

Dear visitor,

Arboretum Wespelaar is so much more than a place to discover trees. Through our collection of trees, we also contribute to the earth's biodiversity. This is achieved, amongst others, through the conservation of remarkable and rare trees, and the exchange of seeds and cuttings with other gardens, parks and collections. The Arboretum grows 19 species of trees that appear on the IUCN's (International Union for Conservation of Nature) international Red List with status 'Vulnerable', 18 species with status 'Endangered', 2 species with status 'Critically Endangered' and 1 which is labeled 'Extinct in the wild'. Guided by the map below, you can find some of these trees in the park and study them in detail. The species that appear on the Red List are marked with a little red label below the trees' name tag.



**A: *Metasequoia glyptostroboides*:** endangered: until the discovery of living specimens in 1941 in the province of Hubei (Central to East China), this deciduous conifer was only known as a fossil. The tree can now be found in numerous parks. However, its natural population is quite fragmented. Old, individual trees are protected but unfortunately the protection of their habitat is insufficient. As a consequence, the survival of these remarkable trees cannot be guaranteed. Because of increasing agricultural use and overgrazing, the spontaneous regeneration from seed is extremely poor.

**B: *Magnolia zenii*: critically endangered:** in nature, there is only 1 population with 18 individuals left of this *Magnolia* from Jiangsu in China! No natural regeneration was established so far. The area is situated in a reserve but there are no specific measures for these trees. The white flowers bloom early in Spring, long before the leaves appear. The rather small flowers are fragile and give off a delicious scent.

**C: *Abies pinsapo* var. *marocana*: endangered:** *Abies pinsapo* has 2 varieties: a Spanish and a Moroccan one, which are separated from one another through the street of Gibraltar and a distance of 135 km. As a result, no exchange of genes is possible. The Moroccan variety grows on the North flank of the Rif Mountains. Forest fires form a serious threat. Deforestation and forest degradation in the vicinity of the population in favour of cannabis plantations are also detrimental. Between 1938 and 1994 the population declined by 70%. In 2002, a serious fire destroyed part of the remaining wood that shows very little regeneration. The tree has stiff grey-green needles that are set on the twig like the bristles on a bottle brush.

**D: *Franklinia alatamaha*: extinct in the wild:** the genus *Franklinia* only has one species and belongs to the Tea family, as do *Stewartia* and *Camellia*. The plant was discovered in 1765 by botanists John and William Bartram (father and son) along the river Altamaha in the American state Georgia. In 1776, William collected seeds to propagate the plant. All cultivated plants originate from these, since the species turned out to be extinct a few decennia later. A unique feature of *Franklinia* is its blossoming in autumn, which coincides with the magnificent colouring of its leaves.

**E: *Picea martinezii*: endangered:** can be found in 2 different locations at 150 km distance from one another, in Nuevo León - Mexico. There are less than 800 mature specimens in total, which are threatened by forest fires and deforestation. The trees only produce new cones in limited numbers and the seed is often of poor quality, which complicates regeneration even further.

**F: *Magnolia wilsonii*: endangered:** can be found in nature in fragmented populations in West Sichuan, North Yunnan and West Guizhou, and grows in mountain forests and thickets at an altitude of 2000 to 3300 meters. This forest was however excessively thinned. The bark is harvested for medicinal purposes but has less healing qualities than the one of *Magnolia officinalis*. The white, floppy flowers with contrasting purple-red stamens are a wonderful sight in May.

**G: *Sequoia sempervirens*: endangered:** the coastal Sequoia only grows on a narrow strip of 750 km long and 8 to 75 km wide along the West coast of North America (Oregon and California). The famous Redwood forests are a very characteristic vegetation of the lowlands and coastal area. The area is dominated by these species, which are the tallest trees on earth. The population is still quite large but decreases in commercially managed forests because more competitive species like *Pseudotsuga menziesii* are given priority after felling. The coastal Sequoia has a very strong capacity to regenerate.

**H: *Fitzroya cupressoides*: endangered:** endemic species of Southern Chile and Argentina which suffered heavily from over exploitation because of its valuable wood, from disruption of its habitat and the transformation of woods into agricultural land. Appears on Annex I of CITES since 1973 (very restricted trade) and is the National monument of Chile since 1976 (prohibition to cut down).

**I: *Abies fraseri*: endangered:** endemic to North America (Appalachian Region in North Carolina, Tennessee and Virginia). The decline is caused by the Balsam Woolly Adelgid (*Adelges piceae*), an exotic and harmful insect that prevents the flow of sap and was first spotted in 1957. No effective method of control has been found yet. Only one considerable population of *Abies fraseri* subsists. Hopefully the species will manage to build up a natural resistance over time.

**J: *Abies numidica*: critically endangered:** The Algerian Spruce is known from only 1 population in the vicinity of Babor and Tababort in the Djebel Babor Mountains (nature reserve since 1985) along the Mediterranean Sea in Algeria. It is threatened by a combination of factors such as forest fires, the collection of fire wood and grazing by cattle and goats in Summer. New seedlings cannot develop below the dense undergrowth and the thick layer of snow in Winter. The promising plans to create a National Park in this area have unfortunately been delayed.