

COUNTY: DERBYSHIRE

SITE NAME: ROSE END MEADOWS

DISTRICT: DERBYSHIRE DALES

SITE REF: 15 P1Y/1006654

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, Derbyshire Dales District Council

National Grid Reference: SK 290567

Area: 48.5 (ha.) 119.8 (ac.)

Ordnance Survey Sheet 1:50,000: 119

1:10,000: SK 25 NE

Date Notified (Under 1949 Act): –

Date of Last Revision: –

Date Notified (Under 1981 Act): 1996

Date of Last Revision: –

Other Information:

New site.

Description and Reasons for Notification:

The meadows, pastures and associated habitats which make up this site lie between Cromford and Middleton-by-Wirksworth on the south-eastern edge of Derbyshire's White Peak. To the north lies the nationally important extensive ancient woodland complex of the Via Gellia, whilst to the south and in the midst of the site there are large scale, active limestone quarries. The grasslands are at an altitude of between 130 and 300 m. Together they comprise the most extensive area of unimproved herb-rich grassland in the county outside the Derbyshire Dales. The fields are generally small (averaging less than 1 ha.), most being enclosed by dry limestone walls but some by hedges. Many of them bear the scars of a long history of mineral extraction but the derelict mines and spoil tips have now revegetated by varying degrees, giving a range of plant communities characterised by species capable of withstanding high levels of heavy metals in the soil.

Where the soils are deeper and relatively fertile, neutral grasslands, many traditionally mown for hay, support abundant pignut *Conopodium majus*, yellow rattle *Rhinanthus minor*, great burnet *Sanguisorba officinalis* and knapweed *Centaurea nigra*, together with a number of species more typically associated with woodlands such as bluebell *Hyacinthoides non-scripta* and wood anemone *Anemone nemorosa*. Meadow saxifrage *Saxifraga granulata* and betony *Stachys officinalis* are both locally abundant and two locally scarce species, adder's-tongue fern *Ophioglossum vulgatum* and dyer's greenweed *Genista tinctoria*, occur in this community.

Calcareous grasslands are found where the soils overlying the limestone are shallower and less productive. Many of the pastures are tightly grazed for much of the year with swards dominated by sheep's fescue *Festuca ovina* and bent grasses *Agrostis* spp. These grasslands support a number of orchid species such as fragrant orchid *Gymnadenia conopsea*, pyramidal orchid *Anacamptis pyramidalis*, bee orchid *Ophrys apifera* and frog orchid *Coeloglossum viride*. Large populations of cowslips *Primula veris* and early purple orchids *Orchis mascula* give a distinctive appearance to parts of the site in spring.

Where the grazing pressure is less intense and the fields are too uneven or too small to be cut a distinctive tall herbaceous vegetation is found, with similarities to some of the neutral to calcareous hay meadow communities found in northern England. Species such as globeflower *Trollius europaeus* and melancholy thistle *Cirsium*

*helenioides* are found here; both very close to the south-eastern limits of their north-western oceanic distributions.

Where the effects of centuries of mining activity have left spoil rich in heavy metals such as lead and zinc on or near the surface of the ground, plant growth is generally sparse and many of the more competitive grassland species fail to grow in the toxic environment. This situation gives those species capable of withstanding high concentrations of metal ions in the soil a chance to flourish. A distinctive community of plants is found in such situations, characterised by the two nationally scarce metal tolerant (metallophyte) species; leadwort *Minuartia verna* and alpine penny-cress *Thlaspi caerulescens*. Wherever conditions are slightly less toxic, over more highly weathered spoil, a grass-dominated vegetation is found. Here the small, locally scarce fern moonwort *Botrychium lunaria* and mountain pansy *Viola lutea* occur alongside the leadwort, alpine penny-cress and other metal-tolerant species, to form a distinctive variation on the 'metallophyte' community.

The open conditions found on such metal-rich spoils also favour the development of a specialised ground-dwelling (terricolous) lichen community, including the nationally scarce species *Vezdaea retigera*, *Verrucaria melaenella* and *Verrucaria murnia*.

Towards the eastern edge of the site a small area of ancient woodland adds to the species diversity and provides the habitat for a number of plants indicative of ancient woodlands including yellow archangel *Galeobdolon luteum*, toothwort *Lathraea squamaria* and moschatel *Adoxa moschatelina*. Other woodland species such as the nationally scarce narrow leaved bittercress *Cardamine impatiens* and the regionally scarce shrub, purging buckthorn *Rhamnus catharticus* are associated with the ancient hedgerows on the site.

One of the most striking features of the invertebrate fauna at Rose End Meadows is the abundance of individuals of many species, reflecting the large area and diversity of semi-natural habitats within and adjacent to the site. This is perhaps most evident amongst the moths and butterflies, the latter including declining species such as dingy skipper *Erynnis tages*, green hairstreak *Callophrys rubi* and northern brown argus *Aricia artaxerxes*.

Slow worms *Anguis fragilis*, which are scarce in Derbyshire, breed within the site.