Ancient and Veteran Tree Habitat Action Plan
November 2011

Introduction

This action plan is concerned with all ancient and veteran trees found in Bristol and Ashton Court Estate. The terms ancient and veteran are used interchangeably, but there are important differences:

Veteran: a tree that has developed characteristics of wildlife significance because it is old **or** because of 'accelerated aging' due to environmental stress or damage.

Ancient: a tree that, by definition, is old and has developed characteristics associated with its great age. In simple terms a tree that makes you say 'wow!' because it is huge; one that is fatter than any other tree in the area.

Other significant trees that may be classes as 'near veteran' or 'near ancient' are recognised, but generally are outside the scope of this document. These include **notable trees** (unusually large) or **heritage trees** (cultural significance) or **champion trees** (tallest / fattest UK / region / local).

Wood pasture, as an associated habitat, is outside the scope of this document, although guidance in respect of the management of veteran and ancient trees is relevant.

The UK's population of veteran and ancient trees is a unique and prized resource of international significance reflecting their relative abundance and continuity of management.

Veteran and ancient trees typically have great landscape and cultural significance. Their long history and gnarled appearance makes them living relicts. We are inspired by their beauty, physical presence and great age. These trees are survivors and many originate from historic and largely abandoned practices such as pollarding.

It is not just the trees themselves that are important; they also support a great diversity and quantity of wildlife including rare species of fungi, lichens, bryophytes (mosses and liverworts), invertebrates and bats. Nationally, old oaks, beech and elm (of which very few survive) tend to have the richest fungal interest. Oak and ash tend to have the richest lichen and bryophyte interest although air quality is the limiting factor. Rare lichens found on veteran oak in other parts of the country, especially interior western Britain include *Lecanora quercicola*, *Rinodina isidioides* and *Schismatomma quercicola*. Fungi associated with veteran oaks may include the hemi-parasite *Piptoporus quercinus* (BAP species) [a single specimen was identified at Ashton Court in 2011], the mycorrhizal fungi *Boletus satanas* and *Boletus regius* (both BAP species) and on veteran beech, the hemi-parasites *Hericium erinaceum* and *Creolophus cirrhatus*.

Defining veteran and ancient trees

In simple terms, an ancient tree is always old, but a veteran tree may be old or may have suffered premature aging due to stress or another causes. As such, three categories of ancient and veteran tree are accepted:

- Ancient tree (always old and probably fat)

- Veteran tree (has features associated with premature aging)
- Ancient-veteran tree (always old and probably fat, but has features associated with aging)

As such, a veteran tree could be relatively young and small, but nevertheless be important because it has developed features due to stress more commonly associated with ancient trees.

Ancient Trees

Ancient trees are trees of great age. The Ancient Tree Forum, http://frontpage.woodland-trust.org.uk/ancient-tree-forum/ defines an ancient tree based on size, specifically the attainment of a minimum girth measured at 1.5 metres height. The Ancient Tree Forum currently gives measurement guidance for ten species of tree (oak, sweet chestnut, yew, beech, sycamore, rowan, ash, alder, lime and field maple). For example, an ancient English oak would need to 7 metres girth or bigger (2.3 m diameter) on a 'good' site with a 'clean' trunk. Importantly, the size threshold for ancientness relates strongly to the growth rate and longevity of certain species; clearly an ancient hawthorn or rowan would be considerably smaller than an oak. As such an ancient rowan would need to attain a girth of 2.5 metres to qualify. See 'The minimum girth of Ancient Trees' – a guide for verifiers, 2008.

Defining feature: A tree reaching a minimum girth based on Ancient Tree Forum guidance will define ancientness. Where guidance for certain species is not available, judgement is required to cross reference species of similar habit and growth. Otherwise, a tree will be judged ancient where its girth is the biggest or approaching the biggest in the region. The strict distinction between ancient trees and trees which may be described as 'notable' or 'champion' trees is perhaps of more academic interest: this document gives guidance on definition, but does not suggest that 'near ancient trees' should be ignored or not given special status or attention.

Veteran tree

A veteran tree can be the result of age or 'accelerated aging' caused by stress such as drought, disease or physical damage such as lightening strikes.

Defining features: To qualify as a veteran, a tree should exhibit at least four of the following features:

- Hollowing
- Fungal fruiting bodies
- Holes and water pockets (minimum size 5 cm)
- Dead wood (fallen or attached minimum 15 cm diameter)
- Tears, scars or lightening strikes (minimum 30 cm)
- Rot sites (minimum 400 cm ^{2}) or exposed wood on the tree
- Live stubs of naturally fractured / shattered tissue (minimum 15 cm)

Some features may be more 'valuable' or of greater significance to certain species. As such, acceptance that a tree is ancient based on the range of features present is important if the question is definition, but specific management of the tree should reflect its unique qualities.

Ancient-veteran

Simply, ancient-veterans are trees of great age (and hence size) that exhibit a range of features that result from their great age. As such, they are defined according to the criteria given above for ancient and veteran trees.

Current Status

The extent, distribution and condition of ancient and veteran trees in Bristol are generally not known. Professional veteran tree surveys have been undertaken in Ashton Court and Blaise Castle Estates. Otherwise, local enthusiasts have identified veteran and ancient trees with data verified by the Ancient Tree Forum and included in their national on-line inventory, see http://www.ancienttreehunt.org.uk.

Not all data held by Bristol Regional Environmental Record Centre (BRERC) on veteran and ancient trees has been shared with the Ancient Tree Forum and vice versa, and not all data held by some partners (including Bristol City Council) has been shared with BRERC or the Ancient Tree Forum.

A Tree Preservation Order can protect veteran and ancient trees. Whilst a TPO is principally made in the interests of amenity, special factors, including whether a tree has veteran status, can be taken into account when making an order. However, there remains the contradiction that veteran trees exhibit features that cause trees to be described as 'dead, dying or dangerous', which makes them exempt from TPO control! Unfortunately, the council's TPO database does not uniquely reference whether a tree is veteran or ancient and hence it is not possible to determine how many such trees are protected.

In addition to making a TPO, veteran or 'aged' trees are afforded planning protection via Planning Policy Statement 9. This is due to be replaced by the new 'National Planning Policy Framework' which is currently draft, but states in Section 169: 'planning permission should be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland and the loss of aged or veteran trees found outside ancient woodland, unless the need for, and benefits of, the development in that location clearly outweigh the loss.'

Ashton Court Estate contains the largest single population of veteran trees within the city with 444 individual trees verified [Fay, N. 2001]: 359 oak, 31 hawthorn, 24 sweet chestnut, 11 ash, 7 field maple, 6 crack willow and 6 other species. The estate was designated a SSSI in 1998, see http://www.english-nature.org.uk/citation/citation_photo/2000331.pdf in recognition of the sites nationally important population of saproxylic invertebrates associated with the veteran trees and dead wood (principally). A saproxylic invertebrate survey of the estate was conducted in 2001 [Boyce, D. 2001] and found two national scarce category A species including a brown tree ant (*Lasius brunneus*) and a jewel beetle (*Agrilus sinuatus*) plus several national scarce category B species. The surveyor noted the significance of adjacent habitat for saproxylic invertebrates including in Leigh Woods, which together gives these sites the highest saproxylic quality index for Somerset. Considerable work has been undertaken in recent years to favour individual veteran trees and improve habitat value, including the release of veteran trees from competition by saplings, an increase in the area of wood pasture, pollarding of some young ash trees, retention of fallen dead wood in situ, surgery to some trees to reduce the likelihood of collapse and allowing the grass to grow long beneath the canopy of parkland veterans.

Allowing the grass to grow long has been a simple yet effective way to reduce the risk of injury from falling dead wood by discouraging people from sitting under the canopy.

Current Threats: loss of tree or features of aesthetic or wildlife importance

Health and safety

Unsympathetic works justified for health and safety purposes is damaging too many veteran and ancient trees. Inevitably veteran and ancient trees exhibit more hazard features such as dead wood, stem decay and broken branches than young trees: it is these features which makes veteran and ancient trees interesting. Making trees safe or safer is relatively easy: fell the tree or remove the offending part. But doing safety works that retains a trees intrinsic appeal is much harder. Some trees should be left alone, others should be subject to more sensitive management and for some trees the risk of harm to persons and property should be lowered by discouraging people from coming close to the tree and / or moving structures (if at all possible).

Disease, physiological stress

Veteran and ancient trees are less tolerant of stress than younger trees. Drought, disease and shading by younger trees are all potential problems. Drought can be a significant stressor causing a tree to decline and die in one season or more likely fade away over several years especially if droughty conditions repeat. There is little that can be done directly apart from watering, which in most circumstances is not practical. However, tolerance to drought and other agents such as disease can be improved via interventions that increase tree vigour. The Ancient Tree Forum gives some guidance, see, http://frontpage.woodland-trust.org.uk/ancient-tree-forum/.

Development

Despite the opportunity to protected veteran and ancient trees by TPO and the presumption that their loss should be avoided (PPS9), such trees are extremely vulnerable to development pressure. The guiding principle is that there should be no disturbance / contamination of soils within a 15 m radius of any veteran tree or 12 x the diameter (guidance detailed in BS 5837; 2005), whichever is the greater. If the tree has significant hazards (as many do) then account must be taken of public safety and any changes to risk reflecting new occupancy adjacent to the tree. Changes in the way the land drains can have significant, but hard to quantify, impacts on veteran trees.

Vandalism

Many veteran and ancient trees are hollow at ground level. Unfortunately such trees are all too easy targets for arson in what is in effect a chimney of dead and decayed wood. Whilst many larger trees can sustain some fire damage inevitably this weakens the tree, not least destroys valuable habitat. Education is important, but the problem is not going to go away. Innovative solutions have including building a wall into the trunk of an ancient London plane and inserting and fixing cut sections of timber to block up the hole.

Neglect (doing nothing)

Veteran trees generally do not need lots of management, but neglect will cause some to be lost. Allowing young trees to grow up around a veteran tree robbing it of light, water and nutrients will kill some. Some veterans are at risk of collapse and would benefit from surgery. A lack of awareness of the special needs of veteran trees and where to get expert practical advice is one problem as too must be the financial burden if high cost works are required.

Inappropriate management (doing the wrong thing)
Doing the wrong things include felling trees for no good reason, insensitive pruning including re-pollarding in a manner that overly stresses the tree causing it to die.

Lack of replacement trees
Our population of veteran and ancient trees today is not planned. We have inherited these survivors who have made it to a great size, great age or interest through a combination of luck, past management, ownership and more recent incentives to protect them. But, factors that predispose the UK to having so many veteran trees have gone. Many veteran trees are lapsed pollards. But pollarding is not practiced on any scale because there is no economic need. Further, tolerance of trees that are starting to die back has lessened due to health and safety laws and a greater intolerance of risk and fear of litigation. Without intervention, there will be fewer 'candidate' veteran trees to form veterans of the future.

Actions

Objective 1: Ensure veteran and ancient trees are in favourable condition

Target:
Review management arrangements for all trees that are in public ownership and initiate management, as appropriate, ensuring trees and their associated habitat are in favourable condition in accordance with best practice guidance issued by Natural England and the Ancient Tree Forum.

BCC to review its procedures for dealing with ‘higher value’ trees such as veteran and ancient trees, clarifying its approaches to resource allocation and efforts to reduce risk to third parties.

Provide targeted advice to private landowners with veteran / ancient trees promoting good management and details of arboricultural consultants and contractors skilled in veteran / ancient tree care.

Objective 2: Encourage surveys to identify veteran and ancient trees

Target:
Reconcile the BRERC and Ancient Tree Forum databases of veteran and ancient trees ensuring that BRERC has a complete and up-to-date record.

Ensure that data held by Bristol City Council is shared with BRERC and that all records verified by BRERC / Ancient Tree Forum that are on council owned land are flagged in the council's tree management database.

Promote the Ancient Tree Forum's Ancient Tree Hunt via partner web sites, and literature, as appropriate, encouraging local enthusiasts to identify and record ancient and veteran trees http://www.ancienttreehunt.org.uk.

Objective 3: Increase awareness and protection of veteran and ancient trees

Target:
Run veteran and ancient tree awareness courses for Tree Wardens, Planners, local authority tree officers / ecologists.

BCC to consider active use of TPOs to protect ancient and veteran trees.

Run a public awareness / celebration event(s) extolling the importance of veteran trees plus, 'where to see' campaign (s).

VETERAN AND ANCIENT TREE HABITAT ACTIONS	WHEN	IMPLEMENTORS
Ensure veteran and ancient trees are in favourable condition		
Review management arrangements for all trees that are in public ownership and initiate management, as appropriate, ensuring trees and their associated habitat are in favourable condition.	2012-14	BCC
BCC to review its procedures for dealing with 'higher value' trees such as veteran and ancient trees, clarifying its approaches to resource allocation and efforts to reduce risk to third parties.	2012	BCC
Provide targeted advice to private landowners with veteran / ancient trees promoting good management and details of arboricultural consultants and contractors skilled in veteran / ancient tree care.	2013	AWT
Encourage surveys to identify veteran and ancient trees		
Reconcile the BRERC and Ancient Tree Forum databases of veteran and ancient trees ensuring that BRERC has a complete and up-to-date record.	2012	BRERC and Ancient Tree Forum
Ensure that data held by Bristol City Council is shared with BRERC and that all records verified by BRERC / Ancient Tree Forum that are on council owned land are flagged in the council's tree management database.	2012	BCC
Promote the Ancient Tree Forum's Ancient Tree Hunt via partner web sites, and literature, as appropriate, encouraging local enthusiasts to identify and record ancient and veteran trees http://www.ancienttreehunt.org.uk./.	2012	All
Increase awareness and protection of veteran and ancient trees		
Ancient Tree Forum to run training course to Tree Wardens, Planners and local authority tree officers.	2012	Ancient Tree Forum
Run a public awareness / celebration event(s) extolling the importance of veteran trees, plus 'where to see' campaign (s).	2013	Ancient Tree Forum? AWT?
BCC to consider active use of TPOs to protect ancient and veteran trees.	Ongoing	BCC