## Oak trees in Battersea Park Clive Freedman and Brian Livingstone

There are around 180 oak trees in Battersea Park. These trees support an enormous number of other species. The trees themselves, and the leaf litter from the leaves which fall in autumn, are host to many kinds of insect, and in turn the insects are an important food source for birds. Spiders make webs across the crevices in the bark to catch insects. Squirrels collect the acorns and bury them for later consumption. Fungi grow from the leaf litter beneath the tree. In the countryside, acorns are eaten by badgers and deer, and are fed to pigs, in particular the black Iberian pigs in Spain.

There are two kinds of native oak in the Park: the English Oak (also known as Common Oak or Pedunculate Oak, *Quercus robur*) and the Sessile Oak (*Quercus petraea*). Most of the English Oaks have the typical spreading habit of the ordinary native English Oak, but a few (near the Pagoda for example) have a columnar shape ("fastigiate") with branches which are nearly vertical. In April, long thin catkins of wind-pollinated flowers can be seen drooping beneath the young leaves (fig.1). The leaves typically have the familiar rounded lobes of an oak leaf, though there is some variation in the shape of the leaves even on a single tree (fig.2). Over the summer, green acorns start to form, and these turn brown before they fall in autumn. In some years there are fewer acorns - this helps to limit the growth of populations of acorn predators. The Pedunculate Oak has acorns on quite long stalks ("peduncles") and the leaves have short stalks of less than 0.4", while the Sessile Oaks have stalkless acorns and stalked leaves which are larger. A Sessile Oak can be seen on the grass east of the Winter Garden. The Sessile Oak is seen mainly in the north and west of the United Kingdom. Leaves sometimes remain on the tree through the winter.

The Turkey Oaks (*Quercus cerris*) also have lobed leaves, but the ends of the lobes are usually pointed. There is very wide variation in the shape

of the leaves, and some leaves are deeply cut towards the midrib. The acorns are stalkless and are in cups surrounded by whiskers (fig.3). Two notable Turkey Oaks are the Grace Darling Oak beside the Pagoda, which commemorates Grace Darling who on 7 September 1838 rowed with her father to the wreck of the steamer 'Forfarshire' and rescued nine survivors, and the fine tree in front of the entrance to the Millennium Arena. Turkey Oaks originate from the area bordered by South-east France and Turkey.

Holm Oaks (*Quercus ilex*) originate from Southern Europe and are evergreen, and they can be seen all over the Park. There are some fine examples in the area north-east of the Pump House, and the tree west of the Pear Tree Café usually has lots of acorns in the summer. There is wide variation in the shape, size and colouring of the leaves. Some leaves have spiny lobes like a Holly (*Ilex aquifolium*) - the scientific name of Holly is **Ilex** *aquifolium* because of the



Fig 1. Catkins on an English Oak in April



**Fig 2.** Leaves and acorns of an English Oak © A Emmerson (CC-BY-NC)



Fig 3. Leaves and acorn of a Turkey Oak

similarity of its stiff evergreen leaves to those of *Quercus ilex*, which often have prickles as well. Some trees have small, narrow leaves, and some have leaves with a lighter grey underside. Most of the Holm Oaks in the Park have discoloured leaves as a result of the activities of a small leaf-mining caterpillar (like the Horse-chestnuts in the Park) (fig.4).

There are Red Oaks (*Quercus rubra*) near the cricket pavilion. These have much larger leaves, which in autumn may be a deep red colour on some trees. In Battersea Park the autumn colour of the leaves is usually disappointing.

The largest of the Pin Oaks (*Quercus palustris*) is west of West Carriage Drive. This tree is the tallest recorded Pin Oak in Greater London. The lobes of the leaves are deeply cut with a rounded space between each lobe.

South-west of the lake, beside South Carriage Drive, are two oaks next to each other which could be hybrids of the Turkey Oak and the Cork Oak. The leaves are less deeply cut than those of the Turkey Oak and have more regular triangular lobes.

The single Cork Oak (*Quercus suber*) is on the grass north of the bandstand. In Mediterranean plantations the cork is stripped off every 7-10 years to make corks, without damaging the tree. It is feared that the increasing use of plastic corks and screw-top bottles will reduce the number of Cork Oaks which are planted, with a consequent loss of habitat for other species. The leaves are not unlike the leaves of some Holm Oaks, and are also attacked by a leaf-miner.

Oak timber is hard and very durable (*robur* = robust) and has been used for thousands of years. Around 6,000 trees were required for the construction of HMS Victory in 1759. To rebuild the frame of the transept and spire of Notre Dame in Paris, 1,000 oaks from more than 200 forests have been selected.

From time to time individual oaks in the Park need to be fenced off.

This is to protect passers-by and their dogs when Oak Processionary Moth infests the tree. The hairs of the caterpillars cause skin irritation. They also strip off the foliage (like the Ermine Spindle Moths which defoliate Spindles in the Prince of Wales Drive border, and the Box Tree Moth). The Oak Processionary Moth is a native of Southern Europe, but is slowly spreading from London after first being seen in the United Kingdom in 2006.

At www.treesofbatterseapark.org you can access an interactive map which shows the location of some of the trees mentioned here, and also shows trees and shrubs of interest in particular months of the year. To discuss oak trees, or other trees and shrubs in Battersea Park, contact batterseaparktreewatchers@ btinternet.com)

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**Fig 4.** Leaves of Holm Oak showing leafminer damage



Fig 5. Leaves of Pin Oak

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