



Upland Mixed Ashwood

Ash woodland is characteristic of limestone areas, such as around Morecambe Bay and the Orton Fells, where it replaces the oak woodland typical of other parts of Cumbria. Lancaster whitebeam only occurs around Morecambe Bay, where it is found on limestone cliffs and scree in open ash woodland.

Current status

The term upland ashwoods is used for woods on base-rich soils in the north and west of Britain, in most of which ash is a major species. The term "upland" reflects the abundance of this type of woodland on base-rich soils in upland Britain, rather than the altitude at which individual woodlands occur.

Upland ashwoods are found on base-rich soils throughout the uplands of north west Britain and Northern Ireland. In Cumbria, upland ash woodland is particularly concentrated on the limestones of Morecambe Bay (where it is locally extensive) and Orton Fells in the Cumbria Fells and Dales Natural Area, and parts of the North Pennines and Yorkshire Dales Natural Areas. Stands of ashwood on flushed base-rich soils, along gills and at the base of slopes within upland oak woods are covered by the Upland Oak Woodland Action Plan.

There are no precise data on the total extent of upland ashwoods in the UK, but the estimated total extent of ancient semi-natural woodland of this type is 40,000 to 50,000 ha. Nationally, upland ash

woodland has declined in area through clearance, overgrazing and replanting with non-native species, by about 30-40% over the last 50 years.

In Cumbria there are 15,593 ha of ancient semi-natural woodland (Phillips, 1994), an unknown proportion of which is upland ashwood. On the Morecambe Bay limestone this proportion may be about 90%, but in the other areas it will be much lower. There are no precise data for losses of upland ashwood in Cumbria, but Phillips (1994) gives figures of approximately 5% clearance of all ancient woodland and 37% replanting with conifers and other non-native species, between approximately 1920 and the mid 1980s.

There are four National Nature Reserves supporting upland mixed ash woodland in Cumbria. 34 Sites of Special Scientific Interest are notified for their upland mixed ash woodland. This habitat is included within the *Tilio-Acerion ravine forests and Taxus baccata woods* habitat types identified in Annex I of the EC Habitats Directive. In Cumbria, six SSSI fall within two candidate Special Areas of Conservation for this habitat.

Characteristic wildlife

Ash is the principal tree species, though oak can also be common. A notable feature of these woods is Lancaster whitebeam, which is endemic to the Morecambe Bay area. There is a prominent and varied shrub layer with hazel, field maple, spindle and buckthorn. The ground flora is very diverse and dog's mercury, wild garlic, primrose and herb robert are all common. Many scarce woodland flowers also occur, such as dark red helleborine and mezureum. Yew may form small groves in intimate mosaics with the other major tree species.

Upland mixed ashwoods harbour a rich invertebrate fauna and, when coppiced, are noted for butterflies, such as high brown fritillary. The dense shrub layer found in some examples provides suitable habitat conditions for dormouse.

Key species

The following rare or threatened species are associated with upland mixed ashwoods in Cumbria. Species were selected on the basis that they are UK BAP Priority Species (marked P) or species of County importance in Cumbria. Where species of County importance are also UK BAP Species of Conservation Concern, they are marked C.

pine marten	<i>Martes martes</i>	C
dormouse	<i>Muscardinus avellanarius</i>	P
Brandt's bat	<i>Myotis brandtii</i>	C
Natterer's bat	<i>Myotis nattereri</i>	C
noctule	<i>Nyctalus noctula</i>	C
red squirrel	<i>Sciurus vulgaris</i>	P
spotted flycatcher	<i>Muscicapa striata</i>	P
black grouse	<i>Tetrao tetrix</i>	P
song thrush	<i>Turdus philomelos</i>	P
northern wood ant	<i>Formica lugubris</i>	P
red wood ant	<i>Formica rufa</i>	P
high brown fritillary	<i>Argynnis adippe</i>	P
northern brown argus	<i>Aricia artaxerxes</i>	P
pearl bordered fritillary	<i>Boloria euphrosyne</i>	P
Duke of Burgundy	<i>Hamearis lucina</i>	C
a weevil	<i>Procas granulicollis</i>	P
oak bush-cricket	<i>Meconema thalassium</i>	
a fly	<i>Chirosia montana</i>	
a fly	<i>Suillia oxyphora</i>	
a fly	<i>Tachypeza heeri</i>	
tender slug	<i>Limax tenellus</i>	C

forester moth	<i>Adscita stacies</i>	C
barred tooth-stripe moth	<i>Trychopteryx polcommata</i>	P
square spotted clay moth	<i>Xestia rhomboidea</i>	P
sword grass moth	<i>Xylena exsoleta</i>	P
white-egg bird's-nest fungus	<i>Crucibulum laeve</i>	
a fungus	<i>Hapalopilus rutilans</i>	
a fungus	<i>Lentinellus ursinus</i>	
hedgehog puffball	<i>Lycoperdon echinatum</i>	
a lichen	<i>Lobaria amplissima</i>	
a lichen	<i>Ramonia nigra</i>	
a liverwort	<i>Lepidozia cupressina</i>	
a liverwort	<i>Plagiochila killarniensis</i>	C
a moss	<i>Antitrichia curtispindula</i>	
a moss	<i>Sematophyllum micans</i>	
juniper	<i>Juniperus communis</i>	P

Best management practice

Upland ash woodlands are often unmanaged and in many circumstances this is not detrimental to their nature conservation interest. However, where they are managed, or where the introduction of management is being contemplated, a number of factors should be taken into consideration:

- Upland ash woodlands are highly susceptible to damage by heavy machinery, and wherever possible a low impact approach should be taken to management.
- Many upland ash woodlands have been traditionally managed as coppice, and this is generally more appropriate than high forest. Coppicing is often important to maintain the rich field layers and invertebrate populations, particularly butterflies, associated with this woodland type.
- Moderate to heavy grazing is detrimental to woodland ground flora and inhibits natural regeneration of trees. Grazing stock should generally be excluded; however occasional light grazing may be acceptable.

Current issues

Losses of upland ashwoods through clearance and replanting is not seen as a major issue at present, but has been in the past. The main current factors affecting the habitat are, in order of importance:

- Uncontrolled grazing by and feeding of stock throughout much of the range of woods.

- Uncontrolled grazing by deer throughout much of the range of woods.
- Invasion by non-native species.
- Unsympathetic forest management, including cessation of coppice management and neglect.
- Previously introduced non-native species within these woodlands continue to have a detrimental effect.
- Pheasant-rearing, causing enrichment of ground flora.
- Development pressures, such as caravan sites and quarrying.
- Effects of air pollution and climate change, especially on lichen and bryophyte communities.

Current action

Regulatory framework

Those applicable to Cumbria include national policies and regulations such as the England Forestry Strategy and forest guidelines, felling licences, Wildlife and Countryside Act, Habitats and Species Regulations, but also local authority Structure and Local Plans (which contain policies for the protection of ancient semi-natural woodland).

Challenge Fund

A Forestry Commission/National Park Authorities partnership to promote and grant-aid new native woodland in National Parks. The Forestry Commission has also operated similar grants to encourage coppicing for butterflies, targeting the Morecambe Bay Limestone area.

Native Woodland Initiative

A national concordat between Forestry Commission and National Park Authorities to promote sympathetic management and expansion of native woodlands.

LIFE funding

An application has been made to fund appropriate management of limestone pavement (some of which is wooded) in the Morecambe Bay Pavements cSAC.

Forest Enterprise Habitat Action Plans

Forest Enterprise has produced and is now implementing a Habitat Action Plan for Limestone Pavement (some of which is wooded).

Forestry Commission Heritage Lottery Fund Bid - Our Native Woodland Heritage

A partnership bid to improve, restore and expand semi-natural woodlands. Cumbrian Projects have been included within the bid.

Grant aid and advice

The main grant source is the Forestry Commission's Woodland Grant Scheme, including the Farm Woodland Premium Scheme. Other grants are available from the Lake District and Pennine Dales Environmentally Sensitive Areas schemes, Lake District National Park Authority, English Nature (only SSSIs) and Countryside Stewardship scheme.

Advice is available from the above organisations, Cumbria Broadleaves and East Cumbria Countryside Project. The Forestry Commission also publish guidance on the management of semi-natural woodlands, specifically Forestry Practice Guide No 4 *Upland Mixed Ashwoods*.

Survey and evaluation

English Nature and others (e.g. Lake District National Park Authority, Forestry Commission and East Cumbria Countryside Project) carry out limited survey and monitoring programmes that can be used to contribute towards knowledge of the extent and condition of the upland mixed ashwood resource.

Management

Many upland ash woodlands, particularly those in nature reserves, are under appropriate management regimes, such as long term coppicing rotations.

Context in relation to other plans:

UK Habitat Action Plans

There is a UK Biodiversity Action Plan for upland mixed ashwoods in the UK Biodiversity Group Tranche 2 Action Plans Vol. 2 (1999), which sets the following UK objectives and targets:

- Maintain the current extent of ancient semi-natural woodland (considered to be 40,000 to 50,000ha) and the total extent and distribution of upland mixed ashwood.
- Initiate measures intended to achieve favourable condition in 100% of upland mixed ashwoods within the SSSI/ASSIs and Special Areas of

Conservation, and in 80% of the total resource by 2004, and achieve favourable condition over 70% of the designated sites and 50% of the total resource by 2010.

- Initiate restoration to upland mixed ashwood cover of at least 2,400 ha. Complete restoration to site-native species over half this area by 2010 and all of it by 2015.
- Initiate colonisation or planting of 6000 ha of upland mixed ashwood on un-wooded or ex-plantation sites. Complete establishment of half of this by 2010 and all of it by 2015.

National Lead Agency

Forestry Commission.

Local contacts

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Associated plans in the Cumbria BAP

The following Cumbria species/habitat action plans are of relevance to upland mixed ashwood:

Phase I

- upland oak woodland
- wet woodland
- limestone pavement
- ancient and/or species-rich hedgerows
- red squirrel
- pearl-bordered fritillary
- high brown fritillary
- netted carpet moth
- juniper
- song thrush
- bats

Phase II

- parkland, wood pasture and veteran trees
- scrub communities (other than juniper)
- black grouse
- red wood ant
- dormouse

References

Phillips, P.M. 1994. *Cumbria inventory of ancient woodland (provisional)*. English Nature. Peterborough.

Objectives, targets and proposed actions for upland mixed ashwoods in Cumbria

Broad Objective A

Maintain the current extent and distribution of upland ashwood in Cumbria

Operational Objective	Action Required	Suggested organisational involvement	Time-scale	Type
I Ensure planning, forestry management and other legislative mechanisms protect existing areas of upland mixed ashwood	1 All new Woodland Grant Schemes and Forest Design Plans to include provisions for maintaining existing areas of upland mixed ashwood.	FC, FE	O	SS
	2 Consider the need to designate further upland mixed ashwoods in Cumbria as SSSI, by 2004.	EN	M	SS
	3 Identify as Wildlife Sites the most important areas for wildlife in the County outside of statutory sites, including areas of upland mixed ash woodland, by 2006.	CWT, LAs	L	SS

Broad Objective A		Maintain the current extent and distribution of upland ashwood in Cumbria			
Operational Objective	Action Required	Suggested organisational involvement	Time-scale	Type	
2 Refine knowledge on the extent and status of existing upland mixed ashwood	1 Produce a computerised inventory of designated and other significant upland ashwood sites in Cumbria, to show amounts of woodland designated, in conservation management, and their condition (based on the national FC inventory). By 2002.	FC, EN, LDNPA, CWT	M	RM	

Broad Objective B		Ensure favourable condition of upland mixed ashwoods in Cumbria			
Operational Objective	Action Required	Suggested organisational involvement	Time-scale	Type	
1 Initiate measures intended to achieve favourable condition in 100% of upland mixed ashwoods within the SSSIs and SACs by 2004, and achieve favourable condition over 70% of these sites by 2010	1 Target Woodland Grant Schemes and Forest Design Plans to bring SSSI upland mixed ashwoods into conservation management.	FC, FE, EN	O	SS	
	2 Complete Site Management Statements on SSSI not in management/grant schemes by 2004.	EN	M	SS	
	3 Implement FE limestone pavement/ashwood management plans.	FE, EN	O	SS	
2 Initiate measures intended to achieve favourable condition in 80% of the total resource by 2004, and achieve favourable condition of 50% of the total resource by 2010	1 Target Woodland Grant Schemes and Forest Design Plans to bring significant non-SSSI upland mixed ashwoods into conservation management.	FC, EN, CWT, LDNPA, CB, ECCP, MAFF FWAG	O	SS	
	2 To seek to extend the period and eligible area of the Coppice for Butterflies Challenge Fund (to include Orton Fells as well as Morecambe Bay Limestones).	FC	S	PL	
	3 Implement FE limestone pavement/ashwood management plans.	FE	O	SS	
	4 Ensure favourable condition of all upland mixed ashwoods owned by statutory agencies and NGOs by 2010.	FE, CWT, NWW, RSPB, LDNPA, EN, NT, ECCP	L	SS	

Broad Objective B		Ensure favourable condition of upland mixed ashwoods in Cumbria		
Operational Objective	Action Required	Suggested organisational involvement	Time-scale	Type
3 Monitor the extent and condition of upland mixed ashwoods in Cumbria, so that the effects of conservation management can be judged	1 Monitor and report on the condition of upland mixed ashwoods in sites under conservation management every 6 years, and make information widely available in a useful format.	EN, CWT, LDNPA, FC, NT, NWW, RSPB, ECCP	O	RM
	2 Use the National Inventory of Woodland and Trees to report on the current condition of upland mixed ashwoods, and make the results widely available. By 2001.	FC	M	RM
4 Foster understanding and best management practice for upland mixed ashwoods in Cumbria	1 Hold 4 demonstration events at "best practice" sites throughout Cumbria. By 2001.	FC, EN, LDNPA, NWW, CB	S	A
	2 Provide advice on the use and marketing of products from upland mixed ashwoods.	FC, CB	O	A
Broad Objective C		Increase the area of upland mixed ashwood in Cumbria		
Operational Objective	Action Required	Suggested organisational involvement	Time-scale	Type
1 Initiate restoration and re-creation of 1600 ha of upland mixed ashwood in Cumbria (see below). Complete restoration or establishment of over half this area by 2010 and all of it by 2015	1 Prepare and implement a plan for identifying priority areas for creating new upland mixed ashwoods in Cumbria (avoiding existing areas of significant nature conservation and archaeological interest). By 2002.	EN, FC, LDNPA, CWT, RSPB, ECCP, CB, NWW	M	RM
	2 Instigate restoration of woodland in limestone pavement sites through implementation of FE/EN site management plans.	FE	O	SS
	3 Identify opportunities to create and restore upland mixed ashwoods within existing and future Forest Design Plans and Woodland Grant Schemes.	FC	O	SS
Natural Area Targets: Cumbria Fells and Dales: 500ha Solway Basin: 50ha Eden Valley: 50ha Border Uplands*: 350ha North Pennines*: 250ha Yorkshire Dales*: 350ha				
* these areas and figures are shared with other counties				

Broad Objective C Increase the area of upland mixed ashwood in Cumbria

Operational Objective	Action Required	Suggested organisational involvement	Time-scale	Type
	4 Extend the period and eligible area of the new native woodland challenge fund scheme (to include all of Morecambe Bay Limestone area, Orton Fells, North Pennines, and Yorkshire Dales). By 2005.	FC	S/M	PL
	5 Introduce a new funding scheme targeted towards restoration of existing upland mixed ashwoods in Morecambe Bay Limestone Area, Orton Fells, North Pennines, Yorkshire Dales and Lake District. By 2005.	FC	S/M	PL

Key to Tables

Suggested organisational involvement: Key Deliverers in bold type; Partners in plain type.

CB = Cumbria Broadleaves; CCC = Cumbria County Council; CWT = Cumbria Wildlife Trust;

ECCP = East Cumbria Countryside Project; EN = English Nature; FC = Forestry Commission;

FE = Forest Enterprise; LAs = Local Authorities; LDNPA = Lake District National Park Authority; MAFF =

Ministry of Agriculture, Fisheries and Food; NT = National Trust; NWW = North West Water Limited;

RSPB = Royal Society for the Protection of Birds.

Timescale: O=ongoing; S=short term (2000-2001); M=medium (2002-2005); L=long (2006-2010).

Type: Type of action; PL=Policy & Legislation; SS=Site Safeguard & Management; SP=Species Management and Protection (species plans only); A=Advisory; RM=Research & Monitoring; CP=Communications and Publicity.