Turpentine - ***Syncarpia***

Syncarpia is a small group of trees in the myrtle family (Myrtaceae) described as a genus in 1839. They are native to Queensland and New South Wales.

They are unusual among the Myrtaceae in that the leaves are opposite rather than alternate as is the norm for the family.

The species are commonly known as **turpentine trees** due to the odour of their resin. This genius is noted for resistance to marine borers due to the high silica content of the wood. If you use this timber, then you must love sharpening your tools.

1. ***Syncarpia glomulifera*** **-** Queensland, New South Wales; naturalized in Hawaii (where iit is listed as an invasive species) and in parts of Africa
2. ***Syncarpia hillii*** **-** Queensland
3. ***Syncarpia vercunda*** **-** Queensland

Half of the Suez Canal was built using Australian Turpentine.

Syncarpia glomulifera, commonly known as the **turpentine tree**, or **yanderra**, can reach 60 metres in height. It generally grows on heavier soils. Crushed leaves have a taste and smell reminiscent of turpentine.
The turpentine is found in eastern Queensland and New South Wales, from Atherton Tablelands in the north to Durass Lake in the south.
First described by the English botanist James Edward Smith in 1797, from a collection in the Sydney district. Two subspecies are recognised, the widespread nominate, and subspecies *glabra* which is found from Buladelah to Kempsey and has smooth leaf undersurfaces.

Adaptable to a wide range of soils, the turpentine is most suited to moderate to high-nutrient soils. Valleys and flat areas are highly suitable sites. In the Sydney region, the species reaches an altitude of 300m, but this extends to 900m above sea level in northern Queensland.

The turpentine regenerates after bushfire by resprouting from its lignotuber and epicormic buds. Turpentine trees are thought to live up to 500 years.

A hardy and adaptable tree, turpentine tolerates heavy soils and frosts, and is suitable for large gardens and parks, where it provides good shade with its dense canopy.

Description

In a suitable location, the turpentine grows into a large straight-trunked tree up to 60m high with a trunk diameter up to 1.5m. On poorer soils it grows as a small tree or even adopts a mallee habit. The thick brown bark is fibrous, with deep vertical furrows running down the trunk.

The leaves are arranged oppositely on the stems, and pairs grow close together so that they resemble a whorled group of four leaves. The thick leaves are ovate to ellipictal and measure 7–10cm long and 2.5–4.5cm across with recurved margins. Their upper surface is a dull dark green, and lower surface much paler, either covered by fine hairs in subspecies *glomulifera* or smooth in *glabra*.

Flowering takes place from August to December, peaking in September. The cream flowers are fused in groups of seven into compound flowerheads. This is followed by the development of the distinctive capsule which ripen in summer.

The flowers are pollinated by native bees and European honeybees, and possibly flies and moths. The grey-headed flying fox (*Pteropus poliocephalus*) and little red flying fox (*P. scapulatus*) also pollinate the flowers. The rainbow lorikeet (*Trichoglossus haematodus*) and noisy miner (*Manorina melanocephala*) forage for nectar.

Its heartwood is reddish brown and the sapwood is distinctly paler. The grain is often interlocked with fine and even texture. No gums veins are present; however the heart wood is subject to brown rot which makes it less resistant to impact forces. It has a green density of 1130kg/m^3 and air dry density of 930kg/m^3 and a Janka hardness rating of 6.5 green and 12 dry.

It is slow to dry and the tangential surface is susceptible to surface checking so quarter sawn timber is desirable. Some collapse is common with a 6% radial and 12% tangential shrinkage. Can be steam bent and it is not easy to glue.

Use - Highly durable, turpentine timber is used in heavy-traffic flooring, for poles and wharves. It resists marine invertebrates and termites, and is one of the most difficult timbers to ignite. It is used for poles, sleepers, wharf and bridge decking, bearings, flooring, paneling and building framework

Syncarpia hillii grows on Fraser Island and the surrounding Cooloola area of Queensland. Common names for this species are **Satinay** and **Fraser Island turpentine**. The Aboriginal word for this species is "peebang".
The tree can grow to 40 metres tall, and the trunk may reach one meter in diameter.
Resin from the sap has proven useful in treating chronic ulcers.
Heartwood is reddish brown and the sapwood is usually distinctively paler.
Dry density of 840kg/m^3 with a Janka hardness rating of 5.2 green and 8.3 dry.

It has interlocking grain with relative fine and even texture. It is easier to work than ***Syncarpia glomulifera***. It has very few defects in the timber. The tangential surface is susceptible to surface checking so quarter sawn timber is desirable for ease of drying and appearance. Collapse can occur in the drying process with 5.4% radial shrinkage and 10% tangential shrinkage.

Due to the interlock grain care is needed when dressing the timber. Fuming with ammonia produces a grayish plum colour. Rather difficult to glue but good for carving.

Uses –flooring, paneling, decorative veneer, chisel handles, mallet heads and heavy furniture.

Syncarpia verecunda - Common name is Ravensbourne Turpentine and is restricted to South-East Queensland, in particular Wide Bay area.

It is a small tree with no record of it been used commercially. Oils studies have been made of the leaves but the other two *Syncarpia* have better oil properties.