Heartwood - long term monitoring - Veteran Trees

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The Woodland Trust's Heartwood Forest near Sandridge contains four areas of existing woodland covering an area of 17.8 hectares comprising four blocks known as Langley Wood, Pismire Spring, Well and Pudler's Wood (considered 1 unit) and Round Wood, all were already designated as County Wildlife Sites.

A Wildlife Site survey of Well and Pudler's Wood in May 2010 confirmed this to be an ancient woodland site of County importance. Pudler's Wood, in particular, was found to contain many large, very old, high-canopied mainly coppiced trees, including outstandingly large Hornbeams and Common Lime, most of them probably many centuries old. Accordingly we decided to measure, record and tag the oldest trees in winter 2010-2011.

An ancient woodland site is one which has been wooded continuously since at least 1600 as semi-natural, secondary or plantation woodland. The size and age of some Pudler's Wood trees, principally Hornbeam, suggest it is much older. Most of it is probably semi-natural and certainly managed, although an area on the south side, beside Well Wood, is quite open with few old trees, including a few planted non-natives trees and shrubs, and is not shown as woodland on the 1st Edition OS survey. The wood proper is dominated by old high-canopy coppiced Hornbeam, with occasional Oak, Ash, Common Lime, Field Maple and Wild Cherry. The Hornbeams appear almost in rows, running east-west, down the slope while spectacular old coppiced Common Limes, are randomly situated in the eastern part of the wood. Trevor James, the County Recorder for vascular plants, has suggested some Hornbeams could be up to 1000 years old and the Limes could be naturally occurring hybrids.

(Ancient coppiced common lime in Pudler's Wood, photo by Trevor James)

Survey methods

The site was surveyed by John Moss and his team of volunteers, on 9 December 2010 and 16 April 2011, using the Hertfordshire Biological Records Centre (HBRC) Guidance on the recording of veteran trees , defined as those with a diameter of least 1.4m, equivalent to approximately 4.4m in circumference. (For more details see Herts County Council website http://enquire.hertscc.gov.uk/hbrc/projects/veteran.html). This is based upon experience in assessing Oaks, generally seen as nationally and ecologically the most important veterans. However other old forest trees, including standard Hornbeam and Field Maple, can be of a similar age, but smaller and still

locally important. Yet others, including Birch and Wild Cherry, though obviously old, are too short-lived to be classed as “veterans”.
Accordingly a pragmatic approach was adopted. Except for Hornbeam, all trees, including Oaks, with a girth of 2.5m or more were recorded, plus the largest Cherries, a single big Silver Birch and the coppice base of a sample of large, but not exceptional, Hazel in a row of c20 on the south boundary. As there are literally hundreds of old Hornbeams only those that appeared the largest were measured, with a focus on ring coppices. There are undoubtedly others. Similarly only the largest Limes were recorded. 84 trees were measured and each tagged near the base with a unique number. The results are shown in the table below. The positions of all recorded trees were determined by GPS and brief details noted, including whether standard or coppiced, whether damaged and the number of main stems. A photographic record was made of each tree.

Table: The number of veteran trees and greatest girth by species

		Number	Greatest Girth (metres)
Hornbeam	*Carpinus betulus*	34	10.10
Common Lime	*Tilia x europaea*	18	7.40
Ash	*Fraxinus excelsior*	17	5.30
Field Maple	*Acer campestre*	7	5.75
Pedunculate Oak	*Quercus robur*	2	2.90
Wild Cherry or Gean	*Prunus avium*	4	c3.00
Silver Birch	*Betula pendula*	1	1.80
Hazel	*Corylus avellana*	1	2.75

Most of the oldest trees are in the northern half of the wood, with Hornbeams distributed fairly evenly throughout, while many of the Limes are concentrated in the eastern segment. John Moss and his team assessed the oldest trees in Well Wood in winter December 2011, using the same criteria. It is part of the same complex and, while there are areas of young plantation and it is much wetter at the south end, it too has old coppiced Hornbeam with large Limes and Ash. The proportion of large trees is lower than in Pudler’s Wood and only 20 were recorded and tagged, including Limes, Hornbeam, Ash, Oak and Cherry. Depressions, possibly old pits, possible old tracks, internal banks and other archaeological features in both woods suggest many centuries of human activity.

In the longer term it will be interesting to monitor the health of the woodland. Ideally, limited management should be undertaken, including some re-coppicing, to stimulate regeneration, particularly of old coppice and ground flora and to benefit wildlife. Meanwhile some recorded trees in both woods may already have fallen or died. Much existing fallen wood provides good habitat.

John Moss, March 2012,