

County: Devon **Site Name:** West Exmoor Coast and Woods

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 665495

Area: 709.9 ha 1754.2 ac

Ordnance Survey Sheet 1: 50 000: 180

1: 25 000 SS 64 NW NE
74 NW, 75 SW

Date Notified (Under 1949 Act): Heddon's Mouth 1952
Woody Bay 1972

Data of Last Revision: 1976

Date Notified (Under 1981 Act): 1986

Date of Last Revision: –

Other Information:

Includes NCR sites: Heddon Valley Woods, Woody Bay.

Previous SSSIs Heddon's Mouth and Woody Bay combined and amended at 1985 revision.

In Exmoor National Park and Exmoor Heritage Coast.

In County Structure Plan Nature Conservation Zone.

Parts owned by the National Trust.

Description:

This 9km stretch of the Exmoor coast and coastal valleys supports important areas of ancient Sessile Oak woodland, maritime plant communities, an outstanding coastal lichen flora in the Valley of Rocks and a rich bird population. There are also three important geological features represented within the site.

The north-facing cliffs rise steeply from the rocky shore platform to over 200m and are composed of sand-stones and shales. These have given rise to shallow and well-drained, coarse, loamy soils. The exposed cliffs support typical maritime plant communities, including Heather (*Calluna vulgaris*), Bilberry (*Vaccinium myrtillus*), Bell Heather (*Erica cinerea*) and Western Gorse (*Ulex gallii*) in heathland areas and Thrift (*Armeria maritima*), Rock Sea-spurrey (*Spergularia rupicola*), Buck's-horn Plantain (*Plantago coronopus*) and Common Scurvy-grass (*Cochlearia officinalis*) on the ledges and turf slopes. Poorly vegetated scree occurs on the steepest slopes, particularly in Heddon's Mouth Cleave, but where shelter permits, woodland has developed such as at Neck Wood and Woody Bay.

The sheltered river valleys are well wooded. Here the soils are loamy or silty, being derived from the underlying slates, mudstones and siltstones. The extensive woodlands are dominated by Sessile Oak (*Quercus petraea*), with a variety of stand types depending on the soil and drainage conditions. Downy Birch (*Betula pubescens*) grows with the oak on the poorer soils above, whilst Rowan (*Sorbus aucuparia*), Holly (*Ilex aquifolium*) and Hazel (*Corylus avellana*) become more abundant on the richer soils lower down the valley sides. In Woody Bay the rare Devon Whitebeam (*Sorbus devoniensis*) and *S. subcuneata* Ash (*Fraxinus excelsior*), Alder (*Alnus glutinosa*) and Sallow (*Salix cinerea*).

The woodland ground flora also varies according to soil conditions. On the thinner, more acidic soils Wavy Hair-grass (*Deschampsia flexuosa*), Common Cow-wheat (*Melampyrum pratense*) and Bilberry are frequent, whereas the deeper and more fertile areas support a wider variety of species, including Ramsons (*Allium ursinum*), Primrose (*Primula vulgaris*) and Sanicle (*Sanicula europaea*). Bracken (*Pteridium aquilinum*), with occasional Gorse (*U. europaeus*), covers large areas, especially along some of the woodland edges.

A diverse, luxuriant fern and lichen flora has developed in the moist, clean-air conditions afforded by the site. Buckler-ferns (*Dryopteris* spp.) are well represented, including the local Hay-scented Buckler-fern (*D. aemula*); Soft Shield-fern (*Polystichum setiferum*) is also present. Over 100 species of lichen have been recorded, including several, old-forest indicators such as *Nephroma laevigatum*, *Pannaria pityrea* and *Pschyphiale cornea*. The Valley of Rocks supports over 140 lichen species, the supralittoral community being particularly well developed. As such it is the most important locality for these in north Devon. Many local species are present, including *Caroplaca arnoldii* (with only two other sites in Devon), *Lecanactis monstrosa* (one other Devon site), *Fuscidea kockiana*, *Opegrapha cesareensis*, *Solenospora vulturensis* and *Roccella fuciformis*.

The variety of habitats within the site provides for a diverse breeding bird population. Typical woodland species include Pied Flycatcher (*Muscicapa hypoleuca*), Redstart (*Phoenicurus phoenicurus*), Wood Warbler (*Phylloscopus sibilatrix*) and Lesser Spotted Woodpecker (*Dendrocopus minor*). Nesting sea-birds include Guillemot (*Uria aalge*) and Razorbill (*Alca tords*), this being the best mainland site in north Devon for these species. The heathland supports Whinchat (*Saxicola rubetra*), Stonechat (*S. torquata*) and Wheatear (*Oenanthe oenanthe*). This coast is also a traditional area for the Peregrine (*Falco peregrinus*).

Several important geological features occur along this coast. In the Devonian Period, some 360–400 million years ago, a continental landmass lay to the north and sea to the south (exposures at Myrtleberry Cleave near Watermeet indicate a shallow-water marine environment there). *Hollowbrook*, between Heddon's Mouth and Woody Bay, is an important locality exposing a complete section through the Lynton Beds/Hangman Sandstone Group boundary. This is the

type section of the Hollowbrook Formation, which is the lowest unit of the Handman Sandstone Group. This site is of interest in displaying the transition from a shallow water marine environment to a littoral (“beach”) facies which occurred around the Lower/Middle Devonian boundary. It is a key site for interpreting the geography of the Devonian period and in fixing the position of the southern shoreline of the Old Red Sandstone continent.

Crock Point, between Woody Bay and Lee Bay, is a key locality showing Lynton Beds which have yielded a unique shelly fauna. The fossil assemblage is of importance in interpreting the past ecology of these sediments. Its main significance is in Lynton Beds should be assigned to the Lower Devonian. This is a key stratigraphic locality among sites showing marine Devonian rock strata.

The *Valley of Rocks* also contains excellent exposures of the Lynton Beds, displaying the typical fauna and lithologies of the North Devon Coast sections. The exposure is extensive and the beds are very fossiliferous and have yielded almost every species and group which has been recorded from the Lynton Beds. These are stratigraphically the oldest Devonian units in the North Devon – Somerset area.

Following the Devonian Period these strata were folded and fractured during the Hercynian Orogeny, a protracted period of mountain building and crustal instability which affected most of southern Britain. In the comparatively recent Quaternary times within the last 21 million years, Britain acquired its present geographic shape but most of the northern and western parts of the country were covered by ice. The Valley of Rocks is a classic landform locality of SW England, noted for a dry valley and a range of periglacial features. The site has played a focal role in the development of ideas concerning coastal and drainage evolution in north Devon. One widely held explanation of the Valley of Rocks involves marine capture of a pre-existing river valley; another interpretation holds that the feature is a marginal meltwater channel of Wolstonian age and therefore one of several key lines of evidence indicating the former presence of glacier ice on the northern coast of SW England. In addition, the association of tors, talus and blockstreams and the head, fluvial and raised beach deposits, makes Valley of Rocks a locality of considerable importance for Pleistocene geomorphology.

Site Notified to the Secretary of State on 4 March 1986