Views About Management

ENGLISH NATURE

A statement of English Nature's views about the management of Burrington Combe 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

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.

Chalk/limestone heath

This rare and remarkable community develops where acid soils overlie chalk or calcareous rock and the pH of the soil is approximately neutral. Species typical of

acidic heathlands (e.g. heather and bell heather) grow in conjunction with species typical of calcareous grasslands (e.g. salad burnet and wild thyme). This habitat is unstable and requires active management to prevent "shade out" of the characteristic species by scrub encroachment. Grazing by cattle, horses, sheep or a combination of the above is a useful method of management. This may be insufficient on its own however, and further cutting and/or mowing may be necessary. If this is performed, the cut material should be removed, as the resulting nutrient accumulation will create unfavourable conditions for the characteristic species.

Scrub

Scrub habitats are low-growing communities where the main woody components are bushes or small trees, such as hawthorn, rowan and juniper. Scrub supports a wide variety of species and ecological communities. In particular, the transitional zone between scrub and other habitats can be important for wildlife, especially invertebrates.

Often, scrub is a transitional stage that will develop into woodland if unmanaged. Maintaining structural diversity and a mosaic of age classes within areas of scrub is important for maintaining the diversity of species the scrub is able to support. For example, hawthorn scrub supports the greatest variety of bird and insect species in the early and middle stages of growth.

Scrub can be managed using rotational cutting, which should aim to maintain a mosaic of patches at different stages of growth. Scrub can also be cut in small patches to create an intimate mixture of scrub and grass and/or heath.

Grazing is another method for managing scrub and on some sites may be a more suitable management tool than cutting. By its nature, grazing can help to create a patchy mosaic of scrub and other upland habitats. As with cutting, it can also help to maintain a range of age classes. However, stock levels do need to be carefully controlled. If grazing pressure is too high the structure of the scrub vegetation may become impoverished. Also, the scrub may not be able to regenerate naturally, leading to a loss of cover over time. Where the objective is to increase the area of scrub an initial period of fencing to control grazing may be required.

Broadleaved semi-natural woodland

There are many different ways in which broadleaved woodland can be managed to conserve its value for wildlife. The following gives broad views on a range of regimes that may be appropriate on your site.

A diverse woodland structure, with open space, a dense understory, and a more mature overstory is important. A range of ages and species within and between stands is desirable. Some dead and decaying wood, such as fallen logs, can provide habitats for fungi and invertebrates. However, work may be needed to make safe dangerous trees in areas of high public access. Both temporary and permanent open spaces benefit groups of invertebrates such as butterflies. They may require cutting to keep them open, and should be of sufficient size to ensure that sunny conditions prevail for most of the day.

Felling, thinning or coppicing may be used to create or maintain variations in the structure of the wood, and non-native trees and shrubs can be removed at this time. To avoid disturbance to breeding birds the work is normally best done between the beginning of August and the end of February. Work should be avoided when the ground is soft, to prevent disturbing the soil and ground flora. Normally successive felling, thinning or coppicing operations should be spread through the wood to promote diversity, but where there is open space adjacent plots should be worked to encourage the spread of species that are only weakly mobile. Natural regeneration from seed or stump regrowth is preferred to planting because it helps maintain the local patterns of species and the inherent genetic character of the site.

Deer management and protection from rabbits or livestock are often necessary. Whilst light or intermittent grazing may increase woodland diversity, heavy browsing can damage the ground flora and prevent successful regeneration. Invasive species, such as *Rhododendron* or Himalayan balsam, should be controlled.

Parts of a wood should be left unmanaged to benefit species that do best under low disturbance or in response to natural processes. Within these areas some trees will eventually die naturally and dead wood accumulate.

Caves

Caves represent a very important scientific resource for a number of reasons. Caves themselves provide important information on environment, climate and landscape development over the last several million years. Caves often contain sediments deposited by underground rivers that are also important in the study of environment and climate change in the recent geological past. Some caves contain animal bones where the animals once used the caves for shelter. On the surface, these bones and sediments would not have been preserved but would have been destroyed by weathering and erosion. Bones and artefacts from our early ancestors are also preserved in caves. Cave formations, such as stalactites and stalagmites, are important for a range of studies, including scientific dating, and are also of great aesthetic value. In addition, caves are an important habitat for bats and invertebrates.

Caves are sensitive systems which often suffer significant pressure from human activities, both above and below ground. It is important to manage the overlying land and catchment in a manner which takes account of potential consequences on the caves. Groundwater pollution from fertiliser, spreading of agricultural or industrial waste on land and dumping of rubbish or other waste in swallow holes or cavities are serious problems in some caves. Activities, such as pumping groundwater or diverting water courses, can affect the groundwater regime through cave systems and have serious effects on the dynamics of the system.

Blocking of cave entrances can also have serious repercussions below ground in altering air flow with consequent effects on underground climate. For example, the growth of stalactites and stalagmites is dependent on water composition, air temperature and humidity. These are easily perturbed so that growth is altered or ceases. Activities that may vary the amount of light available within the cave should also be considered carefully. Quarrying can result in partial or complete destruction of caves, or can disrupt their underground or surface catchment.

Direct pressures underground can arise from irresponsible caving. Problems associated with caving include inadvertent physical damage to cave features such as cave formations (flowstone, stalactites and stalagmites) and cave sediments, destruction of cave sediment deposits through irresponsible cave exploration, pollution and removal of cave formations or other minerals by collectors. The National Caving Association's guidelines on responsible caving are supported by English Nature and provide important information on caving and conservation.

Positive management of caves may require good access management which is often best undertaken by responsible local caving clubs and associations. Gating can be a solution to controlling access to sensitive caves, with access maintained by responsible caving groups.

The disturbance or removal of any geological material from caves can be damaging to the features that make this cave special. A precautionary approach should be adopted before removing or allowing any material to be removed from caves or before permitting any underground activities, such as digging of cave sediments, which could cause permanent loss or damage.

Inland outcrops and stream sections (EO sites)
The ideal management for natural inland geological sites is the maintenance of rock exposure free of vegetation and, in some cases, the build-up of rock debris. Management usually involves periodic clearance of vegetation and rock debris. Vegetation growth is a problem on many sites, because erosion rates are usually too low to naturally maintain fresh exposure of the geological features.

It may not be always practical or entirely necessary to maintain full exposure of the geological features on a site. Site management will often involve defining specific areas that need to be kept clear of vegetation and rock debris.

Collecting of geological specimens may be acceptable if undertaken in a responsible manner. However, there are some sites where the geological interest is very finite in nature and over-collecting can result in damage or destruction of the interest. Collecting of specimens requires very careful management to ensure that the geological resource is conserved.

The main threats to conservation of inland geological sites are developments that obscure the rock exposures. Tree planting can also conceal rock exposures.

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.