

County: Devon **Site Name:** Watersmeet

District: North Devon

Status: Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act 1981 (as amended).

Local Planning Authority: Devon County Council, Exmoor National Park Authority

National Grid Reference: SS 745489

Area: 348.5 ha 861.1 ac

Ordnance Survey Sheet 1: 50 000: 180

1: 25 000 SS 74 NW NE

Date Notified (Under 1949 Act): 1952

Data of Last Revision: 1976

Date Notified (Under 1981 Act): 1986

Date of Last Revision: –

Other Information:

NCR Grade 1 Woodland Site. GCR Site.

In Exmoor National Park.

Part owned by the National Trust.

Boundary amended by extension and deletion.

Description and Reasons for Notification:

The site encompasses an extensive area of ancient oak woodland, of special interest as one of the largest remaining semi-natural ancient woodlands in south west Britain; with rare and local plant species and rich breeding bird populations. The site also has important geological features. It occupies the winding valley system of the East Lyn river and its tributaries, with an altitude range from near sea level to 290m. The generally shallow soils are derived from the underlying Devonian sandstones and slates and are of a fine loamy or silty nature.

Most of the site is dominated by Sessile Oak (*Quercus petraea*) woodland. A classic sequence of stand types is found, from the well-drained, poor soils of the valley tops down to the nutrient rich and deeper soils of the lower slopes and valley bottoms. On the uppermost slopes, scattered Downy Birch (*Betula pubescens*) mixes in with the Oak. Lower down, oak dominates the closed canopy, especially on the steepest scree slopes, with Beech (*Fagus sylvatica*) and Sycamore (*Acer pseudoplatanus*) becoming locally abundant on the deep soil. Hazel (*Corylus avellana*), Rowan (*Sorbus aucuparia*) and Holly (*Ilex aquifolium*) occur in varying amounts in the understorey and Ash (*Fraxinum excelsior*) occurs on mid-slope we flush area.

On the lowest slopes and in the valley bottoms the soil is richer and the watertable is permanently high. Here Ash, Alder (*Alnus glutinosa*), Sallow (*Salix cinerea*) and occasionally Wych Elm (*Ulmus globra*) dominate the canopy. The site is of particular interest for its various rare Whitebeams, which include *Sorbus vexans*, *S. subcuneata* and the Devon Whitebeam (*S. devoniensis*).

In some parts of the woodland, the natural sequence has been significantly altered by past management. Thus, pure oak coppice occupies the valley side from top to bottom; the usual tree and understorey species largely having been selected out. Grasses now dominate the ground flora where stock grazing has been a long-standing practice.

The more natural ground flora exhibits a range of communities, from the dry, acid areas where Heather (*Calluna vulgaris*), Bilberry (*Vaccinium myrtillus*), Common Cow-wheat (*Melampyrum pratense*) and Wavy Hair-grass (*Deschampsia flexuosa*) are common; to more base-rich areas with Dog's Mercury (*Mercurialis perennis*), Sanicle (*Sanicula europaea*), Primrose (*Primula vulgaris*) and Sweet Woodruff (*Asperula odorata*).

Species of particular note are Rock Stonecrop (*Sedum forsteranum*) and the Irish Spurge (*Euphorbia hyberna*) which grows here with some luxuriance in one of only two localities in Britain. The locally rare Stone Bramble (*Rubus saxatilis*) and Wood Stitchwort (*Stellaria nemorum*) have also been recorded.

The permanently moist conditions along the rivers provide suitable conditions for rich lichen and bryophyte communities. Over 50 species of lichen are present, with *Cladonia* and *Parmelia* species being especially common in some parts. Several ancient woodland indicators occur, including *Thelotrema lapadinum*, *Enterographa crassa*, *Peltigera horizontalis* and *Pyrenula nitida*. Ferns are frequent throughout the area; the abundance of Soft Shield-fern (*Polystichum setiferum*) in certain parts being of note, as is the presence of Hay-scented Buckler-fern (*Dryopteris semula*) and the rare Wilson's Filmy-fern (*Hymenophyllum wilsonii*).

The site supports some important areas of heathland, containing a mixture of Heather, Bilberry, Western Gorge (*Ulex gallii*) and Bell Heather (*Erica cinerea*), whilst some other areas of the upper woodland fringe have been invaded by Bracken (*Pteridium aquilinum*) or Gorse (*Ulex europaeus*).

Associated with this wide range of habitats is a diverse breeding bird community. Within the woodland are Buzzard (*Buteo buteo*), Raven (*Corvus corax*), Tawny Owl (*Strix aluco*), Pied Flycatcher (*Ficedula hypoleuca*), Redstart (*Phoenicurus phoenicurus*) and all three species of woodpecker. Dipper (*Cinclus cinclus*) and Grey Wagtail (*Motacilla cinerea*) nest along the river and Wheatear (*Oenanthe oenanthe*), Stonechat (*Saxicola torquata*) and Whinchat (*S. rubetra*) breed on the heathland.

Mytleberry Cleave provides exposures of the Lower Lynton Beds (late Emsian), unique in displaying parallel laminated sandstones, in contrast with the usual Lynton Beds succession of mudstones and siltstones. Large examples of the trace fossils present indicate a shallow water environment, not recorded elsewhere in the Lynton Beds. Some horizons at this locality resemble the “normal” Lynton beds lithology and have yielded a typical brachiopod fauna.