



COED CADW
WOODLAND
TRUST

Coed Friog

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 Consequently this printed version may quickly become out of date, particularly in relation to the planned work programme and on-going monitoring observations.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 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 Friog
Location:	Fairbourne
Grid reference:	SH619129, OS 1:50,000 Sheet No. 124
Area:	2.97 hectares (7.34 acres)
Designations:	National Park

2.0 SITE DESCRIPTION

2.1 Summary Description

Coed Friog is characterised by gnarled and windswept oaks, and occupies a steep rocky knoll overlooking the Mawddach estuary. It is a prominent component of the local landscape and is a part of the south Mawddach woodland complex. There is no formal public access.

2.2 Extended Description

Coed Friog is characterised by gnarled and windswept oaks and occupies a steep rocky knoll with a western aspect overlooking the Mawddach estuary, being exposed to strong westerlies from the Irish Sea. It is a prominent component of the local landscape and is a part of the southernmost section of the south Mawddach woodland complex/continuum before the landscape opens out to the hillside and sea cliffs beyond. The topography of the woodland does not facilitate public access and Coed Cadw provides no formal public access infrastructure.

Coed Friog comprises a total of 3ha and is divided into 2 separate woodland blocks by a minor private lane, Ffordd y Bryn, which provides access to a number of residential properties. The smaller of the two woodland blocks is situated between Ffordd y Bryn and the A493. From the western boundary the ground rises steeply from a retaining wall to the A493. The gnarled scrub oaks on the rocky slopes are stunted by the sea winds. The slopes below Ffordd y Bryn are more open with bracken and bramble and scattered young sessile oak and thickets of blackthorn. Larger mature oaks are situated in the sheltered southern corner behind the adjacent properties. The larger woodland block to the east of Ffordd y Bryn is relatively inaccessible, bounded by steep rocky crags adjacent to the narrow lane. The southernmost tip extends to the A493 and is bounded by a low stone retaining wall. Mature sessile oak is the dominant canopy species among the rocks and crags with the occasional sycamore and a large mature beech on the level ground close to the road and entrance to the lane. At the top of the slopes the oaks are very gnarled and windswept. Within this second block is a grilled chamber and bricked-up chamber, possibly a remnant of previous buildings on the site.

The woodland is a typical upland oakwood, predominantly secondary in origin but adjoining ancient woodlands and including a small area mapped as ancient on the 2011 inventory (secondary woodland is the sole key feature of the site). It supports vegetation associated with W17b/c NVC types on the thin acid soils. Sessile oak is the dominant canopy species with occasional sycamore, birch, beech, rowan, hazel, blackthorn and ash are also represented. Holly is locally dominant in the shrub layer. Gorse is prominent at the top of the rocky slopes. The field layer supports abundant bramble, honeysuckle and ivy with moss species, some bluebell, wavy hair grass and sweet vernal grass. Heather is present on drier crags. There are significant numbers of young oak and the woodland is expanding into open patches of bracken.

3.0 PUBLIC ACCESS INFORMATION

3.1 Getting there

As a consequence of the steep and rocky terrain there is no formal public access to the site.

3.2 Access / Walks

4.0 LONG TERM POLICY

The existing upland oakwood habitat will be maintained and primarily comprise locally native species with sessile oak as the dominant canopy species. There will be a diverse woodland structure (favouring a range of woodland birds and animals) with a full range of locally native species and age classes, including veteran trees. Dead wood habitat will be abundant and standing or fallen timber will be retained in situ.

The woodland area will extend naturally with regeneration into open areas of bracken but substantial glades and canopy gaps will be maintained through natural processes and by management operations along wayleaves adjacent to houses and property boundaries. Gorse and scrub will be maintained to increase habitat diversity. Rhododendron is present in some of the neighbouring gardens, however, spread of invasive plants into the woodland will not be tolerated. The lack of management access or defined boundaries makes limited intervention the most appropriate strategy.

Tree safety obligations along the A493, Ffordd y Bryn and along boundaries with neighbouring properties will be met. As formal public access is limited by the topography of the site, tree safety work will be limited and there is the opportunity to retain trees with storm damage/structural defects for invertebrates and as potential bird nesting and bat roost sites. The grilled chamber and the bricked-up adit will be maintained to provide a potential bat roost site.

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 Natural Secondary Woodland

Description

An upland oak woodland with sessile oak the dominant species, Coed Friog is thought largely to be secondary woodland, although the 2011 inventory identified the southernmost tip as RAWs and the site adjoins other patches of ancient semi-natural woodland. The oaks, particularly on the upper slopes are stunted by salt winds and are prone to die back as they increase in height. Sycamore is present and some beech has regenerated from a mature specimen close to the entrance to Ffordd y Bryn, along with some sweet chestnut. Birch and rowan are also represented with infrequent ash, holly locally dominant in the understorey (cpt 1), thickets of blackthorn and the occasional hazel. Gorse is a prominent component (with occasional broom) on the upper slopes. Bracken and bramble dominate the field layer, honeysuckle is dense in places and with ivy is dominant over rocky crags. NVC types W17b/c are represented and field layer species include wavy hair grass, sweet vernal grass, a typical limited variety of moss species, male fern and common polypody, heather spp., occasional bilberry, wood sage, cleavers, herb Robert and pennywort common on rocky crags. Oak regeneration is establishing in open areas dominated by bracken and has been prolific forming dense thickets with gorse.

Significance

Upland oakwood is a UK and SNP Biodiversity Action Plan (BAP) and European priority woodland habitat. Locally native woodland species are represented. It is likely that the woodland is of value to a variety of fauna species; woodland bird species, evidence of badger noted, potential bat roost sites (tree cavities and grilled chamber/adit), suitable habitat for foraging bats (lesser horseshoe bats, a BAP species, recorded locally). The woodland is a prominent component of the local landscape.

Opportunities & Constraints

Steep and rocky terrain with limited access for management. Scrub oak and trees with structural defects (cavities, cracks) provide opportunities for invertebrates, woodland birds and bats). Electricity cables - trees and shrubs are managed in proximity to the cables (lv service line) - but this provides opportunities for coppice management and glades. Open areas of bracken, gorse and blackthorn scrub increase diversity. Neighbouring properties imply concerns regarding safety, garden escapes (e. g. *Crocsmia montbretia*), TV aerials etc.

Coed Friog adjoins other ancient woodlands so there is good potential for species colonisation and gene flow.

Factors Causing Change

Gardens escapes such as *Crocsmia* and *Rhododendron* will continue to be a threat to the semi-natural composition of field and shrub layers. Browsing may occur in the event of local deer population increases. Encroachment from neighbouring properties may be an issue. Slope stability above adjacent properties and roads may influence management decisions.

Long term Objective (50 years+)

The upland oakwood habitat will be maintained. Sessile oak will continue to be the dominant canopy species with a diverse mix of locally native trees and shrubs. Structural diversity will increase with a range of age classes including a significant proportion of old/veteran trees. Dead wood habitat both standing and fallen will be abundant. Natural regeneration will establish and gradually extend the woodland area but open glades will continue to exist where trees have fallen or where open habitats are maintained beneath overhead cables. The field layer will improve with a varied structure (bramble, honeysuckle and shrub species and typical mosses and vascular plants) reflecting W17 sub-communities. Invasive non-native species (especially rhododendron) will be eradicated promptly if they spread into the site.

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

There will be a regime of limited intervention other than where work is required to maintain safety or to control invasive species, the need for which will be monitored on an on-going basis. Under-storey regeneration especially oak will start to be recruited into the sub-canopy.

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	0.70	Oak (sessile)	1900	Min-intervention	Landscape factors, No/poor vehicular access within the site, Sensitive habitats/species on or adjacent to site, Services & wayleaves, Very steep slope/cliff/quarry/mine shafts/sink holes etc	Natural Secondary Woodland	National Park

The compartment is sandwiched in between the A493 to the west and Ffordd y Bryn to the east with the gardens to adjacent properties on the north-east and south-west boundaries. The northern boundary is fenced alongside steep cliffs to a disused open quarry. In the northern corner the oaks on rock outcrops are gnarled and stunted. Holly is the dominant understorey species. Honeysuckle is dense in places with ivy and pennywort on the rocky crags. Ground flora includes wavy hair grass, woodrush, moss species, fern species such as common polypody, bluebell and wood sage. Alongside the north eastern boundary garden refuse has been dumped and garden escapes (*Crocsmia montbretia*) are present. An overhead LV electricity service line crosses the compartment west to east. Bramble is dense in the clearing beneath the line. Further south the ground is still steep but it is less rocky. Mature oaks are the dominant species but sycamore and ash are also represented. A large old mature ash on the lower slopes is fairly close to the road. The central slopes below Ffordd y Bryn are bracken dominated with scattered young and semi-mature oak, the occasional hazel and thickets of blackthorn and some gorse. Nettle is abundant at the top of the slope, probably as a result of compost dumping. A public bench at the top of the slope adjacent to Ffordd y Bryn overlooks the estuary. In the sheltered southern corner is a group of large mature oaks. There is no formal public access.

2a	2.30	Oak (sessile)	1900	Min-intervention	Housing/infrastructure, structures & water features on or adjacent to site, No/poor vehicular access within the site, Sensitive habitats/species on or adjacent to site, Site structure, location, natural features & vegetation, Very steep slope/cliff/quarry/mine shafts/sink holes etc	Natural Secondary Woodland	National Park
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The compartment to the east of Ffordd y Bryn is characterised by steep sloping ground with rocky crags and outcrops. Sessile oak is the dominant canopy species with some sycamore. The larger trees are on the more sheltered and lower slopes to the south. Beech, birch and rowan are represented, with occasional sweet chestnut. Near the top of the slope and in the north-eastern corner the oaks are generally stunted and gnarled in character. Patches of dense oak regeneration and scrub interspersed with gorse create an impenetrable thicket. On level ground at the top of the slope are the remains of a stone building, partly overgrown with blackthorn scrub and gorse. There is some heather (*Calluna vulgaris*) and there are several anthills. Bramble and honeysuckle are dominant components of the field layer. The ground flora includes wavy hair grass and sweet vernal grass, wood sage, ivy, moss species and some bluebell. Natural regeneration includes sessile oak, rowan, birch, beech, sycamore, holly and the occasional Corsican pine.

There is no formal access. At the top of the slope several TV aerials from neighbouring properties have been attached to trees and there is evidence of occasional informal access. The area to the rear of properties along the north-western boundary is evidently utilised by the residents -vegetation has been cut back and daffodil planted. There is evidence of badger use. A concrete covered chamber has been grilled from above (to allow bat access) and access into it via an adit in the rock face above Ffordd y Bryn has been blocked.

The majority of the eastern Coed Cadw boundary is not easily discerned on the ground but generally it extends along the top edge of the rocky knoll. The eastern facing slope of the knoll is very steep and comprises woodland and private gardens not within the ownership of Coed Cadw. A substantial stone wall forms the north-eastern woodland boundary with a neighbouring garden. The site slopes down to gardens and Ffordd y Bryn to the west.

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.