

The Landscape Character of Derbyshire

PART THREE - LINKING LANDSCAPE CHARACTER TO BIODIVERSITY

Introduction

In 1994 the UK Biodiversity Action Plan (BAP) set out priority habitats and species that required protection. Local BAPs have since been produced to meet targets for habitat and species protection specific to local areas. There are two Biodiversity Action Plans (BAPs) covering Derbyshire:

- Peak District BAP - <http://www.peakdistrict.gov.uk/looking-after/biodiversity/biodiversity-action-plan>
- Lowland Derbyshire BAP - <http://www.derbyshirebiodiversity.org.uk/lbaps/lowland-derbyshire.php>

The National Forest also has its own BAP, linked and produced in conjunction with the three county BAPs the Forest covers. Where the National Forest is located in Derbyshire the BAP reports its outcomes via the Lowland Derbyshire BAP.

- National Forest BAP - www.nationalforest.org/forest/nature/action/latest.php

These set out priority habitats and associated species that require protection. They have also set specific targets for the conservation and enhancement of existing habitats and future expansion of priority habitats.

The Derbyshire Landscape Character Assessment has identified, for each of the Landscape Character Types, the habitats that naturally occur in these areas and the potential for protection and expansion of these habitats.

This information can be used by a variety of interest groups including developers, planners, foresters and wildlife groups when considering the appropriateness of particular developments, woodland planting and habitat creation schemes in a specific area. The information is laid out in tabular form to represent BAP priority habitats in a particular landscape type. The description of the habitats should be read in conjunction with the relevant BAP Action Plan. The names and definitions have been tailored to meet the Derbyshire and Peak District situation. In some instances where there are close associations, several habitats have been grouped under one habitat title.

Habitat Descriptions

Woodland:

• Deciduous Woodland

In this context Deciduous Woodland comprises of:

- **Ancient Woodland** (Semi-natural and Plantations on Ancient Woodland Sites) which are remnants of the original forests that developed after the last glacial period 10,000 years ago through natural regeneration and have never been cleared, or have been re-planted.

- **Secondary Woodland** which has been developed from natural colonisation within the last few centuries. Such woodlands tend to have fewer species of plants and animals than ancient woodland through lack of time for associated woodland species to colonise from surrounding woodlands or because they are isolated. However, sometimes where these woodlands occur next to ancient woodland, species diversity can be higher because of the connectivity between the two.

- **Recently Planted Woodland** where the composition is at least 80% of native species.

- **Upland Mixed Ashwoods** Ash is widespread on the heavier calcareous soils of the East Midlands. However, it is dominant only on steep dalesides in limestone areas. 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. Upland ashwoods are amongst the richest habitats for wildlife in the uplands, supporting a wide range of wildlife of national importance. Former management by coppicing has left many sites with a lack of veteran trees and dead wood.

- **Upland Oakwoods** are largely confined to the Dark Peak and Peak Fringe, associated with cloughs and valley-sides where it is the main woodland type, with particular concentrations along the valley of the River Derwent. Many oakwood sites contain small fragments of wet or ash woodland along flushes and on the lower slopes and clough bottoms. This woodland type, where it occurs in Derbyshire, is at the south-eastern edge of its British range. The interface between woodland and moorland is of particular wildlife and

landscape value, providing an important habitat for birds such as nightjar and tree pipit. In addition to their wildlife value, oak/ birchwoods are often of considerable landscape importance and ancient woodland sites in particular may show features of archaeological/historical significance such as charcoal pits.

- **Wet Woodland**

Wet woodland or Carr is woodland that has developed in a location where the water table is permanently high, mainly associated with floodplains and low-lying terraces or river systems. The dominant tree species found in wet woodlands are those that can tolerate poorly drained soils, such as crack willow, willow, alder and birch.

- **Wood Pasture and Parkland**

This habitat has its origins in earlier landscapes such as medieval or hunting forests, deer parks, parks associated with large country houses or estates and old pastures or commons with trees on them. Trees in parklands are often a mixture of native species and species that were planted about 200 to 300 years ago when it was fashionable to collect exotic plants and landscape large gardens. The continual presence of veteran trees over many centuries in these situations has been vital for the survival of many rare dead wood invertebrate, moss, and lichen and fungi species, many of which are also associated with ancient woodlands.

- **Veteran Trees**

Trees can be considered veterans if they are exceptionally old for their species and have reached or passed their peak growth rate. Long-lived species such as oak and beech reach this point at around 150 - 200 years at the earliest. Veteran trees may be either indigenous or introduced species. Non-native tree species, if long-established, may support a flora or fauna which is different from native tree species, but which may be of equal or occasionally even greater ecological interest. Beech, sweet chestnut, horse chestnut and sycamore are commonly found in Derbyshire as well as our native species such as oak, ash, yew and small leaved lime. Britain has one of the highest percentages of veteran trees in Europe.

Veteran trees offer an important habitat in parklands, but are also valuable in the wider countryside, as concentrations of trees or as isolated individuals in hedgerows, woodland edges and some older churchyards. Veteran trees managed as pollards can even be found in open field situations, often as remnants of a previous parkland landscape.

Veteran trees are valuable for wildlife, especially birds, bats, invertebrates and fungi. Many of the species found on veteran trees are rare, endangered dead wood specialists, making veteran trees an important BAP habitat. Veteran trees are also of value historically, culturally, visually and are an integral part of the English landscape.

- **Traditional Orchards**

Traditional orchards are a group of fruit trees planted on permanent grassland. They have been planted in a wide variety of situations and soil types for the production of a range of fruits. Whilst of 'artificial' origin they support many features which make them of value for wildlife. Some orchards may have occupied the same piece of land for hundreds of years and undergone low intensity regimes of grazing and hay cutting. They are ideal places for grasses, wild flowers, lichens, mistletoe and insects, as well as birds and mammals.

Farmland:

- **Hedgerows**

A hedgerow is defined as any boundary of trees or shrubs over 20m long and less than 5m wide, provided that at one time the trees or shrubs were more or less continuous. It includes an earth bank or wall only where such a feature occurs in association with a line of trees or shrubs.

Older hedges tend to have a greater diversity of plants and animals due to their continuity in the landscape; they may have a greater number of tree and shrub species and can also have woodland ground flora species and ancient woodland indicator species growing within them. However, some species rich hedgerows are not necessarily always ancient. Younger hedges may be located next to ancient woodland so that colonisation may be easier. Modern planting can also often include a wide variety of species in hedgerow mixes. Late enclosure and more recent hedgerows were planted with very few species, dominated by hawthorn.

- **Field Margins**

The strip of land lying between cereal crops and the field boundary, extending for a small distance into the crop, can have a variety of species and features associated with it, depending on the agricultural operations in the field. Margins are important to wildlife because they protect boundary features, such as walls and hedges from agricultural operations. Field margins may also be remnants of former habitats, for example species rich

grassland. Margins are usually managed differently to the rest of the field and may contain important micro-habitats that act as wildlife corridors for species moving from one suitable habitat to another. They are important habitats for predator species that act as biological controls against many crop pests.

Grassland:

• **Lowland Meadows/ Neutral Grassland**

These are unimproved, neutral grasslands traditionally managed for hay and pasture with an annual cut followed by low-intensity grazing. This removes excess nutrients, allowing many slower growing flowering species to thrive. These flower rich meadows were common up until the 1970s, when many were fertilised or re-seeded with more productive species such as rye grass. Hay meadows share many species with calcareous grasslands but growth tends to be more luxuriant on neutral grassland. Depending on the soil, lowland meadows can include a full range of species from calcareous to acid grassland species.

• **Calcareous Grassland**

This type of grassland occurs on basic soils and substrates. This is often the most species rich type of grassland for both plants and animals. Thin soils and limited nutrients provide ideal conditions for flowering plants such as common rock-rose, wild thyme, lady's bedstraw and cowslip. A proportion of Derbyshire's calcareous grassland is located on the magnesian limestone, with a slightly drier, warmer climate mosses and lichens are rarer in this area than other calcareous areas and it attracts more southern, warmth loving species. Some species such as yellow wort and black horehound are exclusive to the magnesian limestone in Derbyshire.

• **Calaminarian Grassland**

This is closely associated with the lead mining areas of Derbyshire. It has developed on soils rich in heavy metals, such as copper and lead. Vegetation succession is slowed by the toxicity of the minerals in the soil and these habitats are characterised by areas of bare ground and lead spoil heaps. Typical plants found on these areas include spring sandwort and alpine pennycress (both of which are known locally as 'leadwort') and mountain pansy.

• **Lowland Dry Acid Grassland**

This type of grassland develops on acidic soils with pH 5.0 or lower or in areas where leaching has created acid conditions. Though relatively species poor compared to other semi-natural grassland types, it contains important communities with rare and characteristic species, including fine leaved bent and fescue grasses, sheep's sorrel, tormentil and heath bedstraw. Acid grasslands are transitional to other grassland types as well as other vegetation communities such as mires and heathland. It is especially important for ground nesting birds and invertebrates.

• **Floodplain Grazing Marsh**

This refers to seasonally waterlogged low-lying grassland where the drainage is poor or impeded. Typical management may be grazing or cutting for hay or silage. They are often botanically poor but can support breeding waders such as snipe and lapwing, as well as invertebrates, amphibians, reptiles and mammals such as water voles. Sites may contain seasonal water-filled hollows and permanent ponds with emergent swamp communities and may abut with fen and reed swamp communities.

• **Rush Pasture**

Rush pasture, grazed by livestock includes all wet grassland that occurs on more acid soils, in association with areas of impeded drainage, springs, flushes and small streams. These additional features are sometimes species rich, whilst rush pasture itself, a mix of grasses, rushes and sedges, sometimes has floristically rich pastures containing species such as devil's bit scabious and marsh bedstraw.

• **Inland Rock and Scree**

The gritstone edges and boulder slopes of the Dark Peak provide an important habitat for a range of plant communities, including those rich in ferns, lichens and mosses. The inaccessible crevices and ledges are used as nesting sites for birds such as peregrines and ravens. The limestone cliffs found in many of the limestone dales support very variable vegetation types on the ledges and within rock crevices. The cliffs support perhaps the most natural type of vegetation, through their inaccessibility. They are rich in a variety of rare vascular plants, lichens, mosses and liverworts. Limestone screes are commonly found on the dalesides, often at the foot of cliffs. They support a restricted flora mostly of specialist plants including the nationally scarce limestone fern and dark-red helleborine.

Heathland:

Heathland usually develops on low nutrient status soils but is also defined as occurring on peaty soils where the peat is less than 0.5m thick. Vegetation is at least 25% dwarf shrubs, predominantly heather, western gorse, bilberry and bell heather with other species such as sheep's sorrel, heath bedstraw and tormentil interspersed. Oak and birch scrub is also often present. If left unmanaged heathland would quickly revert to woodland and scrub. A management regime of rotational cutting and controlled burning together with low intensity grazing is used.

There are two types of heathland in Derbyshire:

- **Upland Heathland**
 - Upland heathland or moorland lies above 250m.
- **Lowland Heathland**
 - Is on land below 250m.

Wetland:

• **Rivers and Streams**

This habitat includes rivers, streams, brooks and oxbow lakes. The habitat includes the water body and also the surrounding marginal and adjacent land including floodplain. These habitats include a variety of flow patterns such as riffles, runs, glides, pools and marginal deadwater and provide for species such as otters, water voles and white-clawed crayfish. Species composition of rivers and streams depends on the underlying rock. The rivers and streams on the gritstone and more acid rocks have different species associated with them than those on limestone. Rivers on limestone do not always flow on the surface all year round, but flow through underground courses dissolved in the rock.

• **Standing Open Water, Canals and Ponds**

Standing waters are water bodies that, except for in high periods of rainfall or when water is needed for power or supply purposes, has no through flow. These include natural and man made standing waters. Reservoirs, ponds, lakes, canals, ditches with open water for the majority of the year and open water bodies created through mineral extraction or gravel workings are all standing open waters that occur throughout Derbyshire. The habitat includes land around the edges of the water body, including land associated with canals including towpaths, bridges and hedgerows. Canals are included in this habitat type, even though there is a slight flow in most working canals with the use of locks. Standing open waters are important for a number of plants and animals that require a stable water environment for growth, feeding, breeding and over-wintering purposes.

• **Reedbeds**

Reedbeds are a special type of swamp, dominated by large dense stands of common reed, (*Phragmites australis*), but can support areas of open water, ditches, wet grassland and wet woodland. The water table has to be at or above ground level most of the year for this vegetation community to be maintained. Reedbeds are one of the most important habitats for the diversity of rare breeding birds, such as bittern, marsh harrier and bearded tit, in the UK.

• **Lowland Fens**

Fens are a type of mire, or are peatlands that receive water and nutrients from soil, rock, and groundwater as well as from rainfall. The ground is periodically or permanently waterlogged by high rainfall, lateral flow or are affected by a high groundwater table. For fens the main source of water is from groundwater. Most fens are species rich. In Derbyshire this habitat occurs within river valley corridors with marsh marigold, ragged robin, lady's smock and tall herbs including wild angelica and meadowsweet. These habitats are also important for wading birds and invertebrates.

Brownfield Sites:

• **Open Mosaic Habitats**

Brownfield Sites are sites which have previously been altered by human activity, such as derelict areas in towns and cities, brick-pits, old railway lines, airfields and quarries, and are either abandoned or underused. The previous disturbance and often thin soils of low nutrient content allow a range of flora species to colonise, often developing a wide variety of habitats on one site. Within Derbyshire these are most prevalent in landscapes associated with past industrial activity, such as the Nottinghamshire, Derbyshire and South Yorkshire Coalfield. Due to the previous land use and heavy artificial input these habitats often do not reflect the underlying landscape character, are not a natural occurrence and therefore can not be identified against particular landscape character types. However, these habitats are important and should be maintained in situ wherever possible, especially where it contributes to a wider network linking key habitats.

Habitat Types	Landscape Types																																							
	Dark Peak					White Peak				Derbyshire Peak Fringe and Lower Derwent					Nottinghamshire, Derbyshire and Yorkshire Coalfield						Southern Magnesian Limestone		Needwood and South Derbyshire Claylands			Trent Valley Washlands			Melbourne Parklands			L & SDC		Mease/Sence Lowlands						
Primary Habitat—prominent and key characteristic	P																																							
Secondary Habitat—variable and local characteristic	S																																							
Locally Significant—unusual, often a minor characteristic	L																																							
Not Applicable	-																																							
Habitat Types																																								
Woodland:																																								
Deciduous Woodland	-	-	L	P	-	S	-	S	P	-	-	P	P	-	-	-	P	S	S	P	P	P	-	P	P	-	S	-	S	-	S	-	-	P	P	P	-	S	S	-
Wet Woodland	-	-	-	P	P	-	-	-	P	-	-	P	P	-	S	P	P	S	P	P	P	S	P	-	P	S	-	-	S	P	S	-	P	S	P	-	P	P	P	P
Wood Pasture & Parkland	-	-	-	-	-	-	-	-	-	-	-	-	P	-	S	-	-	S	P	S	P	P	-	S	-	S	S	-	P	-	-	-	-	P	P	-	-	S	S	-
Veteran Trees	-	-	-	P	-	-	-	-	-	-	-	P	P	-	P	-	P	P	S	P	P	P	-	-	-	P	P	S	P	-	S	-	-	P	P	S	-	P	S	-
Traditional Orchards	-	-	-	L	-	L	-	-	-	-	-	L	L	-	L	-	L	L	L	L	L	L	-	L	-	L	L	-	L	-	L	-	-	L	L	-	-	L	L	-
Farmland:																																								
Hedgerows	-	-	-	P	-	-	-	-	-	-	-	P	P	-	P	-	P	P	S	P	P	S	-	P	S	P	P	P	S	-	S	S	-	S	S	P	-	P	P	-
Field Margins	-	-	-	-	-	-	-	-	-	-	-	-	S	S	S	-	-	S	P	S	S	P	-	P	-	S	S	-	P	-	P	P	-	P	S	-	-	S	P	-
Grassland:																																								
Lowland Meadows/ Neutral Grassland	-	-	-	P	P	S	S	S	S	-	P	P	P	P	P	P	P	P	S	P	P	S	P	-	S	P	P	-	S	P	P	P	P	S	P	-	P	P	P	P
Calcareous Grassland	-	-	-	-	-	P	P	P	P	-	-	L	-	-	-	-	-	-	-	-	-	-	-	P	P	-	-	-	-	-	-	S	-	-	-	-	-	-	-	-
Calaminarian Grassland	-	-	-	-	-	L	L	L	L	-	-	L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lowland Dry Acid Grassland	-	P	P	S	-	-	-	-	-	-	P	S	S	P	-	-	S	S	S	S	-	S	-	-	-	S	S	P	S	-	-	-	-	P	P	P	-	S	-	-
Floodplain Grazing Marsh	-	-	-	-	P	-	-	-	S	-	-	-	-	-	-	P	-	-	-	-	-	-	P	-	P	-	-	-	P	-	P	P	-	-	-	P	-	-	P	
Rush Pasture	S	P	P	P	P	-	-	-	-	-	P	P	S	-	S	P	-	S	-	S	S	-	P	-	-	S	S	-	S	P	-	P	P	-	S	-	P	S	-	P
Inland Rock and Scree	L	L	S	-	-	L	S	L	S	-	L	L	-	-	-	-	-	-	-	-	-	-	-	L	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Heathland:																																								
Upland Heathland	P	P	P	-	-	-	-	-	-	-	P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lowland Heathland	-	-	-	-	-	-	-	-	-	-	-	-	-	P	-	-	-	-	-	-	-	-	-	-	-	S	S	P	S	-	-	-	-	P	-	P	-	-	S	-
Wetland:																																								
Rivers and Streams	-	S	-	P	P	-	-	S	P	-	S	P	P	-	-	P	P	P	P	P	P	S	P	P	P	P	-	-	S	-	S	-	P	S	P	S	P	P	P	P
Standing Open Water, Canals and Ponds	-	-	-	P	P	-	-	-	P	-	-	S	P	-	S	P	S	P	S	P	P	-	P	S	S	P	S	-	-	-	S	P	P	S	P	S	P	P	S	P
Reedbeds	-	-	-	P	P	-	-	-	-	-	-	S	S	-	-	P	S	S	-	S	S	-	P	-	S	L	-	-	S	-	-	-	P	-	-	-	P	S	-	P
Lowland Fens	-	-	-	S	P	-	-	-	S	-	-	-	S	-	S	P	-	-	-	-	L	-	P	L	L	S	-	L	L	-	-	P	P	-	S	-	P	-	-	P

L & SDC—Leicestershire and South Derbyshire Coalfield

The Landscape Character of Derbyshire

HABITATS CHARACTERISTIC AND APPROPRIATE WITHIN EACH LANDSCAPE CHARACTER TYPE

