Ancient and Veteran Tree Habitat Action Plan

Introduction

This action plan covers all ancient and veteran trees found within Bristol including public and private land and Ashton Court Estate.

Question 1: do we want to include wood pasture (and associated parkland) in this Bristol BAP, when the Avon BAP seems to me to have this covered - as does the national BAP? My suggestion is that the Bristol BAP is restricted to Veteran and Ancient Trees. As such I've not added any more text relating to wood pasture.

The terms ancient and veteran have been used interchangeably, but there are important differences. Ancient trees are, by definition, old and have developed characteristics associated with their great age. Veteran trees have developed characteristics of wildlife significance because they are old **or** because of 'accelerated aging' due to environmental stress or damage.

Veteran and ancient trees typically have great landscape and cultural significance. Their long history and often gnarled appearance makes them living relicts. They represent a living link with the past - people are inspired by the beauty and age of these trees. They often originate from historic and largely abandoned practices such as pollarding which is the cutting of trees above the browse limit of animals to be used for fodder, fencing or construction.

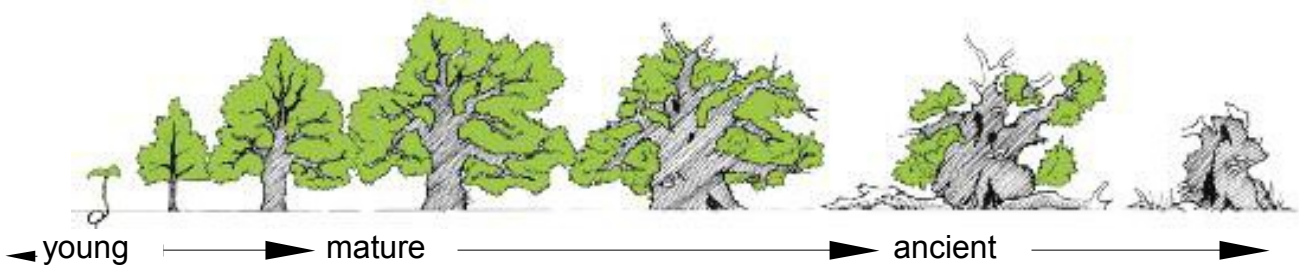
But it is not just the trees that are important, they also support a great diversity and quantity of other species including rare species of fungi, lichens, bryophytes (mosses and liverworts), invertebrates and bats. Generally there have been few surveys in the Bristol area to confirm associated species populations, their distribution and abundance. Generally, 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. Lichens found on veteran oak may include *Lecanora quericola*, *Rinodina isidioides* and *Schismatomma quercicola*. Fungi associated with veteran oaks may include the semi-parasite Piptoporus quercinus (BAP species), the mycorrhizds *Boletus satanas* and *Boletus regius* (both BAP species) and veteran beech the semi-parasites *Hericium erinaceum* and *Creolophus cirrhatus.*

Question 2: anyone able to help summarise important plant, bryophte, fungi etc associations with veteran and ancient trees?

The UK's ancient trees are internationally important due to their relative abundance and continuity: they are a unique and prized resource.

Ancient (or aged) tree - a tree that makes you say, 'wow!, it's huge fatter than any other tree like that round here' (Ancient Tree Forum, March 2008). An ancient tree is one that has passed beyond maturity and is old, or aged, **in comparison** with other trees of the same species. Ancient trees have biological, visual or cultural significance because of their great age. An ancient tree typically looks like the tree in its ancient phase as illustrated below:

Diagram showing the stages in the life of an ancient tree



Source: Ancient Tree Guide no. 4, Ancient Tree Forum will need permission to reproduce this image.

The ancient phase may be the longest phase in the tree's life.

Ancient trees tend to have some or several of the following features:

- girth large compared to other trees of the same species
- look 'old'
- crown contracting
- trunk hollowing
- rot pockets and cavities throughout structure
- crown 'flattening out' (especially conifers) or less regularly domed
- crown stag headed with dead wood above healthy or dense foliage
- fruit bodies of heart rot fungi
- bark rougher or more creviced than is typical for the species
- aerial roots growing into the decayed trunk or branches

See note below - this list of features equally relates to veteran trees - but I am proposing we accept the need for a tree to have at least four features from the list below to be described as veteran.

The Ancient Tree Forum defines a tree as ancient if it reaches a minimum girth (or diameter) measured at 1.5 metres height. For example, oak (sessile or English oak) growing on a good site with a heavily burred trunk would need to be above 6 metres girth to be classified as ancient or above 7 metres if the tree had a 'good clean trunk' [equivalent to 1.9 m or 2.3 m diameter respectively].

Veteran tree - a tree with sufficient habitat features such as wounds or decay making it important for wildlife, including

- rot holes
- rot sites
- deadwood
- hollowing
- fungal fruiting bodies

A veteran tree, according to the Ancient Tree Initiative? is a tree of any diameter with at least four of the above features.

Question 3: is 'over three' features the same as my interpretation of 'at least four' features - it should be?

Question 4: is this the correct reference and is there a paper? [is it adapted from Veteran Trees: a guide to good management p 13-15?)]

Such features may be due to a trees great age, if so then the tree may also be ancient (as defined above). But, such features may be due to 'accelerated aging' caused by stress (e.g. drought) or injury (e.g. lightening). A veteran tree may also be an ancient tree.

Question 5: I am not convinced that the definitions of ancient and veteran are sufficiently clear to distinguish when they are **not the same**. There is clear blue water if 'ancient' is simply defined by girth alone and veteran is defined by features of wildlife significance alone. The Ancient Tree Forum rightly describe features associated with ancient trees - but these are the same features that define whether a tree is veteran - some of which may be due to age or premature aging. But the Ancient Tree Forum actually (I assume) use girth alone to define ancientness. Should we not accept that ancient trees are just old and fat whereas veteran trees have a combination of features that make them important for wildlife? Thereby do we accept that:

- some ancient trees are not veterans?
- some veteran trees are not ancient?
- some veteran trees are ancient and some ancient trees are veterans?

we then have three categories:

- An ancient tree (old and fat)
- A veteran tree (features associated with premature aging)
- An ancient veteran tree (old and fat plus features associated with aging)

Question 6: given that we are agreeing a habitat action plan are we bothered that some ancient trees may have little wildlife interest if we narrow the selection criterion to 'minimum girth', which would mean that some ancient trees are **not** veterans? But, in reality, I assume that few ancient trees are not veteran too. I suspect the issue is what to do with the larger and older trees that are 'waiting in the wings' i.e. they are big, but not big enough to be defined as ancient according to the Ancient Tree Forum minimum girth standards?

Question 7: if we accept the girth criterion alone to define ancientness then guidance is limited ie parameters are only available for a narrow range of species (oak, sweet chestnut, yew, beech, sycamore, rowan, ash, alder, lime and field maple). We would need to decide what to do with sub-canopy species such as elder, hawthorn which may be relatively fat if not absolutely so. And other major species too. Perhaps we should seek guidance from the Ancient Tree Forum?

Question 8: do we want to refer to notable trees and set any targets for these trees (as 'potential ancient' or 'potential veteran)? And if so what definitions and what targets?

Current Status

The extent, distribution and condition (as opposed to quality?) of ancient and veteran trees in Bristol is generally not known. Notable exceptions include Ashton Court Estate and Blaise Castle Estate where detailed veteran tree surveys have been undertaken. Good work has been done by local enthusiasts who have identified veteran and ancient trees with data verified by the Ancient Tree Forum and included in their on-line national 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.

Veteran and ancient trees can be made subject to a Tree Preservation Order. 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 trees which are dead, dying or dangerous are exempt from TPO controls yet it is these very feature found in veteran trees that makes them so important. Unfortunately, because the TPO database does not uniquely reference whether a tree is veteran or ancient it is not possible to determine how may such trees are protected.

In addition to making a TPO, veteran or aged trees are afforded planning protection via Planning Policy Statement 9 ' Biodiversity and Geological Conservation' 2005. Specifically this states that 'aged' or ‘veteran’ trees found outside ancient woodland are also particularly valuable for biodiversity and their loss should be avoided. Planning authorities should encourage the conservation of such trees as part of development proposals." [woodland is protected by other statements in PPS9].

Ashton Court Estate contains the largest single population of veteran trees within the city with 444 individual trees verified as veteran following a comprehensive survey of the estate in 2001 [add reference]. This includes 218 pedunculate oak within Clarkencombe - a surviving remnant of wood pasture still grazed by deer today. The numbers of veteran trees within the estate by species are: 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 1999 [add SSSI reference] 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 [add reference] and found two national scarce category A species including a brown tree ant (*Lastius buneeus*) 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 but also to improve habitat value including connecting habitats. Works completed in recent years includes: the release of veteran trees from competition by ash saplings; an increase in the area of wood pasture; pollarding of 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

[I've gone into more detail than is given in the Bristol Biodiversity Action plan, but for consistency the text should be reduced to a heading and brief sentence].

- **Health and safety**
  Too many veteran and ancient trees are being damaged by unsympathetic works justified for health and safety purposes. 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 (see caring for veteran and ancient trees - give web link to the 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, which ever is the greater [add reference - from Natural England Guide to the Protection of Veteran trees]. This requirement is to protect the tree, but would come at some cost to the developer and hence there is pressure to remove the tree or compromise the protective zone. If the tree has significant hazards too (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 seemingly irresistible targets for arson; it's all too easy to light a fire in what in effect is a chimney of dead and decayed wood. Whilst may 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 a ancient London plane [add reference - and photo?] and inserting and fixing cut sections of timber to block up the hole [add reference - and photo?].

- **Neglect (doing nothing)**
  Veteran trees generally do not need lots of management, but neglect will lead unnecessarily to the loss of some. Clear examples include allowing young vegetation to grow up around a veteran tree competing for light and water eventually 'swamping' the veteran leading to death. Some veterans at risk of collapse 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)**
  Felling trees for no good reason. Insensitive pruning. Re-pollarding when this stresses the tree and causes it to die. [there is cross over here with e.g. health and safety].

- **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 of great age through a combination of luck, past management, ownership and more recent recognition of their importance with 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 the economic need has gone. Further, tolerance of trees that are starting to die back and contract as illustrated in figure 1 above has lessened due to health and safety laws and a greater intolerance of risk and associated litigation. Without intervention, there will be less 'candidate' veteran trees to form veterans of the future.

Question 9: more threats / or different emphasis?

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.

Question 10: managed in accordance with best practice guidance as issued by the Ancient Tree Forum, or?

- Identify owners of non-publicly owned veteran and ancient trees and promote best practice including access to advice and arboricultural companies with the skills and experience to undertake works to veteran and ancient trees.

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 partners 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 of veteran and ancient trees

Target:
- Run training course for Tree Wardens, Planners and local authority tree officers / nature conservation officers.

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

VETERAN AND ANCIENT TREE HABITAT ACTIONS	OBJECTIVE	DATE	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.	2	2012	BCC
Identify owners of non-publicly owned veteran and ancient trees and promote best practice including access to advice and arboricultural companies with the skills and experience to undertake works to veteran and ancient trees	3	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.	1	2011	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.	1	2011	BCC
Promote the Ancient Tree Forum's Ancient Tree Hunt via partners web sites, and literature, as appropriate, encouraging local enthusiasts to identify and record ancient and veteran trees http://www.ancienttreehunt.org.uk..	1	2011	All
Increase awareness of veteran and ancient trees			
Ancient Tree Forum to run training course to Tree Wardens, Planners and local authority tree officers.	1	2011	Ancient Tree Forum
Run a public awareness / celebration event(s) extolling the importance of veteran trees, plus 'where to see'.	3	2013	Ancient Tree Forum? AWT?

Question 11: more actions, or different delivery? I've deliberately kept the number of actions short (achievable?).