

The tree of the year 2001

Plane tree (*Platanus orientalis*)



Introduction:

The plane is one of the few large broad-leaved trees native to Cyprus. The plane family (Platanaceae) is small and monogeneric containing only 9 species according to most accounts.

All are Northern Hemisphere species. The natural distribution is much obscured by planting and introduction over many centuries as a result of which the species occurs widely from 20°E to 78°E. The status of populations east of Iran has long been questioned and there are doubts also about those of mainland Greece. The natural southern limit is likely to be indicated by Iranian and Jordanian populations and the northern limit appear to be in the Balkan. It is introduced to Australia, the United States and further into north Europe.

Historical context:

The plane tree was growing in Cyprus for the last 2,500,000 years, as it is proved by the fossils discovered in various places. Recognition of the plane as a desirable tree can be traced back to ancient times with little difficulty. The chronicles of the Persians, Moguls, Greeks and Romans all contain references to the tree.

Early appreciation was as a shade and ornamental species. In recent years, with wood shortages, more attention has been paid to the tree as a source of timber but planting and encouragement for amenity and service roles remain important.

Description:

P. orientalis reaches heights as great as 30m according to various accounts but there is a



report for a tree of 40m in the little Caucasus with diameter of 6m. Other reports of trees exceeding 3m in diameter are frequent. The crown is large and spreading as to be expected in a species first valued for shade. Branches are massive but the trunk is straight. The bark is distinctive being whitish in colour and exfoliating as large, irregular thin flakes to expose brownish, greenish or greyish patches of inner bark giving a mottled appearance.

Trees are monoecious but male and female heads of flower are in different peduncles and not necessarily within the same inflorescence. Commonly branches bear either male or female inflorescences or these occupy different sections of the same branch. At anthesis, the heads of male flowers are 5-10mm in diameter. There are 5-8 stamens, united in groups of up to four. The species is anemophilous and effectively self-sterile. The female flower heads are initially 5-10mm in diameter when receptive but expand to 20-25mm in diameter as the fruit develops. The fruit is a nut. Individual nuts are hairy and fusiform, 10mm in length and 2mm in diameter. Seed dispersal is reported by wind and water.

The timber of *P. orientalis* is widely used for carpentry and door and window frames and logs can be peeled for veneer or plywood. Small utility items such as trays, pencases and boxes which may be lacquered are craft items made from the wood which is also used for furnishing wood and interior decoration.

P. orientalis is widely used as an amenity tree. Traditional recognition of the value for shade and the attractive appearance has led to extensive use in urban situations. Coupled with the visual impact, the remarkable ability of planetrees to withstand urban pollution, underlines a continuing future demand for these trees.

Ecology:

Within the main part of the range the tree occurs at elevations up to 1500m. Several reports indicate descent to sea level but elevations above 300m are more typical. Usually *P. orientalis* forms thin stands along permanent water courses and also moist, ephemeral, stony or gravelly ravines. It is often accompanied by species of *Salix*, *Alnus*, *Tamarix*, *Vitex* and especially *Nerium oleander*.



Conservation status and management:

P. orientalis is considered as one of the most valuable broad-leaved trees of Cyprus forests and for this reason is always favoured both against the *Alnus orientalis*, and *Pinus brutia*, during fellings.

It was also early appreciated as a shade and ornamental tree, and therefore was widely planted in village squares, near monasteries and close to churches. The oriental plane of Ayia Mavri with perimeter at breast height equal to 7.55m and height 36m is considered as the biggest plane tree in Cyprus. Other big plane trees are found at Kaminaria, Milikouri, Phini, Moutoullas and Goudhi.



Conclusion:

The Oriental Plane is considered as one of the most valuable broad-leaved trees of Cyprus and therefore measures for its protection should be taken. In-situ measures should not be ignored and efforts should be made to maintain the wild populations. The typical presence as part of a community of limited extent and associated with a well-defined habitat means that action to conserve *P. orientalis* in-situ will simultaneously protect additional plant and animal resources.

Text: K. Kyriakou

Photos: K. Logginos



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MINISTRY OF AGRICULTURE,
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