

Burnham Beeches

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Burnham Beeches is an ancient woodland, a nature reserve of international importance and also a public open space receiving around half a million visitors a year. Of primary importance are the ancient pollarded beech and oak trees which provide habitats for rare insects and lower plants as well as growing into unusual shapes to delight the visitors.

Burnham Beeches is a good example of a wooded common. Historically local people relied on it to provide grazing for their livestock and also wood for their fires. The northern part of the area was largely wood pasture, with two blocks of land enclosed from the Common in the seventeenth century to enable the coppicing of oak and beech. The southern part of the Beeches was almost treeless, rough grazing with dry heathland, acid grassland and extensive areas of wet and boggy valley mire.

Within the wood pasture the trees were pollarded, cut repeatedly at a height of approximately 2m to enable continual crops of branches to be produced out of reach of the grazing animals. A side effect of pollarding is that the trees live much longer than an uncut tree, thus the beech pollards at Burnham Beeches are between 400 and 500 years old, perhaps double that of uncut trees. The characteristic nobbly growth that develops at the point of cutting enables water to collect in pockets and facilitates localised wood decay. Fungal decay is a natural process and, in most instances, it does not harm the trees merely breaking down the dead wood and eventually forming hollow trunks. During the decay process conditions are produced that are suitable for a wide range of insects, some very rare and individual in their needs. Burnham Beeches is home to more than 60 Red Data Book species, most of which are associated with the old trees. This is an exceptional number for a nature reserve only 220 hectares in size.

For centuries, while the Beeches were actively managed by grazing and wood cutting, an open aspect must have prevailed and pollards of mixed ages would have been found. However, this situation changed with the cessation of tree cutting approximately 200 years ago and with the decline in grazing at the beginning of the twentieth century. The legacy inherited by the current management team was that of ancient pollards, many with huge limbs, unstable, falling over or falling apart, hidden within dense younger woodland dominated by silver birch and holly. A previous estimate of around 3,000 pollards in the past had declined by 1990 to just 540. Concern for the loss of all the pollards, together with their habitat and associated biodiversity interest has resulted in active management of the trees and the land surrounding them.

Twenty years ago the feeling was that to cut old pollarded trees again would kill them. The pressing need to do something for them at Burnham Beeches led to some experimental cutting on young trees. After successful results a few old trees were worked on and now the work programme has been extended to cover all old pollards for which there is some hope of prolonging their life.



Moribund pollard but still an excellent wildlife tree. Cutting would not help this tree to survive, it is better to let it die naturally.

A tree that has been reduced almost down to the old bolling height. It was cut in the 1950s and is growing well. Future cutting will remove the larger branches and retain the smaller ones in a rough 'rotation'.

This special tree has a replaced cable and has been cut to lower the risk of it falling. It has the red listed lichen *Pyrenula nitida* growing on the trunk. Any work on this tree has to avoid changing the microclimate for the lichen too much too quickly.



This tree has had one reduction in recent years, the next cut will reduce the laterals so the crown is more compact.



Two lessons were learnt from the experimental work. Despite beech being considered a shade tolerant tree it does require adequate light in order to grow following cutting of the branches, however it can also have too much light if dense woodland surrounding the tree is cleared too quickly. The second balancing act is to remove enough of the weight from the branches to stabilise the tree and to encourage it to produce new growth, but not so much that the tree dies. This is true even on young trees. It is unlikely that beech trees were pollarded like one would a willow, where all the branches were removed at one time. Cutting was more likely to have been a selected removal of the larger branches, leaving the smaller ones in place.

Today the work programme for the trees at Burnham Beeches consists of two parts. First all the old trees have their own 'management plan'. The aim is to keep these trees alive as long as possible and to stabilise them by working on approximately 50 per year. Restoration cutting aims to reduce the height and weight of the branches in a series of stages with between 5 and 10 years between each cut depending on how the tree responds. For some trees it may be realistic to achieve an 'end point' back at the bolling (where they would have been originally pollarded to) for others this will never be achievable but the work will help them live longer than if they had not been cut. The second essential part of the work programme is to create new pollards for the future. We are aiming for 1,000 new pollards and are well on the way to reaching this target.

Another strand to the management is the reintroduction of grazing in certain areas to restore the wood pasture habitat and keep the land around the pollards open. Cattle, ponies and pigs are grazed, together with sheep in the restoration phases. In the future it is anticipated that much more of the area will be grazed.

Beech trees in southern England face threats now that they did not when they were actively pollarded for their wood products. Climate change coupled with pollution is having a negative impact on the health of the trees and even maidens at Burnham Beeches are now showing signs of poor health. Grey squirrels are a severe threat to the young and vigorous growth on the old trees after cutting. They strip the bark and kill branches and this is likely to have a direct impact on the survival of both old pollards and the young ones.

Management of a population of old pollarded beech trees is labour intensive, expensive and fraught with future uncertainties. We are convinced however that it is important to continue with this work in order to maintain the high level of biodiversity and also our cultural heritage. In addition, visitors have come to Burnham Beeches for many years, drawn by the individual shapes and characters of these trees. It would be sad for Burnham Beeches to lose its individual character when active management is possible and realistic.

For more information visit

www.cityoflondon.gov.uk/Corporation/living_environment/open_spaces/burnham.htm.