

Focus on Araucariaceae

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MANY IN THE AREA REMEMBER FONDLY THE MONKEY PUZZLE TREE at the Barnes Foundation in Merion, PA. But Mrs. Barnes' 55-year experiment with the tree came to an end with its demise last year. Trials are beginning with new trees, as well as with their cousins, the Wollemi pines.

Araucaria araucana

In pre-1850 Britain, it was known as "Joseph Banks pine" or "Chile pine," though it is not a true pine. The origin of the name monkey puzzle tree derives from its early cultivation in Britain, when the species was still very rare and not widely known. The proud owner of a young specimen at Pencarrow's garden in Cornwall was showing it to friends, and one made the remark that "it would puzzle a monkey to climb that." As the species had no existing popular name, first "monkey-puzzler" and then "monkey puzzle tree" stuck. In France, it's known as *désespoir des singes* (monkeys' despair).

Araucaria araucana is the national tree of Chile. Its native habitat is the lower slopes of the Chilean and Argentinian south-central Andes, typically above 3,300'. *A. araucana*

is a popular garden tree, planted for the unusual effect of its thick, "reptilian" branches with a symmetrical pattern.

Its seeds, similar to large pine nuts, are rich in starch and hence edible both raw and cooked; they are a dietary staple in Chile. The seed is soft like a cashew nut and resembles pine nuts in flavor (yum!). The tree has some potential as a food crop in other areas in the future, thriving in climates with cool oceanic summers (e.g., western Scotland) where other nut crops do not grow well. This species is listed as endangered.

Mrs. Barnes obtained the small *A. araucana* in 1960. Believing it to be a slow-growing species, she placed it in the island beds devoted to dwarf conifers. Dr John Fogg wrote that in its eleventh year, the plant was 6' tall and had grown 6–8" annually during the previous three years. Now, the remains of the tree are scheduled to be removed from its home of over half a century.



Wollemia nobilis at the Barnes Foundation

photo ©William Rein

Wollemia nobilis

The recently discovered Wollemi pine, *Wollemia nobilis*, though found in southeast Australia, is thought to be a relative of the *A. araucana*. Their common ancestry dates to a time when Australia, Antarctica, and South America were linked by land.

Thought extinct until discovered in Australia in 1994, the fossil records indicate that it was widespread in Australia

40 million years ago. The plant is now protected in Australia.

W. nobilis has a unique branching pattern. All side branches will either terminate in a male or female cone or stop growing. When the cone matures, the branch falls off—so there is no further branching on side branches.

The Barnes Foundation has young samples of both *A. araucana* and *W. nobilis* at the Merion Campus. Visit www.barnesfoundation.org for more information about visits, classes, and other plant collections.



photo from Barnes Arboretum newsletter

Araucaria araucana in 1971 (11 years after planting)



photo ©William Rein

Araucaria araucana in 2009 (49 years after planting)



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Araucaria araucana in 2015 with dead branches being heavily pruned