

Notification date: 15 August 1989

COUNTY: DERBYSHIRE

SITE NAME: MASSON HILL

DISTRICT: DERBYSHIRE DALES

SITE REF: 15 WC8

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

Local Planning Authority: DERBYSHIRE COUNTY COUNCIL, Peak Park Joint Planning Board, Derbyshire Dales District Council

National Grid Reference: SK 290588

Area: 93.4 (ha.) 230.8 (ac.)

Ordnance Survey Sheet 1:50,000: 119

1:10,000: SK 25 NE, SK 26 SE

Date Notified (Under 1949 Act): –

Date of Last Revision: –

Date Notified (Under 1981 Act): 1989

Date of Last Revision: –

Other Information:

New site.

Description and Reasons for Notification:

Masson Hill is situated on the western flank of Matlock Dale rising to 330 metres above sea level. The Hill has a core of basaltic lavas, ashes and agglomerates, pierced by a plug of dolerite. The dolerite is exposed near the summit and the succession of limestones and interlayered lavas dip off to north, east and south. A series of caverns and solution caves with associated mineralisation are encompassed by the main area of the site which extends from the top of Masson Hill itself, eastwards to the bottom of Matlock Dale. There are two outlying areas of the site to the south which are of mineralogical interest, and three outlying areas of the site to the north which contain important cave systems.

The overlying soils are mainly well drained loams, which are shallow and calcareous in places.

Within the site are areas of high biological interest. These support a species rich grassland overlying a complex of mostly impoverished soils which are calcareous, neutral, leached acidic, or contaminated by mineral spoil. There are, additionally, areas of ancient and semi-natural broadleaved woodland on the south-east of Masson Hill and along the western side of Matlock Dale.

Geological Interest

The site consists of an interrelated complex of naturally formed cave passages and mine galleries covering a large area. They are a classic mineral locality for flat and pipe veins containing a wide variety of different minerals including fluorspar, calcite and barytes as well as lead and copper associations. Some of the caves are of an exceptional age, with an early phase of formation that occurred more than 180 million years ago, before the time of mineralisation that lined pre-existing caves with minerals. A later phase of cave development dates from the Ice Age (Pleistocene). The sediments washed into the caves by glacial meltwaters and the stalagmite sequences, provide an incomparable record of the full Pleistocene history of this area. Detached sections of the site cover Jug Holes with its unique beehive stalagmite formations developed on volcanic rock (toadstone); Oxclose Mine with its multi-coloured flowstones; and Brightgate Cave containing joint maze and bedding passages unmodified by mining.

Biological Interest

The species rich calcareous and acidic grasslands are dominated by sheep's-fescue *Festuca ovina* with acidic areas characterised by heath bedstraw *Galium saxatile*, sheep's sorrel *Rumex acetosella* and bitter-vetch *Lathyrus montanus*. The calcareous grasslands are characterised by common rock-rose *Helianthemum nummularium*, kidney vetch *Anthyllis vulneraria* and abundant wild thyme *Thymus praecox* with good populations of the locally uncommon autumn gentian *Gentianella amarella* and frog orchid *Coeloglossum viride*.

The unimproved neutral grasslands are dominated by meadow fescue *Festuca pratensis* and crested dog's-tail *Cynosurus cristatus* and characterised by devil's-bit scabious *Succisa pratensis* and great burnet *Sanguisorba officinalis*, with common spotted-orchid *Dactylorhiza fuchsii* among a diverse flora.

Areas of spoil associated with old mineral workings support good populations of the nationally rare spring sandwort or 'leadwort' *Minuartia verna* and alpine penny-cress *Thlaspi alpestre*. There is a large population of fragrant orchid *Gymnadenia conopsea* on one area of spoil heaps.

Substantial areas of ancient woodland have been converted to mature beech *Fagus sylvatica* and sycamore *Acer pseudoplatanus* plantation, but small areas of semi-natural woodland persist. These are dominated by ash *Fraxinus excelsior* and elm *Ulmus glabra* with pedunculate oak *Quercus robur*, yew *Taxus baccata* and the nationally rare large-leaved lime *Tilia platyphyllos*. Within these more natural areas the understorey is well structured and contains a variety of shrub species including field maple *Acer campestre*, guelder-rose *Viburnum opulus* and dogwood *Cornus sanguinea*. The ground flora is dominated locally by ivy *Hedera helix* and dog's mercury *Mercurialis perennis*, with abundant woodruff *Galium odoratum*, sanicle *Sanicula europea*, wood melick *Melica uniflora*, bearded couch *Elymus caninus* and other species which are indicative of ancient woodlands.

Several species of bat frequently use the mines and cave systems of Masson Hill as roosting and hibernation sites. Jugholes Cave has a colony of the locally uncommon whiskered bat *Myotis mystacinus* which has been well documented over a long period.