B.4. Dales

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B.4.1. Description

The dales of the Yorkshire Dales National Park are well recognised internationally for the traditional agricultural landscape of hay meadows and pastures divided up by drystone walls. It is this landscape and its flower-rich meadows which attract the majority of people to visit the National Park. The most species rich of these grasslands have been managed in a consistent low intensity manner for decades. Little or no inorganic fertiliser will have been applied, meadows will have been cut once a year and pastures grazed lightly with a summer resting period. This type of management has lead to the development of diverse and species-rich flower meadow and pastures. The cranesbill meadows are internationally recognised. Table B.8 lists the broad habitat types that are typical of the dales of the Yorkshire Dales National Park. Grassland habitats in the dales are generally more intensively managed than other habitats and are particularly vulnerable to changes in farming practices such as the use of artificial fertilisers and silage-making.

Table B.8 Broad habitat types in the dales of the Yorkshire Dales National Park and their related National Vegetation Classification codes (see Appendix 4). Area figures were derived from Drewitt (1991) based on a vegetation survey of The National Park carried out between 1985 and 1988 and from the Yorkshire Dales Natural Area.

Habitat	NVC Communities	Total area / length in Park (ha / km)	Proportion of Yorkshire Dales area (%)	Biodiversity Importance
Upland Hay Meadows	MG3	~100	<0.1	Very High
Lowland Hay Meadows & Pastures	MG5, MG8, MG9, MG10	~2700	1.5	High
Small Dales Wetlands	MG4, M22, M23, M25, M27	~1250	0.7	High
Dales Woodland & Scrub (including broad-leaved plantations)	W3, W5, W6, W7, W8, W9, W10, W11, W12, W13 W14, W15, W16, W17, W21, W22, W24 plus undefined	~1535	0.9	See Woodland & Scrub
Hedgerows	Not applicable	~100	-	High
Dales Lakes & Ponds	Not applicable	~45	<0.1	High
Arable Land	Not applicable	~75	<0.1	Low
Improved Grassland	MG6 & MG7 plus undefined	44571	25	Low
Total area (excl. hedgerows)		~50276	~28.5	

B.4.2. Local Biodiversity Importance

Upland Hay Meadows

Hay meadows are traditionally cleared of stock at the beginning of the growing season, usually during May in the Yorkshire Dales. They receive only light dressings of manure and occasional liming. They are cut for hay in July or occasionally August. The hay is used by farmers as winter food for stock. These hay meadows are colourful wildlife havens, supporting a wide variety of plants and animals. They occur on soils which are neither markedly acid nor calcareous - the neutral grasslands.

The crane's-bill meadows are some of the least agriculturally improved of the meadows in the Yorkshire Dales National Park. They are the typically northern upland hay meadows associated with the cool, wet climate and growing season of the Pennine Dales and are now largely restricted to Wensleydale and Swaledale. Other typical species of these meadows are sweet vernal-grass, pignut, red fescue, Yorkshire fog, meadow buttercup, common sorrel and lady's mantle. Less common species are common spotted orchid, bistort, melancholy thistle and globeflower. Crane's-bill meadows are nationally and internationally important. Upland hay meadows are of very high biodiversity importance.

Lowland Hay Meadows & Pastures

Meadows characterised by crested dog's tail and common knapweed are generally associated with lowland areas and are more widespread nationally. Typical species of these meadows are red fescue, crested dog's tail and common bent-grass, with a range of wild flowers such as bird's foot trefoil, meadow vetchling, common cat's ear and yellow rattle. Less common species are meadow saxifrage, green-winged orchid, common twayblade and lesser butterfly orchid. These meadows are of national biodiversity importance.

The majority of pastures in the Yorkshire Dales National Park are largely agriculturally improved. However, there are a number of pastures which, due to less intensive management, are more species-rich. The majority consist of fine-leaved grasses such as red fescue, common bent grass and sweet vernal grass along with variable amounts of crested dog's tail, Yorkshire fog and perennial rye-grass. The variety of plants depends on the intensity and pattern of grazing and levels of fertiliser but can be very diverse and include vetchlings, adderstonge fern, betony, tormentil, autumn hawkbit and field wood-rush. A second type of pasture is associated with damp poorly drained pastures adjacent to pools and watercourses and occurs infrequently in the Yorkshire Dales. In the spring these pastures are often easily picked out in the landscape by the yellow carpet of marsh marigold. They are still dominated by grasses but can include a range of wetland herbs such as water forget-me-not, marsh willowherb and marsh bedstraw. Lowland meadows and pastures are of high biodiversity importance.

Small Wetlands

These wetlands include marshy grasslands dominated by *Molinia*, those with a high proportion of rushes and sedges and communities dominated by meadowsweet and marsh marigold. Normally these species have to form at least 25 % cover to constitute marshy grassland. Communities dominated by tall sedges are also included. In reality wet / marshy grasslands demonstrate a great deal of gradation with other habitats and are, therefore, difficult to define. They develop in wet hollows, level areas with poor drainage and wet zones adjacent to streams. They also tend to have an abundance of typical wetland wildflowers. Wet / marshy grasslands are very rare in the Park covering only 0.5 % of the area surveyed in the National Park Phase I Botanical Survey. They are, however, widely distributed and occur within many other habitats within a variety of

locations from enclosed grasslands to hillside allotments and open moorland. Tall swamp habitats dominated by reeds or large sedges are also included in this broad habitat category. Eshton Tarn near Airton and Semerwater in Wensleydale provides some of the best examples of this habitat type otherwise this is a very rare habitat in the Dales

There are a small number of meadows in the Yorkshire Dales which correspond with a lowland type normally found on seasonally flooded valley floor areas adjacent to watercourses. They are very variable but are always rich in wildflowers such as great burnet, meadowsweet, water avens and marsh marigold. Small wetlands are of high biodiversity importance.

Dales Woodland & Scrub

As with limestone country and moorland and moorland fringe habitats semi-natural woodland and scrub is scarce in the dales of the National Park. Many of these are small and have been extensively modified through management such as heavy grazing or partial re-planting with non-native species. Woodland is widely distributed throughout the park although there is proportionally more in Swaledale and Wharfedale. Swaledale has many small to moderate sized woodlands mainly along the steep valley sides with more extensive areas towards Richmond. However, even in Swaledale the cover of semi-natural woodland reaches less than 1.5 % of the area. As with much of the National Park the nationally important ashwoods dominate. Other less abundant woodland types are alder woods and the nationally important upland acidic oakwoods which are quite rare in the National Park. Broad-leaved and mixed plantations also occur as shelterbelts and replanted gill woods consisting mainly of sycamore, beech and larch. Scrub habitats are virtually non-existent in the dales of the National Park.

Hedgerows

Most of the hedgerows in the Yorkshire Dales are relatively poor in the number of shrub species they support. Hawthorn is the main species followed by elder, rose species, blackthorn and in some areas, crab apple. The richest type of hedgerows contain five to ten species with hazel a component of older, richer hedgerows. These older hedgerows also tend to have a rich ground flora which consists of species characteristic of woodlands such as, dog's mercury, male fern, herb-Robert and ivy. Hedgerows are not common in the Dales and are restricted mainly to the Cumbrian parts of the Park, the lower ends of Wensleydale and Airedale and to the south-western corner near Ingleton. Hedgerows are of high biodiversity importance.

Natural Lakes & Ponds

Natural lakes and ponds are few and far between in the dales of the National Park. The biodiversity value of many of these has been lost due to widespread drainage and fertiliser enrichment. Two examples do however stand out Eshton Tarn and Semerwater. The latter is nationally important for its tall swamp habitats as described above. is a large mesotrophic lake of national importance for its wetland habitats and a number of species such as crayfish, a rare cladoceran and wintering birds including whooper swans. Natural lakes and ponds are of high biodiversity importance.

Improved grassland

The less intensively managed grasslands are becoming rarer in the Yorkshire Dales as they are replaced by more productive intensively managed agricultural swards. These are characterised by the presence of perennial rye-grass with a general decrease in overall species diversity. Where less agricultural improvement has taken place a low density of wildflowers such as white clover, meadow buttercup, sorrel, cow parsley and ribwort plantain may be present. Some of the hay meadow species more resistant to grazing pressure may also be present. The majority of the

intensively managed and highly productive grasslands that are generally cut for silage represent the least botanically important grasslands in the Yorkshire Dales. Many of these grasslands result from re-seeding with commercial mixes after ploughing and soil enrichment, followed by regular application of artificial fertilisers. They are species poor being rye-grass dominated with occasional annual weeds. Improved grassland is of low biodiversity value.

Arable Land

There is very little arable land in the Yorkshire Dales National Park, occurring mainly in the lower parts of Wensleydale. The area is however increasing with the main crop being fodder maize. Arable land is of low biodiversity value.

B.4.3. National & International biodiversity importance

Table B.9. lists the national and international importance of dales habitats in the Yorkshire Dales National Park. National importance is simply defined as those habitats that have, or will have, Habitat Action Plans in the UK Biodiversity Action Plan. International importance is defined as those habitats listed in Annex I of the European Habitats & Species Directive 92/43/EEC which sets out those habitats in need of conservation and protection in the European Community area. Table B.9. shows that the the upland hay meadows of the of the Yorkshire Dales are of international importance. Most of the other habitats apart from arable land and improved grassland are of national biodiversity importance.

B.4.4. Current issues, opportunities & threats to biodiversity in the Dales of the National park.

As with much of the National Park, the biodiversity value of the dales has declined significantly over the last 50 years due to a substantial increase in sheep grazing levels and the associated intensification of farming practice. Continuous grazing, inorganic fertiliser application, cutting for silage are all detrimental to biodiversity in the dales. More recently, however, attempts have been made to slow the decline in diversity through more sustainable management carried out by farmers using incentives from environmental land management schemes such as the Environmentally Sensitive Area scheme administered by MAFF / FRCA, the Wildlife Enhancement Scheme administered by English Nature and the Farm Conservation Scheme administered by the National Park Authority. Some habitats, particularly, hay meadows continue to decline despite these efforts and further actions are needed if we are to retain the characteristic dales meadows for future generations to enjoy. The decline in these habitats may also be partially responsible for typical dales species such as the yellow wagtail.

Woodland habitats in the dales of the National Park have declined as a result of a combination of neglect, inappropriate management and grazing pressure from livestock and rabbits. This decline is being reversed through the use of incentives to landowners such as the Woodland Grant Scheme administered by the Forestry Commision and grants from the Yorkshire Dales Millenium Trust.

In recognition of the national and international importance of the upland hay meadows of the Yorkshire Dales the majority of the cranesbill meadows have been proposed as the North Pennine Dales Meadows Special Area for Conservation under European Law. This designation will lead to better protection of important habitats through legislation and co-operative working with land owners and managers.

Increased use of the countryside for recreation can be ecologically damaging due footpath erosion, trampling and the physical damage caused by large numbers of people together with disturbance to wildlife particularly during the breeding season. There are, however, considerable benefits in

enabling managed access to the countryside for the full cross-section of the human community as it provides an opportunity to educate and raise awareness of biodiversity and countryside issues. Conserving biodiversity is very dependent on the support of a well-informed human community with a sense of belonging and a genuine involvement in the process.

Table B.9. National and international importance of habitats in the dales of the Yorkshire Dales National Park. National importance is simply defined as those habitats that have, or will have, Habitat Action Plans in the UK Biodiversity Action. International importance is defined as those habitats listed in Annex I of the European Habitats & Species Directive 92/43/EEC.

Habitat	**UK Biodiversity Action Plan**	**European Union Habitats & Species Directive**
Upland Hay Meadows	Upland hay meadows	Mountain hay meadows (British types with *Geranium sylvaticum*)
Lowland Hay Meadows & Pastures	Lowland hay meadows	-
Small Wetlands	Fens. Coastal & Floodplain Grazing Marsh.	-
Dales Woodland & Scrub (including broad-leaved plantations)	Upland Oak Woodland. Upland Mixed Ashwoods. Wet Woodlands. Lowland Wood Pastures & Parkland.	-
Hedgerows	Ancient and / or Species Rich Hedgerows	-
Dales Lakes & Ponds	Mesotrophic Standing Waters	-
Arable Land	-	-
Improved Grassland	-	-

A.1.1. Action Plans & Statements