



Arboretum Wespelaar

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 75 species of trees that appear on the IUCN's (International Union for Conservation of Nature) international Red List with status 'Vulnerable', 37 species with status 'Endangered', 13 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.

Have a nice walk!



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. Therefore, 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: *Fraxinus quadrangulata*: critically endangered: The Blue ash is native to the Midwestern to Southeastern USA but its populations are declining due to the serious attack of the invasive emerald ash borer. The larvae eat the living part of the wood and cut of the sap flow of the tree after which the tree dies. The young twigs are conspicuously angular (cfr. quadrangulata). The blue in its name refers to the gelatinous substance underneath the bark that turns blue when exposed to air. It was used by pioneers as blue dye. The compound leaves have 5-11 long pointed leaflets which turn yellow in autumn. The blue ash doesn't like our spring frosts.

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: *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 firewood 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.

G: *Fitzroya cupressoides*: endangered: The alerce is an 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). It grows very slow but can reach up to 60 m.

H: *Magnolia decidua*: endangered: This very rare chinese Magnolia only occurs in one population in Jianxi *Magnolia decidua* flowered in Wespelaar for the first time in 2019 which was also a first for Europe. The upright flowers aren't exactly spectacular: they have 4 green outer tepals and up to 11 very narrow, white inner tepals. The flowering only lasts 3 days.

I: *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.