



Commercial names:	engl.: Monkey puzzle tree, Chilean pine, Parana pine esp.: Pino Araucana, Pino de Paraná, Pino de Chile fr.: Pin du Chili
Common names:	Araucaria, Araucaria espinuda, Araucaria de Chile, Araucaria imbricata, Monkey Puzzle, Pehuén, Pino, Pino de Neuquén, Piñón, Piñonero.
Scientific synonyms:	<i>A. imbricata</i> Pavón <i>A. chilensis</i> Mirb. <i>A. dombeyi</i> Rich.
Subject to CITES regulations:	All parts and derivatives.
Macroscopic characteristics of the wood:	Wood: yellowish white, that turns slightly pink in the light, non porous. Heartwood and sapwood are identifiable only by a slight darkening of the heartwood. Growth rings are not visible to the naked eye, their width is quite regular and very narrow. Occasionally, the autumn wood is wider than the spring wood. Fibres are straight. Hardness: soft and semisoft Grain: very fine to fine Specific weight: 0.55 – 0.60 g/cm ³
Microscopic characteristics of the wood:	Non-porous wood. Resin canals absent. Growth rings vaguely visible; in transversal section characterized by two rows of tracheids at the end of late-growth wood with thickened walls, compressed in the radial direction. The tracheids are arranged radially, intercellular spaces present. One or two rows of polygonal bordered pits on the tangential walls. Tracheids (5800 –) 7400 (– 9000) µm long, with a diameter of 10 µm. Axial parenchyma absent. Rays homogeneous, uniseriate, 1 – 8 cells high. The horizontal walls of the radial cells are thin, smooth and without pits. Cross-fields pits cupresoid, averaging 4 to 6 per field.
Characteristics of the trees:	This species can grow up to a maximum height of 50 metres in height and up to 2.2 metres in diameter, most trees, however, are 25 metres tall and 0.7 to 1.1 metres in diameter. The crown is pyramidal, in the shape of an umbrella. The trunk is usually straight, cylindrical, with a very thick bark, 10 – 14 cm, deeply cracked in the form of hexagonal plaques of several sizes and dark grey in colour. The base of the trunk is sometimes very enlarged. The branches grow in whorls, and in the young trees they grow even near the base. There are usually almost no traces of branches on the trunk. This species is endemic to the South American subantarctic forests. It grows on clay and volcanic soils between 800 and 1600 metres in altitude.

Distribution: The Andes in Argentina and Chile.



Characteristics of trade: The commercial name of Parana pine corresponds, in fact, to that of *Araucaria angustifolia* (found in Argentina, Brazil and Uruguay), but it is also the name given to this species because of the similar characteristics of the wood. When it is traded with bark, the bark is very characteristic and easily identifiable because it is very cracked and divided into easily recognizable very regular plaques.

Use: The wood is used for many purposes in interior finishing (doors and stairs), although its lack of resistance makes it unsuitable for use in scaffolding or stairs. It is used locally for furniture, lath work and beams. Elsewhere, it is used for telephone poles, piling and shoring. The trunks are stripped of bark for manufacturing plywood and high-quality veneers. It is also used for paper pulp. The seeds are edible and are used to make a drink, in a soup (*mudai*) made from dry seeds and meat, as a flour for a bread known as *canuto* and an alcoholic drink prepared from fermented seeds.

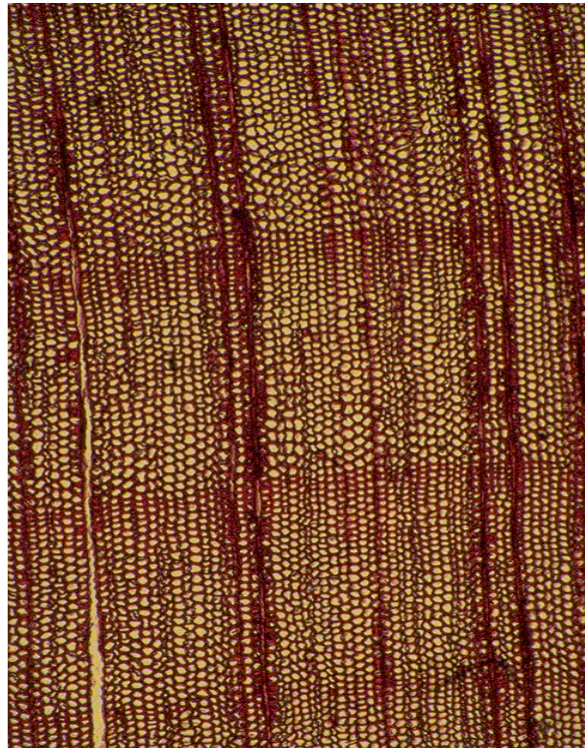
Similar species: There are 21 species in the genus *Araucaria*, of which 19 species occur in the southwestern Pacific and two in South America (Argentina, Brazil and Chile). Several species in the genus *Agathis* are very similar.



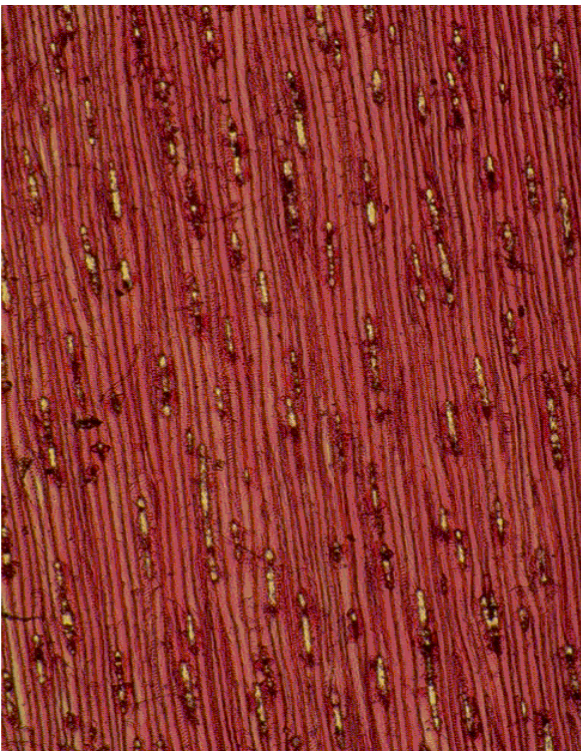
Similar species	Distribution	Common name
<i>Araucaria angustifolia</i>	Argentina, Brazil, Uruguay	Parana pine
<i>Araucaria bidwillii</i>	Australia	Kauri
<i>Araucaria cunninghamii</i>	Australia	Kauri
<i>Agathis alba</i>	Australia	Kauri
<i>Agathis australis</i>	Australia	Kaori, Kowdie
<i>Agathis lanceolata</i>	Australia, Oceania	Kaori
<i>Agathis microstachya</i>	Australia	Kaori
<i>Agathis obtusa</i>	Australia	Kaori
<i>Agathis palmerstonii</i>	Australia	Kaori
<i>Agathis robusta</i>	Australia	Dundathu pine
<i>Agathis vitiensis</i>	Australia	Kaori

Species → Characteristics ↓	<i>Araucaria araucana</i>	<i>Araucaria angustifolia</i>	<i>Araucaria cunninghamii</i>	<i>Agathis alba, australis, bidwillii, lanceolata, microstachya, obtusa, palmerstonii, robusta, vitiensis</i>
Colour sapwood	yellowish white	yellowish white	yellowish white	yellowish brown
Colour heartwood	rosy yellow	brown with red lines	brown	dark yellowish brown
Grain	very fine to fine	fine and uniform	very fine and uniform	fine
Fibres	straight	straight	straight	straight
Hardness	semisoft	semisoft	semisoft	semisoft
Specific weight	0.55 - 0.60 g/cm ³	0.54 g/cm ³	0.56 g/cm ³	0.30 - 0.70 g/cm

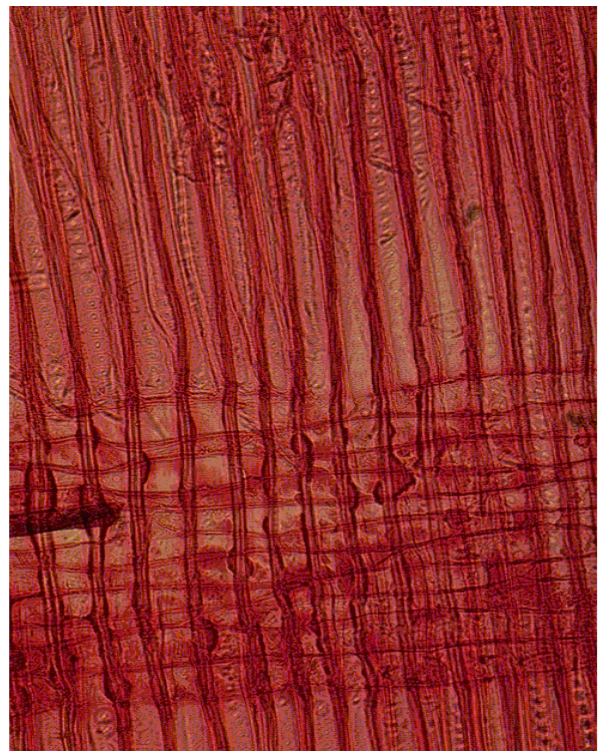




transverse section



tangential section



radial section