

UPLAND MIXED ASHWOODS

Nationally

The term upland mixed ashwoods is used for woods on base-rich soils in the north and west, in most of which ash is a major species, although locally oak, birch, elm, small-leaved lime and even hazel may be the most abundant species. Yew may form small groves in intimate mosaics with the other major tree species and alder may occur where there are transitions to wet woodland. Despite variations in canopy



Cressbrook Dale © Karen Shelley-Jones

composition the ground flora remains broadly similar. Upland in the name reflects the abundance of this type of woodland on base-rich soils in upland Britain rather than to the altitude at which individual sites occur - some, such as Rassal Ashwood, are only just above sea level.

The largest examples occur on limestone, i.e. well-drained, base-rich soils, but the type is also found on more acid poorly-drained soils where there is flushing of nutrients. Often these latter are just small fragments of woodland with irregular margins or narrow strips along flushes, riparian tracts, outcrops and steep banks. Most upland mixed ashwoods are probably ancient, but ash is a vigorous colonist of open ground, and some important areas such as Derbyshire Dales are mosaics of ancient and recent ash woodland. Many woods have been treated as coppice in the past, others have been wood-pastures, but most now have a high forest structure.

They are found throughout upland Britain and in Northern Ireland, though they are limited in the northwest Highlands. The boundaries between this type and lowland mixed deciduous woodland may be unclear in places, for example in Somerset and South Wales, because the two types form an ecological continuum determined by climate. In South Wales and the Wye Valley, upland ashwoods may also merge with beechwoods on base-rich soils.

Mixed ashwoods are amongst the richest habitats for wildlife in the uplands, notable for bright displays of flowers such as bluebell *Hyacinthoides non-scripta*, primrose *Primula vulgaris*, wood cranesbill *Geranium sylvaticum* and wild garlic *Allium ursinum*. Many rare woodland flowers occur mainly in upland ashwoods, such as dark red helleborine *Epipactis atrorubens*, Jacob's ladder *Polemonium caeruleum*, autumn crocus *Colchicum autumnale*, and whorled Solomon's seal *Polygonatum verticillatum*. Some rare native trees are found in these woods, notably large-leaved lime *Tilia platyphyllos* and various whitebeams (*Sorbus* spp.). Upland mixed ashwoods also harbour a rich invertebrate fauna, which may include uncommon or declining species. The dense and varied shrub layer found in many examples can in the southern part of the types range provide suitable habitat conditions for dormice *Muscardinus avellanarius*. The alkaline bark of old ash (and elm where it still survives) supports an important lichen flora, particularly the Lobarion community. The remains of dead trees such as old elm trees provide habitat for rare beetles, flies and other invertebrates.

**Extent in UK:
90,128 ha**

In the Peak District

Ash is widespread on the heavier calcareous soils of the English Midlands. However, it is dominant only on steep dalesides in limestone areas, notably the Mendips, Southern Pennines (Peak District), West Yorkshire and North Lancashire. The Peak District sites (restricted to the White Peak Natural Area) are the largest examples of this habitat in Great Britain and hold populations of nationally rare species. They are of international importance, being listed as a priority habitat in Annex 1 of the European Union Habitats Directive where these woods are described as *Tilio-Acerion* ravine forests.

Due to gradual clearance for agriculture, the former extensive woodland cover of the White Peak has declined over many centuries to a point where virtually all ancient woodland is restricted to the steeper and more inaccessible dalesides. Following enclosure and improvement of the plateau in the 18th and early 19th centuries, grazing pressure on the dales relaxed, leading to the expansion of semi-natural ash woodland. Former quarries and mining areas have also re-colonised with secondary ash woodland. The area of woodland has thus been increasing over the last 200 years and is probably still continuing, so that many dales comprise a mosaic of ancient and more recent ash woodland. Apart from inappropriate grazing in a minority of sites, ash woodland is under relatively little threat in the Peak District.

Many of the older ash woodlands would have traditionally been managed as coppice for turning, tool handles, firewood or charcoal, or as high forest for planking or furniture making, from medieval times through to the industrial revolution. As other materials and cheap quality timber imports became readily available their utilisation declined. Former management has left many sites with a lack of veteran trees and dead wood.

Upland ashwoods are amongst the richest habitats for wildlife in the uplands, supporting a wide range of wildlife of national importance including small and large-leaved lime, mezereon and lily-of-the-valley, and an outstanding invertebrate fauna including white-spotted pinion moth, barred toothed-stripe moth and the lemon slugs. More common, but equally characteristic, species include field maple, dog's-mercury and brome grasses. Particularly fine examples of upland ashwoods include Dove Dale, Cressbrook Dale, Lathkill Dale, the Hamps and Manifold Valleys, the Wye Valley, Matlock Woods and the Via Gellia Woods.



The White Peak ashwoods often form part of extensive areas of semi-natural vegetation in the limestone dales with transitions to other important habitats. These include calcareous, acid and neutral grassland, heath, scrub, rock faces, lead rakes, scree and a scatter of remnant oak/birch woodland on the dale brows, and wet alder woodland along the valley floors.

This diversity of habitat also contributes significantly to the landscape and recreational value of the White Peak Natural Area. There are very limited opportunities for silvicultural management for economic gain on most sites since the ground is largely inaccessible to vehicles, with steep and often rocky slopes.

**Extent in PD:
965 ha**

Current Factors Affecting the Habitat & Habitat Condition

- Colonisation by non-native species, particularly the regeneration of sycamore and beech in some areas.
- Dutch elm disease affected the structure and composition of many woods since the 1970s, reducing tree diversity and reducing the food source for some significant species such as the white-letter hairstreak butterfly.
- There is limited scope for habitat expansion due to the conservation value of adjoining habitats such as calcareous grassland and species-rich scrub in the dales.

Recent Work

Recent management work in the dale ashwoods was conducted through the Ravine WoodLIFE project, an EU funded programme of survey, landowner liaison, and management. As a result of the project more is known about the structure and composition of the ash woodlands, and there is a greater understanding of management practices. and their benefits for wildlife, including thinning and creation of standing deadwood.

Future management efforts are likely to concentrate on maintaining the species diversity of the existing ash woodlands; conserving the mosaic of associated habitats in the dales; and consideration of expanding woodland over the dale brows onto the limestone plateau.

Associated BAP Species in the Peak District

Dormouse	<i>Muscardinus avellanarius</i>
Barred tooth-striped moth	<i>Trichopteryx polycommata</i>
White-spotted pinion moth	<i>Cosmia diffinis</i>
Bird`s-nest	<i>Monotropa hypopitys</i> subsp. <i>Hypophegea</i>
Fly orchid	<i>Ophrys insectifera</i>
Yellow Bird`s-nest	<i>Monotropa hypopitys</i>

Locally Significant Species in the Peak District

Mezereon *Daphne mezereum*

NVC Communities

The principal vegetation types (and their associated sub-communities) included in this habitat are:

W8 - *Fraxinus excelsior* - *Acer campestre* - *Mercurialis perennis* woodland (sub-communities d) *Hedera helix*, e) *Geranium robertianum*, f) *Allium ursinum*, and g) *Teucrium scorodonia*)

W9 - *Fraxinus excelsior* - *Sorbus aucuparia* - *Mercurialis perennis* woodland

W13 - *Taxus baccata* woodland (for the yew groves on the Carboniferous and Magnesian limestones)

Less frequent sub-communities that may occur in mosaic with the above are the relatively dry alder- ash stands W7c and the more southerly and eastern sub-communities of W8 (a-c).