



COED CADW
WOODLAND
TRUST

Coed Glaslyn

Management Plan 2014-2019

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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 Consequently this printed version may quickly become out of date, particularly in relation to the planned work programme and on-going monitoring observations.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 Glaslyn
Location:	Llanerfyl
Grid reference:	SJ042069, OS 1:50,000 Sheet No. 125
Area:	11.22 hectares (27.73 acres)
Designations:	Ancient Semi Natural Woodland

2.0 SITE DESCRIPTION

2.1 Summary Description

Coed Glaslyn is an area of ancient semi-natural woodland, dominated by large mature sessile oaks with scattered mature Scots pine and birch trees. It is a fairly wet woodland and, due to its remote location, public paths are not maintained.

2.2 Extended Description

Coed Glaslyn comprises 11.2ha of woodland and valley mire, between Llangadfan and Llanfair Caereinion. The site slopes gently to the east and is on a plateau. The land surrounding the site is all grazed pasture, much of it runimproved to the West. There are several small forestry plantations nearby and one area of Ancient Semi Natural Woodland and Plantation on Ancient Woodland Site. There is a good network of footpaths and several areas of Access Land in the local area.

The land is abandoned wood pasture, fenced by the trust in 1986 and has many impressive ancient trees including Rowans, Birches and Oaks with huge diameters with new growth in-between.

The western, higher, parts of the site are a mosaic of ancient semi-natural upland oakwood and dense stands of bracken. The woodland is dominated by widely spaced large mature sessile oaks with scattered mature Scots pine and birch (downy and silver). Beech is locally dominant to the north. Younger birch and grey willow are locally abundant throughout. The field layer mainly comprises bracken, bramble, ivy, broad buckler-fern and creeping soft-grass while wet flushes support purple moor-grass, tufted hair-grass, soft-rush, jointed-rush, marsh thistle, creeping buttercup and sweet-grass.

The low-lying eastern side of the site comprises a shallow valley mire with peat overlying heavy clay with areas of birch-dominated wet woodland, dense stands of bracken, purple moor-grass dominated mire, rush-pasture, wet heath and three pools (created by the Woodland Trust in 1990). Birch and bracken are invading the open mire habitat.

Key features are:

- ancient semi-natural woodland
- valley mire with a range of habitats (wet woodland, mire, rush-pasture, wet heath and open water).

Although the site is open to public access and can be reached via a public footpath, its remote location (over 5km from the nearest village/town and away from public roads) means it is not well-used and no paths are maintained. The remote location creates plentiful wildlife spotting opportunities, especially birds and small mammals.

3.0 PUBLIC ACCESS INFORMATION

3.1 Getting there

Public access is along the public footpath running east to west to the south of the site but no paths are maintained within the site.

3.2 Access / Walks

4.0 LONG TERM POLICY

The main objective at this site is to maintain areas of ancient semi-natural upland oakwood and a mosaic of wetland habitats within the valley mire.

No management is likely to be required to maintain semi-natural woodland dominated by large mature oak (and beech). Although natural regeneration does not appear prolific, and may be inhibited in places by the dense bracken, it is considered likely to be sufficient to ensure continuity of patchy, open woodland throughout the upper western parts of the site.

The volume of deadwood will continue to increase as further mature trees die in situ and fall. The low levels of public visiting this site allows for the retention of all standing deadwood which is not always possible at sites with a higher recreation value.

Retention of the full range of wetland habitats will require intervention to maintain a balance of wet woodland and non-woodland habitats and to prevent bramble and scrub invasion over the entire area. A regime of light summer cattle grazing would ideally contribute to management of this part of the site (and is considered likely to benefit the areas of upland oakwood also), assisting bracken and scrub control and potentially reducing the overwhelming dominance of purple moor-grass over so much of the area, encouraging a more open and diverse sward. However it has not been possible to arrange this to date so periodic scrub clearance will be needed.

Although the public are welcome to visit the site, the remote location and level of visitor use does not justify provision of facilities for visitors.

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

The western, higher, parts of the site support patchy, open, ancient semi-natural upland oakwood which is included in the Ancient Woodland Inventory (though it has been partly modified in the past by planting of non-site-native species such as Scot's pine and beech). Widely spaced large mature sessile oaks (often stunted and twisted) dominate this woodland with scattered mature Scots pine and birch (downy and silver) and locally dense younger birch and grey willow. Mature beech is locally dominant at the northern end of the site including some large pollards. There are several standing and fallen dead trees of significant size and many of the mature trees support dead limbs. The shrub layer includes locally frequent birch, grey willow, rowan and holly (the latter especially to the north).

The field layer mainly comprises bracken, bramble, ivy, broad buckler-fern and creeping soft-grass with locally frequent wavy hair-grass, sweet vernal-grass, bluebell and wood sorrel (W10e/W11 NVC communities). Frequent flushes and waterlogged patches support tufted hair-grass, soft-rush, sharp-flowered rush, marsh thistle, purple moor-grass, creeping buttercup, common nettle, bittersweet, bog stitchwort, common marsh bedstraw and sweet-grass (local patches of W1 and W4 NVC communities). Bryophytes are abundant in both dry and wetter areas. There is scattered natural regeneration of birch and occasional oak, rowan and holly.

Significant open areas dominated by dense bracken with locally frequent bramble, creeping soft-grass and climbing corydalis, purple moor-grass, bluebell and soft-rush (W25 NVC community) are also present.

The woodland supports a range of bird species including pied flycatcher, redstart, buzzard, tree pipit and nuthatch.

Significance

The woodland is ancient and semi-natural with an abundance of large mature trees and standing and fallen large-diameter deadwood. Upland oakwood a priority habitat type in the UK BAP and subject to a UK HAP.

Opportunities & Constraints

Open areas are generally dominated by dense bracken which may be inhibiting natural regeneration. However, the open nature of the woodland is likely to benefit some species known to be present (eg: pied flycatcher, redstart) and will encourage the continued development of scattered open-grown trees. Low levels of natural regeneration will therefore be acceptable.

The lack of good management access is not a constraint where a minimum-intervention approach is considered desirable. Indeed, the remote location of the site, difficult access and low level of visitor use allow the retention of large volumes of standing deadwood with fewer safety issues than at other sites.

If light cattle grazing were introduced to maintain the wetland habitats (see below) this might also benefit the woodland (providing poaching is avoided). Light grazing might reduce the cover of bracken and bramble whilst encouraging grasses and the bryophyte community which are likely to have been more widespread and diverse when the site was grazed prior to purchase by the Woodland Trust. Provided the grazing intensity is controlled, sufficient natural regeneration would be expected to survive.

Factors Causing Change

Natural regeneration may be locally inhibited by the dense bracken stands, particularly in open areas., Many of the mature trees have died, some remaining standing, others fallen., The extent of bracken and bramble may have increased since grazing ceased at the site (following purchase by the Woodland Trust).

Long term Objective (50 years+)

Ancient semi-natural woodland dominated by an open, patchy canopy comprising mainly birch and oak. Large mature/over-mature trees (primarily oak and birch but with scattered Scot's pine and beech) will be frequent. The patchy shrub layer will comprise young birch, grey willow, rowan and holly. The field/ground layer vegetation will be characteristic of the W10/W11 NVC communities and the W1/W4 NVC communities in flushed/waterlogged patches. Bracken is likely to continue to dominate significant areas, but the extent and location of bracken-dominated habitat will fluctuate with woodland cover depending on natural regeneration and tree death. Retention of an open structure will benefit species such as pied flycatcher and redstart.

Standing and fallen deadwood will be abundant including frequent whole trees and large-diameter limbs.

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

A minimum-intervention approach will be adopted with active management only considered in the future if:

- (i) natural regeneration is insufficient to guarantee a woodland cover of around 50% comprising a patchy/open canopy of site-native species (in which case planting or fencing might be considered);
- (ii) if light grazing can be introduced to manage the valley mire this will be permitted within the upland oak wood, subject to monitoring of natural regeneration.

Regeneration need not be abundant but should be sufficient to provide an open/patchy future canopy of birch and oak.

5.2 Wet Woodland

Description

The low-lying eastern side of the site comprises a shallow valley mire on peat overlying heavy clay. This area supports a range of wetland habitats: to the north, and locally throughout, are areas of woodland, at least some of which may be ancient (parts shown the Ancient Woodland Inventory). Dense downy birch (locally sessile oak and/or grey willow) is dominant over purple moor-grass, soft-rush and broad buckler-fern with abundant mosses (Sphagnum species and Polytrichum commune) and bramble at the margins (mainly W4b/c NVC sub-communities).

Open habitat mainly comprises mire/marshy grassland overwhelmingly dominated by dense tussocks of purple moor-grass. Within the dense sward other species are often rare, though narrow buckler-fern, common sorrel and soft-rush are locally frequent and mosses (Sphagnum species and Polytrichum commune) form patches throughout (M25 NVC community). A tiny area of wet heath to the south of the site supports abundant purple moor-grass, hare's-tail cottongrass, cross-leaved heath, bilberry, cranberry, tormentil, wavy hair-grass, Sphagnum moss and occasional bog asphodel and western gorse.

The wettest areas, mainly alongside the small stream which runs through the valley mire, support rush-pasture dominated by sharp-flowered rush and soft-rush with frequent marsh violet, common marsh bedstraw, marsh willowherb, bog stitchwort, Yorkshire-fog and abundant Sphagnum mosses and Polytrichum commune mosses (M23 NVC community).

Three relatively large pools (linked by a small stream) were created by the Woodland Trust in 1990 within the mire. These acidic pools now support extensive open water and marginal rushes, bottle sedge and Sphagnum moss.

The margins of the valley mire are dominated by dense bracken. Bracken and scrub (and, locally, bramble) are invading the open habitats from the margins so that bracken and young birch are now locally dominant over the mire habitats.

The habitats are likely to be of high value to a range of vascular plants and invertebrates (including Odonata). Brown hare has been recorded (1998).

Significance

Together, valley mire habitats form a valuable, and relatively rare, habitat mosaic which complements the upland oakwood habitat. Several of the habitats present are priorities under the UKBAP including the wet woodland, heath, purple moor-grass and rush-pasture. The habitats present are likely to be of high value to a large number of invertebrate species.

Opportunities & Constraints

If left unchecked, bracken and birch (and bramble) invasion is likely to result in the loss of the open mire/heath habitats and a loss of biodiversity at the site. However, both birch and bracken invasion appear to be relatively slow on the waterlogged soils and therefore control of these may only be required periodically.

Ideally the mire would be managed through light summer cattle grazing. However, it is likely to prove difficult to find a willing grazier at this remote site. Surrounding pasture appears mainly or wholly sheep-grazed.

The pools created by the Trust in 1990 have developed naturally into attractive and valuable acidic, nutrient-poor open water habitat.

Factors Causing Change

The density of the purple moor-grass sward may have increased since grazing ceased at the site (following purchase by the Woodland Trust)., Bracken and birch are invading the mire habitats., The pools created by the Trust in 1990 have developed naturally into attractive and valuable acidic, nutrient-poor open water habitat.

Long term Objective (50 years+)

Valley mire with areas of wet woodland, open mire/rush-pasture, wet heath and open water (pools) all present, supporting a range of flora and fauna species typical of these habitats. Bracken and birch will be present at the margins (and in areas of retained wet woodland) but absent, or no more than sparse, within the open habitats. Ideally the valley mire would also be managed through light summer cattle grazing to enhance the structure and species-diversity of the sward - but this has not been achievable to date.

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

Minimal intervention of the site to allow wet woodland to mature. With the creation of new ponds to keep areas of open water, allowing existing ponds succession.

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	7.90	other oak spp		Min-intervention	Mostly wet ground/exposed site, No/poor vehicular access to the site, Sensitive habitats/species on or adjacent to site, Site structure, location, natural features & vegetation		Ancient Semi Natural Woodland
<p>This sub-compartment comprises the western/north-western part of the site which is dominated by ancient semi-natural upland oakwood, partly modified by planting (see key feature description). Widely spaced large mature sessile oaks dominate the canopy with scattered mature Scot's pine and variable densities of birch. Large mature beech are locally dominant to the north. There are also significant areas of dense open bracken particularly to the west where bracken dominates a wide (up to 50m) strip adjacent to the boundary wall.</p>							
1b	3.30	Birch (downy/silver)		Min-intervention	Mostly wet ground/exposed site, No/poor vehicular access to the site		Ancient Semi Natural Woodland
<p>This sub-compartment comprises the low-lying valley mire to the east of the site. This area supports a range of wetland habitats including wet birch-dominated woodland, purple moor-grass dominated mire, wet heath, rush-pasture (dominated by soft-rush and sharp-flowered rush) and open water (see key feature description). Bracken is dominant along the drier western and eastern margins and both bracken and birch are invading the open habitats so that in some areas birch and bracken now dominate the mire.</p>							

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.