

Area of Planted Ancient Woodland Sites under Restoration

Indicator

Area of planted ancient woodland sites (PAWS) under restoration to native woodland.

Status



The area of planted ancient woodland sites under restoration to native woodland in Worcestershire is fair, and is improving.

Overview

PAWS restoration

Biological diversity loss has become a major concern worldwide and is seen as one of the key issues in the quest for sustainability. This concern was embodied in the 1992 Convention of Biodiversity negotiated at Rio. The restoration of natural forests has emerged from this as an important international priority of environmental policy (Macmillan and Duff, 1998).

Britain's natural forest covered 80% of the land area around 10,000 years ago (Patterson, 2002). However since then, through exploitation and conversion to other land uses, the majority of this woodland has been lost, and that which is left can only be deemed semi-natural due to man's influence through exploitation and management. More recent restocking programmes between 1900 and the 1980s have been detrimental to the existing ancient semi-natural woodland (ASNW). This resulted in further loss of around 38% of remaining ASNW to plantations of non-native species (Spencer and Kirby, 1992).

Forestry and conservation organisations throughout the UK are committed to the task of restoring native woodland ecosystems on AWS. However, this process gives rise to a degree of uncertainty for many woodland owners since it poses problems on how to prioritise sites for restoration, especially from a financial standpoint. Economic appraisal will prove to be important when trying to choose between sites or areas of similar ecological or biodiversity value. Despite depressed timber sales, it may not be viable to revert some high-yielding areas and timing of the fell will be a compromise between minimizing ecological versus economic losses. There can be a considerable disincentive to many landowners who want to produce high yielding timber and they are put off by the prospect of revenue foregone. We need to develop techniques of applying tangible monetary values to the environmental good of this reversion so we can mitigate financial loss. In addition to the certification label, incentives in new grant schemes are going some way in helping this transition. To reduce revenue lost, site selection could be concentrated on areas of poor fertility, areas with difficult access, and areas that are generally less productive from a commercial timber point of view; marketing produce from native wood could also be tried. More recently, hardwood timber

values and firewood prices have made the reversion process a more viable option. There is no reason why reverted broadleaf woodland cannot provide multiple benefits.

What is restoration?

This will involve the re-establishment of a functioning native ecosystem on PAWS. This will be achieved by:

- Removing non-native trees, shrubs and plants;
- Encouraging natural regeneration of native species;
- Initiating or enhancing natural ecological processes that were once present;
- Re-introducing other traditional management regimes that were localised for continuity, if suitable.

Restoration will be starting from many different levels and so in some instance conditions where there are small proportions of non-native species present will only need improvement as opposed to full restoration.

The baseline data used in this report is originally from Whitbread, A. (1986) *Worcestershire's Inventory of Ancient Woodland, Provisional*. Nature Conservation Council, which was updated in 1999 (Reid *et al.* 1999). All woodlands above 2 hectares in extent were considered.

Additional data has been gathered for 2009-10 reporting year to include:

- Forestry Commission (FC) estate holdings under restoration during the last 5 years;
- Private woodlands English Woodland Grant Scheme PAWS restoration restocking grant claimed during the last 2 years.

It is worth noting that the results on the FC estate include restoration areas that are undergoing a gradual process (identified as one of the best techniques) and so this process could take some years to reach full restoration.

For the private woodlands there is also a potential for underestimation as some areas are restored under felling licences (which is more difficult to monitor) and therefore the data are not included within this report. As data are dependent on claimed grant the data cannot be gathered until the end of the financial year March 31st.

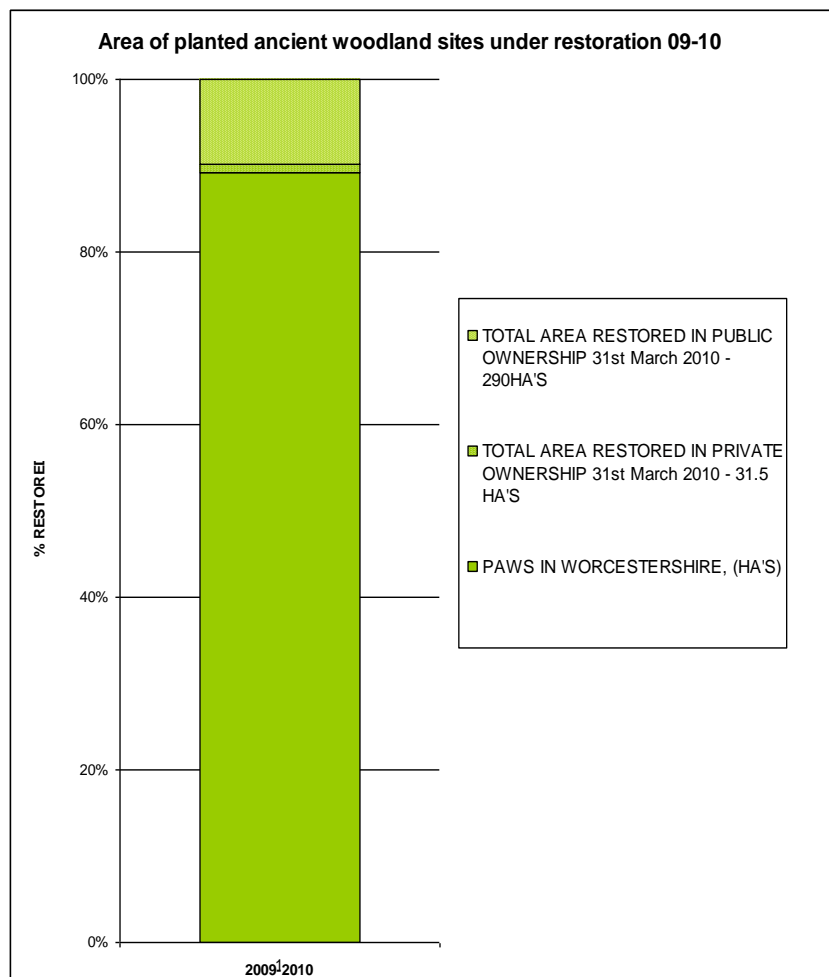
Performance

Worcestershire's BAP target for PAWS restoration is set at 60% by 2017, which amounts to approximately 1000ha.

The area of woodland under PAWS in Worcestershire was 2649 hectares. FC estate restoration amounts to 290 hectares and private woodland 31.5

hectares at 31st March 2010. Within the last financial year (to March 2011) there has been the continued phased restoration on the public forest estate in line with the advice within the rationale. It is worth noting that the results on the FC estate include restoration areas that are undergoing a gradual process (identified as one of the best techniques) and so this process could take some years to reach full restoration. There are therefore no extra areas to add for 2010/2011.

There have been two areas of PAWS restoration within private woodlands in Worcestershire in the past year (to March 2011). These have occurred at Spetchley and Madresfield Estates amounting to a total of 1.31ha and 0.77ha respectively. Other larger projects within the county have been delayed due to access issues but it is anticipated they will be delivered over the next few years and will be reported accordingly.



Geographical Context

Currently ancient woodland only contributes to 2.6% of land in England and Wales (Spencer and Kirby, 1992), of which ASNW is 1.5% (Peterken, 1996), as illustrated in Table 1.

Table 1- Extent of ancient semi-natural woodland (ASNW) and plantations on ancient woodland sites (PAWS) in Britain (Woodland Trust, 2001).

	ENGLAND	WALES	SCOTLAND	TOTAL
ASNW (ha)	198,000	30,658	89,076	317,736
PAWS (ha)	141,713	25,917	59,075	226,705

The extent of planting on ancient woodland sites (AWS) has varied with area and size of woodland. Generally, larger woodlands have borne the brunt of plantation establishment with some 59% of woodlands over 100 hectares having been planted, as opposed to 17% of woods 2-5 hectares in size.

This has meant that nearly half the surviving ASNW consists of stands of less than 20 hectares. This has left remaining ASNW both small in size and considerably fragmented.

There are serious weaknesses in the systems for protection of ASNW, with only 14% (49,000 hectares) attaining statutory designation. An even lower level of protection is afforded to PAWS (Thomas *et al.*, 1997).

Currently many woodlands in Worcestershire are unmanaged, under-utilised, neglected and damaged. Only 3.6% of the county area is ancient woodland site (AWS), with 2.5% ASNW and 1.1% replanted.

The size distribution of woodlands also reflects the national pattern, in that 52% of Worcestershire's AWS sites (of a total area of 7292ha, according to Whitbread (1981)) are less than 5hectares in area, with 50 above 25 hectares and just three above 100 hectares, with certain areas of the county more heavily wooded than others.

It is a woodland action plan objective in Worcestershire to promote appropriate restoration of coniferous and non-native broadleaved woodland to semi-natural broadleaved woodland. Restoration sites will be prioritised on former AWS where greatest levels of biodiversity can be retained adding to the creation and provision of forest habitat networks (Worcestershire County Council, 2002).

Actions

To be considered/undertaken by key statutory agencies and nature conservation organisations (e.g. FC, NE) in collaboration with local authorities and land owners/managers:

- Prioritise actions so the most serious and widespread threats are dealt with first.
- Promote landscape-scale restoration.

- Improve markets to stimulate woodland management and particularly demand for broadleaves to increase restoration potential and reduce revenue foregone during and after conversion.
- Promote greater stewardship incentives for restoration restructuring.

Further Information

English Woodland Grant Scheme: www.forestry.gov.uk/ewgs

Keepers of Time: A statement of Policy for England's Ancient and Native Woodland: www.forestry.gov.uk/keepersoftime

Glossary

Ancient Semi Natural Woodlands (ASNW) – those woodlands which are composed of tree and shrub species native to the site (derived from natural regeneration or coppice), and have been so composed since before 1600 AD in England and Wales, 1750 AD in Scotland and 1830 in Northern Ireland.

Biodiversity – the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems (Johnson, 1993).

Native woodland – woodlands composed of site native and locally native tree and shrub species.

Plantations on Ancient Woodland Sites (PAWS) – planted woodlands of any species on Ancient Woodland Sites.

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