
Sapwood colour	Not distinguishable from heartwood	Not distinguishable from heartwood	pale yellow
Shrinkage - radial	4.5%	6.5%	5%
- tangential	8%	13%	11%
Shrinkage after reconditioning - radial	3.5%	4%	3.5%
- tangential	6.5%	7%	6.5%
Lyctid borer attack	Sapwood seldom attacked	Sapwood resistant	Sapwood susceptible
Wood features	Fiddleback, obvious growth rings, gum veins are common	obvious growth rings, gum veins are common,	gum veins can be present
Fuming with ammonia	Walnut colour	Pale walnut colour	Grey colour