

Tree of the Month, May 2017: Maidenhair tree, yínxìng (*Ginkgo biloba*)

With this year's late spring start, the ginkgo trees are finally leafing out. Ginkgo's bright green, fan-shaped leaves grow from cylindrical short-shoots or at the tips of branches. The English and Japanese common names, maidenhair tree and *ichō* (meaning duck's foot), are based on the distinctive leaf shape, while the Chinese common name, *yínxìng* (meaning silver apricot), is a reference to the seeds, which are covered in a fleshy seed coat that smells like rancid butter as it ripens.

Ginkgoes are dioecious, with separate male and female trees. They are popular as street trees because of their beautiful form, foliage, hardiness, and resistance to disease and pollution. Because of the messy, smelly seeds, male trees are more commonly planted along sidewalks than females. Unfortunately, male trees have very allergenic pollen, which can be a problem for allergy sufferers. Ginkgoes can grow up to 37 m tall and live for many hundreds of years. These tough trees are among the famous *hibakujumoku*, meaning "A-bombed trees", which survived the bombings of Nagasaki and Hiroshima in Japan.

Ginkgo biloba is an ancient species, whose fossil record dates back 60 million years to the tertiary period, while the genus *Ginkgo* dates back 170 million years to the Jurassic period. Today *Ginkgo biloba* is the only remaining species in this genus but fossils of many other ginkgo species (now extinct) have been discovered across the northern hemisphere.

Ginkgo is native to southeastern China but spread through horticulture to Northern China, Korea and Japan over 1000 years ago. It has long been thought that *Ginkgo biloba* has survived due to human cultivation, but a few isolated wild populations have been discovered in sheltered rocky valleys and slopes in the mountains of southeastern China.

Ginkgo seeds are commonly called fruits or nuts, although they are neither. Ginkgoes are gymnosperms, meaning they have "naked seeds" which are not enclosed in an ovary. The seeds are used in traditional Chinese medicine to treat kidney and lung problems. In the 1950s German researchers began to study the medicinal properties of ginkgo leaf extract, which contains compounds that can improve blood flow. Today ginkgo is a popular herbal supplement that some claim can reduce the symptoms of memory-related illnesses like Alzheimer's and dementia, although there is little scientific evidence to support those claims.

Ginkgo seeds are used in Asian cuisine but contain a neurotoxin called ginkgotoxin, and can cause poisoning if eaten in large amounts. The fleshy seed coat contains chemicals that cause dermatitis or blisters in some people, so gloves should be worn while cleaning the seeds for consumption or storage. The genus name *Ginkgo* is a mistranslation of *ginnan*, the Japanese name for ginkgo seeds.

At VanDusen *Ginkgo biloba* can be found in the Woodland Garden and Sino-Himalayan Garden.