

# English Oak

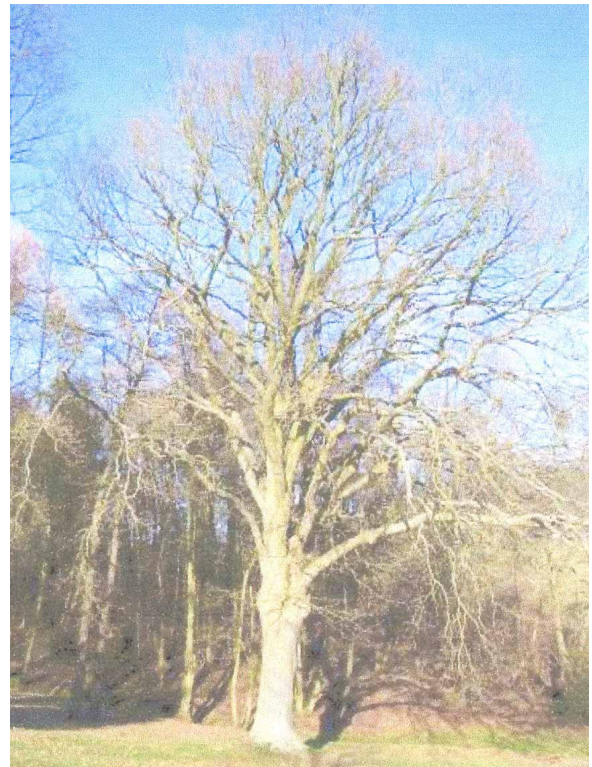
*Quercus robur*

When I first started teaching in 1961, English Oak was part of the mandatory Woodwork syllabus and I clearly remember teaching to year 8 students, roughly 12 year olds, about *Quercus robur* var. *sessiflora* (*sessile* - without stems or petioles), and *Quercus robur* var. *pedunculata* - (*pedunculate*, meaning having stems joining the acorns or fruit to the stems). This seems to have changed over the years and English Oak is now often said to come from two distinct species known as *Quercus robur* or *Quercus petraea* (sometimes also called Sessile Oak).



There are about 600 species of *Genus Quercus*, the majority of which are native to the Northern Hemisphere. The Oaks of Europe are generally slower growing and lack the beautiful autumn colours of those from America, but are significantly harder, tougher and more durable.

Most of the Oaks are deciduous but many are evergreen. Two of the most significant evergreen Oaks are the famous Cork Oak (*Q. suber*) and Holm Oak (*Q. ilex*), also called Evergreen Oak or Holly-leaved Oak. There is an extensive range of Oaks growing in the Waite Arboretum.



## Derivation of names

*Quercus* - from ancient Latin name for the Oaks

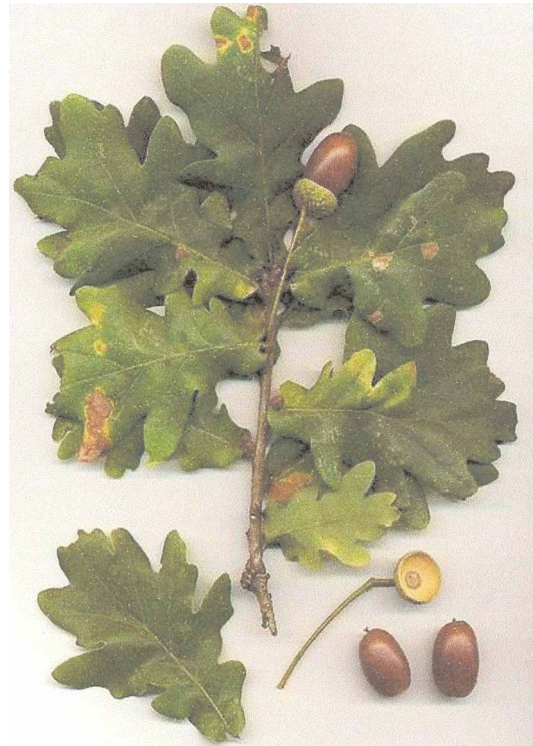
*robur* - also from ancient Latin and refers to the great strength of the wood.

Other Names European Oak, French Oak, Pedunculate Oak, Common Oak

## The Tree

This large majestic tree is probably the best known of all trees growing in Great Britain. It is long lived and many veterans have been recorded to be more than 1000 years old. It hybridises very easily with the Sessile Oak (*Q. petraea*).

The tree typically grows to about forty metres, and when grown in forests it can produce straight boles up to fifteen metres. When grown in open areas it grows into very large spreading trees with short, stout trunks and enormous low branches which are often near horizontal (as portrayed in "Robin Hood" fantasies).



The bark in mature trees is grey, hard and in regular vertical fissures. The leaves are very recognisable because of the large lobes. Mature leaves typically grow to 100 x 80 mm with three to six large rounded lobes tapering toward the base where there are normally two smaller lobes. The upper surface is dark green and has a paler under surface. It is a deciduous tree. The male flowers are long catkins containing pollen. The female flower develops into the fruit which is the famous acorn. There are many stories told about the value of the acorn as a food source in past times.

## Habitat

Great Britain, Ireland, western and central Europe. Major sources of supply are France, Poland, Yugoslavia and the Baltic countries. It is the most common tree found in Britain especially in Wales.

## Timber

The sapwood is pale coloured and quite distinctive from the darker yellowish brown of the heartwood. The grain is usually straight with well marked

growth rings and it is ring-porous i.e. it has a number of large pores along the lines of the growth rings.

English Oak, like most of the Oaks, also has very prominent medullary rays. Quarter sawn boards have always been in demand for furniture for the wonderful medullary ray figure while back sawn boards show plain figure. Cross sections show the radial pattern caused by the prominent medullary rays. The radial pattern creates much difficulty in successfully drying out logs as they very quickly develop large radial cracks. It is imperative that drying is done very slowly, often a problem with our summer climate. Some years ago the Northern Turners collected a large amount of English/French Oak from Williamstown, but ended up with small cross sections only due to the radial splitting (from 300mm branches to pen blanks!). It is a moderately heavy timber, having a air-dried weight of about 70 Kg per cub metre (c.f. *Jarrah* about 80) and is hard, tough and very strong. It turns well but can be difficult to work with hand tools. It holds nails well, but pre-drilling is advisable to prevent splitting.

## **Main Uses**

Traditionally the most important timber for ship building, it now maintains a prominent position as a prized timber for panelling, joinery, flooring, and for casks beer and wine. Because of its strength and durability it has been used for general construction work throughout Europe.

Trees that have been attacked by a fungus during growth produce darker timber known as European Brown Oak which is sought after as a cabinet timber.

On an earlier trip to England I visited the Chapel at Hampton Court Palace and was admiring the very old dark figured oak furniture, but after having some discussion with the Sexton discovered that some of it was recently made as part of their conservation project. They had researched early methods and had sanded and burnished the new timber with Flemish reeds which produced a patina to match the aged timber.

One of the highlights of our recent trip to the United Kingdom was a side trip to Portsmouth, where we spent a whole day at the docks, much of it viewing the famous ship, HMS Victory - see following article.

Ron Allen