



COED CADW
WOODLAND
TRUST

Coed Ty'n y Coed

Management Plan 2017-2022

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 Consequently this printed version may quickly become out of date, particularly in relation to the planned work programme and on-going monitoring observations.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

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. 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

Site name:	Coed Ty'n y Coed
Location:	Barmouth
Grid reference:	SH645181, OS 1:50,000 Sheet No. 124
Area:	16.11 hectares (39.81 acres)
Designations:	Ancient Semi Natural Woodland, National Park, Planted Ancient Woodland Site, Special Area of Conservation

2.0 SITE DESCRIPTION

2.1 Summary Description

Tree species range from dominant sessile oak to sycamore, beech, cherry and Douglas fir. The oakwood becomes heather moorland with a fringe of younger trees upslope, and dry stone walls add a historical landscape feature to the site. Fantastic views.

2.2 Extended Description

Coed Ty'n y Coed is a prominent ancient woodland on a very steep and dry slope overlooking the Mawddach estuary, consisting predominantly of semi-mature to mature sessile oak (a typical "upland oakwood" habitat, the bulk of which is designated as part of the Meirionnydd Oakwoods & Bat Sites SAC). The main woodland block is fairly uniform, however, the wood is slightly more diverse, with some ash and pockets of sycamore and beech, in the extreme south near to the small block of tall and attractive Douglas fir planted in 1930. The under-storey is typically sparse and the ericaceous ground flora severely suppressed due to the dense oak canopy and a past infestation of Rhododendron, which was cleared in the 1990s. The control of the re-colonisation of rhododendron is still an on-going problem.

The woodland is gradually colonising the slopes above the established oakwood. This ever-expanding fringe is more diverse than the lower slopes, being less dominated by oak. Birch, Rowan, Sycamore, and ash are frequent with the occasional Scots pine. Both the shrub layer and the ground layer are more profuse.

Further upslope again, the woodland grades into heather moorland with scattered trees and pockets of younger woodland. The heather is very rank, intermixed with drifts of gorse, bilberry and bracken, and with scattered rowan, oak, birch and conifers from the plantation above. The woodland is bounded by dry-stone walls, some of which are in poor condition but typical of the local historic landscape.

Public access provision is confined to paths in the southern corner, including a new path to a seat and viewpoint with superb views over the estuary and towards the Cader Idris range. A second dedicated seat is provided in proximity to the parking and also offers excellent views.

The woodland is contiguous with a number of other woodland parcels, a mix of ancient semi-natural and restored ancient woodlands to the west, south and east, and a secondary conifer plantation - now partially clearfelled and regenerating with a mix of conifers and native species - to the north: it is located within the well-wooded Mawddach valley. Adjacent areas of heathland are rapidly being colonised by trees and shrubs on all sides, although some sheep grazing occurs on adjacent land, with occasional trespass.

Key features of the site are:

- Ancient Semi-Natural Woodland
- Semi-natural Open Ground
- Informal Public Access
- Feature Trees

3.0 PUBLIC ACCESS INFORMATION

3.1 Getting there

By car:

The nearest village is Bont Ddu and the woodland is located 1 ½ miles west of the village. Head westwards from Bont Ddu towards Barmouth on the A496. After a while you should see a junction on your right with signage for Caerdeon Outdoor Centre. Turn right up this dead end road and the woodland is situated immediately on the left hand side. Parking is at the timber loading area next to the main entrance, with enough space for four cars. There is no Bicycle Parking Post in the woodland.

There are two entrances open to the public. A wide squeeze gap next to the main entrance gate and a traditional stone stile on the western boundary wall. The public footpath, and the permissive footpath that leads on from the public footpath to the very upper part of the property is very steep, and is only advisable to the serious walker. There are truly majestic views from the top down the entire Mawddach estuary and towards Cadair Idris.

By public transport:

The nearest bus stop is at the junction with Caerdeon Hall and the A496, 200 metres away. It is found on route Number 94 (Barmouth - Dolgellau) or X94 (Barmouth - Dolgellau - Bala - Corwen - Llangollen - Wrexham - Chester). The nearest train station is Barmouth, 3 miles away, and is serviced by Arriva Trains Wales (Cambrian Coast Timetable).

The nearest Public Toilet is located on the Quay in Barmouth, 3 miles away, and the toilet is open all year round and has disabled facilities. Barmouth is also served by the national rail network.

<http://www.barmouth.com/> <http://www.barmouth-wales.co.uk/>
<http://www.barmouth.org.uk/>

3.2 Access / Walks

The wood is accessible from a minor road just west of Bontddu on the A496. After the village, look out for a sharp right hand turn signposted Plas Caerdeon, after a lefthand bend. There is parking in a layby on the left just after this right turn.

There is a limited unsurfaced footpath network. The footpath climbs from the main entrance through a squeeze gap. A permissive path is provided which follows a slightly easier gradient than the definitive right of way, which it rejoins before the public footpath route leaves the site over a stone stile in the western boundary. At this point there is a choice to continue up a steep climb on a permissive path to a bench and viewpoint offering stunning views over the Mawddach estuary and surrounding mountains.

See Traveline Cymru for the latest travel information. The nearest bus stop is at Farchynys Farm and is served by the T3 Wrexham to Barmouth service.

The nearest public toilets are located in Barmouth or Dolgellau.

4.0 LONG TERM POLICY

Coed Ty'n y Coed will in the long term comprise semi-natural upland oakwood high forest with a varied age structure and typical ground vegetation. A small number of specimen conifer will be present but non-natives will form less than 5% of the overall canopy and under-storey. There will be pockets of species diversity within the canopy and regeneration where ground conditions permit. Ground flora typical of upland oakwood (W17) will recover from its suppression under rhododendron and expand from current hotspots throughout compartments 1a and 2a. Invasive species will be rare or absent: control of these invasive exotics will be the main management intervention.

The existing Douglas stand will become a mixed woodland with a high broadleaved component (80%+), however, up to 20 specimen firs will be retained, developing to over-maturity where safe, with a cohort of younger trees selected to replace them as they reach senescence. This will retain the landscape value of these feature trees whilst ensuring the restoration of the ancient woodland site.

Patchy natural succession to native woodland will be accepted within the small heathland block. Heathland vegetation will persist in pockets on rocky outcrops and thin soils, in a mosaic with the woodland. Rhododendron will be ideally absent and non-native tree species will comprise less than 10% of the expanding tree cover in the compartment: some control of conifer and rhododendron will be required to achieve this.

Coed Ty'n y Coed will remain a secluded woodland attracting a relatively small number of visitors. Nonetheless, the existing footpath routes will be maintained and the wood will continue to offer good views across the Mawddach estuary to those willing to make the steep climb. Suitable improvements or extensions to the paths will only be considered in the case of significant upturn in public demand.

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 Woodland Site

Description

Compartment 2a is mapped on the 2011 inventory as ancient woodland (restored AWS) and comprises predominantly oak woodland, with birch colonisation into some areas. While the canopy is largely semi-natural and there is frequent broadleaved natural regeneration, past infestation by rhododendron has left the ground flora somewhat sparse (dominated by a relatively restricted moss flora) and re-invasion is an ongoing threat. (The RAWS designation is probably a result of the rhododendron history rather than any efforts at systematic plantation). Holly, hazel, rowan and honeysuckle are all present and regenerating.

Patches of more varied woodland exist to the margins of the oakwood, with some sycamore, willow, cherry and ash - alongside more bramble and ericaceous flora such as bilberry) in the understorey - tending to NVC type W10 (whereas most of the wood was probably more typically W17 pre-Rhododendron).

Throughout compartment 2a, the native composition is high (just a few scattered Scot's pine and beech occur, with occasional conifer and beech regeneration) and the woodland edge is expanding through strong natural regeneration, therefore it would be reasonable to regard most of the woodland as restored.

Compartment 1a comprises an area of planted mature Douglas Fir (under-planted with poor quality larch, which was removed in 2014-15) (compartment 1a), which, whilst not mapped as PAWS, it has been sensibly treated as such: in places there is now abundant regeneration of birch, oak, rowan, hazel, holly and sweet chestnut in the understorey. Operations in 2008 (followed by windblow in 2014) opened up the conifer canopy significantly and there is some ground flora response, although patches of bare ground still exist (possibly a relic of rhododendron infestation and dense shade). Despite patchy bramble, this area can now be regarded as secure and the majority of the remaining Douglas retained for the long term (see Feature Trees).

For this reason, the title of the feature has been changed from PAWS to ASNW, as this reflects the status of the majority of the woodland.

Significance

Upland oak woodland is listed in the UK and Snowdonia Biodiversity Action Plan (BAP) and is a European priority habitat, hence the site's designation as part of the Meirionnydd Oakwoods & Bat Sites SAC. The woodland habitat is also likely to be of value to a number of fauna groups including invertebrates and birds, especially in conjunction with the adjacent heathland. The woodland is also highly prominent in the landscape of the Mawddach estuary. Ancient woodland covers just 2% of the UK's land as yet is among our most biodiverse - and irreplaceable - habitats. The site lies within the Trust's South Snowdonia 'treescape' area.

Opportunities & Constraints

The terrain, access and slope angle restrict management options, however, they also ensure that much of the site remains relatively undisturbed. Neighbouring land is infested with rhododendron and the level of invasion threat will therefore depend on third party action or in-action; there is an appetite among various partners, however, for working together toward control on a landscape scale in the Mawddach area.

The site offers opportunities to test various hypotheses about the long term recovery of ground flora and natural regeneration following clearance of dense rhododendron, which could inform actions in the wider Treescape area.

Factors Causing Change

Reinvasion of rhododendron is a serious threat; continued control will be essential in the absence of eradication over a wider area. Active management is constrained by lack of access and very steep ground. Conifer regeneration is present but less of an immediate threat. The mature conifers have been thinned sufficiently to allow significant understorey development and new canopy recruitment: natural regeneration will be the main driver of change. Tree diseases and increasing stochastic weather events may also influence woodland composition over time.

Long term Objective (50 years+)

The wood should in the long term comprise semi-natural upland oakwood high forest with a varied age structure and typical ground vegetation. A small number of specimen conifer will be present but non-natives will form less than 5% of the canopy and under-storey. There will be pockets of species diversity within the canopy and regeneration where ground conditions permit. Ground flora typical of upland oakwood W17 will recover from its suppression under rhododendron and expand from current hotspots throughout compartments 1a and 2a. Invasive species will ideally be absent.

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

Oak regeneration, and that of other native broadleaves, will be frequent, particularly in glades originating from windblow or where rhododendron has been cleared. There will be a developing understorey in compartment 1a dominated by site-native species with only occasional conifer regeneration (the density of which will be controlled by pulling or cutting at least once in five years). Present ground flora 'hotspots' will remain robust and there will be gradual expansion of typical upland oakwood species. Across the site as a whole, conifers will be rare in the canopy (>5%), although specimen firs will be retained in 1a.

Rhododendron, while impossible to eradicate without concurrent activity on neighbouring land, will be kept at bay, being no more than occasional throughout the site, with a target of no flowering specimens: control will be achieved by pulling and with the help of volunteers where possible, although herbicide treatment will be required for larger specimens in less accessible locations. The Trust will continue to liaise with partners with the aim of tackling rhododendron issues collectively across the local landscape of the Mawddach. We will continue to monitor recovery of woodland flora following historic infestation.

The remnant features within the area of secure PAWS (cpt 1a) will remain robust and over the next 5-10 years, native regeneration will increase to the point where the site achieves >80% native composition and can therefore be classed as restored. Selective control of conifer regeneration to favour broadleaf may be required at least once in five years.

5.2 Semi Natural Open Ground Habitat

Description

Acid upland heathland with heather, patches of bilberry, western gorse and bracken occurs in compartment 2b. This was cleared of rhododendron in 2000, however, some re-invasion is apparent. The heather is very rank in places and susceptible to invasion by gorse and bracken, as well as succession to woodland, particularly in more sheltered dips with greater soil depth.

Significance

Heathland comprises a UK Biodiversity Action Plan (BAP) habitat. Upland heathland is a European priority habitat and a secondary feature of the SAC. The warm south-facing heathland habitat is also of value to a number of fauna groups including reptiles (common lizards are frequently seen), especially in conjunction with the adjacent woodland. The remnant heathland is part of an interesting habitat mosaic. Nightjars have been recorded nearby, although the black grouse population in the southern Rhinog area is thought to have been lost: a transitional scrubby mosaic, with scattered trees up to 15 years old, would be ideal for the species, although as woodland matures it may become less optimal for nesting.

Opportunities & Constraints

The relative isolation of the area from other similar habitat reduces the potential for sustainable restoration. Lack of management access to the sub-compartment limits possibilities for active intervention, and the difficult terrain within the area also constrains potential management strategies. Similar processes of woodland encroachment observed on adjacent 'ffridd' habitats suggest that there is a general trend for reducing grazing on such habitats locally and therefore it may not be realistic to contemplate grazing as a management technique.

Factors Causing Change

The threat of rhododendron re-invasion is on-going. Natural succession to woodland is occurring rapidly in parts of the compartment, with scattered trees establishing widely. Without grazing, the heather is also becoming rank and being invaded by bracken. There is some risk of fire during hot summers, although this is unlikely.

Long term Objective (50 years+)

In the long term, patchy natural succession to woodland, especially upland oakwood, will be accepted. Heathland vegetation will persist in pockets on rocky outcrops and thin soils, in a mosaic with young woodland. Rhododendron will be ideally absent and non-native tree species will comprise less than 10% of the expanding tree cover in the compartment.

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

Change in the extent of open ground will be assessed by comparison of aerial photographs as new images become available. Rhododendron will be no more than occasional, with a target of no flowering specimens: control can be expected to be required roughly every three years. The Trust will continue to work with partners on proposals to control the plant at a landscape scale. The expansion of non-native tree species will be controlled by ring barking where it exceeds 10% of new woodland cover within compartment 2b.

5.3 Informal Public Access

Description

A public footpath climbs through the south-western corner of the site from the main entrance, where an information board has been erected. A permissive loop off this path also exists and makes the climb less strenuous than the definitive line, which has been abandoned in places. A new path up to a seat in the heathland was created in 1997, from which viewpoint there are superb views. A second seat was more recently installed close to the car park, also offering views to Cader Idris. A third, older bench is located on the western boundary where the public footpath leaves the site over a stone step stile in the wall.

Significance

The site provides opportunities for walking within the National Park and offers fine views. It is easily accessible from the nearby Plas Caerdeon outdoor centre, although there is little evidence of extensive usage by the general public.

Opportunities & Constraints

Steep terrain limits the options for extension of the relatively short path network through the oakwood and heathland areas; the site's ancient woodland status should also constrain excavations within the woodland area. Public demand is limited due to its location outside settlements and its steep nature, although its secluded character is obviously appealing to some visitors (some of whom have chosen to dedicate benches).

Factors Causing Change

Usage patterns may change (for instance, exploration of footpaths by bikers) although the site is likely to remain quiet and not well-walked. Maintenance of the public footpath on adjacent properties is not within the Trust's control, affecting the possibility of circular walks.

Long term Objective (50 years+)

Coed Ty'n y Coed will remain a secluded woodland attracting a relatively small number of visitors. Nonetheless, the existing footpath routes will be maintained and the wood will continue to offer good views across the Mawddach estuary to those willing to make the steep climb. Suitable improvements or extensions to the paths will only be considered in the case of significant upturn in public demand.

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

Maintain current visitor access provision to a safe standard, including undertaking any tree safety work required. Ensure viewpoints remain clear.

5.4 Feature Trees

Description

Very attractive large Douglas firs in a small and accessible block (cp 1a) are a prominent feature in the local landscape. While the stand is generally treated as PAWS, a number of these tall specimen trees have been retained for their visual impact without detriment to the ancient woodland feature. Poor quality larch was cleaned from the stand in 2014 to favour the remaining Douglas and broadleaves.

Significance

The already large Douglas firs are an internal landscape feature and provides additional enjoyment to visitors. The retention of a small proportion of them will not be detrimental to expansion of the native woodland.

Opportunities & Constraints

Opportunity to retain specimens to overmaturity and recruit existing regeneration of firs to establish new specimens for the future, whilst at the same time extending the proportion of native woodland in the mixture, again by recruiting existing natural regeneration. Specimens will require careful management due to proximity to major road and consequent tree safety issues.

Factors Causing Change

Natural regeneration of trees; senescence of over-mature specimens; susceptibility to windblow evidenced by recent extreme weather events (especially 2014).

Long term Objective (50 years+)

The area will become a mixed woodland with a high broadleaved component (80%+), however, up to 20 specimen firs will be retained, developing to over-maturity where safe, with a cohort of younger trees selected to replace them as they reach senescence.

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

Up to twenty trees will be selected for long term retention. In the long term, those not selected could be extracted for timber where opportunities exist in local markets.

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	0.92	Douglas fir	1930	PAWS restoration	Management factors (eg grazing etc), Site structure, location, natural features & vegetation	Informal Public Access	National Park, Planted Ancient Woodland Site
<p>Predominantly mature Douglas fir of very fine form planted in 1930, with some poor European larch (selected out during a thin in 2014) and understorey of etiolated broadleaves (regeneration of oak, ash, sycamore and fir). While not confirmed PAWS, its features suggest it should be treated as such. Fringe of broadleaves around the margins including oak, beech, ash, holly and birch. Stacking bay on edge of minor road with short track leading into wood (both installed 1997); public and permissive footpaths off.</p> <p>Rhododendron was cleared and sycamore felled in 1997. Douglas fir thinned in 2008; significant windblow further thinned out the Douglas in the stand in 2014. Risk of rhododendron reinvasion from margins. This compartment is excluded from the SAC.</p> <p>The stand was assessed in 2017 as being secure, although the native composition still stands under 80%; some further natural regeneration would be needed to push it into the 'restored' category.</p>							
2a	11.03	Oak (sessile)	1930	High forest	No/poor vehicular access within the site, Very steep slope/cliff/quarry/mine shafts/sink holes etc	Informal Public Access	Ancient Semi Natural Woodland, National Park, Special Area of Conservation
<p>Semi-mature oak with birch. Typically rather uniform, however, some diversity in the south western corner, including ash and cherry, holly, rowan and some sycamore. Formerly under very dense rhododendron (cleared 1997-99) hence with a very impoverished ground flora, tending to mosses, ericaceous and other typical W17 species where present and now expanding. The mid-slope area across the whole of the site represents that which has been recently colonised by broadleaves from the lower slopes. This ever-expanding zone is more diverse than the lower slopes being less dominated by oak. Birch, Rowan, Sycamore, Ash are frequent with the occasional Scots pine. Both the shrub layer and the ground layer are more profuse. Public and permissive footpaths pass through the southernmost sector. Some conifer regeneration and rhody re-invasion evident from neighbouring zones. There are a number of mature beech trees and occasional regeneration of this species in the field layer. Classed as 'RAWS' on the most recent inventory (2011; presumably due to former rhody infestation).</p>							

2b	4.16	Oak (sessile)	1980	Min-intervention	Gullies/Deep Valleys/Uneven/ Rocky ground, No/poor vehicular access to the site, No/poor vehicular access within the site	Informal Public Access	National Park, Special Area of Conservation
<p>'Ffridd' type habitat, comprising acid heathland with heather, patches of bilberry and western gorse as well as extensive swathes of bracken. Invasion of scattered trees and shrubs, including spreading front of woodland from cpt 2a and patches of mature woodland in some of the lower-lying gullies. Warm south-facing aspect of some habitat value for reptiles and invertebrates. However its conservation value is limited by its isolated location from similar habitat. Cleared of rhododendron 2000. Heather very rank and susceptible to invasion by gorse, bracken and trees. Footpath to seat and viewpoint created 1997.</p>							

Appendix 2: Harvesting operations (20 years)

Forecast Year	Cpt	Operation Type	Work Area (ha)	Estimated vol/ha	Estimated total vol.
2020	1a	Coppice	0.90	6	5
2027	1a	Thin	0.90	44	40

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.