

SITE NOTIFIED TO THE SECRETARY OF STATE ON 30 MARCH 1992

COUNTY: DERBYSHIRE
RAKE

SITE NAME: OXLOW

DISTRICT: HIGH PEAK

SITE REF: 15 W7J

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

Local Planning Authority: PEAK PARK JOINT PLANNING BOARD, High Peak Borough Council

National Grid Reference: SK 131805

Area: 5.5 (ha.) 13.6 (ac.)

Ordnance Survey Sheet 1:50,000: 110/119

1:10,000: SK 17 NW, 18 SW

Date Notified (Under 1949 Act): –

Date of Last Revision: –

Date Notified (Under 1981 Act): 1992

Date of Last Revision: –

Other Information:

New site.

Description and Reasons for Notification:

Oxlow Rake is one of the largest remaining areas of vegetated lead rakes in the South Pennines, where an open vegetation characteristic of substrates rich in heavy metals occurs. On areas of lower toxicity, parts of the site support a closed turf similar to typical limestone grassland plant communities along with other communities characteristic of acid grassland. This intimate mix of different grassland types is a key feature of the site.

Situated 2 km north east of Peak Forest village at an altitude of 410 m–430 m above sea level on the western slope of Bradwell Moor, Oxlow Rake occupies the site of a former lead deposit at the northern end of the Derbyshire orefield. The mine working, excavation and dumping of waste gangue minerals, has created a topography of hummocks and hollows of varying lead content. Although these toxic, inhospitable soils have a thin cover of vegetation, they support species which show special adaptive features which allow them to grow in such situations and are of considerable scientific interest.

At Oxlow Rake, the most notable of these 'metallophyte' plants is spring sandwort or 'leadwort' *Minuartia verna*, a species which throughout nearly all of its British distribution is confined to heavy-metal soils. The site also supports two further species which within the South Pennines are strongly associated with heavy-metal rich soils; mountain pansy *Viola lutea* and moonwort *Botrychium lunaria*. These species are found in a community comprising sheep's fescue *Festuca ovina*, common sorrel *Rumex acetosa*, ribwort plantain *Plantago lanceolata* and wild thyme *Thymus praecox*.

Other undisturbed areas support acid grassland communities comprising wavy hair-grass *Deschampsia flexuosa*, sweet vernal-grass *Anthoxanthum odoratum*, red fescue *Festuca rubra*, heath bedstraw *Galium saxatile*, tormentil *Potentilla erecta*, and mountain pansy, including examples of the rarer blue flowered form.

Disturbed areas of low heavy metal toxicity support a good calcareous grassland community of red fescue, sweet vernal-grass, common bird's-foot trefoil *Lotus corniculatus*, mouse-ear hawkweed *Hieracium pilosella*, bulbous buttercup

Ranunculus bulbosus, spring sedge *Carex caryophylla* and the nationally restricted limestone bedstraw *Galium sternerii*. Other locally uncommon plants found on this size are meadow saxifrage *Saxifraga granulata*, mossy saxifrage *S. hypnoides*, autumn gentian *Gentianella amarella*, common whitlow grass *Erophila verna*, hairy rock-cress *Arabis hirsuta*, and musk thistle *Carduus nutans*.

The site is of considerable research interest and has contributed to our understanding of how plant species adapt to stressed environments and the way in which lead enrichment inhibits agriculture.