

SERVICE TREE

a tree for new Europe



Motto: Europe has enough space for everybody, even for giant service trees.

The aim of the project "Service tree - a tree for new Europe" is to promote awareness of the almost forgotten and rare tree species - **Service Tree** (*Sorbus domestica*) - a fruit tree with many "bests" in the whole Europe; to make use of its landscape, food, forestry and medical importance for our and next generations in Europe; to warn about decline of local **heritage of cultural countryside** all over Europe; to draw attention to the local sorts of fruit trees and shrubs and to look for their new economic and landscape utilization with support of the activities of local governments, associations and entrepreneurs.



Service tree in Moravian landscape

"The fruit trees, except fruit giving, bring also that great good of making the landscape more fertile and healthy.... They provide us with various types of fine wood... Alleys of trees protect the fields from drying up by undue winds and create a shady canopy good for the crops. Planting and tending to fruit trees prevent from lazing around leading to wickedness, drunkenness, lust and burglary... It means it is also an exquisite method of improving and excelling of human mind and heart."

František Pixa, 1848



Fruits of durancie plum

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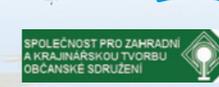
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Among the neglected traditional wood species in Europe, which can be used for food purposes, we can find for example other species of rowan - **Black Chokeberry** (*Aronia melanocarpa*), **European Rowan** (*Sorbus aucuparia*) etc., the decorative species **Bird Cherry** (*Prunus padus*) as well as neglected **Black Elder** (*Sambucus nigra*) and also interesting species domesticated since the ancient times: **mulberry** (*Morus alba*, *Morus nigra*), **Common Medlar** (*Mespilus germanica*), fruits edible, when frozen; very aromatic **Quince** (*Cydonia oblonga*), very aromatic fruits edible, when cooked. More information find under www.slowfoodfoundation.com.



Wild service trees in the area Natura 2000 "Čertoryje"

Activities for conservation of traditional fruit trees in Europe

In 1998, an international convention to preserve the service trees as a rare fruit tree in Europe was based in Klosterneuburg, Austria. At the end of the 1990s, Euforgen, the European inter-governmental organization, commenced a genetic research that collects, evaluates of genotype of rare fruit trees including the service tree in their natural habitats. More information at www.euforgen.org. On 20th October 2000, the Commission of Ministers of the European Council accepted the **European Convention on Landscape** in Florence. The part of this Convention is also conservation and development of the gene pool of native tree species, landscape restoration and support of local economies creating the sustainable landscape. The Czech Republic joined this Convention and project "Service tree - the tree of Moravian Slovaks" won the 2015 Special Award of the Council of Europe. More about the Convention see at www.env.cz.

Nowadays, it is important within the framework of the project "Service Tree - a tree for new Europe", using a good promotion, to develop and/or encourage the **local activities and to interlink the know-how** of particular events for conservation and care for the local species and their biotopes. Furthermore, it is important to make use of them in local economies: products for local people as well as for visitors, local gastronomy and in social life (e.g. Festival of Comels near St. Pölten in Austria; Service Tree Festival in the region of Slovácko, Czech Republic; Days of Chestnuts near Turin in Italy etc.). Look at the websites www.treeforeurope.com!



Mosaic landscape in Carpathian meadows

Other rare species of fruit trees in Europe

● European Cornel - Cornelian Cherry (*Cornus mas*)

A shrub or tree growing up to 10 m in height. It grows in warm mixed-oak woodlands in Central and Southern Europe. It is a long-lived species suitable for landscaping. Its yellow blossoms appear on leafless branches in March. Its yellow-red leaves are very decorative in autumn. Its fruits, small red drupes can be eaten, when ripe, or can be used for making stewed fruits and jams (high content of pectin) or for distilling brandy. Hard wood is appreciated in joinery. Many places and villages bear the name "dřínek - cornelian"; it is even a part of personal names.



● Sweet Chestnut (*Castanea sativa*)

It is a large deciduous tree with serrated leaves coming from the Mediterranean where in some places creates even woods (Apennines). Since the Roman times it has expanded all over Southern and Central Europe. Very valuable more than 700 hundred years old trees, planted by Italian architects, can be found at the Jelenec Castle in Slovakia. In the Mediterranean area, it is represented by around sixty varieties (shrub-like, large-fruited). In some places, it was an important source of food. It has edible fruits - chestnuts or maroons (bigger fruits, up to 20 g), which can be roasted or ground into flour for making bread or cakes. In traditional medicine, it is used as an effective cure for diarrhea and nausea.

● European Pear - Red Bartlett (*Pyrus communis*; var. syn. *Krwavka*, *Sanguinole*, *Granatříbne*, *Cocomerine*)

An old resistant variety of pear with small round fruits up to 60 g weight. When ripe, the fruits have pink to red pulp with excellent tartish-spicy taste. The variety is up to now utilized in southern England, France, Austria or Italy for making cider, brandy or jams.



● Apple - Jadernička (*Malus domestica*; var. syn. *Vinar*, *Kuhlander Gulderling*, *Pepin de Moravie*)

A very resistant variety growing in higher localities in Silesia, Moravia (Czech Republic) and in western Slovakia. It is appreciated for medium-sized yellow apples with red cheeks and very nice sourish taste for delicious juice. In the 19th century, the apples were imported from hilly Moravian Wallachia to Vienna. The variety was first time recorded in the mid-17th century.

● Plum - Durancie (*Prunus domestica* var. syn. *Durance*, *Damas-tinka*, *Sedmíhřadská*)

Currently it is a rare variety of plum with excellent rich fruiting and resistance against viral disease called sarka, which destroys the orchards of common domestic prunes. Originally it was cultivated in the Balkans; presently it occurs in some places in Hungary, Austria, Slovakia and Moravia in the Czech Republic. The oval fruits have high sugar content and they seldom become worm-infested. Their pulp can't be easily removed from stone. Traditionally, the plums were dried; they are still used for making brandy and plum jam.

● Wild service tree (*Sorbus torminalis*)

A rowan species relative to the service tree, with similar demands for the environment; its competitiveness in biotopes is however higher. The long-lived tree has wood of excellent quality. Its fruits are edible, when ripe. In some places in France, Austria and Germany, they are used for making jams, juices and rarely brandy.

Service tree in Bohemia and Moravia

In Central Bohemia and South Moravia, some hundreds of old full-grown trees have been discovered, especially in the vineyards and sometimes in the light forests. The young trees, however, are nearly missing in the landscape - this is caused by high game population and by lack of biotopes. The largest fertile tree in the Czech Republic is the giant Adamec's service tree - **its trunk measures 4,6 m in circumference** (1,45 m diameter) and it is estimated to be **about 500 years old**. Within the surveys from the 1990s, it was found out that there are some tens of trees older than 300 years in the landscape. The re-discovered tree gained big support of the experts and civil initiatives. **Service trees have their museum and educational path**, land association and festivals with products made of their fruit. Service trees also helped a small village of Tvarožná Lhota to become the "Entente Florale Europe" - the "Flowering Seat of Europe". **Every year, thousands of service trees**, European comels, wild service trees, Durancie trees (local variety of plum) or Jademička trees (local apple variety) are again planted out by local people. The service tree from Josefov village won second place in the competition "Tree of the year of the Czech Republic" in 2008. Service tree is a symbolic tree of the region of Slovácko. **More under www.straznicko.cz.**



Service tree festival

giant Adamec's service tree

Service trees in Slovakia

In Slovakia, the service tree is still a **neglected species**, which begins to be the matter of research. The trees grow rarely in warmer locations there, at the foot of Slovakian mountains in all Slovakia up to the border with Ukraine. There is an interesting story about the **rescue of the tree** Urbánek's service tree in the Low Carpathians near Piešťany by Ľubomír Zubák: „As early as in the 1930s, old orchards with more than 20 large service trees grew in the region. During the collectivization of farm land after 1950, **all the fruit trees were uprooted by caterpillars, the largest ones by dynamite**. From all the trees, only two service trees survived - the Blažek's and the Urbánek's one - both in the middle of a large field. The first one, however, perished in 2000 because of permanent ploughing-around and after two lightning strikes. The more than 200-years-old Urbánek's service tree (trunk circumference 260 cm at the height of 130 cm) owned by our family, has yielded **0,2 to 1,5 tonnes fruit** for many generations. Our wide family and many people from the neighbourhood use the fruit in different forms." The landscape and native woody species conservation in Slovakia is covered by SAZP in the framework of the countryside restoration; more under www.sazp.sk.



Urbánek's service tree

Service trees in Germany

In Germany, long-term attention is paid to service trees. Nowadays, the trees can be found mainly in woodlands of Bavaria, Baden-Württemberg, Hesse and Rhineland-Palatinate. **Along with the changes in farming, the quantity of trees has been going down for centuries - not only in Germany, but also all over Europe**. The species is endangered by intensive monoculture forestry and agriculture. The self-reproduction does not suffice to conserve the species. The native biotopes are vanishing! The endeavour of the German Experimental Institute for Forestry and that of some tree nurseries since 1980 has raised the service trees to the "Tree of the Year 1993", initiating an effective rescue of this species. Landscape architecture appreciated the wonderful large crowns. For forestry, the trees are important because of their long trunks a quality source of **hard and coloured wood** for veneers and joinery. Fruit growers appreciated the grafted trees for their early **fruiting - after five years (the non-grafted trees have fruits after approx. 10 years)**. The high content of aromatic and healing substances in fruits has been appreciated since Middle Ages. The fruits are traditionally used for treatment of **dysentery, enteritis and stomach troubles**. **At the beginning of the 20th century, more than 50 sorts of fruits according to their shape and taste were still distinguished**. Today, the fruits are still used in viticulture for wine fining and for production of renowned apple ciders. **Jams, stewed fruits and aromatic brandies are highly appreciated**. However, there are too little fruiting trees - not more than 4000 large trees over the whole Germany. In 1994, the Corninaria Association was established in Frankfurt am Main to conserve and support two endangered species of wood fruit trees - Service Tree and Wild Service Tree (*Sorbus terminalis*). More see under www.corninaria.de.



products from service tree

Service trees in France

Originally, service trees grew over the most country in France. Until now, they are known as a traditional vineyard tree, that is, however, rare at present and lives often only in memories. The largest trees, some grafted, have in the circuit over 3 meters and still produces fruit, that is only occasionally used for brandy. Service tree displaced in the late 18th century a new intense cultivated varieties of apple and pear trees. Service tree orchard will not find. However in the Sarthe region, in 2014 it was found more than 500 old trees and dozens of names, places and families called Cormier - service tree. More on sepenes.fr

Service tree - distribution in Europe



Service tree - basic data

Name:	Sorbus domestica	Family:	Rosaceae
Region:	Europe, Mediterranean	Locations:	woods, orchards, hedgerows
Age:	500 - 600 years	Usage:	wood, fruits, buds

Service trees in Switzerland

During the last two decades, service tree has drawn a special attention as a forest rarity in Switzerland. It was discovered recently in many regions; in 1994, for example, in the Jura region. Those trees - solitaires have excellent quality of wood and fruits. It has been found that trees can be pollinate at a distance 3-12 km, so that they can survive in the landscape like fertile solitary. The largest trees **in Switzerland reach the height of 30 metres and the age of nearly 500 years**. The Swiss Federal Institute of Technology in Zurich (ETH) and the Federal Office for the Environment (FOEH) set up a project in 1997 to support the rare tree species and service trees in particular. Nowadays, the Swiss Federal Research Institute carries out the research of fruit and wood utilisation.

Service trees in the Mediterranean area

In the Mediterranean area, the serviceberries have been used since the period of **ancient Greece**. As early as Vergilius (400 B.C.) documented the serviceberry wine at Scythes in southeastern Europe. Up to now, wonderful service trees grow directly **in the ruins of Pompeii** below Vesuvius. **In Italy, Greece and Turkey**, fresh berries can be bought in the local markets sometimes. Around the Italian Naples rarely grows grafted trees of several local varieties and some even gives the fruits over 30 grams heavy, and some are ripen in Christmas time. The trees are scattered everywhere in the countryside; nevertheless, there are only few really large individuals. The people do often not know anything about traditional usage of fruits as digestives - just the older generations can remember that they dried the berries on hay, making sweet cake crumbs or adding them to tea.



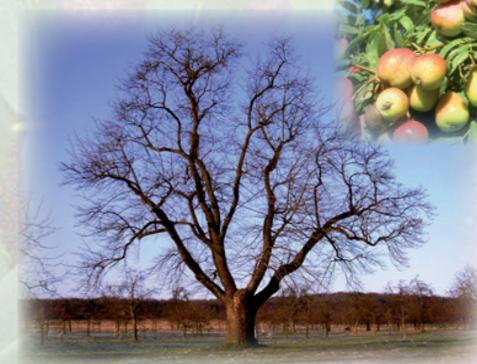
ripe and fresh fruits

Service trees in the United Kingdom

Recently, the service tree has been confirmed to be the **native species in the UK**. The centre of occurrence is located in the open countryside of Southern England and Wales. Large trees are cultivated in some parks around the manor houses. It is interesting that the service tree **tolerates the emissions** so it can be planted out in big cities. Even small populations of the trees spread in the countryside have **high gene and that's why also species diversity**, what enables the service tree to survive just in several giant individuals for centuries. **The trees does not need special soil**, although its pH can't be extremely acid. Service trees tolerate even very dry sites - nevertheless, they do not grow on shady dense forests or in humid localities with lack of warmth and light. Service trees are resistant to frost down to -30 degrees, but they don't tolerate windy places. **Man-made reproduction** of the service tree succeeded in the mid-20th century by method of **stratification** - storage of the seeds from fresh fruits for 12 - 16 weeks in constant temperature of approx. 6 °C. The germinating seeds should be planted in flowerpots with sandy soil and protected from fungal diseases in the first year of life. The artificial reproduction helped to get over the lack of natural seedlings and to return the services tree among the cultivated European fruit trees. More information under <http://wbrc.org.uk/>.



service tree in german Kronberg



Service trees in other European countries

Old service trees enjoy great popularity in **Austria** as the "Tree of the Year 2008" where the serviceberry brandy is appreciated, or in **Luxembourg** where each service tree is a national monument and the species has its own post-stamp. In **Hungary**, in the region of Tokai Hills, a comparative survey was done. It led to a conclusion that some-hundreds-years-old service trees disseminated in the agricultural countryside are mostly the trees left **after the change of forests into orchards and gardens**; in Germany, they came to similar conclusions. In the Balkan, service trees grow in the woods and gardens and their fruits are used as food sometimes. People know the name very well but they do not know localities. There are some places in Europe, and the Balkans is the largest one, where a systematic survey of native fruit trees has not been done yet, look at <http://darwin.defra.gov.uk>.

