



COED CADW  
WOODLAND  
TRUST

# Coed Aberneint

## 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 Consequently this printed version may quickly become out of date, particularly in relation to the planned work programme and on-going monitoring observations.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.

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## 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>	Coed Aberneint
<b>Location:</b>	Dolgellau
<b>Grid reference:</b>	SH730171, OS 1:50,000 Sheet No. 124
<b>Area:</b>	2.83 hectares (6.99 acres)
<b>Designations:</b>	National Park, Site of Special Scientific Interest, Special Area of Conservation

## 2.0 SITE DESCRIPTION

### 2.1 Summary Description

Coed Aberneint is spectacularly set above a gorge of the Afon Arran on the outskirts of Dolgellau. There are beech, sycamore, oak, ash and alder trees. The wood provides a popular walk for local people and there is an RSPB reserve nearby. Dolgellau itself provides access to almost unlimited walking opportunities both in the mountains and along the coast.

## 2.2 Extended Description

Coed Aberneint is a new native woodland created on semi-improved permanent pasture adjoining the Afon Arran on the edge of Dolgellau. The fields were planted with native trees under the Woods On Your Doorstep project in 2000, with participation from the local community. An extensive area of open ground has been left unplanted to retain a view overlooking Dolgellau. The site's name is taken from the name of the old woollen mill which was located across the river.

The planting extends an area of existing ancient semi-natural woodland located in the steep gorge of the Afon Arran and links to a network of ancient semi-natural woods (ASNW) and planted ancient woodland sites (PAWS) in the locality. This woodland has nevertheless been modified by the presence of a fairly high proportion of planted non-native or naturalised broadleaves (beech and sycamore are common), but oak, ash, wild cherry and alder are also present. Grazing in previous ownership had suppressed the development of any shrub layer and prevented natural regeneration, although today natural tree regeneration is common and widespread.

The wooded valley of Afon Arran is part of the Cadair Idris Site of Special Scientific Interest, designated for its Atlantic bryophyte interest but is also of interest due to its use by otters and its status as a salmon-spawning tributary of Afon Wnion. The site also contains a winter roost (hibernaculum) used by significant numbers of lesser horseshoe bats, for which reason the wood is included within the Meirionnydd Oakwoods and Bat Sites SAC.

The track along the eastern boundary is an unclassified road and provides adequate if restricted management access via two new field gate entrances. Leading off the track are a permissive pedestrian footpath and two public footpaths (all accessed by squeeze post entrances) which meet close to Afon Arran before exiting the property via a footbridge (installed in 2001 as the wood's "Millennium Feature"). The site is well walked locally and is close to a housing estate near its northern tip, being easily accessible on foot from the town. There is no official parking space although it is possible to leave a vehicle at the end of the Maes y Pandy near the footbridge entrance.

Adjoining land to the north-east and east is grazed pasture. Across Afon Arran, land to the west is occupied by semi-derelict old woollen mills and residential properties, whilst to the south is a Forestry Commission-owned Planted Ancient Woodland Site, Coed y Pandy, which is also well-used locally. Adjoining this woodland to the east is an RSPB reserve, Coed y Parc, which is managed primarily to encourage dormice.

The key features of the site are:

- New Native Woodland
- Ancient Semi-natural Woodland
- Species or Community
- Informal Public Access

## 3.0 PUBLIC ACCESS INFORMATION

### 3.1 Getting there

The wood is easily accessed on foot from the centre of Dolgellau. There are two access points on the east side of the wood from the track running southward from the cul de sac of Penbrynglas and one access over a public footbridge from Maes y Pandy on the west side. There is an informal small parking area adjacent to Coed y Pandy (at the top of Maes y Pandy) immediately adjacent to the wood on the west side of the Afon Arran. All entrances are linked by footpaths with steps on their steepest sections.

There is access to public transport in the centre of Dolgellau 500 metres to the north of the wood. Parking and public toilet facilities are located in Dolgellau's Marin Car Park.

### 3.2 Access / Walks

## 4.0 LONG TERM POLICY

Coed Aberneint will over time develop into a broadleaved woodland with a diverse age and height structure, a broad mix of primarily site-native trees and abundant shrub understorey, with sufficient natural regeneration to maintain current woodland cover. A ground flora typical of established woodland will spread out from the riparian zone as the canopy establishes and mature trees along the riverside will develop veteran characteristics. The woodland will include open glades and light rides, providing vistas across the surrounding landscape. The site will continue to provide suitable refuge for hibernating bats and adequate riparian cover for otters. The wood will be a valued local recreational resource, with a safe network of maintained paths.

## 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 New Native Woodland

#### Description

Areas of previously grazed semi-improved grassland planted with native broadleaved trees and shrubs during 2000 under the Woods On Your Doorstep project. Planted species are hazel, hawthorn, blackthorn, elder, ash, crab apple, wild cherry, sessile oak and rowan. There were high levels of community interest and involvement in the planning and implementation of the planting. Over the ensuing decade and a half, the planted trees have on the whole thrived, with the desired overall stocking density of at least 90% achieved, tree guards removed and canopy closure reached throughout the planted stands. Ash and hazel have grown particularly well and the planting has been supplemented by natural regeneration of numerous tree and shrub species, including oak, ash, sycamore, hazel, beech and holly.

#### Significance

The new woodland planting buffers existing ancient woodland (which, although modified by the introduction of non-native trees, retains many ancient woodland features) and will contribute toward maintaining the gorge's humid micro-climate in the long term. The increased tree cover should benefit the condition of the SSSI.

#### Opportunities & Constraints

Existing woodland should provide a seed source which will help to sustain woodland cover: the mix of planting and natural regeneration will broaden genetic diversity and help a varied age structure to develop. Steep slopes limit potential machinery access.

#### Factors Causing Change

The potential impact of invasive species such as Japanese knotweed (present on adjacent land) could be detrimental to woodland condition. Both planting and natural regeneration includes a large ash component, which could in the near future prove vulnerable to ash dieback. At present, browsing impacts are low but populations of deer and grey squirrel in particular could increase in future, which could compromise recruitment of future canopy trees. Beech regeneration is locally abundant and may dominate over site-native species. Hemlock may seed from adjacent PAWS woods.

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

The woodland will develop into a mixed native broadleaf woodland with a diverse structure and predominantly site-native species mix including a good proportion of shrub species. Woodland flora will gradually colonise the newly planted areas, expanding from existing woodland and hedgebanks. Invasive species will be absent.

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

The current level of woodland cover will be maintained. Natural regeneration will continue to be abundant and should be sufficient to compensate for some planting failure henceforth, however, vigilance will be maintained for the potential arrival of ash dieback and the scale of any ensuing losses. Coarse vegetation will remain at low levels and woodland flora should start to spread slowly out into the establishing woodland. Beech will be infrequent among the natural regeneration/ newly developing canopy and may be controlled to favour site-native broadleaves as required, although beech will be accepted as a component of the wood. Western hemlock will not be allowed to establish on site. Any spread of invasive species will be monitored and controlled as required.

## 5.2 Ancient Semi Natural Woodland

### Description

Existing semi-natural woodland in the steep-sided gorge of Afon Arran, a fast-flowing upland stream rising on the slopes of Cader Idris, here within ½ mile of its confluence with Afon Wnion. It flows in a narrow wooded gorge, with sheer sides for part of its transit through Coed Aberneint. Atlantic bryophytes are present, a critical determinant of which is the humidity afforded by the splash zones due to the natural waterfalls and man-made weirs (associated with the old woollen industry that existed in the valley), as well as the shade afforded by the woodland. Important animal species using the gorge include otters, salmon and lesser horseshoe bats. Canopy species in the woodland include oak, beech, sycamore, birch, alder, ash and wild cherry. Oak, beech and sycamore are co-dominants, followed by ash and cherry. Pockets of woodland flora occur, including ramsons, celandine, bluebell and ferns. The shrub layer is sparse.

### Significance

Despite modification by the introduction of beech, Coed Aberneint contains elements of semi-natural ancient woodland. Part of the Cadair Idris SSSI, the woodland is an integral part of the humid habitat important for Atlantic bryophytes. The site is also part of the Meirionnydd Oakwoods and Bat Sites SAC. The Afon Arran has been identified by Natural Resources Wales as a salmon spawning river. The river corridor also supports otters and less horseshoe bat.

### Opportunities & Constraints

The woodland is on a slope ranging from moderately steep to sheer, which is mobile in places and which will limit potential management. The withdrawal of previous grazing pressure affords an opportunity for regeneration of the native species and the development of an understorey and ground layer; the site would be very difficult to graze in future in the context of public access and its small area / context. The Trust only has management control over one small portion of river bank so cannot control all influencing factors (such as shade, invasive species etc.)

### Factors Causing Change

Beech and sycamore comprise almost half the woodland canopy in compartment 1a and both species are reproducing readily: while sycamore can be accepted as naturalised (and a potential surrogate for ash in terms of its potential lichen flora), the current area of beech canopy is largely associated with bare ground, therefore significant expansion at the expense of site-native species could be detrimental to ground flora diversity. Natural processes have started to increase deadwood levels, through the impact of senescence, storm damage and the collapse of stems on steep slopes. Public usage of the site has the potential to increase fire risk and disturb wildlife. Invasive species including knotweed are present on the opposite bank. Tree disease impacts (especially upon ash and cherry) could alter canopy composition.

### Long term Objective (50 years+)

Canopy cover in the gorge will be maintained. The woodland will comprise a diverse intermixture of species including good cover of site-native broadleaves, with a developing under-storey and field layer. Mature trees will be retained to senescence wherever possible and develop veteran features over time, with accumulating volumes of deadwood throughout the wood, particularly within the mature woodland. Invasive species will be absent.

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

No action is envisaged during this plan period other than that determined by tree safety. Ground flora will remain robust and some natural tree and shrub regeneration will start to populate the field and shrub layers. Standing and fallen deadwood will be retained wherever possible. Invasive species will be monitored and any early establishment tackled promptly.

## 5.3 Informal Public Access

### Description

Most visitors to Coed Aberneint are probably local and arrive largely on foot. Public access is available along two public footpaths and a new permissive footpath, all of which enter via squeeze post entrances from different points along a track (an unclassified road) along the eastern / northern boundary. These merge to exit across the footbridge over Afon Arran. An information board is provided at the northernmost entrance point. Some informal parking is possible near the entrance at the top of South Street/ Maes y Pandy. In response to a local desire to preserve views across Dolgellau, over half a hectare of open ground (cpt 1b) has been retained, including an unplanted corridor at the northern end of the site, which frames unusual vistas of the town and local landmarks such as the church, and a wide ride along the footpath rising to the SE corner of the site.

### Significance

The public footpaths were well-used prior to acquisition, but the increased and improved accessibility afforded by Trust ownership extends public enjoyment of the site. The footbridge was a Millennium Feature selected by the community. The site is easily accessible from Dolgellau and adjacent council estates on foot and is therefore a valuable 'doorstep' resource and attracted community involvement at the time of acquisition. The view over Dolgellau was identified as being crucial during the consultation process, in that it presents an unusual prospect of Dolgellau and frames vistas of familiar buildings (e.g. the church). The open grassland also provides useful habitat for invertebrates and contains a numbers of ants' nests.

### Opportunities & Constraints

There is limited parking at the site near the footbridge at the top of South Street/ Maes y Pandy. The new footbridge over Afon Arran (the "Millenium Feature" for the site) provides limited access for the less able to the area of existing woodland immediately adjacent to the bridge. However all the paths from this point rise steeply out of the river valley and whilst they have been improved since acquisition, the terrain in the rest of the site does not favour less-able access. The woodland itself is fairly small, however, open areas provide opportunities for picnics and informal play and the wood is well connected to other local sites of interest such as Coed y Pandy and the adjacent RSPB reserve.

### Factors Causing Change

Viewpoints or rides are likely to be colonised by shrubs and tree regeneration and vegetation may become rank if left unmanaged. Changing levels of use and natural build up or slippage of soils may result in the deterioration of paths or the need for their improvement commensurate with their usage. Unauthorised human activities such as fires/ motorbiking could damage or disturb wildlife in the gorge.

### Long term Objective (50 years+)

The wood will be a valued local resource with a safe and welcoming network of footpaths, offering good views of the surrounding landscape.

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

Footpaths and entrances will be maintained in good and safe condition. The northernmost permissive route will be improved where the surface has become slippery and off camber. Glades, rides and viewpoints will be maintained by the cutting of coarse vegetation and establishing scrub (every five years or so as needed), although a margin of young scrub will be allowed to develop at the edge of the open ground zones (cpt 1b). The site will be maintained in a tidy condition and negative impacts such as litter and fire-setting will be minimal. Entrances will be appropriate and signage maintained - if required, replacement signage and information boards will be installed.

## 5.4 Species or community

### Description

Bat communities are an important feature of the site. A trial mine adit ("Pandy Adit") at the base of the Afon Arran gorge is used as a hibernaculum by a significant colony of lesser horseshoe bats, generally numbering between 50 and 80 individuals. Otters also use the adit to lay up. The adit is obscurely located and is not prone to disturbance, but a grille was fitted over the entrance during 2004 which allows continued access by bats and otters whilst controlling potential human disturbance. Further work by the local Bat Group in the previous plan period saw the installation of a roof to deflect slippage of eroded materials from above, which were periodically blocking the entrance.

### Significance

Significant numbers of lesser horseshoe bats (a European protected species) have been recorded (returns for several years have consistently been over 50). This is the main reason for the site's inclusion within the Meirionnydd Oakwoods and Bat Sites SAC. Otters (also EPS) are known to utilise the location as a resting place (and also forage for bats!).

### Opportunities & Constraints

Large trees occasionally fall from the sheer sides of the gorge and may pose a threat to the adit entrance, either by obstructing passage into the it or causing subsequent erosion of substrate from above leading to physical blockage. Extension of the woodland through planting especially in association with retained open ground extends valuable adjacent habitat for bats.

### Factors Causing Change

Trees collapsing into the gorge and erosion of the gorge sides/ natural scouring of the river bed could damage or block the roost structure. Increased public use of the site and may increase disturbance. Management operations in the vicinity of the adit may require an environmental assessment/ species licence if they could cause disturbance or damage to the structure.

### Long term Objective (50 years+)

The hibernaculum will be protected from disturbance/ collapse by maintenance of the grille and roof structure as required and will therefore continue to provide a suitable winter roost location for bats: the population may fluctuate naturally but would be expected to be in excess of 50 individuals during most winter seasons, subject to the availability of survey data from licensed surveyors.

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

The grille and roof structure will be checked and maintained. At present the local bat group undertake a more or less annual visit to survey bat occupation and will report any problems with the fabric or security of the roost. The site should be surveyed as a minimum at least once in five years and if any sustained drop in numbers is noted advice should be sought from Natural Resources Wales.

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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	0.90	Oak (sessile)	1900	Min-intervention	Sensitive habitats/species on or adjacent to site, Very steep slope/cliff/quarry/mine shafts/sink holes etc	Informal Public Access	National Park, Site of Special Scientific Interest, Special Area of Conservation
Existing semi-natural woodland in the steep-sided gorge of Afon Arran. Canopy species in the woodland include oak, beech, sycamore, birch, alder, ash and wild cherry. Oak, beech and sycamore are co-dominants, followed by ash and cherry. In the steepest areas periodic collapse of trees into the gorge occurs. Understorey is sparse due to past grazing and shade and ground flora similarly localised. An old mine adit is situated in the gorge and the river is of importance to otters and salmon, as well as Atlantic bryophytes in humid shady zones.							
1b	0.62	Open ground		Non-wood habitat	Very steep slope/cliff/quarry/mine shafts/sink holes etc	Informal Public Access	National Park, Site of Special Scientific Interest, Special Area of Conservation
Areas of former semi-improved permanent pasture retained as open ground/ rides, preserving the view overlooking Dolgellau in the northern part of the site and a wide ride encompassing public footpath routes.							
1c	1.28	Ash	2000	Wood establishment	Very steep slope/cliff/quarry/mine shafts/sink holes etc	Informal Public Access	National Park, Site of Special Scientific Interest, Special Area of Conservation
Areas of former semi-improved permanent pasture planted with native broadleaved trees and shrubs during 2000. Planted species are hazel, hawthorn, blackthorn, elder, ash, crab apple, wild cherry, sessile oak and rowan. Planted trees are now being supplemented by regeneration, primarily of ash, oak, beech, sycamore, hazel and holly.							

## 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.