

Trees and Woods

An overview of forestry in the National Trust

People, trees and woods:

You don't need to know much about trees to enjoy and love them. They enrich our lives by their beauty and stillness and the wildlife they support. We plant trees to commemorate important events and celebrate them as symbols of life and renewal in nature. The tree stands as a symbol of nature itself, and in recent years trees have often been totems of defiance against urban expansion or road building.

They are the most ancient living things. Some yew trees are reputed to be several thousand years old. There are awesomely ancient yews on National Trust land at Ankerwycke (Buckinghamshire), on the Thames near Runnymede (Surrey), at Crom (Co. Fermanagh) and in Borrowdale (Cumbria).

Trees merge collectively into woodland. Many woods are beautiful and important for wildlife, but they can also be mysterious and disorienting. There is just the possibility of something unexpected, just a chance that the path will turn you away from your intended direction. People value woods as places where time moves slowly; where there is inspiration and re-engagement with a different pace of life.

Woods are places where all sorts of recreational activities are possible without intruding too much on the privacy of others. Horse riding is a widespread activity on a network of woodland bridleways. In several of the larger woods mountain biking is encouraged, and the Trust occasionally permits motor rallies. People often work with us in woodland management, planting trees and clearing undergrowth. This is an opportunity for many people to work with nature in a shared community activity. The National Trust provides many opportunities for the active enjoyment of almost all its woods.

The conservation of woodlands has been an important part of the National Trust's work for almost one hundred years. The first wood, Brandelhow, in Borrowdale, Cumbria was bought in 1902. Now the Trust manages hundreds of woods extending to 25,000ha (61,776 acres) in England, Wales and Northern Ireland, including both some of the oldest woodland in these islands and, in some places, commercial conifer plantations which were established only during the twentieth century. In all our woodlands the aim is to maximise their value to people and to wildlife, now and for the future.

How do we understand and manage these woods?

WHAT IS A WOOD? Outlines of woods on maps show only where trees are sufficiently densely stocked to be classified as woodland. But there are many wood-like places including, for example, pasture woodlands. These are places where deer, cattle or sheep have been grazed under trees. They include many of the formal parks around great houses, many of which were created from ancient

forest enclosed by wealthy nobles for private pleasure as long ago as a thousand years. This long continuity of trees and woodland is outstandingly important for wildlife.

All woods are dynamic; they are constantly changing and their boundaries will change too if we give them space. Continuous grazing pressure will gradually eliminate woodlands in the wildest country, yet neglected railway embankments and cuttings have, in the last fifty years or so, allowed new woodland into the very heart of towns and cities. These patterns of change are part of the long history of woodlands. Left alone and only lightly grazed, much of Britain would become woodland again.

If the very nature of woodland is change, then there are limits to our ability to prevent change and it may be sometimes undesirable to try. In the Trust's woodlands, we try to understand and wherever possible work with the flow of natural change.

WOODS ANCIENT AND MODERN Understanding the history of woodlands helps us to plan their future management. If we know how they have developed, we may be better able to maintain the conditions which are needed to protect their special interest for the future.

The evidence of past human activity is well preserved in many of our woods and wooded landscapes. For example, trackways, earth banks, field boundaries, stands where charcoal used to be made, the presence or absence of certain plants and invertebrates, the soil profile and structure, the variety of tree species and their age, even the particular shape of individual trees are all clues to the antiquity and past management of woods.

Some woods are classified as 'ancient'. They are at least four hundred years old. They were woodland before the age of plantation forestry which dawned in the seventeenth century. Some of our ancient woodland sites may have been used or managed as woodland over thousands of years. Many specialised plants and invertebrates that are naturally slow to colonise new areas are found only in these woods.

Half the UK's ancient woodland was cleared or substantially damaged by plantation forestry in the second half of the twentieth century. The Trust now manages around 5,000ha (12350acres) of the most important surviving ancient woodland.

All ancient woodland in the UK has been influenced in some way by human activity. Paleolithic colonisers grazed their animals in woodland, but the earliest evidence of woodland management comes from the Neolithic. Trackways across wetlands, like the Sweet Track in Somerset, were made 5–6,000 years ago from the woven shoots of trees in managed coppice. Many ancient woodlands have been coppiced at some stage in their history.

Coppicing makes use of the characteristic of some trees – hazel, oak, ash, alder, lime, beech and sweet chestnut – in throwing out vigorous new shoots

after they have been cut back to ground level. The trees in coppiced woods have a distinctive multi-stemmed form, still evident even a hundred years after coppicing stops. Primroses and violets are among the plants that are associated with coppicing in lowland woods. There are several species of butterfly and many other invertebrates that especially like the conditions created by coppicing.

Historically, many ancient woodlands have been grazed. Like coppicing, grazing has created a recognisable woodland structure and has favoured particular plants and animals. Many species of mosses and lichens, together with birds like redstarts, wood warblers and pied flycatchers, are characteristic of the grazed upland oakwoods, for example. Trees in these *pasture* woodlands were often pollarded. Pollards are trees which have been periodically cut back to enable new shoots to form at between 6–15 feet (1.8–4.5m) above the ground, out of reach of grazing animals.

Hatfield Forest in Essex is an ancient pasture woodland and an almost perfectly intact medieval royal forest. It was once the hunting preserve of the Norman kings. Much of the forest has been coppiced for hundreds of years and the practice continues today. The cattle which graze the forest are excluded from the young coppices by fences, but they are allowed back in when the coppice has matured. Outside the coppices cattle graze the plains. Many of the veteran trees on the plains have been pollarded. The oldest trees were saplings in the fourteenth century. Many are hollow and the rotting wood is rich with fungi providing ideal conditions for specialised invertebrates.

Many of the landscaped parks surrounding the Trust's mansions are also ancient pasture-woodlands, emparked and stocked with deer as early as Saxon times. Most have been redesigned since 1600 by one or more of the great landscapers such as 'Capability' Brown and Humphry Repton. Most have been farmed intensively during the twentieth century. Even the finest of these designed landscapes may be equally important as a refuge for the often highly specialised plants and animals which have survived there for thousands of years.

The Trust has many more recent woodlands. Some have developed over the last few hundred years by colonising abandoned farmland. But since the seventeenth century, woodlands have been extensively planted. Plantations are rarely more than three or four hundred years old, and some, like the Chilterns beechwoods at Bradenham (Buckinghamshire) and Ashridge (Hertfordshire) are mature, beautiful and rich in wildlife. The fact that their soils have not been subject to deep agricultural ploughing means that many important archaeological features are protected within these woods.

Sometimes recently established woods may have replaced more uncommon landscapes. Trees have colonised the lowland heaths of southern Britain since the mid-nineteenth century. Hindhead Common (Surrey) is a good example. The only way to ensure the survival of rare heath land species such as the smooth snake, sand lizard or nightjar may be to remove trees.

WHY MANAGE? On the whole people manage woods because they believe that they can improve on what nature would achieve if left to its own devices,

whether it be for timber production or conservation. Many woods are too small or too fragmented to satisfy society's expectations without at least some management.

Management is based on a clear vision and an understanding of the particular characteristics of each woodland, its history, its component species, its structure, its function, the natural processes at work and its use and value to society.

In different woods and at different times the Trust might need to protect important archaeological remains and historical evidence in order, for example, to: preserve soil profiles; perpetuate a designed landscape or a particular highly valued 'natural' landscape; protect wildlife; promote ancient trees; help in maintaining water and air quality; contain flooding and soil erosion; shelter livestock; provide a renewable resource of wood and timber; contribute to employment and local or regional economic regeneration; or perhaps just to give everyone access to opportunities for education, recreation, participation, fun, inspiration and the appreciation of beauty and nature.

MANAGING WOODS SUSTAINABLY The sustainable management of woodlands requires us to take account of the economic, social, environmental and cultural importance of woods. We must understand more about the consequences of what we do and reduce the risk of damaging the interests of others now and in the future.

In order to manage effectively we have to understand the particular characteristics of each wood and its potential. Specialist surveys can reveal some of their historical, environmental and biological value, but everyone who uses or visits a wood can help the Trust to understand what makes the place special.

Since the early 1990s we have adopted a generally less interventionist approach to woodland management. In many woods we are able to rely on natural tree regeneration rather than planting. The use of chemicals for weed control is minimised. Most of our activity is directed towards keeping paths clear and safe for visitors, reducing grazing pressure from sheep and deer, preventing the spread of invasive plants like rhododendron and creating glades, by selective felling or coppicing, so that light can reach through the tree canopy to the shrubs and ground plants.

Management of deer and squirrels to reduce damage to woodland vegetation is often necessary. The large carnivores, which would contain population levels of deer, have been exterminated in the UK. Populations of all deer species are increasing and there is a growing risk of a high level of damage to woodland ecosystems, including destruction of young trees. Grey squirrels strip bark from young and even quite mature trees. This can cause serious deformation and sometimes death. Where there is a significant problem in National Trust woods, some deer and grey squirrels are killed so that damage is kept to tolerable levels.

Many conservationists have a preference for locally native tree species in woods. Commercial conifers and introduced broadleaved trees like sycamore have typically been selectively removed. However, increasingly, we understand the contribution that introduced species can make, even to the most sensitive woods, because of their ability to provide important habitat niches and sometimes because of their beauty. Some woods and most arboretums are designed around introduced trees. The Trust prefers to discriminate against species only where they are invasive and likely to cause serious damage to other interests.

Even at a low intensity of management the woods are productive. Most woods produce some timber and a small investment in pruning away the lower branches can ensure that it is of high quality. Coppice sustains charcoal burners, firewood cutters, thatchers (who use 'spars' made from hazel to peg down thatch), hurdle makers and walking-stick makers, and also provides inspiration for the work of many different craftsmen and artists.

At Holnicote (Somerset) the Trust is linking the need to train and support thatchers with the need to provide the best possible raw materials. Analysis of ancient thatch will help to show what varieties of wheat need to be grown for the best thatching straw, and hazel coppice has been re-established to provide supplies of spars.

So long as trees are given space, low intensity management allows them to reach a very great age. The central core of the trunk of even the most vigorous tree is dead. As trees age, so this core may be colonised by fungi and start to rot. Ultimately the tree may become hollow. These fungi are themselves a critically important part of woodland biodiversity and, as they change the nature of the dead wood, it becomes hospitable to a variety of specialist and often rare invertebrates. Beetles such as the stag beetle spend part of their life cycle as larvae feeding on rotting wood.

We value and protect ancient trees, they are awe inspiring and important for wildlife. As they gradually decline and die the dead wood they produce contributes to the richness and diversity of the woodland wildlife. So far as possible public safety is maintained by diverting footpaths away from the most outstanding veterans rather than by tree surgery.

More intensive woodland management may sometimes be necessary. Natural processes will not sustain the design of ornamental woodlands or shelter-belts around parks and gardens, and sometimes woods are too small. Plantations require management, whether it is to improve the quality of the timber or to enhance the natural vegetation by the gradual removal of conifers. We recognise the economic and aesthetic argument for producing fine timber. Pruning can add considerably to the value of some trees without compromising woodland conservation in any way.

TIMBER AND LOCAL ECONOMIES Timber production is not the Trust's first concern. We do not undertake commercial woodland management, but we are concerned to ensure that the countryside of the future is one in which people can live and work, where there are vital economies and flourishing communities. The

Trust makes a significant contribution to this by creating jobs, by offering work experience and training, by encouraging investment, by providing opportunities for tourism and recreation, by enhancing the cultural and natural heritage and by sustaining the productive potential of its land.

We aim to support local economic development and to contribute to the sustainable production of timber and other forest products. Timber is an essential renewable resource. The timber industry employs thousands of people in the UK. We still rely on woods for some of the basic products of modern life, including paper and medium-density fibreboard (MDF), fencing, sawn timber and charcoal. Wood, crafted with care, is one of the most beautiful and versatile of all natural products.

The Trust runs two sawmills, one at Ashridge, the other at Boon Crag near Coniston (Cumbria). Wherever possible we use our own timber in estate fencing and building maintenance. The Trust sells timber and other forest products worth about £300,000 each year. We often employ local people as forest workers and aim to produce timber for local use.

PLANNING FOR THE FUTURE Our climate has not always been as it is today. There may be more storms, floods and droughts as a result of global climate change. The storm of October 1987 brought down many tens of thousands of trees on National Trust land in south-east England. At first people thought that the woods had been destroyed and wanted to see the mess cleared away and trees replanted.

But it quickly became clear that the woods were not destroyed. The relatively unchanging woods had become highly dynamic. New habitat supported expanding populations of plants and animals, while natural tree regeneration became so prolific that it would soon overwhelm the planted trees. Such events are part of the natural processes of woodland.

At Johnny Wood in the Lake District, for example, we know from an analysis of pollen deposits how the wood has changed over three or four thousand years. The oak that dominates today is a relative newcomer. Willow gave way to hazel, which in turn gave way to alder before oak became dominant. This sequence is largely due to climatic changes.

As climate changes we can expect the distribution of trees and other plants and animals will also change. This pattern of change is as old as life itself. Ecosystems are not fixed. Species are continuously reorganising themselves. The challenge is for us to learn how to manage this dynamic process without accelerating the species loss caused by human exploitation of the natural environment during the nineteenth and twentieth centuries.

Change is inevitable. As a result of global warming, climatic change is already happening far more rapidly than anything experienced in the last few thousand years. But because they are small and fragmented, most of our woods are not sufficiently robust to absorb the dramatic and catastrophic impact of major storms or droughts which might be the result of climate change. Some species

of plants and animals will become more common, others more rare and some will become extinct.

The planting of new woodland on agricultural land, is considered where it would contribute to biodiversity conservation (eg habitat improvement), environmental protection (eg water catchment management or energy crops) and social benefit (eg recreation).

New woodland in the UK will not significantly reduce the amount of atmospheric carbon which causes global warming. The priority is for more efficient energy use. But trees store solar energy and we will develop new programmes to harness them as a renewable source of power, either in the woods or in energy coppices on agricultural land.

In rural areas we will increasingly need to plan for woodlands which have a role in flood prevention by slowing the rate at which water runs off the land and into the rivers. In towns and cities trees can contribute to better air quality and reduce noise pollution.

The Trust's management is increasingly based on allowing more space for natural processes to operate whilst ensuring that the most important characteristics of our woodlands are protected. This means looking beyond woodland boundaries and planning the management of new and existing woodland systems over much larger areas to provide a wider range of environmental and social benefits. It is a new approach to woodland conservation.

MANAGERS AND PARTNERS Woodland management requires many skills. The Trust employs specialists in nature conservation, environmental practices, agriculture, access, archaeology, landscape design and history, community involvement, education and health and safety as well as forestry, arboriculture and deer management. Managers draw upon this expertise to guide management programmes which integrate woodland management with other land uses and property-based activities.

The Trust works closely with many other organisations and government agencies in contributing to the development of UK forestry policies and woodland conservation programmes. We are actively represented on the Government's English Forestry Forum, the English Native Woodland Partnership, the Steering Group of the UK Woodland Assurance Scheme, the English and Welsh Deer Initiatives, the Ancient Tree Forum and the Forestry Commission's Environment sub-Committee. The Trust supports the work of organisations like the Forest Stewardship Council in promoting sustainable forestry around the world. We are committed to compliance with the UK Woodland Assurance Scheme certification standards for the sustainable management of our own woodlands.

[Click here for a link to the National Trust's forestry policy.](#)

February 2001