

11.1 WOODLAND

Woodlands in Derbyshire

In Derbyshire woodland cover is estimated to be around 19,513 hectares covering 7.4% of the land compared to the East Midlands average of 5.1% (Forestry Commission, 2002). The national average, for comparison, is around 10% and in the south and west of the British Isles it is often higher. Derbyshire's woodlands are predominantly broadleaved (70%) with coniferous and mixed woodlands comprising the remainder.

Most of Derbyshire's woodlands tend to be fairly small (< 10 ha) and are often isolated within intensively used agricultural land. However, the Derwent and Wye Valleys support significant areas of woodland especially north of Belper to Ladybower Reservoir and Buxton. Elsewhere more densely wooded areas occur in North east Derbyshire and in South Derbyshire, although here many of the woodlands are recent broadleaved plantations. In Bolsover several large woodlands of over 150 ha are present. In some cases woodlands are adjacent or near other semi-natural habitats like hay meadows, unimproved pastures and moorland. Many woodlands include small but significant associate habitats within them like woodland rides, grassland glades, mires and ponds.

Defining Woodland Types

Ancient woodland

The term ancient woodland can be used for any woodland that has been present since 1600. Ancient woodlands tend to support a characteristic and often diverse range of plant and animal species and for many groups it is possible to identify species indicators for ancient woodland sites. Additionally, physical features associated with woodlands such as woodbanks and ditches as well as cartographic evidence from early maps such as the 1816 O.S. 1st Edition map can be used to identify these woods. Ancient woodlands will include both remnants of the original forests that developed after the last glacial period 10,000 years ago (primary forest) and ancient secondary forests that arose more recently. However, for practical purposes it is usually impossible to distinguish between these two woodland types.

The Ancient Woodland Inventory (Nature Conservancy Council, 1992) divides ancient woodlands into those composed of native broadleaved tree species and those that have been replanted with broadleaves or conifers. It is estimated that ancient woodland sites (in blocks over 2ha) cover 4,440 ha in Derbyshire. That is equivalent to 2% of the land cover in the county and 38% of the total woodland cover in the county. Of this it is estimated that 59% is semi-natural and 41% is replanted. There are 2,968 hectares of ancient woodland (in blocks of over 2 hectares) in the Lowland Derbyshire BAP area. This equates to 34% of the total county woodland resource. 55% of this is semi-natural and 45% has been replanted with non-native species.

Secondary semi-natural woodland

Secondary woodlands occupy land that has not been continuously wooded since 1600. They include naturally regenerated woodlands and those created by planting. Secondary woodlands vary greatly in their ecological characteristics and their nature conservation value. Natural regeneration close to ancient woodlands perhaps on abandoned fields, commons and heaths, can result in quite rapid accumulation of species more typical of ancient woodlands. Typically, however, secondary woodlands support fewer species of plants and animals than ancient woodland because they have not had time for species to colonise from surrounding woodlands or because they are isolated. The age and geographical position of secondary woodland is therefore very important in determining their nature conservation value.

Wet woodland

Wet woodland, or carr, is often secondary in origin, but ancient sites are present within the county. Wet woodland occurs where the water table is permanently high or where there is significant surface flushing on slopes. The dominant tree species found in wet woodlands are those that can tolerate poorly drained soils, such as species of Willow, Alder and Birch.

Many of the remaining areas of semi-natural woodland are associated with flushed slopes and valley sides, valley bottoms including small brooks and stream courses and moorland cloughs. Within these woodlands wet woodland is often a significant feature especially in the Dark Peak, Derbyshire Peak Fringe and Lower Derwent and in the Needwood and South Derbyshire Claylands National Character Areas. In the Trent Valley Washlands previously extensive areas of wet woodland have declined to only a few sites, though some mineral extraction has allowed new wet woodlands to develop. Wet woodland has also developed on old railway sidings.



Woodland Selection Guidelines

Sites that meet one or more of the following guidelines will be eligible for designation as a Local Wildlife Site.

Wd1 Sites included on the Derbyshire Inventory of Ancient Woodland which support semi-natural woodland vegetation

UKBAP Habitat Action Plans- Wet Woodland, Upland Mixed Ashwood, Upland Oakwood, Lowland Mixed Deciduous Woodland

Application

All sites listed on the Derbyshire Ancient Woodland Inventory should be included except sites that have been replanted and/or have become degraded and lost most of their characteristic features.

This guideline can also be applied to ancient woodland sites that have been replanted with either broad-leaved or coniferous species. In these instances consideration should be given to the other semi-natural features of the site such as the composition of the field layer and understorey and the extent of regeneration of broad-leaved tree and shrub species. The potential for restoring the woodland should be taken into account.

The woodland selected may have associated habitats such as ponds, hedges and grassland areas. These should be considered as part of the site so long as they are within the overall external physical boundary.

Justification

Ancient semi-natural woodlands are not re-creatable within any practical time frame. The ecological and physical features of a site will have developed over hundreds of years. They are an essential part of Derbyshire's 'critical natural capital' and a significant source of biodiversity in the county. Even small ancient woodland sites are of value.

Many woodlands which correspond to the woodland types which form Priority Habitats within the UK BAP are also ancient in origin.

Wd2 Other semi-natural woodlands where field evidence and/or map evidence indicates that they are ancient in origin

UKBAP Habitat Action Plans- Wet Woodland, Upland Mixed Ashwood, Upland Oakwood, Lowland Mixed Deciduous Woodland

Application

Ancient semi-natural woodlands not included in the Derbyshire Ancient Woodland inventory can be included here. Woods smaller than 2 hectares are included only if evidence of ancient origin is particularly strong and/ or they are especially good examples of particular semi-natural habitat types. Selection should be based on field data including species composition, woodland structure, and presence of woodbanks or earthworks or other features associated with ancient woodlands and examination of historical maps to demonstrate woodland continuity on the site. Ideally the wood should be present on the 1st Edition O.S. map series produced around 1816. Indicator species of higher plants are listed in Table 1

Justification

The 2-hectare minimum size requirement for inclusion in the inventory is a national standard. There are however a number of sites, which merit inclusion in terms of distinctiveness and species and/or habitat diversity, which are between 1 hectare and 2 hectares in extent.



Great Spotted Woodpecker

Wd3 Areas of semi-natural woodland referable to one of the following National Vegetation Classification (NVC) types: -

- **W8 Ash (*Fraxinus excelsior*) – Field Maple (*Acer campestre*)– Dog’s Mercury (*Mercurialis perennis*) woodland**
 - **W10 Pedunculate Oak (*Quercus robur*) – Bracken (*Pteridium aquilinum*) – Bramble (*Rubus fruticosus*) woodland**
 - **W11 Sessile Oak (*Quercus petraea*) – Downy Birch (*Betula pubescens*) – Wood Sorrel (*Oxalis acetosella*) woodland**
 - **W16 Oak spp. (*Quercus spp*) – Birch spp. (*Betula spp.*) – Wavy Hair Grass (*Deschampsia flexuosa*) woodland**
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UKBAP Habitat Action Plans- Upland Mixed Ashwood, Upland Oakwood, Lowland Mixed Deciduous Woodland

Application

This guideline should be applied to semi-natural woodland and not plantation woodland. The woodland should display biological and physical features consistent with the NVC communities, but does not have to be an ideal fit. For example, the dominant canopy species may not resemble the NVC community, whilst the field layer composition may be a better indication of the NVC community type.

Justification

Semi-natural non-ancient woodlands, especially the larger examples, are uncommon and may be important locally or as potential links between ancient woodlands. These woodland types are encompassed within the suite of UK BAP Priority Habitat woodlands. Older secondary woodlands (over 100 years old) have often developed significant biodiversity value.

Wd4 Secondary semi-natural woodland (or plantation woodland within the Derby) that scores 12 (8 for the Derby area woodlands) or more from the woodland vascular plant species listed in Table 1.

UKBAP Habitat Action Plans- Wet Woodland, Upland Mixed Ashwood, Upland Oakwood. Lowland Mixed Deciduous Woodland

Application

This guideline should be applied to secondary semi-natural woodland sites which are predominantly occupied by broad-leaved tree species.

This guideline can also be applied to older plantation woodlands exhibiting good secondary woodland development outside of the Derby area and to any plantation woodland within the Derby area.

Justification

Derbyshire has only 6% remaining land cover of woodland. Secondary semi-natural woodlands, especially the larger examples, are uncommon and may be important locally or as potential links between ancient woodlands. Older plantation woodland (for example woods mapped on OS Maps from the late 1800s) often exhibit good secondary woodland regeneration beneath a mature plantation canopy which has often been long abandoned as a managed crop, or where the canopy has been thinned. Often these long established woods, irrespective of their origin, can support a diverse woodland flora and be more diverse than woodlands qualifying under the other woodland selection criteria. Capturing these woodlands within the Local Wildlife Sites system is therefore considered to be important. Many of the important woodlands within the Derby area are of plantation origin, but woodland within the Derby area is a limited habitat and therefore of local importance, irrespective of their age.

Wd5 Areas of semi-natural wet woodland, spring and seepage woodlands referable to one of the following National Vegetation Classification (NVC) types,

- **W1** Goat Willow (*Salix cinerea*) – Common Marsh Bedstraw (*Galium palustre*) woodland.
- **W2** Grey Willow (*Salix cinerea*) – Downy Birch (*Betula pubescens*) – Common Reed (*Phragmites australis*) woodland
- **W4** Downy Birch (*Betula pubescens*) – Purple Moor-grass (*Molinia caerulea*) woodland.
- **W5** Alder (*Alnus glutinosa*) – Greater Tussock-sedge (*Carex paniculata*) woodland.
- **W6** Alder (*Alnus glutinosa*) – Common Nettle (*Urtica dioica*) woodland.
- **W7** Alder (*Alnus glutinosa*) – Ash (*Fraxinus excelsior*) – Yellow Pimpernel (*Lysimachia nemorum*) woodland.

Or has more than 7 notable wet woodland species present in Table 1.

UKBAP Habitat Action Plan – Wet woodland

Application

This guideline should be applied to semi-natural woodland and not plantation woodland. The woodland should display biological and physical features consistent with the NVC communities, but does not have to be an ideal fit. For example, the dominant canopy species may not resemble the NVC community, whilst the field layer composition may be a better indication of the NVC community type.

Justification

Wet woodland is a UK BAP Priority Habitat.

Table 1 Woodland Plant Species		
Scoring		
All species score 1 with the exception of those species in bold (Derbyshire Vascular Plant Red Data List Species - 2009) which score 2.		
Indicator value (ASNW = Ancient semi-natural woodland; WW = wet woodland notable)		
Scientific Name	Common Name	Indicator value
<i>Acer campestre</i>	Field Maple	ASNW
<i>Adoxa moschatellina</i>	Moschatel	ASNW, WW
<i>Ajuga reptans</i>	Bugle	ASNW, WW
<i>Allium ursinum</i>	Ramsons	ASNW, WW
<i>Anemone nemorosa</i>	Wood Anemone	ASNW, WW
<i>Angelica sylvestris</i>	Wild Angelica	WW
<i>Apium nodiflorum</i>	Fool's-water-cress	WW
<i>Aquilegia vulgaris</i>	Columbine	ASNW
<i>Arctium lappa</i>	Greater Burdock	
<i>Arctium minus</i>	Lesser Burdock	
<i>Arctium nemorosum</i>	Wood Burdock	ASNW
<i>Arum maculatum</i>	Lords-and-Ladies	
<i>Asplenium scolopendrium</i>	Hart's-tongue	ASNW
<i>Athyrium filix-femina</i>	Lady-fern	
<i>Betonica officinalis</i>	Betony	ASNW
<i>Blechnum spicant</i>	Hard-fern	ASNW
<i>Brachypodium sylvaticum</i>	Wood False-Brome	
<i>Bromopsis ramosa</i>	Hairy-brome	ASNW
<i>Calamagrostis epigejos</i>	Wood Small-reed	ASNW
<i>Calluna vulgaris</i>	Heather	
<i>Caltha palustris</i>	Marsh-marigold	WW
<i>Campanula trachelium</i>	Nettle-leaved Bellflower	ASNW
<i>Cardamine amara</i>	Large Bittercress	ASNW, WW
<i>Cardamine impatiens</i>	Narrow-leaved Bittercress	ASNW

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Scientific Name	Common Name	Indicator value
<i>Carex laevigata</i>	Smooth-stalked Sedge	ASNW
<i>Carex pallescens</i>	Pale Sedge	ASNW, WW
<i>Carex pendula</i>	Pendulous Sedge	ASNW, WW
<i>Carex remota</i>	Remote Sedge	ASNW, WW
<i>Carex strigosa</i>	Thin-spiked Wood-sedge	ASNW, WW
<i>Carex sylvatica</i>	Wood-sedge	ASNW, WW
<i>Ceratocapnos claviculata</i>	Climbing Corydalis	
<i>Chrysosplenium alternifolium</i>	Alternate-leaved Golden-saxifrage	ASNW, WW
<i>Chrysosplenium oppositifolium</i>	Opposite-leaved Golden-saxifrage	ASNW, WW
<i>Circaea x intermedia</i>	Upland Enchanter's-nightshade	
<i>Conopodium majus</i>	Pignut	ASNW
<i>Convallaria majalis</i>	Lily-of-the-valley	ASNW
<i>Cornus sanguinea</i>	Dogwood	
<i>Crataegus laevigata</i>	Midland Hawthorn	ASNW
<i>Cytisus scoparius</i>	Broom	
<i>Daphne laureola</i>	Spurge Laurel	ASNW
<i>Daphne mezereum</i>	Mezereon	ASNW
<i>Deschampsia cespitosa</i>	Tufted Hair-grass	WW
<i>Digitalis purpurea</i>	Foxglove	
<i>Dipsacus pilosus</i>	Small Teasel	ASNW
<i>Dryopteris affinis</i>	Scaly Male-fern	WW
<i>Dryopteris carthusiana</i>	Narrow Buckle-fern	ASNW, WW
<i>Dryopteris dilatata</i>	Broad Buckler-fern	
<i>Dryopteris filix mas</i>	Male-fern	
<i>Elymus caninus</i>	Bearded Couch	ASNW
<i>Epipactis helleborine</i>	Broad-leaved Helleborine	ASNW
<i>Equisetum fluviatile</i>	Water Horsetail	WW
<i>Equisetum hyemale</i>	Rough Horsetail	ASNW, WW
<i>Equisetum palustre</i>	Marsh Horsetail	WW
<i>Equisetum sylvaticum</i>	Wood Horsetail	ASNW, WW
<i>Equisetum telmateia</i>	Great Horsetail	WW
<i>Erica cinerea</i>	Bell Heather	
<i>Euonymus europaeus</i>	Spindle	
<i>Eupatorium cannabinum</i>	Hemp-agrimony	WW
<i>Euphorbia amygdaloides</i>	Wood Spurge	ASNW
<i>Festuca altissima</i>	Wood Fescue	ASNW
<i>Filipendula ulmaria</i>	Meadowsweet	WW
<i>Fragaria vesca</i>	Wild Strawberry	
<i>Frangula alnus</i>	Alder Buckthorn	ASNW, WW

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Scientific Name	Common Name	Indicator value
Gagea lutea	Yellow Star-of-Bethlehem	ASNW
<i>Galium odoratum</i>	Sweet Woodruff	ASNW
<i>Geum rivale</i>	Water Avens	WW
<i>Geum urbanum</i>	Wood Avens	
<i>Gymnocarpium dryopteris</i> *	Oak Fern	
Helleborus foetidus	Stinking Hellebore	ASNW
Helleborus viridis	Green Hellebore	ASNW
<i>Holcus mollis</i>	Creeping Soft-grass	ASNW
Hordelymus europaeus	Wood Barley	ASNW
<i>Hyacinthoides non-scripta</i>	Bluebell	ASNW
<i>Hydrocotyle vulgaris</i>	Marsh Pennywort	WW
<i>Hypericum hirsutum</i>	Hairy St John's-wort	
<i>Hypericum pulchrum</i>	Slender St John's-wort	ASNW
Hypopitys monstrosa	Yellow Bird's-nest	
<i>Ilex aquifolium</i>	Holly	ASNW
<i>Iris pseudacorus</i>	Yellow Iris	WW
<i>Lamiastrum galeobdolon</i> ssp. <i>montanum</i>	Yellow Archangel	ASNW, WW
<i>Lathraea squamaria</i>	Toothwort	ASNW
<i>Lathyrus montanus</i>	Bitter Vetch	ASNW
Lathyrus sylvestris	Narrow-leaved Everlasting Pea	ASNW
<i>Ligustrum vulgare</i>	Wild Privet	
<i>Listera ovata</i>	Common Twayblade	
Lithospermum officinale	Common Gromwell	
<i>Lonicera periclymenum</i>	Honeysuckle	
<i>Luzula pilosa</i>	Hairy Wood-rush	ASNW
<i>Luzula sylvatica</i>	Great Wood-rush	ASNW
<i>Lysimachia nemorum</i>	Yellow Pimpernel	ASNW
<i>Lysimachia nummularia</i>	Creeping Jenny	WW
<i>Malus sylvestris</i>	Crab Apple	ASNW
<i>Melampyrum pratense</i>	Common Cow-wheat	ASNW
<i>Melica nutans</i>	Mountain Melick	
<i>Melica uniflora</i>	Wood Melick	ASNW
<i>Mercurialis perennis</i>	Dog's Mercury	WW
<i>Milium effusum</i>	Wood Millet	ASNW
<i>Moehringia trinerva</i>	Three-nerved Sandwort	ASNW
<i>Molinia caerulea</i>	Purple Moor-grass	
<i>Myosotis sylvatica</i>	Wood Forget-me-not	ASNW
<i>Narcissus pseudonarcissus</i>	Wild Daffodil	ASNW
Neottia nidus-avis	Bird's-nest Orchid	ASNW
<i>Oenanthe crocata</i>	Hemlock Water-dropwort	WW

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Scientific Name	Common Name	Indicator value
<i>Ophrys insectifera</i>	Fly Orchid	
<i>Orchis mascula</i>	Early-purple Orchid	ASNW
<i>Oreopteris limbosperma</i>	Lemon-scented Fern	
<i>Oxalis acetosella</i>	Wood Sorrel	ASNW, WW
<i>Paris quadrifolia</i>	Herb Paris	ASNW, WW
<i>Phegopteris connectilis</i>	Beech Fern	
<i>Phragmites australis</i>	Common Reed	WW
<i>Pimpinella major</i>	Greater Burnet-saxifrage	
<i>Platanthera chlorantha</i>	Greater Butterfly Orchid	
<i>Poa nemoralis</i>	Wood Meadow-grass	ASNW
<i>Polygonatum multiflorum</i>	Solomon's-seal	ASNW
<i>Polypodium vulgare</i> agg	Polypody	ASNW
<i>Polystichum aculeatum</i>	Hard Shield-fern	ASNW
<i>Polystichum setiferum</i>	Soft Shield-fern	ASNW
<i>Potentilla sterilis</i>	Barren Strawberry	ASNW
<i>Primula veris</i>	Cowslip	
<i>Primula vulgaris</i>	Primrose	ASNW, WW
<i>Prunus avium</i>	Wild Cherry	ASNW
<i>Pyrola minor</i>	Common Wintergreen	ASNW
<i>Ranunculus auricomus</i>	Goldilocks Buttercup	ASNW
<i>Ranunculus flammula</i>	Lesser Spearwort	WW
<i>Ranunculus lingua</i>	Greater Spearwort	WW
<i>Rhamnus catharticus</i>	Purging Buckthorn	
<i>Ribes alpinum</i>	Mountain Currant	ASNW
<i>Ribes nigrum</i>	Blackcurrant	ASNW
<i>Ribes rubrum</i>	Redcurrant	ASNW
<i>Rosa arvensis</i>	Field Rose	ASNW
<i>Rumex sanguineus</i>	Wood dock	
<i>Salix aurita</i>	Eared Willow	
<i>Sanicula europaea</i>	Sanicle	ASNW
<i>Schedonorus giganteus</i>	Giant Fescue	ASNW
<i>Scirpus sylvatica</i>	Wood Club-rush	ASNW
<i>Scrophularia nodosa</i>	Common Figwort	
<i>Serratula tinctoria</i>	Saw-wort	ASNW
<i>Silene flos-cuculi</i>	Ragged Robin	WW
<i>Sorbus rupicola</i>	Rock Whitebeam	ASNW
<i>Sorbus torminalis</i>	Wild Service-tree	ASNW
<i>Stellaria alsine</i>	Bog Stitchwort	WW
<i>Stellaria holostea</i>	Greater Stitchwort	

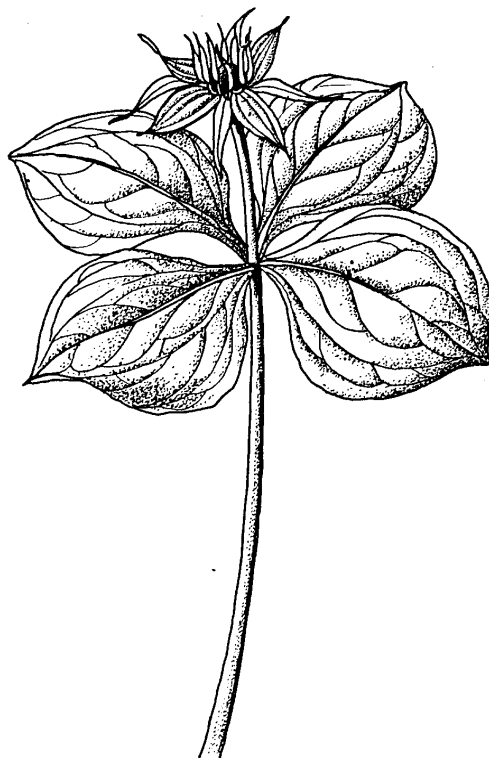
Table 1 Woodland Plant Species

Scoring

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Indicator value (ASNW = Ancient semi-natural woodland; WW = wet woodland notable)

Scientific Name	Common Name	Indicator value
<i>Tamus communis</i>	Black Bryony	ASNW
<i>Teucrium scorodonia</i>	Wood Sage	
<i>Tilia cordata</i>	Small-leaved Lime	ASNW
<i>Tilia platyphyllos</i>	Large-leaved Lime	ASNW
<i>Vaccinium myrtillus</i>	Bilberry	ASNW
<i>Vaccinium oxycoccus</i>	Cranberry	
<i>Veronica chamaedrys</i>	Germander Speedwell	
<i>Veronica montana</i>	Wood Speedwell	ASNW
<i>Viburnum opulus</i>	Guelder-rose	ASNW
<i>Vicia sylvatica</i>	Wood Vetch	ASNW
<i>Viola hirta</i>	Hairy Violet	
<i>Viola odorata</i>	Sweet Violet	
<i>Viola palustris</i>	Marsh Violet	ASNW, WW
<i>Viola reichenbachiana</i>	Early Dog-violet	ASNW
<i>Viola riviniana</i>	Common Dog-violet	ASNW



Herb Paris