

## Platanus trees in the parks of Timisoara

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**Abstract** Platanus is a tree species that cannot be found very often in the streets and green spaces of Timisoara. There are some parks in the town where you can find this species, in small numbers. Platanus are not used often in Timisoara for rows on the sides of the streets. Isolated or in small groups, Platanus trees are always conspicuous, because of their special dimensions, nice patched bark and foliage.

### Key words

Park, trees, Platanus, Timisoara

*Platanus L. genus (Platanaceae)*

*Plane, Sycamore*

This genus consists of 7 species of large, vigorous, wide-crowned, deciduous trees from Eurasia, North America and Mexico. It contains some of the world's largest trees for dry-summer climates, many of which are widely used as street trees. They are called planes or plane trees in some countries, sycamores in others. The most conspicuous feature is the flaking, mottled bark, which is shed in winter. The 5-lobed leaves are large and maple-like, and the brown seed balls hang in clusters on the trees in winter. The flowers are insignificant.

Cultivation: They thrive in deep, rich, well drained soil in a sunny site and can be transplanted. Propagate from seed or cuttings or by layering. Most tolerate severe pruning, air pollution and hard construction covering roots.

*Platanus X acerifolia (Arr.) Willd*

syn *Platanus X hispanica*, *P. X hybrida* Brot.

*London plane*

Used as a street tree for many years, this fast-growing hybrid can reach 36m in height. It can withstand poor conditions and is resistant to leaf blight; however, the roots can lift paving and the large, bright green leathery leaves can block small drains. Its straight, erect, trunk is attractively blotched in gray, brown and white.

*Platanus orientalis L.*

*Chinar, Chennar, Oriental Plane*

Ranging from Greece and Turkey to the western Himalayas, this large tree grows about 30m tall with spreading branches. Fully frost hardy, it has a relatively short, stout trunk and flaking gray to greenish white bark. Its deeply incised leaves from 5 to 7 narrow, pointed lobes and 3 to 5 round, brown seed heads look like beads on a thread. It is used as a street tree in Australia, southern Africa, and southern Europe. The leaves of 'Digita' have elongated, narrow lobes that are more deeply cut.

*Platanus Occidentalis L.*

*Sycamore Plane, American Plane tree fig. 2,4*

This tree is a large deciduous tree, originating in North America with a spreading form with heavy, slightly drooping branches, reaching 21-30m in height, and normally with a single clear stem. The bark is mottled cream, grey, olive, and light-brown and usually but not always flaking in patches, creating a dappled appearance. The trunk may look rugged. The triangular-ovate "maple-like" leaf is medium to dark green, paler below, and matt to glossy on the upper part of the leaf. The underside of the leaves has a thin layer of down. The leaf has 3, rarely 5 palmate lobes and is toothed. The leaves turn yellow-brown in autumn.

The green flowers are monoecious (individual flowers are either male or female, but both sexes can be found on the same plant) and appear in April. The tree is wind-pollinated and the pollen is very allergenic. The seed / fruit is a syncarp of achenes, about 2.5cm in diameter, and are borne in groups of 1-4 on a stem on short lateral growths. They change from green to brown in October and persist into winter. The tree is frost hardy. They thrive in stands by the riversides. It doesn't tolerate stagnant waters. It is found in woodland, gardens and lining streets. It is very popular for planting as a shade and ornamental tree in cities, as it does not suffer much from dust and smoke and can stand where other trees usually die.

*Justitiei Park* (Park of Justice) is situated in the center of Timisoara, near the town hall, in an area surrounded by large boulevards and on one part by the river Bega. The park has nice old trees of different species, while the grassy areas are smaller in size. There are few monuments too. There are 6 *Platanus acerifolia* trees in the park - fig. 1. The trees are 50 to 60 year old, 25 m high, the diameter of the tree crowns is 8m, the total volume of the crows in 1100 m<sup>3</sup>. The trees are situated in the central part of the park.

*Copiilor (Childrens) Park* is situated in Timisoara on the bank of the river Bega near the center of the town.

It has nice old trees of different species and used to have playgrounds for children. There are 5 *Platanus acerifolia* trees in the park, aged between 50 and 70 years. The height of the *Platanus* trees is between 25 and 30m. The diameter of the crowns is 10 to 12m. The total surface of the tree crowns is 1000 m<sup>3</sup>. The trees are located in different parts of the green space.

*Alpinet Park* is situated on the bank of the river Bega, in central town. It is not a great green space, but it has a nice design, and contains many species of trees and shrubs. There are no *Platanus* trees in the park.

*Central Park, (Parcul central)* is probably the oldest park in Timisoara, with a history of 150 years. It is situated in the center of the town near the orthodox cathedral. Its central part is geometrical and monumental, while the rest is more natural. There are statues, flower beds, fountains and pergolas in the park. 22 *Platanus acerifolia* trees exist in the park. The trees are aged between 30 and 40 years. The height of the trees is 13 to 14m. The diameter of the tree crowns is between 5 and 10m. The total volume of the tree crowns is 600 m<sup>3</sup>.

The trees are situated mainly near Bul.16 Decembrie, and Splaiul Titulescu street, which are bordering the park.

*Poporului park* is a large old park situated in Fabric quarter in Timisoara. The park is near the river Bega, and is bordered by boulevards. One century old, the park has been remodeled several times. In the park can be found fountains, little hills with stones, flowers, nice benches, pergolas. There are nice old trees in this green space, which are at least one hundred years old.

There is one *Platanus orientalis* tree in the park, and 2 *Platanus acerifolia* trees. The trees were planted 60 to 80 years ago, they are 30-40 m high, the diameter of the crowns is 7-12m. The total volume of the tree crowns is 50 m<sup>3</sup>. The trees are planted in different parts of the park, mainly in the center, near alleys.

*Plane* trees can be found in most of the old park of the town, in small numbers. They are between the common species in Timisoara, though they can be found in greater numbers only in a few older parks of the town (Parcul Central). *Platanus* trees represent ecological and esthetic value wherever they are located. The trees have a nice shape and colour, and contribute a lot to the outlook of the areas where they are planted.

## Results and Discussions

*Platanus* is an important species, present in many green spaces of Timisoara. The trees contribute a lot to the outlook of certain urban areas and to the diversity of the vegetation. The trees are old and have a great visual and ecological value, though there are some young too. The species is present in many important parks of Timisoara, very rarely in streets. Their numbers and importance are variable. The individuals are sometimes concentrated near building, or on private domain, though the best place for these trees is in parks. *Plane* trees are considered generally being nice, and their presence is appreciated especially in central parts of the town in green areas. The size of the tree at maturity is impressive and this can be an advantage in certain situations. Very few other trees have the size of *Platanus*, and the esthetic value of its trunk and branches. Still the present study showed that most old valuable *Plane* trees are situated in Timisoara in a couple of places, especially in central parks, for example in Central Park, Copiilor Park, or Justitiei Park. The rarity of these impressive trees makes them even more valuable.

## Conclusions

1. *Platanus* trees are present only in some parks of Timisoara, in greater or smaller numbers, rarely in streets. The species is present in central parks of the town where many valuable plants have been planted during the years.
2. The trees are aged up to 80-100 years and according features, while some are young. They have ecologic and esthetic value, being very conspicuous.

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Fig. 1 *Platanus acerifolia* leaves



Fig. 2 American sycamore tree



Fig. 3 Platanus tree trunk



Fig. 4 Sycamore tree