Special Trees and Woods Project

The importance of veteran trees
Volunteer training event at Crowsley Park on 3rd June 2009

What is a veteran tree?

The term “veteran tree” is not precisely defined, but it includes trees defined by three principles:-

• Trees of interest biologically, aesthetically or culturally because of their age
• Trees in the ancient stage of their life
• Trees that are old relative to others of the same species

The girth of a tree is not a reliable criterion because different species of tree have very different life spans and grow at different rates. Other conditions may also affect the size of trees such as soil type, soil moisture, shading etc.

A rough ‘rule of thumb’ can be used in relation to size for an oak (Quercus robur):-

• Trees with a girth of > 3.2m at 1.5m are potentially interesting
• Trees with a girth of > 4.7m at 1.5m are valuable in terms of conservation
• Trees with a girth of > 6.25m at 1.5m are truly ancient

Age is also a poor indicator of ancient status for trees and can only be used when comparing one tree with another of the same species. At 100 years of age a birch or a cherry would be old and a willow extremely old. At 200 years of age a beech would just be starting to become interesting, an oak just reaching maturity and a yew still beginning. An old tree can be defined as an individual tree that is older than about half the natural life span for that species.

Although size and age are not always reliable criteria, the features on a tree help indicate its status as a veteran.

Characteristic features found on veteran trees

As trees age they develop a range of features in root, trunk and branch, all of which are indicators of old age. Features include:-

• A girth which is large for the species
• Major trunk cavities or progressive hollowing
• Naturally forming water pools
• Decay holes
• Physical damage to the trunk
• Bark loss
• Large quantity of dead wood in the canopy
• Sap runs
• Crevices in the bark, under branches or on the root plate
• Fungal fruiting bodies (eg from heart rotting species)
• High number of interdependent wildlife species
• Epiphytic plants
• An ‘old’ look

See picture overleaf. The more features a tree has, the stronger the indication that it is a veteran.

In addition, the tree may also

• Have a pollarded form or show indications of past management
• Have a cultural/historical value
• Be in a prominent position in the landscape
Why are veteran trees special?

Veteran trees are an important part of our historical and cultural landscape.

- They have aesthetic appeal and are a source of inspiration
- They may have a particular historic link
- They illustrate past land use or cultural landscape
- They may be part of a designed landscape or garden
- They are especially important for biodiversity

An individual veteran tree is a thing of beauty and this catches the imagination, adding atmosphere to a site. Veteran trees feature in paintings, poems and books. They provide a sense of continuity in an ever-changing world; each is a survivor from the past, a relict of a former landscape making them a valuable part of our cultural heritage.

Old trees would always have been common in woods, but many of the veteran trees we have today started life as “working trees” being regularly pollarded to provide fuel and wood for people to use. Within an agricultural landscape, veteran trees are most frequently found as markers along old boundary banks and occur in long-established hedgerows. Other veterans (eg pollarded willows) mark the course of water channels, sometimes now dry.

Some of the highest concentrations of veteran trees are found in current and former parkland. All parks were developed from an existing landscape and in most cases the pre-park landscape was incorporated into the new parkland enclosure. Although many parks have changed ownership and lived through different fashion, successive designs tended to incorporate valuable features that were already present – veteran trees were often considered to add maturity.

Veteran trees are important for a whole host of wildlife. Their holes and hollows are important roosting sites for bats and nesting sites for birds. Hundreds of different species of invertebrates (insects and spiders) depend totally on very old trees, feeding on decaying wood, on fungi, on each
other. Many of these species have very specialised lifestyles and only a few trees contain the right habitat for them at any one time. This makes groups of veteran trees even more valuable – the more trees, the more alternative micro-habitats for wildlife.

Fungi are critical in the ecology of almost all of the wildlife associated with old trees and in the health of the old trees themselves. Some of the fungi, including those which cause trees to decay (making them hollow) are now rare and restricted to only the oldest trees. The decay of heartwood is a perfectly natural process, probably prolonging a tree, and is not necessarily a sign of ill-health.

Britain has one of the highest populations of veteran trees in Europe (along with Spain and Greece).

**Types of veteran trees**

According to their origin and past management, veteran trees can be assigned to three categories: maidens, coppice and pollards.

- **Maiden trees** - trees with a trunk extending from the base to the upper crown. If they have grown in woodland with other trees close by, these trees will have a ‘narrow’ profile with a tall stem and small canopy. If open grown, they usually have a wider crown and bigger branches lower down the trunk. Note that open grown trees may subsequently be surrounded by younger woodland.

- **Coppice stools** – trees cut near ground level, then allowed to produce new shoots from the stool. Although the growth from a stool is usually quite young, the stool itself can be extremely old. Generally, the larger the stool width, the older the stool. Eg an ash stool 2m in diameter has been estimated to be over 500 years old, and a 16m diameter lime stool was estimated at 2000 years old. Very old coppice stools may rot out in the centre leaving a circle of apparently younger stools or trees.

- **Pollards** – trees cut above the height of grazing animals. The height of a pollard was partly determined by the type of animal. Pollards were probably first cut when the maiden tree was quite young and small in girth with subsequent cuts at regular or irregular intervals. If a tree pollarded once or twice then grows on for over 50 years, it may be indistinguishable from an open grown maiden with a multi-stemmed crown.

Other types of veteran trees include:-

- **Lapsed pollard** – pollards which have not been cut for many years. Once the branches become large and heavy, the trunk may not be able to support the weight and the tree becomes vulnerable to wind damage.

- **Coppard** – trees that are coppiced and then later pollarded (common in Epping Forest).

- **Layered trees** – this can happen if old trees fall over and then re-grow or collapse and then layer well away from the original base. This is characteristic of lime, willow, alder, black poplar and bird cherry.

- **Orchard trees** – trees pruned for fruit production. Pruned trees live longer than they otherwise might and veteran orchard trees have a very distinct invertebrate fauna associated with them.

- **Shredded trees** – a tree where the side branches are cut back repeatedly with a small tuft sometimes retained at the top of the tree. Rare in Britain, but common in continental Europe.

- **Phoenix regeneration** – trees that have fallen over or split apart and then successfully continued to grow, ie naturally regenerated.

- **Naturally damaged trees** – damage from wind, fire, browsing, grey squirrels, etc can act in a similar way to pollarding. These events usually shorten the life of a tree but can create similar conditions to those found in veteran trees.
Threats to veteran trees

The greatest threat to veteran trees is not their death, but misunderstanding and mis-management. Many are thought to be dying and so are cut down, despite hollow trunks and dead boughs being a normal part of a tree’s development and valuable to wildlife.

Agricultural intensification also threatens veteran trees – the removal of hedgerows, ploughing or intensively grazing right up to the base of a tree.

How can we help?

Look through the Specialist Survey Method produced by the Veteran Trees Initiative and English Nature. The tree features depicted in this survey are those experts record. By recording the characteristic features during survey work, the value of a tree as a veteran is highlighted.

Our records of ‘Special Trees’ are being shared with partners including environmental records offices, the Ancient Tree Hunt and ‘tree-friendly’ landowners (eg National Trust, Forestry Commission, Woodland Trust). Recording even a few of these features when you see them adds qualitative information in our records and will highlight individual trees as veterans. This will hopefully ensure the trees receive appropriate management in future.