

## The Principles of Woodland Management - Introduction



Warwickshire Wildlife Trust (a registered charity) is one of a network of 47 Wildlife Trust's around the United Kingdom which work to protect local wildlife by creating a "Living Landscape" which aims to recreate, reconnect and restore habitats where native species can thrive and local people can engage and enjoy the wildlife and green spaces around them. In one specific area (timber and woodlands) we are working in partnership with NEJ Stevenson towards our common aims, making a difference on a local level in Warwickshire.

The following article is the first of several which over the course of the year will give a comprehensive insight as to why native woodlands and sustainable woodland management are so important for both wildlife and people.

The composition and structure of today's woodland has been determined as much by its history of management as by the climate and soils. Without this conservation management many species of plants, including the animal and insect habitats that rely on them, would simply disappear altogether. Consequently ancient Woodlands (those which have existed since before 1600) are now recognised as the most important for nature conservation as many of the species found within them only colonise areas after they reach a certain age and a certain point in their life cycle.

### Historical Context

After the last Ice Age the climate warmed and the ice retreated northwards the remaining space was colonised by trees. Soon lowland Britain would become completely covered by woodland or the "Wildwood" as it is known. The Wildwood followed successional processes as it matured the thick tree canopy cut out the sunlight leaving the woodland floor relatively bare. As trees fell from high winds or age it left a small gap allowing its seeds to naturally regenerate and for ground vegetation to develop. This vegetation filled the gap naturally created and in a few years the canopy was closed once more. During this period large herbivores also roamed the United Kingdom and they were responsible for large amounts of disturbance (similar to that of elephants in Africa) which knocked down some trees and created natural clearings.

Early man would have originally used the woodlands for stalking prey species such as deer which would graze in the open areas. Over time humans used these open areas for grazing cattle and sheep whilst using the woodland to provide Bronze and Iron Age tools. This 'working of the land' provided the basis for early woodland management.

By the time that the Romans had made their mark in the United Kingdom farming had developed considerably leaving the countryside a mosaic of woodlands, open fields, farmsteads and small villages. In 1066 the Domesday Book recorded the first official woodland coverage and farmland map of the UK. Woodland was during this period considered to be as important as farmland because timber was a valuable commodity used in; building, fencing, farming implements and, in wet areas, for road building.

### Why manage?

Woodlands form prominent features in many landscapes and can constitute a significant economic resource when managed. Woodlands now cover only 3% of Warwickshire, a further incentive to actively manage.

Ancient woodland contains a very diverse flora and fauna community with varying habitats and complex webs of interactions that thrive. Management takes the form of minimal disturbance to maintain these existing balanced communities.

Semi-natural woodlands however are managed more intensively than ancient woodlands. There is a greater need to increase diversity and encourage the presence of further species. Coppiced wood (*see definition below*) can be used to create habitat piles for invertebrates, and provide fence making and hedge laying materials for the benefit of wildlife and improved public access.

Woodland paths known as 'rides' are the commonest forms of open space in lowland broad-leaved woodland, created as access routes for management and timber removal. Rides should be broad, sunny and contain a fringe of grassland, shrubs and native trees to attract a wide range of woodland invertebrates such as butterflies, some of which are only found in woodland habitats.

In England many woodland areas are isolated often with significant distances between them. It is therefore important to maintain sufficient habitats for invertebrates and to ensure species are not lost because continuing isolation of woodland would make re-colonisation almost impossible. Our aim is to create corridors between woods in close proximity. These can take the form of rough grassland, hedges or the planting up of trees to bridge the gap between two woodland sites to allow the transfer of DNA between all species living in the woods, increasing diversity and helping to maintain viable species populations.

## Management options

Woodlands have been managed for generations in many different ways. As time has progressed management methods have adapted to suit our changing requirements from woodlands.

**COPPICING** - The term coppicing refers to chopping the tree down near to the base. Many species including oak, ash, hazel and willow sprout new growth rapidly when cut, up to two metres in a year. Periodic cutting prolongs the life of trees as well as creating a rich mosaic of habitats, attracting a wide range of flora and fauna. Woods that have not been coppiced tend to be of the same structure and age supporting fewer species.



**COPPICING WITH STANDARDS** - Standards are mature trees often grown above the coppice to provide a supply of large timber. These trees are grown spaced further apart to allow light to penetrate through to the coppice below. Coppicing with standards maintains a variety of habitats within woodlands and helps to support a diverse gathering of species.

**POLLARDING** - Pollarding was originally established as an alternative to coppicing, where there was a danger of the new growth being eaten by grazing animals. Branches are lopped off at a height of between three to four metres from the ground, essentially the only difference from coppicing.

**THINNING** - In well-structured woodland, different trees will be of different heights and have different densities. Within unmanaged woodlands the existence of this may not be present. Thinning of the upper canopy by selective cutting of trees ensures that there is a well-structured canopy that can support an important community of invertebrates. This also encourages regeneration from the natural seed source which is vital for the sustainability of the woodland.

## Summary

Woodland management should be carried out during the dormant stages between September and February when the trees are not actively growing. This period also falls outside of the bird nesting period and flowering plant seasons, so minimal disturbance is caused to the animals that will benefit from the management. Warwickshire Wildlife Trust assesses each site on its characteristics before undertaking woodland management. Several factors including historical considerations, the size of the wood, the management of the local landscape and resources are all taken into account before work begins. In order to minimise the disturbance to wildlife small sections are actively managed at a time (around 1ha per year) rotating around the woodland in a cycle. This creates a varied structure to the woodland, with newly coppiced clear areas, areas regenerating and areas of closed canopy that have not been actively managed. The variety of habitats provided by managing the woodlands in this way creates different niches for different species to live.

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