

Native conifers of the Macquarie Harbour region

Tasmania is fortunate in possessing a very large number of plant species that occur nowhere else in the world. Our rainforest and alpine communities are unique assemblages of plants of great botanical significance. One such group of plants, the native conifers, is particularly important in the Macquarie Harbour region, not only for its botanical values, but also for the role that pines have played in the area's history.

Huon pine

The Huon Pine (*Lagarostrobos franklinii*) derives its common name from the stands which once occurred along the Huon River, itself named after Captain Huon Kermandec, commander of the French ship, *L'Esperance*. The species is restricted to western and southern Tasmania, where it is largely confined to riverine habitats. It belongs to a family of ancient native conifers dating back 135 million years.

Estimates of the area of living Huon pine vary, but are in the order of 10 500 ha. In addition there are about 800 ha of standing, fire-killed

pine. The current area of remaining pine is the remnant of a much wider original range that has been reduced by fire, inundation, logging and mining. Today, the remaining stands are well protected within reserves, the majority being within the World Heritage Area.

Although extremely slow growing, the tree may attain heights of over 40 m. Growth rates average a mere 1 mm per year, but can vary from 0.3 mm to 2 mm, depending on conditions. Huon pine can reproduce both vegetatively (from fallen individuals) and by seed. Seed dispersal is largely limited to the area downstream from riverine stands.

The Huon pine can reach prodigious ages, often in excess of 2000 years, making it among the longest-lived organisms on Earth. Only the bristle-cone pine of North America exceeds it in age. International headlines were made with the discovery of a stand of Huon pines on Mt Read that was widely quoted as being in excess of 10 000 years of age. All the individuals in this population are genetically identical, and are

all males. The stand arose from one or a small number of individuals, and has maintained itself by vegetative reproduction. It is important to remember that no individual tree in the Mt Read stand is 10 000 years old — rather, the stand itself has been in existence for that long.

Huon pine occurs at Heritage Landing, including an individual more than 2000 years old. This tree, which survived the ravages of lightning strikes and escaped the piner's axe, finally fell completely in July 2000. However, the amazing life cycle of the species continues.



King Billy pine

growth springs from the fallen tree. Please refrain from touching the trees along the boardwalk as the removal of their protective covering of moss and bark may hasten their decline.

The history of pining

The timber of the Huon pine has long been prized for boat building and furniture. The timber is easily crafted, attractive and floats on water (a feature which facilitates its ease of transport). The Huon pine's well-known durability is due to the essential oil, methyl eugenol, which gives the wood both its distinctive odour and its high resistance to rot and attack by marine organisms.

The exploitation of the Huon pine was a major incentive behind the original exploration of Macquarie Harbour, and the subsequent establishment of the penal settlement on Sarah Island. After the closure of the penal settlement, the species continued to play a significant role in the history of the region as piners engaged in the extraction of timber from the remote regions of the Gordon River. Today, two small sawmills continue to operate in Strahan and, at Teepookana Plateau, Forestry Tasmania engages in the salvage of Huon pine timber.

Celery-top pine

The celery-top pine (*Phyllocladus aspleniifolius*) is so named because of the resemblance of its 'leaves' to those of celery. In fact, these are not true leaves, but

rather cladodes (flattened stems); although very young seedlings have needle-like leaves. The tree grows to 30 m in height and may attain a maximum age of 800 years. It is one of the first of the rainforest trees to return after fire as birds help to spread its seed.

The timber of celery-top pine was utilised in the ship building yards of Sarah Island for the construction of spars and masts. Today this slow-growing tree is exploited as a by-product of clearfelling in old-growth forests and is commonly used for external cladding and poles in the building industry.

King Billy pine

The King Billy pine (*Athrotaxis selaginoides*) is thought to derive its common name from the Tasmanian Aborigine William Lanney, who was referred to as 'King Billy'. It reaches a height of 40 m and may reach ages in excess of 1200 years. The species is restricted to regions above 600 m where it grows in rainforest.

A close relative of the King Billy pine, the pencil pine (*Athrotaxis cupressoides*), is generally restricted to sub-alpine areas above 800 m. Like its relative, it can reach ages greater than 1200 years.

At the mercy of fire

Like other trees of the cool temperate rainforests, Tasmania's native conifers are

highly susceptible to fire. In certain areas of the State, extensive stands of dead 'stags' give testimony to the ravages of previous fires. Some species will never recover due to their very slow growth and poor seed dispersal abilities. Indeed, one-third of the State's King Billy pines have been eliminated by fire.

Phytophthora root rot

Phytophthora root rot can result in the death of many species of native plant, including our native pines. Caused by an introduced fungal pathogen (*Phytophthora cinnamomi*), this serious disease can be spread in soil by earth-moving machinery, four-wheel drives and even on walkers' boots and tent pegs. It is a good policy to clean all camping equipment that comes in contact with soil, such as boots, tent pegs and trowels, before undertaking a walk into another area.



Celery-top pine