



# UK Biodiversity Action Plan Priority Habitat Descriptions

## Lowland Beech and Yew Woodland

**From:**

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The definition of this habitat remains unchanged from the pre-existing Habitat Action Plan (<https://webarchive.nationalarchives.gov.uk/20110303150139/http://www.ukbap.org.uk/UKPlans.aspx?ID=2>), a summary of which appears below.

Lowland beech and yew woodland spans a variety of distinctive vegetation types reflecting differences in soil and topographical conditions. Beech can grow on both acidic and calcareous soils, although its association with yew tends to be most abundant on the calcareous sites. These woods have been managed historically as coppice, coppice with standards, wood-pasture, high forest and minimum intervention. They are often found as intricate mosaics with other woodland communities. The wood-pasture and parkland element is dealt with in another Habitat Action Plan, although some of the issues apply to this plan also. Yew stands on the Carboniferous and Magnesian limestones of central and northern Britain are considered under the upland mixed ashwood plans.

In the United Kingdom, beech is considered native only in southern England and southern Wales. Beech would certainly have spread naturally to other areas of the British Isles had forest fragmentation not impeded its progress. This Habitat Action Plan largely considers lowland beech and yew woodlands within their native range, but long-established planted beech woods outside the native range are included where they have acquired a high nature conservation value.

There are no precise data on the total extent of native lowland beech and yew in the UK. In the late 1980s the Nature Conservancy Council estimated the total extent of ancient semi-natural woodland of this type at between 15,000ha and 25,000ha, which with recent beech woodland brings the total area to about 30,000ha. It has declined in area by clearance and replanting with non-native species over the last 50 years.

Calcareous beech and yew woodland forms perhaps 40% of the total amount of lowland beech and yew habitat type defined above. The canopy can include mixtures of beech, ash, sycamore (non-native), yew and whitebeam. Oak is less common than in the other beechwoods, and pure stands of yew occur in places. Promotion of high quality beech for silviculture has often led to an artificial dominance of beech. Characteristic uncommon or rare plants can include box *Buxus sempervirens*, red helleborine *Cephalanthera rubra*, coralroot bitter-cress *Cardamine bulbifera*, and bird's nest orchid *Neottia nidus-avis*. In some areas, this woodland type occurs as intricate mosaics with lowland mixed deciduous woods. The majority of stands have a high forest structure. This type occurs on the limestone and chalk outcrops in southern Britain, for example chalk scarps of the North and South Downs, the Chilterns and the Cotswolds.

Beech woodland on neutral-slightly acidic soils comprises about 45% of the habitat. It is found on heavier soils (pH 7 to 4) and often where the drainage is poor or impeded. The boundary with the other beech types is often defined by pH, drainage and soil texture; thus it is common to find this type grading into one of the others. Again stands tend to be dominated by beech, but oak *Quercus robur* and sometimes *Q. petraea* is a common associate. Bramble *Rubus fruticosus* forms a characteristic ground layer. Often a shrub layer is lacking, although holly can form a second tier of trees, occasionally with yew. Violet helleborine *Epipactis purpurata* is a rare plant found in this community. Mosaics with oak/bracken/bramble woodland are common, and in some areas beech can be found colonising western oakwoods. This type tends to occur as high forest or relict wood-pasture (with pollards), less often abandoned coppice. It is common in (but not confined to) the High and Low Weald, the Chilterns plateau, the New Forest, the Cotswolds and the Wye Valley.

Acidic beech woodland forms the remaining 15% of the habitat type. It usually occurs as high forest but also makes up a large percentage of the lowland wood-pasture sites in England. Acidic beech stands are usually found on light sandy or sometimes gravelly soils that are well drained (pH 3.5 to 4.5). Holly is the main understorey species, less often yew, with oak being the common canopy associate. Mosaics with oak/ birch/ wavy-hair grass communities are not uncommon. The western edge of its range is ill-defined and beech clearance from and spread into western oakwoods occur in almost equal measure. Typical sites are found in the High Weald (on Greensand), Hampshire and London basins, the Chilterns plateau and at a few sites in East Anglia.

The main corresponding National Vegetation Classification (NVC) plant communities associated with this habitat type are W12 *Fagus sylvatica-Mercurialis perennis* woodland (base-rich soils), W14 *Fagus sylvatica-Rubus fruticosus* woodland (mesotrophic soils), W15 *Fagus sylvatica-Deschampsia flexuosa* woodland (acidic soils). Yew stands fall into W13 *Taxus baccata* woodland.