

**Site name:** Blackmore Vale Commons and Moors SSSI **County:** Dorset

**District:** North Dorset

**Status:** Site of Special Scientific Interest (SSSI) notified under section 28C of the Wildlife and Countryside Act 1981 as inserted by Schedule 9 to the Countryside and Rights of Way Act 2000.

**Local Planning Authority:** North Dorset District Council, Dorset County Council

**National grid reference:** ST751113 **Area:** 296.28 ha

**Ordnance Survey sheets:** **1:50,000:** 194 **1:10,000:** ST 70 NW; ST 71 SW, SE

**Notification date:** 8<sup>th</sup> March 2012

### Reasons for notification:

Blackmore Vale Commons and Moors SSSI supports a diverse mosaic of semi-natural habitats, including unimproved grasslands, ancient semi-natural woodland and wood pasture, scrub, and an extensive network of hedges, with small wetlands, ponds and waterways. It is of special interest by reason of the following nationally important features that occur within and are supported by the wider habitat mosaic: species-rich neutral grassland of the National Vegetation Classification (NVC) type MG5 crested dog's-tail *Cynosurus cristatus* – common knapweed *Centaurea nigra* grassland; fen-meadow and rush-pasture dominated by the NVC type M24 purple moor-grass *Molinia caerulea* – meadow thistle *Cirsium dissectum* fen-meadow, with smaller areas of M23 soft/sharp-flowered rush *Juncus effusus/acutiflorus* – fen bedstraw *Galium palustre* rush-pasture, M25 purple moor-grass *Molinia caerulea* – tormentil *Potentilla erecta* mire, and a species-rich community intermediate between M24 fen-meadow and the NVC type MG9 Yorkshire fog *Holcus lanatus* – tufted hair-grass *Deschampsia cespitosa* grassland; ancient semi-natural woodland, primarily of the NVC type W8 ash *Fraxinus excelsior* – field maple *Acer campestre* – dog's mercury *Mercurialis perennis* woodland, with a few areas of W10 pedunculate oak *Quercus robur* – bramble *Rubus fruticosus* – bracken *Pteridium aquilinum* woodland; wood-pasture and parkland with veteran trees; an assemblage of lichens; and populations of the marsh fritillary *Euphydryas aurinia* and brown hairstreak *Thecla betulae* butterflies, and the dingy mocha moth *Cyclophora pendularia*.

### General description:

The Blackmore Vale Commons and Moors are confined to a small area on heavy neutral to acidic soils over Oxford Clay in the damp clay vale south of the market town of Sturminster Newton. The dominant habitats of the unimproved commons and moors are fen-meadows and rush-pastures, with an adjacent series of unimproved grasslands, some managed as traditional hay meadows. Set within this pastoral landscape are a number of ancient semi-natural woodlands, along with thick hedgerows and old drove roads with many veteran trees. The woodland ride network and clearings provide habitat continuity with the adjoining meadows and commons, with some notable species-rich grassland stands. The site also includes Stock Gaylard Park which is one of the few remaining active deer parks in Dorset notable for its veteran trees and associated lichen flora. This mosaic of lowland grasslands, woodlands, hedges, scrub and old trees, with an intimate mix of various vegetation communities, supports many plants and animals, including rare and scarce lichens, butterflies and moths.

### Grassland, fen-meadow and rush-pasture

The meadows and fields comprise a mixture of grassland types occurring as stands of unimproved more traditionally managed hay meadows as well as mosaics of semi-improved vegetation. The ground conditions, varying from seasonally wet and inundated soils through to damp heavy clays and locally well drained land have allowed for a wide variety of grassland types to develop.

Typically, the vegetation is dominated by various grass species comprising of common bent *Agrostis capillaris*, sweet vernal-grass *Anthoxanthum odoratum*, meadow fescue *Festuca pratensis*, red fescue *F. rubra* and Yorkshire fog *Holcus lanatus*, with occasional glaucous sedge *Carex flacca*, crested dogs-tail *Cynosurus cristatus* and rye grass *Lolium perenne*. A few meadows support less common hairy brome *Bromus ramosus* and meadow barley *Hordeum secalinum*, and the nationally scarce French oat-grass *Gaudinia fragilis* occurs in two fields. In damper areas transitional grassland communities occur with stands of tufted hair-grass *Deschampsia cespitosa* and varying amounts of creeping bent *Agrostis stolonifera*, cocksfoot *Dactylis glomerata*, tall fescue *Festuca arundinacea* and rough meadow-grass *Poa trivialis*, with soft rush *Juncus effuses*, sharp-flowered rush *Juncus acutiflorus* and compact rush *J. conglomeratus* locally prominent.

Characteristic broad-leaved herbs vary considerably due to soils and management. Typically, key indicator species of unimproved vegetation occur, including meadow vetchling *Lathyrus pratensis*, common knapweed *Centaurea nigra*, birds-foot trefoil *Lotus corniculatus*, corky-fruited water-dropwort *Oenanthe pimpinelloides*, tormentil *Potentilla erecta*, ox-eye daisy *Leucanthemum vulgare*, locally abundant devil's-bit scabious *Succisa pratensis* (food plant for the marsh fritillary caterpillar), autumn hawkbit *Leontodon autumnalis* and zig-zag clover *Trifolium medium*. Less frequent but present in many stands, yellow rattle *Rhinanthus minor*, betony *Stachys officinalis*, pignut *Conopodium majus*, sneezewort *Achillea ptarmica*, saw-wort *Serratula tinctoria*, pepper-saxifrage *Silaum silaus*, trailing tormentil *Potentilla anglica*, lesser stitchwort *Stellaria graminea* and tufted vetch *Vicia cracca* add to the diversity of the vegetation.

The agriculturally unimproved commons and moors, where damper conditions occur have vegetation more characteristic of fen-meadow. Here the plant community comprises purple moor-grass *Molinia caerulea*, tufted hair-grass, occasional wood small-reed *Calamagrostis epigejos* and reed canary-grass *Phalaris arundinacea*. There is also a rich sedge flora, including the local pale sedge *Carex pallescens*, flea sedge *C. pulicaris* and bladder sedge *C. vesicaria*. Rushes, notably jointed rush *Juncus articulatus* and compact rush, indicate damper conditions. The herb component has similarities with the hay meadows but some species can be particularly abundant and make up a colourful display, including: common knapweed, meadow thistle *Cirsium dissectum*, meadow vetchling, greater birds-foot trefoil *Lotus pedunculatus*, common fleabane *Pulicaria dysenterica*, hoary ragwort *Senecio erucifolius*, plus more locally sneezewort, common spotted-orchid *Dactylorhiza fuchsii*, watermint *Mentha aquatica*, dyer's greenweed *Genista tinctoria*, saw-wort, pepper saxifrage, betony, creeping willow *Salix repens* and devil's-bit scabious, with occasional lady's smock *Cardamine pratensis*, meadowsweet *Filipendula ulmaria* and fen bedstraw *Galium palustre*. In places, small numbers of the Near Threatened petty whin *Genista anglica* occur.

### Woodlands

Pedunculate oak *Quercus robur* is the most common tree throughout the woods both as old coppice and mature standards, often over an understorey of hazel *Corylus avellana*, ash *Fraxinus excelsior*, field maple *Acer campestre* and hawthorn *Crataegus monogyna*. Wild privet *Ligustrum vulgare* is locally frequent and a number of other shrubs, including blackthorn *Prunus spinosa*, contribute to the varied structure and natural woodland edge.

In spring the ground flora on the moister soils is dominated by wood anemone *Anemone nemorosa*, bugle *Ajuga reptans*, primrose *Primula vulgaris*, lesser celandine *Ranunculus ficaria* and wood sedge *Carex sylvatica*. Bluebell *Hyacinthoides non-scripta* is abundant on drier areas in association with species such as wood avens *Geum urbanum*, herb-Robert *Geranium robertianum*, honeysuckle *Lonicera periclymenum* and common bent. Other plants indicative of ancient woodland include yellow archangel *Lamiastrum galeobdolon*, yellow pimpernel *Lysimachia nemorum* and remote sedge *Carex remota*. Early purple orchid *Orchis mascula*, betony and devils-bit scabious occur along rides and hedgerows which contribute to the variety of the woodland habitat.

On seasonally wet soils the ground layer reflects the conditions and is characterised by an abundance of tufted hair-grass, with more scattered false brome *Brachypodium sylvaticum*,

pendulous sedge *Carex pendula*, thin-spiked wood sedge *C. strigosa* and wood sedge *C. sylvatica*. In the northern part of Sedge Copse there are dense stands of greater pond-sedge *C. riparia*.

On drier neutral brown earth or acid soils the canopy of oak and birch *Betula* spp. occurs over a sparse understory of hawthorn, holly *Ilex aquifolium*, blackthorn *Prunus spinosa* and grey willow *Salix cinerea*. The ground flora has abundant tufted hair-grass and Yorkshire fog, plus wood small-reed, wood sedge, broad-buckler fern *Dryopteris dilatata*, ivy *Hedera helix*, slender St John's-wort *Hypericum pulchrum*, honeysuckle, purple moor-grass, tormentil *Potentilla erecta*, field rose *Rosa arvensis* and dog violet *Viola riviniana*, plus the mosses *Eurhynchium striatum*, *Polytrichum formosum* and *Thuidium tamariscinum*.

#### Wood-pasture, parkland and veteran trees

The SSSI includes a fine example of a functioning deer park at Stock Gaylard Park with an outstanding population of well over 100 veteran trees. Adjoining this area are several woodlands, including Stock Wood, which support additional notable veteran trees. Further veteran trees are found on the commons and moors and the extensive network of hedges and drove roads also retains many trees of old age that are readily classified as veterans. The veteran trees support a nationally important assemblage of lichens. The dominant veteran tree species is pedunculate oak, with some very large and old trees plus large standing and fallen decaying specimens. There are smaller numbers of horse chestnut *Aesculus hippocastanum*, lime *Tilia x vulgaris*, beech *Fagus sylvaticus*, sycamore *Acer pseudoplatanus*, ash, field maple and hawthorn, with willows *Salix* spp. by the lake.

The Deer Park is largely unimproved and there are numerous ant-hills of the yellow meadow ant *Lasius flavus*. The grassland is dominated by grasses with few herbs due to constant deer grazing. Church Park in the west has been agriculturally improved, but it contains two of the oldest trees, notably a named tree, the Crusader Oak.

#### Lichens

The ancient and veteran trees within the SSSI support a rich assemblage of epiphytic lichens, including large number of species indicative of ecological continuity, as well as nationally rare and nationally scarce lichens. Stock Gaylard Park is the key location for the lichen assemblage but there are also important trees supporting lichens elsewhere within the SSSI, including the woodlands south-west of Deadmoor Common. The assemblage includes two species that are vulnerable in Great Britain (*Bacidia incompta* and *Cryptolechia carneolutea*), as well as nationally important populations of the rapidly declining and endangered *Anaptychia ciliaris* and the near-threatened *Lecanora sublivescens*. Also of particular note is the abundance of *Pertusaria flavida*, an uncommon lichen in Dorset, as well as two nationally scarce lichenicolous fungi that are found on *Pertusaria* species: *Cyphelium sessile* on *P. coccodes* and *Sphinctrina turbinata* on *P. pertusa*.

#### Butterflies and moths

The SSSI holds important populations of two Vulnerable butterfly species. The marsh fritillary *Euphydryas aurinia* occurs on the damp meadows and commons centred on the large colony at Rooksmoor with smaller colonies at Lydlinch Common, Alners Gorse and Deadmoor Common. Adult marsh fritillary butterflies survive in meta-populations formed by a number of linked sub-populations or colonies which may frequently die out and re-establish. These meta-populations are reliant on the conservation of a cluster of suitable habitat patches in close proximity to enable this re-colonisation.

Within Dorset, the brown hairstreak butterfly *Thecla betulae* is restricted to the Blackmore Vale and the SSSI includes the most important colonies. It breeds on blackthorn found in abundance in the hedges as well as on patches of young scrub found on the commons and moors. The most important areas in the SSSI for brown hairstreak are centred on Alners Gorse, Rooksmoor and Lydlinch Common.

The dingy mocha is an extremely restricted species that occurs primarily in Dorset and the New Forest. The SSSI includes one of the two centres of its distribution in Dorset. Dingy mocha is

found at three locations within the SSSI, mainly associated with open fen-meadows with scattered young or coppiced willows *Salix* spp.

In addition to the reasons for notification described above, the SSSI includes the Dorset stronghold of the nightingale *Luscinia megarhynchos* which breeds in the scrub and dense hedges found throughout the SSSI.

The SSSI is also known to regularly support populations of other nationally scarce and declining butterfly species, including white-letter hairstreak *Satyrium w-album*, grizzled skipper *Pyrgus malvae*, green hairstreak *Callophrys rubi*, brown argus *Aricia agestis* and dingy skipper *Erynnis tages*. Notable moth species include the rapidly declining forester moth *Adscita statices* found in unimproved grasslands. The small eggar *Eriogaster lanestris*, a local moth that requires sensitively managed blackthorn hedges, has also been recorded.

Other invertebrates are less well recorded but the formerly widespread Rare soldier beetle *Cantharis fusca* has suffered serious decline in recent years and has been found on one of the commons. Also in association with unimproved damp grassland is a rich assemblage of snail-killing flies (Sciomyzidae). The woodlands and parkland are likely to support a rich invertebrate assemblage and at least three nationally scarce species associated with trees and deadwood have been recorded: the longhorn beetle *Anaglyptus mysticus*, the wood boring weevil *Magdalis cerasi* and the dark malachite beetle *Aplocnemus impressus*.