

COUNTY: AVON

SITE NAME: AVON GORGE

DISTRICT: WOODSPRING, BRISTOL CITY

Status: Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act 1981 (as amended) Part is National Nature Reserve declared under Section 23 of the National Parks and Access to the Countryside Act 1949.

Local Planning Authority: Avon County Council, Woodspring District Council, Bristol City Council

National Grid Reference: ST 560743, 564740 Area: 155.4 (ha) 384.0 (ac)

Ordnance Survey Sheet 1:50,000: 172: 1 10,000: ST 57 NW, ST 57, NE,
ST 57 SW, ST 57 SE

Date Notified (Under 1949 Act): 1952 Date of Last Revision: 1974

Date Notified (Under 1981 Act): 1988 Date of Last Revision: –

Other Information:

Site listed in "A Nature Conservation Review" Ed D.A. Ratcliffe (Cambridge University Press 1977) and in the Geological Conservation Review. The National Nature Reserve is owned by the National Trust. Boundary has been amended by extension and deletion.

Description and Reasons for Notification:

Avon Gorge lies on the edge of Bristol and rises about 100 metres from the tidal River Avon to Observatory Hill on the eastern side and Stokeleigh Camp to the west. The site includes part of Leigh Woods.

The Gorge has natural cliffs and quarry exposures of Carboniferous limestone, which are of great geological interest and, together with the screes, scrub, pockets of grassland and adjacent woodland, support an exceptional number of nationally rare and scarce plant species.

Nationally rare plants found on the gorge are Round-headed Leek *Allium sphaerocephalon*, Bristol Rock-cress *Arabis stricta*, which is unique to the site, Compact Brome *Bromus madritensis*, Nit-grass *Gastridium ventricosum*, Little Robin *Geranium purpureum ssp purpureum*, Western Spiked Speedwell *Veronica spicata ssp hybrida* and Honewort *Trinia glauca*. Nationally scarce plants in the gorge are Fingered Sedge *Carex digitata*, Dwarf Sedge *Carex humilis*, Dwarf Mouse-ear *Cerastium pumilum*, Hutchinsia *Hornungia petraea*, Spring Cinquefoil *Potentilla tabernaemontani*, Autumn Squill *Scilla autumnalis* and Rock Stonecrop *Sedum fosterianum ssp elegans*. Other plants of restricted distribution in Britain are Little-robin *Geranium purpureum* and Lesser Meadow-rue *Thalictrum minus*. Rock outcrops and small areas of limestone grassland in Leigh Woods support some of these rare and scarce plants. Angular Solomon's-seal *Polygonatum odoratum*, which is nationally scarce, occurs in the woodland.

Leigh Woods cover the gorge's western side, the plateau above and the steep valleys down to the River Avon and overlie the limestone except for a narrow band of Devonian sandstones to the north. The woods are mainly semi-natural, broadleaved woodland, but the site also includes areas of mixed and broadleaved plantation and parts are ancient woodland. The canopy has Pedunculate and Sessile Oak *Quercus robur* and *Q. petraea*, with Ash *Fraxinus excelsior*, Wych Elm *Ulmus glabra* much of which has died of Dutch Elm Disease, Small-leaved Lime *Tilia cordata*, Birch *Betula sp* and whitebeams *Sorbus spp*. Beech *Fagus sylvatica*, Hornbeam *Carpinus betulus*, Sycamore *Acer pseudoplatanus*, Spanish Chestnut *Castanea sativa*, Wild Cherry *Prunus avium* and occasional hybrid limes *Tilia spp* have all been planted, sometimes in single species

stands. The shrub layer is discontinuous, with frequent Hazel *Corylus avellana* and occasional Field Maple *Acer campestre*, Privet *Ligustrum vulgare*, Hawthorn *Crataegus monogyna*, Spindle *Euonymus europaeus*, Dogwood *Cornus sanguinea* and Yew *Taxus baccata*. The main ground layer species are Ivy *Hedera helix*, Male Fern *Dryopteris filix-mas*, Bluebell *Hyacinthoides non-scripta*, Ramsons *Allium ursinum*, Dog's Mercury *Mercurialis perennis* and Bramble *Rubus fruticosus*. The ground flora is very diverse and plants of particular note include Columbine *Aquilegia vulgaris*, Lily-of-the-Valley *Convallaria majalis*, Ivy Broomrape *Orobanche hederæ*, Toothwort *Lathraea squamaria*, Wild Madder *Rubia peregrina*, Green Hellebore *Helleborus viridis*, Soft-shield Fern *Polystichum setiferum*, Southern Polypody *Polypodium cambricum* and Beech Fern *Thelypteris phegopteris*.

The northern slope of Paradise Bottom has fine Small-leaved Lime high forest and young Ash stands, with ground layers dominated by Ramsons.

The woods and gorge have an exceptional diversity of whitebeams *Sorbus spp* including two which are unique to Avon Gorge, *Sorbus bristoliensis* and *S. wilmottiana*. *S. anglica* and *S. eminens*, national rarities, and the nationally scarce *S. porrigentiformis* also occur. Of the other species, Wild Service-tree *S. torminalis* and the introduced Swedish Whitebeam *S. intermedia* are of note.

Other habitats include small areas of herb-rich calcareous grassland, patches of Bracken *Pteridium aquilinum* and the strandline saltmarsh along the River Avon.

Geological interest

This site shows the complete local succession of the Carboniferous Limestone. The classic work of Vaughan and Reynolds on the marine fossils of the limestones, and the adoption of the sections as the standard for the 'Avonian' (=Dinantian), makes this one of Britain's historic geological sites, important for both the study and development of stratigraphy. The section spans (with gaps) the entire Tournaisian and Visean series (Courseyan-Brigantian stages), and also includes the Old Red Sandstone Portishead Beds below. The Avon Gorge affords one of the best opportunities for the study of Carboniferous rocks in Britain, studies which have continued since the early 19th century.