Views About Management

ENGLISH NATURE

A statement of English Nature's views about the management of Leziate, Sugar and Derby Fens Site of Special Scientific Interest (SSSI).

This statement represents English Nature's views about the management of the SSSI for nature conservation. This statement sets out, in principle, our views on how the site's special conservation interest can be conserved and enhanced. English Nature has a duty to notify the owners and occupiers of the SSSI of its views about the management of the land.

Not all of the management principles will be equally appropriate to all parts of the SSSI. Also, there may be other management activities, additional to our current views, which can be beneficial to the conservation and enhancement of the features of interest.

The management views set out below do not constitute consent for any operation. English Nature's written consent is still required before carrying out any operation likely to damage the features of special interest (see your SSSI notification papers for a list of these operations). English Nature welcomes consultation with owners, occupiers and users of the SSSI to ensure that the management of this site conserves and enhances the features of interest, and to ensure that all necessary prior consents are obtained.

Management Principles

Wet lowland heath

Heathland supports the greatest diversity of plants and animals (including a diverse invertebrate fauna and a number of characteristic bird species) where management maintains the open nature of the heath and by promoting a varied structure of uneven-aged stands of native heathers and other characteristic plants. It is generally beneficial if all stages of the heather life cycle are present. Without such management, and especially on wet ground, heathland becomes progressively dominated by purple moor grass tussocks and/or scrub and trees.

Wet heaths occur where soil drainage is impeded, allowing the characteristic plants of wet heathland such as heather and cross-leaved heath to dominate the vegetation. Wet heaths often form transitional communities between drier heath and true peat bog. Generally wet heaths require limited management but light grazing may be useful for maintaining the variation in vegetation composition and structure, as well as controlling invasive grasses such as purple-moor grass and preventing the encroachment of scrub and trees. Heavy grazing should be avoided as it can lead to a decline in characteristic dwarf shrub cover in favour of grass and sedge species, as well as excessive poaching and erosion of the underlying peat. The precise timing and intensity of grazing and the type of stock used will depend on local conditions.

The use of burning as a management tool on wet heaths can be damaging to the sensitive plant communities they support. Similarly, the machinery required for cutting or mowing can be damaging to the fragile peat soils of wet heaths and both should be avoided.

Water levels within wet heaths should be maintained to avoid adverse changes to the characteristic plant composition of the habitat. Although careful maintenance of existing ditches and drains may be acceptable, the abandonment or deepening of ditches or drains should be avoided. In some instances it may be appropriate to restore natural drainage where this is possible.

There is some benefit in retaining a few scattered individual trees, small clumps of Scots pine, birch and willow and some small patches of scrub. For example, the maintenance of scattered mature Scots pine in undisturbed locations will provide suitable nest sites for hobbies. However, these should not encroach on the open nature of the habitat, and mechanical control and manual cutting, followed by the careful spot application of a suitable herbicide may be necessary. Bracken invasions may also need controlling in this way.

Where gorse is present, scattered stands with a bushy structure rather than large continuous blocks are of greater benefit to the characteristic bird and invertebrate species associated with gorse scrub. For example, Dartford warbler require areas of open heath (with less than 25 trees per hectare) with over 50% cover of mature heather (preferably over 30 cm tall) and patches of dense, compact, mature gorse bushes (0.5-3 m tall) to be maintained. Winter cutting of 'leggy' stands of gorse and the removal of cut material will maintain gorse at different stages of re-growth and avoid nutrient accumulation in the soil.

Marshy grassland

Marshy grassland requires active management if it is to retain its conservation interest. Generally, each year's growth of vegetation must be removed. Otherwise the sward becomes dominated by tall, vigorous grasses and rushes which, together with an associated build up of dead plant matter, suppress less vigorous species and lower the botanical richness of the sward. Traditionally, this management is achieved by grazing. Cattle are often the preferred stock, being relatively tolerant of wet conditions and able to control tall grasses and rank vegetation. Cattle also tend to produce a rather uneven, structurally diverse sward. However, ponies, or even hill sheep, can be used if necessary. Grazing usually takes place at times between late spring and early autumn, but the precise timing and intensity will depend on local conditions and requirements, such as the need to avoid trampling ground-nesting birds or destroy Marsh Fritillary butterfly colonies. Heavy poaching should be avoided but light trampling can be beneficial in breaking down leaf litter and providing areas for seed germination. An element of managed scrub, both within and fringing a field can be of importance to birds and invertebrates, as can a surrounding hedge. Careful maintenance of existing ditches and drains is usually acceptable practice, but abandonment or deepening of ditches can be harmful.

Lowland acid grassland
Free-draining, acidic soil is the key requirement of the grassland communities at this site, but their maintenance also depends on active management. If neglected, the sward becomes dominated by tall, vigorous grasses or bracken which, together with an associated build up of dead plant matter, suppress less vigorous species and reduce the botanical richness of the site. Eventually the sward reverts to scrub and even woodland. Traditionally, management has consisted of stock grazing and this remains the most appropriate management tool. Grazing, through the removal of plant matter and nutrients, helps to maintain an open sward of small tussocky grasses. It also, through disturbance and trampling, creates areas of open ground suitable for colonization by the lichens, ephemeral plants and invertebrates that are often characteristic of this type of grassland. However, rabbit grazing, though difficult to control, can also be a useful management tool in some situations. Occasional management of invasive scrub and bracken may be necessary.

Calcareous grassland
In order to maintain a species-rich sward and its associated insects and other invertebrates, calcareous grassland requires active management. Without management it rapidly becomes dominated by stands of rank grasses, such as Tor-grass. These grasses, together with the build up of dead plant matter, suppress less vigorous species and lower the diversity of the site. Eventually, the site will scrub over. Traditionally, management is achieved by grazing. The precise timing will vary both between and within sites, according to local conditions and requirements. These may include stock type or the needs of particular plants or animals; certain invertebrates, for example, can benefit from the presence of taller vegetation. However, grazing should generally aim to keep a relatively open sward without causing excessive poaching. Light trampling can be beneficial by breaking down leaf litter and providing bare patches for seed germination and some invertebrates. An element of managed scrub, both within and fringing calcareous grassland can be of great importance to certain birds and invertebrates, but excessive scrub should be controlled.

Valley mire
Fen often develops within valleys and the origins and movement of the water within the fen give rise to a number of different vegetation zones. The variety of plant and animal life in the valley mire is closely linked to the number and type of zones it contains.

Management should aim to maintain the groundwater quality and quantity, though the quantity is not likely to be naturally constant throughout the seasons or between wet and dry years. The groundwater is often susceptible to contamination by agricultural fertilisers, or by pollution leaking from landfill sites.

Grazing is important in the management of the valley mire. Animals help to break up the tussocks of rank grasses such as purple moor grass, opening the sward up to a greater variety of plants. The precise timing and intensity of grazing will vary according to local conditions and requirements. Some (but not excessive) trampling is necessary to create open soil, for invertebrates, mosses and seedling establishment. Grazing also limits the spread of willow, alder and birch carr, which naturally tends to develop around the central watercourse and it should be restricted to this area, other

than for a few isolated clumps elsewhere for the benefit of birds and invertebrates. Swamps are also important for invertebrates and birds and the inclusion of some swamp vegetation, such as reedbed, within the mosaic of habitats present will add to the conservation value of the site. However, excessive spread of reed, reed canary grass, or reed sweet grass is likely to be an indication of worsening water quality, the cause of which should be investigated and addressed to maintain the characteristic fen communities.

Stock feeding, or the location of grazing infrastructure, for example stock shelters, should take place downstream of the valley mire. This is to ensure the mire vegetation does not become enriched by nutrients from animal food or dung, or even from carcases, causing unwanted changes in the composition of the characteristic mire vegetation in favour of tall, species-poor communities.

Drainage schemes should not intercept the sources of ground and surface water to the valley mire. It is important for the watercourses of the valley mire not to receive run-off from fertilised land or surface water from farmyards. The bed of the watercourse should not be lowered, nor should its water level be artificially raised, other than as part of a well thought-out conservation scheme. This will ensure the various vegetation components of the valley mire are maintained in their ideal proportions, and that 'head-ward' erosion is not triggered, in which increased flow gradually erodes the peat and silt on which the valley mire has developed.

All habitats

The habitats within this site are highly sensitive to inorganic fertilisers and pesticides, applications of which should be avoided both within the site itself and in adjacent surrounding areas. Herbicides may be useful in targeting certain invasive species, but should be used with extreme care. Access to this site, and any recreational activities within, may also need to be managed.