



# Croglinhurst Wood

## Management Plan 2016-2021

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## THE WOODLAND TRUST

### INTRODUCTION

The Trust's corporate aims and management approach guide the management of all the Trust's properties, and are described on Page 4. These determine basic management policies and methods, which apply to all sites unless specifically stated otherwise. Such policies include free public access; keeping local people informed of major proposed work; the retention of old trees and dead wood; and a desire for management to be as unobtrusive as possible. The Trust also has available Policy Statements covering a variety of woodland management issues.

The Trust's management plans are based on the identification of Key Features for the site and setting objectives for their management. A monitoring programme (not included in this plan) ensures that these objectives are met and any necessary management works are carried out.

Any legally confidential or sensitive species information about this site is not included in this version of the plan.

### PLAN REVIEW AND UPDATING

The information presented in this Management plan is held in a database which is continuously being amended and updated on our website. Consequently this printed version may quickly become out of date, particularly in relation to the planned work programme and on-going monitoring observations. Please either consult The Woodland Trust website [www.woodlandtrust.org.uk](http://www.woodlandtrust.org.uk) or contact the Woodland Trust ([wopsmail@woodlandtrust.org.uk](mailto:wopsmail@woodlandtrust.org.uk)) to confirm details of the current management programme.

There is a formal review of this plan every 5 years and a summary of monitoring results can be obtained on request.

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## WOODLAND MANAGEMENT APPROACH

The management of our woods is based on our charitable purposes, and is therefore focused on improving woodland biodiversity and increasing peoples' understanding and enjoyment of woodland. Our strategic aims are to:

- Protect native woods, trees and their wildlife for the future
- Work with others to create more native woodlands and places rich in trees
- Inspire everyone to enjoy and value woods and trees

All our sites have a management plan which is freely accessible via our website [www.woodlandtrust.org.uk](http://www.woodlandtrust.org.uk). Our woods are managed to the UK Woodland Assurance Standard (UKWAS) and are certified with the Forest Stewardship Council® (FSC®) under licence FSC-C009406 and through independent audit.

In addition to the guidelines below we have specific guidance and policies on issues of woodland management which we review and update from time to time.

We recognise that all woods are different and that the management of our sites should also reflect their local landscape and where appropriate support local projects and initiatives. Guidelines like these provide a necessary overarching framework to guide the management of our sites but such management also requires decisions based on local circumstances and our Site Manager's intimate knowledge of each site.

The following guidelines help to direct our woodland management:

1. Our woods are managed to maintain their intrinsic key features of value and to reflect those of the surrounding landscape. We intervene when there is evidence that it is necessary to maintain or improve biodiversity and to further the development of more resilient woods and landscapes.
2. We establish new native woodland using both natural regeneration and tree planting, but largely the latter, particularly when there are opportunities for involving people.
3. We provide free public access to woods for quiet, informal recreation and our woods are managed to make them accessible, welcoming and safe.
4. The long term vision for our non-native plantations on ancient woodland sites is to restore them to predominantly native species composition and semi-natural structure, a vision that equally applies to our secondary woods.
5. Existing semi-natural open-ground and freshwater habitats are restored and maintained wherever their management can be sustained and new open ground habitats created where appropriate.
6. The heritage and cultural value of sites is taken into account in our management and, in particular, our ancient trees are retained for as long as possible.
7. Woods can offer the potential to generate income both from the sustainable harvesting of wood products and the delivery of other services. We will therefore consider the potential to generate income from our estate to help support our aims.
8. We work with neighbours, local people, organisations and other stakeholders in developing the management of our woods. We recognise the benefits of local community woodland ownership and management. Where appropriate we allow our woods to be used to support local woodland, conservation, education and access initiatives.
9. We use and offer the estate where appropriate, for the purpose of demonstration, evidence gathering and research associated with the conservation, recreational and sustainable management of woodlands. In particular we will develop and maintain a network of long-term monitoring sites across the estate.
10. Any activities we undertake will conform to sustainable forest management principles, be appropriate for the site and will be balanced with our primary objectives of enhancing the biodiversity and recreational value of our woods and the wider landscapes.

## SUMMARY

This public management plan briefly describes the site, specifically mentions information on public access, sets out the long term policy and lists the Key Features which drive management actions. The Key Features are specific to this site - their significance is outlined together with their long (50 year+) and short (5 year) term objectives. The short term objectives are complemented by a detailed Work Programme for the period of this management plan. Detailed compartment descriptions are listed in the appendices which include any major management constraints and designations. A short glossary of technical terms is at the end. The Key Features and general woodland condition of this site are subject to a formal monitoring programme which is maintained in a central database. A summary of monitoring results is available on request.

## 1.0 SITE DETAILS

<b>Site name:</b>	Croglinhurst Wood
<b>Location:</b>	Broughton in Furness
<b>Grid reference:</b>	SD208897, OS 1:50,000 Sheet No. 96
<b>Area:</b>	3.93 hectares (9.71 acres)
<b>Designations:</b>	Ancient Semi Natural Woodland, Ancient Woodland Site, Environmentally Sensitive Area, National Park, Planted Ancient Woodland Site

## 2.0 SITE DESCRIPTION

### 2.1 Summary Description

Croglinhurst Wood, known locally as Kitscar Wood, lies on a very steep-sided, exposed slope of a valley of the River Lickle. The wood, with its rocky crags and fairly sparse ground flora, is heavily browsed by deer but ferns are prominent and varied. Long-distance walkers seem to be the main users of the public footpath along the southern boundary. This leads to Peggy Steps and the Cuckoo Stone and on to the next valley on longer routes in to the Lake District National Park

### 2.2 Extended Description

Croglinhurst Wood, known locally as Kitscar Wood, comprises 3.97ha of predominantly ancient semi natural woodland and planted ancient woodland on a steep sided valley of the River Lickle, in the parish of Broughton West on the south edge of the Lake District National Park. The woodland was acquired from the Forestry Commission in 1990 with funds donated by Friends of the Lake District. The woodland is highly visible in the landscape and connects with a band of remnant ancient woodland on the lower reaches of the fell.

The bulk of the wood lies on a very steep slope, of loosely consolidated scree and rock outcrops but with some areas of deeper soil. Ash occurs in the more flushed areas at the base of the slope but the majority of the wood comprises oak, sycamore, rowan, hazel and birch together with some

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planted larch (1950-60's), which is concentrated down the exposed western edge and tends to be tall and drawn in nature, a few fir and beech trees. Ash dieback appeared in the area in 2017. The ground flora is indicative of acid ground conditions and is fairly sparse. It includes cow wheat, bluebell, wood sorrel, wild daffodil, snowdrop, herb Robert, climbing fumitory and wood sage. Ferns are prominent and varied including bracken, hard fern, common polypody, beech fern, broad buckler fern, and male fern, with occasional scaly male fern and also intermediate polypody. A wide range of lichens and bryophytes are present both on the woodland floor and on the trees themselves. The top section of the wood is grassier in appearance with wavy hair grass and Yorkshire fog dominant. On the flushed lower areas there is a wider range of herbs, including dog's mercury, barren strawberry, stinging nettle and herb bennet. Given the range of flora, including several ancient woodland indicator species, and the continuity along the slope either side, of grazed, open native woodland, it seems fair to describe the wood as ancient semi natural woodland that has been modified by some limited planting with exotic conifers and beech since the 1940's.

The wood is heavily browsed by deer, as abundant holly regeneration is held back to ground level. Although heavily modified by grazing and browsing, the NVC type equates to W17b (typical sub-community) over a lot of the wood with bracken and bilberry heavily reduced by the quite dense shade and grazing pressure. Some areas with thin unstable soil humus layer on the steep slopes have the mossy-Isoetecium myosuroides - Diplophyllum albicans sub community W17b with its characteristic oceanic moss and fern communities. Towards the bottom of the slope this woodland community grades into W9a herb rich ash/elm/hazel and rowan woodland where the soil conditions are more flushed, and a greater variety of herbs with a mossy ground layer are present.

The area at the top of the slope consisted mainly of larch and was clear felled in 1999 on landscape grounds. It was subsequently replanted in 2000 with mixed native broadleaves in tree shelters (ash, silver birch, rowan and oak) to eventually merge with the retained native woodland below. The site is very exposed with rocky and free draining ground. Rocky crags that are prominent in the landscape have been left unplanted. Dense grasses - *Deschampsia flexuosa* and *Holcus mollis*- with some small patches of heather, bell heather and bilberry, dominate the ground vegetation at present. Plants such as cow wheat are occasional. This ground vegetation will probably change in time to mirror that in the rest of the wood, as the young trees establish and cast shade. There is quite a lot of rowan and birch regeneration: however deer and the occasional sheep that gets into the wood heavily browse this. Although heavily modified by grazing pressure the stand equates to NVC W17 mossy/heath birch-oak woodland, likely sub-community c (*Anthoxanthum odoratum*-*Agrostis capillaries* sub community) with the grazing raising the amount of grass species in the sward.

The wood is served by a public footpath, which passes along the southern boundary of the wood and then out across the fell, leading to Peggy Steps and the Cuckoo Stone and into the next valley. The wood is little used but gets some long distance walkers passing through on longer routes into the Lake District National Park.

## 3.0 PUBLIC ACCESS INFORMATION

### 3.1 Getting there

Croglinhurst Wood can be found off a little lane, 1 mile southwest of Broughton Mills, near Broughton in Furness, Cumbria. From the A595 trunk road near Broughton in Furness, take the A593 northwards towards Broughton Mills. After approx 1 miles take the first left. Pass a right hand turning, and then take the next left, turning back on yourself and passing between farm buildings. Continue along this tiny lane for approx ½ miles, over a small bridge crossing the River Lickle and through a second farm yard, then turn left at a Y junction. Continue for about 200m where there is a small layby on the left with limited parking, just beyond a track going up to the right. On foot follow the public footpath up this track for another 100m, up past Kitscar Cottage and into Croglinhurst Wood. Note that the wood has no public road frontage so the Woodland Trust sign is not visible from here. The parking is very limited on the roadside in a small lay-by. There is a public footpath leading up the fell which runs along the southern boundary of the wood for 200m, at grid reference SD210897. The footpath leaves the wood at the southwest corner and continues over the fell and into the next valley. There are no permissive routes into the woodland off this footpath, as internally the wood is extremely steep and the ground wet and unstable. For local information visit <http://www.duddonvalley.co.uk/>

There are no toilets near to the wood. The nearest pub is at Broughton Mills about 1.8km north east and the nearest town is Broughton-in-Furness. Buses to and through Broughton include 511 Millom - Broughton - Ulverston; the 523 Broughton - Duddon Valley and the X7 Barrow - Broughton - Millom - Haverigg. The nearest train station approximately 5km from the wood at Foxfield on the A595; a branch line served from Barrow-in-Furness. Traveline Cumbria provides comprehensive timetable and fare information for all bus, coach, rail and Lakeland ferry journeys to/from and within Cumbria & the Lake District. A journey planner will help you plan your journey regardless of who operates the services Tel: 0870-608-2608.

### 3.2 Access / Walks

## 4.0 LONG TERM POLICY

It is the Trust's objective to maintain the typical ancient characteristics of this woodland within the landscape and to improve the biodiversity of the whole woodland; increase people's understanding and enjoyment of this ancient habitat. This is in line with the outcomes in the Trust's Action Plan 'Keeping Woodland Alive' and in the context of our Woodland Management Approach.

The Trust aims to maintain the high forest continuous-cover structure of this predominantly native woodland, whilst encouraging the development of a naturally regenerating understorey and maintaining and enhancing the conditions in which the ancient woodland communities can flourish and become more robust; thereby enhancing the variety and character of this ancient woodland and sustaining the landscape value of a continuously wooded system. It is anticipated that as the larch continue to grow and gain girth some of the adjacent trees particularly oaks with associated communities, may be shaded out. To ensure ancient woodland components are preserved in a stable manner where necessary adjacent to the planted larch there will be a gradual reduction of the larch stems through small-scale ring barking; a minimal impact technique. Where safe to do so standing and fallen deadwood will be retained to increase biodiversity and the range of microhabitat. Once the restocked area of broadleaves has established this will be treated in the same manner as the rest of the wood. Species regeneration and development of the understorey will be observed and boundaries managed to control browsing and promote regeneration and succession. On-going review and monitoring of work is essential to ensure successful outputs.

The Trust will maintain the informal access to the woodland commensurate with use. Public information posters will be used to inform and involve visitors with the woodland.

It is anticipated that this approach will safeguard and enhance the existing environmental value of the wood and maintain and enhance the level of public access in the woodland.

## 5.0 KEY FEATURES

The Key Features of the site are identified and described below. They encapsulate what is important about the site. The short and long-term objectives are stated and any management necessary to maintain and improve the Key Feature.

### 5.1 Ancient Semi Natural Woodland

#### Description

Given the presence of ancient woodland indicator species such as cow wheat and wood sorrel and the continuous spread of grazed native woodland across the valley slopes on either side, it is fair to assume that this woodland is ancient semi-natural woodland. Although modified by heavy grazing pressure and the scattered planting of conifers over the last century. Given the steep slopes with unstable scree and rocky outcrops it is likely that the wood was enclosed by stonewalls to keep cattle off to reduce stock losses. The slope and thin soil has prevented anything more than token coniferisation, which has largely been confined to larch planting around the edges of the wood. The top boundary of larch was felled and replanted with broadleaves in 1999/2000 primarily for landscape reasons. Small numbers of sycamore and beech also occur in the wood, however these can be treated as naturalised species in this context. The ground flora within the wood is indicative of acid ground conditions and is fairly sparse and heavily modified due to grazing pressure from deer and stock incursions. It includes cow wheat, bluebell, wood sorrel, wild daffodil, snowdrop, herb robert, common fumitory and wood sage. Ferns are prominent and varied including bracken, hard fern, common polypody, beech fern, broad buckler fern, male fern, with occasional scaly male fern and also intermediate polypody. A wide range of lichens and bryophytes are present both on the woodland floor and on the trees themselves. The top section of the wood becomes grassier in appearance with wavy hair grass and Yorkshire fog dominant. On the flushed lower areas a wider range of herbs exist including dogs mercury, barren strawberry, stinging nettle and herb bennet. The tree species are mostly oak with silver birch, rowan and hazel. Towards the slope bottom pockets of ash start to appear and before Dutch elm disease, elm was a canopy component. Frequent holly regeneration is held back to ground level by browsing deer. Although modified grazing and browsing the NVC type equates to W17b (typical sub-community) over a lot of the site with bracken and bilberry heavily reduced by the quite dense shade and grazing pressure. Some areas with thin unstable soil humus layer on the steep slopes will have the mossy Isoetecium myosuroides-Diplophyllum albicans sub community W17b with its characteristic oceanic moss and fern communities. Towards the bottom of the slope this woodland community grades into W9a herb rich ash/elm/hazel and rowan woodland where the soil conditions are more flushed, and a greater variety of herbs with a mossy ground layer are present.

#### Significance

Croglinhurst Wood forms part of the linear network of ancient semi natural woodland that runs down the valley of the River Lickle and its tributaries and is also a part of the extensive semi natural habitat patchwork that makes up the Environmentally Sensitive Area of the Lake District National Park. Woodlands on steep slopes in river valleys acts as a trap to catch sedimentation and slow the movement of water down hill into the rivers; this in turn maintains a higher quality of river water. Semi-natural ancient woodland is the corner stone to future ancient woodlands, which are probably the richest conservation habitat overall. These ancient sites are likely to contain the majority of areas important for nature conservation (Kirby & Whitbread 1989). The wood is very prominent in the landscape, and any changes in the wood character will have a disproportionately and very noticeable effect. Upland oak woods are present throughout Cumbria and are particularly characteristic of the Lake District and are a conservation priority in Cumbria, as stated in the Cumbria Biodiversity Action Plan.

**Opportunities & Constraints**

Wind and exposure, especially down the western edge will be a limiting factor on any future management and fairly extensive wind damage to tress can be see in the northwest corner where the shelter of the larch above was removed. It would be interesting to see what effect less intense grazing pressure within the wood will have on the ground flora. The main challenge for this site is to restore the ancient woodland where it has been planted with conifers. However given the exposed nature of the site and the edge distribution of the remaining larch this process will have to be undertaken over a long term timescale of decades. Fortunately most of the planting is larch, which casts only moderate shade and does not in itself degrade the existing habitat or pose any threat through natural regeneration. In areas where the larch - which is still actively growing - is over shading mature oaks or birch, a light selective ring barking of the larch around the affected trees should control this. Care needs to be taken, however, to carry out this process gradually, protecting the extensive bryophyte communities living on the trees from sudden changes in their environment.

**Factors Causing Change**

Tree establishment (restock area), reduction in the number of conifers, deer/sheep browsing, windblow and windsnap, tree pests and diseases: Phytopthera ramorum of larch, and ash dieback (which appeared in the area in 2017).

**Long term Objective (50 years+)**

To enhance the remaining ancient semi-natural woodland (ASNW) components through a gradual decrease in the level of conifer species in a gradual manner and the conversion over a long time scale to predominantly broadleaved woodland.

**Short term management Objectives for the plan period (5 years)**

Continue to undertake PAWs assessment on the area of larch in zones 1 and 2 of Cpt. 1b and undertake appropriate control measures every 5 years.

Monitor the condition of the ash and larch within Cpt. 1b annually for any signs of infection from Chalara and Phytophthora respectively. Should trees become infected, FC are to be informed. Ash trees will be left to gradually decline, whilst larch will be felled. Under planting may be necessary to re-establish a stocked woodland, due to a lack of natural regeneration due heavy browsing pressure.

Ensure the establishment of the restocked area at the top of the hill, by installing tree guards to the naturally regenerating rowan to allow the trees to establish. Planned for 2017.

Assess deer browsing and the effects on regeneration once within the plan period, control deer as necessary, carry out regular monitoring and reviews. Also prevent stock encroachment within the wood by effective boundary maintenance: working with neighbouring landowners as necessary.

## 5.2 Informal Public Access

### Description

A public footpath runs along the southern boundary of the wood, welcome signs and gates are maintained at either end. This path is moderately used by walkers passing through as part of a longer route over the fell. The very steep terrain within makes the wood inaccessible to all but the most dedicated and interested walker. There is no public car parking available in the vicinity.

### Significance

Croglinhurst Wood offers a small area of woodland for informal recreation predominantly for visitors passing through on longer routes and is an attractive, visual part of the overall landscape. This helps make visitors aware of woodlands managed by the Trust thus encouraging appreciation of even small woodlands. The Cumbria Biodiversity Action Plan incorporates the action for landowners to give the public the opportunity to experience and appreciate wildlife.

### Opportunities & Constraints

Due to the steep terrain there is no realistic chance of the footpath network being extended into the wood. The other main constraint is the lack of any public parking facilities anywhere near the site and it is also an awkward and difficult location to find. However for walkers passing through on longer routes it is an opportunity to be part of a wooded landscape as opposed to the exposed fells. Apart from being an attractive part of the overall landscape, the wood has little importance as an access resource for the general public, due to the site constraints.

### Factors Causing Change

None identified.

### Long term Objective (50 years+)

To maintain the current level of visitor provision commensurate with access use (category C).

### Short term management Objectives for the plan period (5 years)

To maintain the two entrance points with welcome signs and 200m of public footpath to Woodland Trust maintenance standards annually, working with the National Park footpath team where appropriate to ensure that the level of visitor provision is commensurate with the level of use throughout the plan period. Where necessary consult with users through on site posters.

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## 6.0 WORK PROGRAMME

Year	Type of Work	Description	Due By
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## APPENDIX 1: COMPARTMENT DESCRIPTIONS

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Key Features Present	Designations
1a	0.87	Oak (sessile)	2000	High forest	Mostly wet ground/exposed site, No/poor vehicular access to the site, Very steep slope/cliff/quarry/mine shafts/sink holes etc	Ancient Semi Natural Woodland, Informal Public Access	Ancient Woodland Site, Environmentally Sensitive Area, National Park
<p>The area at the top of the slope (Cpt. 1a) consisting of mainly larch was clear felled in 1999 on landscape grounds during a lengthy and difficult harvesting operation. It was subsequently replanted in 2000 with mixed native broadleaves in tree shelters, including ash (<i>Fraxinus excelsior</i>), silver birch (<i>Betula pubescens</i>), rowan (<i>Sorbus aucuparia</i>) and oak (<i>Quercus petraea</i>) to eventually merge with the retained native woodland below. The site is very exposed with rocky and free draining ground. Rocky crags that are prominent in the landscape have been left unplanted. Dense grasses - wavy hair-grass (<i>Deschampsia flexuosa</i>) and creeping soft-grass (<i>Holcus mollis</i>)- with some small patches of heather (<i>Calluna vulgaris</i>), bell heather (<i>Erica cinerea</i>) and bilberry (<i>Vaccinium myrtillus</i>), dominate the ground vegetation at present. Plants such as cow-wheat (<i>Melampyrum pratense</i>) are occasional. This ground vegetation will undoubtedly change in time to mirror that in the rest of the wood as the young trees establish and cast shade. There is quite a lot of rowan and birch regeneration on site however this is getting heavily browsed by deer and possibly sheep. Although heavily modified by grazing pressure the stand equates to NVC W17 mossy/heath birch-oak woodland, probably sub-community c (Sweet vernal grass (<i>Anthoxanthum odoratum</i>) - Common bent (<i>Agrostis capillaries</i>) sub community), due to the grazing raising the amount of grass species in the sward. The boundary wall are all drystone. The land to the northeast and south of the compartment has been planted with native broadleaves around P2004. The land to the west is grazed.</p>							
1b	3.10	Mixed native broadleaves		High forest	Mostly wet ground/exposed site, No/poor vehicular access to the site, No/poor vehicular access within the site, Very steep slope/cliff/quarry/mine shafts/sink holes etc	Ancient Semi Natural Woodland, Informal Public Access	Ancient Semi Natural Woodland, Environmentally Sensitive Area, National Park, Planted Ancient Woodland Site

Sub-compartment 1b forms the bulk of the wood and lies on a very steep slope, partly loosely consolidated scree and rock outcrops with some areas of deeper soil. Ash occurs in the more flushed areas at the base of the slope but the majority of the wood comprises oak, sycamore, rowan, hazel and birch together with some planted larch (*Larix decidua*) (1950-60's), which is concentrated down the exposed western edge and tends to be tall and drawn in nature. A small area of under-planted fir exists in the centre and several beech exist throughout. The ground flora is indicative of acid ground conditions and is fairly sparse. A wide range of lichens and bryophytes are present both on the woodland floor and on the trees themselves. The wood appears to be heavily browsed by deer, as abundant holly regeneration is held back to ground level. The boundaries of the wood are all dry stonewall. The southwest boundary is remnant dry stonewall and has stock proof fencing along the inside the south east to the public footpath is dry stone wall. The north east boundary is dry stone wall and the land beyond has been planted with native broadleaves c2004.

## GLOSSARY

### **Ancient Woodland**

Ancient woods are defined as those where there has been continuous woodland cover since at least 1600 AD. In Scotland ancient woods are defined strictly as sites shown as semi-natural woodland on the 'Roy' maps (a military survey carried out in 1750 AD, which is the best source of historical map evidence) and as woodland all subsequent maps. However, they have been combined with long-established woods of semi-natural origin (originating from between 1750 and 1860) into a single category of Ancient Semi-Natural Woodland to take account of uncertainties in their identification. Ancient woods include Ancient Semi-Natural Woodland and plantations on Ancient Woodland Sites (see below). May support many species that are only found in ancient woodland.

### **Ancient Semi - Natural Woodland**

Stands in ancient woods defined as those consisting predominantly of native trees and shrubs that have not obviously been planted, which have arisen from natural regeneration or coppice regrowth.

### **Ancient Woodland Site**

Stands in ancient woods that have been converted to plantations, of coniferous, broadleaved or mixed species, usually for timber production, including plantations of native species planted so closely together that any semi-natural elements of the understorey have been suppressed.

### **Beating Up**

Replacing any newly planted trees that have died in the first few years after planting.

### **Broadleaf**

A tree having broad leaves (such as oak) rather than needles found on conifers (such as Scots pine).

### **Canopy**

The uppermost layer of vegetation in a woodland, or the upper foliage and branches of an individual tree.

### **Clearfell**

Felling of all trees within a defined area.

### **Compartment**

Permanent management division of a woodland, usually defined on site by permanent features such as roads. See Sub-compartments.

### **Conifer**

A tree having needles, rather than broadleaves, and typically bearing cones.

### **Continuous Cover forestry**

A term used for managing woods to ensure that there are groups or individual trees of different ages scattered over the whole wood and that some mature tree cover is always maintained. Management is by repeated thinning and no large areas are ever completely felled all at once.

### **Coppice**

Trees which are cut back to ground levels at regular intervals (3-25 years).

### **Exotic (non-native) Species**

Species originating from other countries (or other parts of the UK) that have been introduced by humans, deliberately or accidentally.

### **Field Layer**

Layer of small, non-woody herbaceous plants such as bluebells.

### **Group Fell**

The felling of a small group of trees, often to promote natural regeneration or allow planting.

### **Long Term Retention**

Discrete groups of trees (or in some cases single trees) that are retained significantly past their economic felling age. Operations may still be carried out within them and thinning is often necessary to maintain stability.

### **Minimum Intervention**

Areas where no operations (such as thinning) will take place other than to protect public safety or possibly to control invasive exotic species.

### **Mixed Woodland**

Woodland made up of broadleaved and coniferous trees.

### **National vegetation classification (NVC)**

A classification scheme that allows an area of vegetation to be assigned to the standardised type that best matches the combination of plant species that it contains. All woodlands in the UK can be described as being one of 18 main woodland types (W1 - W18), which principally reflect soil and climatic conditions. For example, Upland Oakwoods are type W11, and normally occur on well drained infertile soils in the cooler and wetter north and west of Britain. Each main type can be subdivided into numerous subtypes. Most real woods contain more than one type or sub-type and inevitably some woods are intermediate in character and can't be properly described by any sub type.

### **Native Species**

Species that arrived in Britain without human assistance.

### **Natural Regeneration**

Naturally grown trees from seeds falling from mature trees. Also regeneration from coppicing and suckering.

## **Origin & Provenance**

The provenance of a tree or seed is the place where seed was collected to grow the tree or plant. The origin is the geographical location within the natural range of a species from where seeds/tree originally derives. Thus an acorn collected from a Turkey oak in Edinburgh would have an Edinburgh provenance and a southern European origin.

## **Re-Stocking**

Re-planting an area of woodland, after it has been felled.

## **Shrub Layer**

Formed by woody plants 1-10m tall.

## **Silviculture**

The growing and care of trees in woodlands.

## **Stand**

Trees of one type or species, grouped together within a woodland.

## **Sub-Compartment**

Temporary management division of a compartment, which may change between management plan periods.

## **Thinning**

The felling of a proportion of individual trees within a given area. The remaining trees grow to fill in the space created.

## **Tubex or Grow or Tuley Tubes**

Tubes placed over newly planted trees or natural regeneration that promote growth and provide protection from animals such as rabbits and deer.

## **Weeding**

The control of vegetation immediately around newly planted trees or natural regeneration to promote tree growth until they become established. Either by hand cutting or with carefully selected weed killers such as glyphosate.

## **Windblow/Windthrow**

Trees or groups of trees blown over (usually uprooted) by strong winds and gales.