



Scottish Natural Heritage
All of nature for all of Scotland

**Forest of Clunie
Site of Special Scientific Interest**

SITE MANAGEMENT STATEMENT

Site code: 1709

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Purpose



This is a public statement prepared by SNH for owners and occupiers of the SSSI. It outlines the reasons it is designated as an SSSI and provides guidance on how its special natural features should be conserved or enhanced. This Statement does not affect or form part of the statutory notification and does not remove the need to apply for consent for operations requiring consent.

We welcome your views on this statement.

Description of the site

The Forest of Clunie comprises a large area of upland moorland and grassland with several small lochs and woodland. It extends north from the Dunkeld - Blairgowrie road to the Spittal of Glenshee in the north-east and the southern slopes of Ben Vrackie in the north-west.

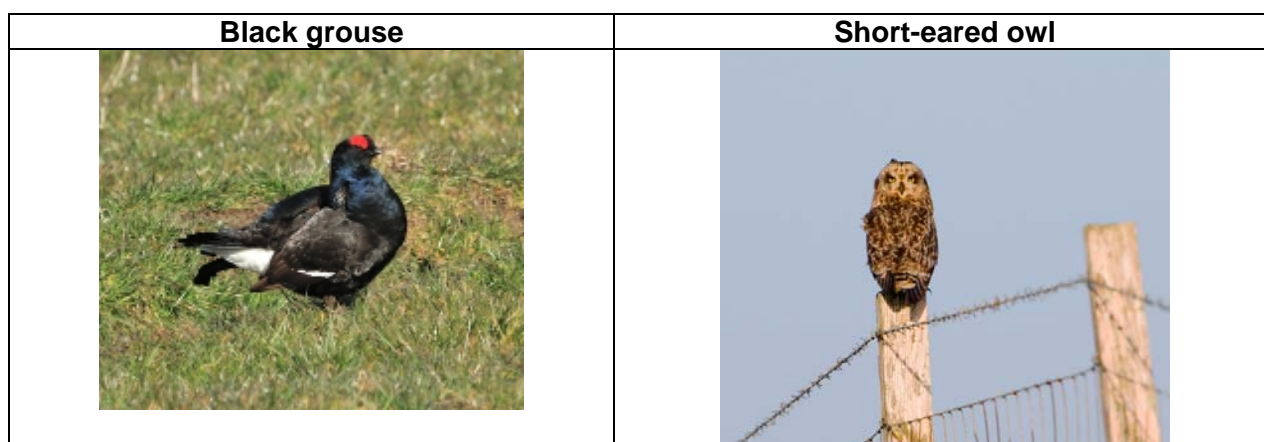
The Forest of Clunie area is of special nature conservation importance because of its outstanding assemblage of upland breeding birds. The site supports breeding populations of four species for which it is a Special Protection Area: hen harrier, osprey (the populations of these species at the time of notification were among the largest and densest in Britain), short-eared owl and merlin. The Forest of Clunie is also of national importance for its population of black grouse.

Hen harriers nest in areas of deep heather in the Forest of Clunie moorlands. They defend small nesting territories but forage widely over the whole site. Unknown numbers of hen harrier also winter in the area. Short-eared owl and merlin also nest on the moorland and share much the same habitats as hen harrier. Ospreys nest in the small stands of mature trees within the SSSI, foraging on some of the small open waters within the site but mainly on larger lochs and rivers to the south and west of the site. The site has a large population of black grouse, and is in the heart of this species' stronghold in Britain.

The moorland is mostly dry heath with smaller areas of wet heath, blanket bog and flushes, where the ground water percolates through or over the soil. The wetter habitats, whilst relatively small in extent, are of great significance in providing feeding areas for many of the young moorland birds such as grouse and waders.

The numerous burns, flushes and springs which are generally acidic, support communities dominated by sedges, soft-rushes and sphagnum mosses. The many lochans on the site are also acidic and support sedge dominated mire fringes, with two lochs also supporting small reedbeds. Broadleaved woodland, most commonly of downy birch is scarce and patchily distributed, often around burns - these woodlands are grazed, with a grass or bracken understorey. Bracken is relatively uncommon on the site, occurring mainly around the periphery and especially in association with deciduous woodlands and burns.

Forest of Clunie SSSI overlaps a small part of the River Tay Special Area of Conservation which is designated for Atlantic salmon, otter and brook lamprey (as well as several other interests which do not occur in this part of the SAC). It also overlaps with small parts of Brerachan Meadows SSSI and Cardney Wood SSSI which are designated for lowland neutral grassland and upland oak woodland respectively.



Current condition of the natural features

A summary of the latest site monitoring information is given below:

Natural features of Forest of Clunie SSSI	Feature condition (date monitored)	Other relevant designations
Black grouse, breeding	Favourable, maintained (March 2005)	
Hen harrier, breeding	Unfavourable, declining (March 2005)	SPA
Osprey, breeding	Favourable, maintained (March 2005)	SPA
Short-eared owl, breeding	Favourable, maintained (March 2005)	SPA
Breeding bird assemblage	Favourable, maintained (March 2005)	SPA

Features of overlapping Natura sites that are not notified as SSSI natural features	Condition of feature (date monitored)	SPA or SAC
Merlin, breeding	Favourable, maintained (March 2005)	SPA
Atlantic salmon <i>Salmo salar</i>	Favourable, maintained (October 2004)	SAC
Otter <i>Lutra lutra</i>	Favourable, maintained (April 2004)	SAC
Brook lamprey (Lampetra planeri)	Favourable, maintained (November 2007)	SAC

Past and present management

The main economic activities of the SSSI are sheep farming and sport shooting and management of the land for these has modified and continues to modify the vegetation to produce today's landscape. Two areas of native pinewood plantations were established on the site in the 1990s. While these have not been as successful as might have been wished in terms of densities of trees, they have proved valuable in regularly hosting two hen harrier nesting sites. Although land use across the site has remained quite constant, the balance of different uses across the site has moved in response to government policies, availability of economic incentives and markets, changes in recreational demands and the personal objectives of individual owners.

Agriculture: Sheep rearing occurs over a large part of the site and is, with appropriate muirburn, an integral part of the management of moorland. The grazing of muirburn patches prevents their conversion to grassland and allows the heather to regenerate. Grazing densities were thought to be generally compatible with the conservation interests but in combination with deer (see sporting management below), sheep have been agents for damaging change to some extensive areas of heather moorland. Incentives to reduce grazing and trampling through the Forest of Clunie Moorland Management Scheme (MMS) have been taken up widely and this is expected to lead in time to the recovery of the moorland. There are early signs that recovery of the heather is underway. In other areas, where heather has disappeared, the extent of bracken might suggest overgrazing may be a cause (possibly in conjunction with deer). In some areas, large patches of moorland have been burned in the past to promote better sheep grazing. Together with high stocking densities (of sheep and deer) this burning can change heather moorland to a grass-dominated sward. Bracken control has been carried out on several estates in the recent past, and continues to be carried out. A few estates graze cattle on the moorland during summer months. Some land managers have been successful in gaining entry to the Scotland Rural Development Programme (SRDP) and are delivering plans which should be helping the features of the site through appropriate stock management, muirburn and bracken control.

Sporting Management: About half of the site is managed as grouse moor and subject to cyclical burning. Burning of the old heather can be beneficial for both red grouse and sheep grazing through the encouragement of new growth in a mosaic of small patches. The Forest of Clunie MMS has supported and encouraged the reinstatement of rotational burning. Moorland management for grouse should also be beneficial to small rodents and birds and, in turn, raptors and owls through the promotion of prey populations and large tracts of open, diverse moorland. In the event, well-intentioned attempts at good quality muirburn of the appropriate extent in the appropriate areas have been frustrated, in many cases by time and weather pressures which have in cases led to under-resourced efforts resulting in runaway fires. Within the site, intensity of moorland management varies considerably, from near abandonment to well established muirburn programmes. There is a general interest across the site to return to grouse shooting as an economic activity. A more careful attention to muirburn within grouse moor management programmes conserving large stands of tall heather would be beneficial to the management of the bird interests in the Forest of Clunie area.

Deer management has not been a major economic activity across the site in the recent past: landowners to the north are more active in sporting deer management. Damage to heather through trampling and grazing by deer and in places in combination with sheep led to the Forest of Clunie being placed on the Audit List of sites for Joint Working by public agencies and an Herbivore Impact Assessment (HIA) was produced in 2006 for the northern and eastern part of the site. This was followed by meetings

with land managers and greater effort given over to deer control in this part of the site followed. Allied to this has been greater effort on sheep management, and although there is still a need for continued effort on this aspect of management, there are early signs of recovery of the heather in parts of this area.

Heather beetle infestations have arisen in the recent past on some estates in the site. Maintaining a rotational muirburn plan is considered by some authorities to offer the best way to resist very damaging attacks and sustain a healthy moor.

There are several lochs within the site that are managed, to a greater or lesser extent, as sport fisheries. No commercial fishery production is known to occur within the site. Providing that disturbance of shore nesting birds can be avoided, management for sport fishing is considered compatible with the requirements for the SSSI and to date the relevant bird species in the assemblage feature continue to nest successfully.

Forestry and woodland development opportunities: Within the site are two substantial young native pinewood plantations and further plantations of commercial conifers and native pine occurring adjacent to the site boundary. There is very limited scope for traditional forestry and woodland development within the site, however there are opportunities for the establishment of small, up to 1ha patches of scrub of local native species which would increase diversity and structure.

Recreational pursuits: Beyond the sporting interests above, walking, angling and mountain biking are the main recreational activities on the site. The Cateran Trail, several rights of way, shorter formal trails and extensive estate tracks allow access over much of the site. Three countryside ranger services operate on or adjacent to the site, and could develop roles in visitor management by providing information and advice for casual visitors. Current recreational activities on the SSSI are not considered to be detrimental to the bird interest and in 2009 one day of the week long National orienteering festival took place on the site without harm.

Other developments and activities: Although there are currently no wind-farms within the site, tests have been made in the area. The impact of such developments on birds depends greatly on design details. The site is of greatest sensitivity to wind farms and places the greatest constraints on their development.

There are a number of archaeological sites (including Scheduled Ancient Monuments) within the site. Management of the land in or surrounding such sites is unlikely to impact on the bird interest.

Objectives for Management (and key factors influencing the condition of natural features)

The long term objective for the site is:

- To improve, through appropriate moorland management, the mosaic of moorland habitats and in particular the age structure of the heather resource over the Forest of Clunie in order to sustain the current diversity of upland breeding birds and the important populations of hen harrier, osprey, short-eared owl, merlin and black grouse.

There is scope for enhancing certain habitats, e.g. dry heaths, scrub and wetter areas through the following broad areas of management:.

1. **Sporting Management:** Stalking of red, roe and fallow deer is an economic activity carried out over more than two thirds of the site. High numbers of deer are known on parts of the site and may in turn be leading to the deterioration of moorland habitats through grazing and trampling of heather and other dwarf shrubs. Effective deer management is essential to the long-term maintenance of the moorland and the SSSI interests. This is monitored by the Deer Commission for Scotland, SNH and the West Grampian Deer Management Group through the framework of a Deer Management Plan which seeks the long term maintenance of healthy heather moorland. There is very little if any driven grouse sport in the Forest of Clunie, although some owners aspire to this objective. Moorland management for grouse and in particular muirburn has the potential to create conditions most favourable to the upland breeding birds. The planned retention of stands of mature heather on banks favoured by ground nesting birds of prey will have greatest beneficial affects. Conversely muirburn also has the potential for significant harm to ground nesting birds of prey by removing nesting sites and great care is needed to avoid harmful muirburn.
2. **Agriculture:** sheep husbandry is the principal agricultural activity on the site although there are a few units where cattle are raised. Grazing by stock at the appropriate level is essential to the cycle of regeneration of heather, prompted by muirburn. In some areas of the site the density of domestic stock, sometimes in combination with deer is leading to conditions where the heather may not regenerate. These areas are likely to become dominated by grasses or bracken. The 2006 herbivore impact survey showed that heather over a third of the site to the north of the Pitlochry – Bridge of Cally road was suppressed and that these areas are most at risk from deterioration if current pressures continue. No recovery, and in the long-term, the loss of heather and blaeberry could be expected. Recent activity from land managers, supported by the Forest of Clunie Moorland Management Scheme and the SRDP is aimed at reducing this pressure so that there is a recovery.
3. **Forestry:** Large-scale conversion of moorland to forestry, either through individual schemes or cumulatively, would have an adverse impact on the SSSI interests. This scenario is now considered very unlikely, and forest and woodland management on and adjacent to the site now offers significant opportunities for work, supported with public funds, to restructure and benefit SSSI species in particular black grouse. Some owners have opened and ‘feathered’ hard forest edge and this has landscape and biodiversity benefits. There remains scope on the SSSI for small scale scrub development and this may be protected by carefully marked deer fencing if necessary. Collisions with fencing is a major cause of black (and red) grouse mortality, and may be a significant factor in the Forest of Clunie where there are extensive areas of relatively recent plantations. There may, as the woodlands mature, be scope for fence removal or height reduction.
4. **Future Needs:** Current land management practice is broadly compatible with, and often essential to, maintaining the conservation interest of the site. However, high grazing and trampling levels by sheep and deer, alone or in combination, have the potential to harm moorland vegetation and with that, the bird communities that are SSSI interests. The 2006 Habitat Impact Assessment identified areas where this issue was most pressing. Some progress has been made and there are early signs of recovery in some areas. Recent monitoring of

breeding success indicates a decline in numbers of some ground nesting species. If this is confirmed then further consideration will be needed. There is a concern that muirburn practice may be affecting the ground nesting birds of prey by removing key nesting areas in stands of tall heather that were widespread on the site in the past. Discussions with owners and occupiers are needed to enable SNH to better understand management needs of owners and to advise best practice on muirburn and the management of diverse moorland habitats to benefit specific bird species.

We wish to work with the owners and occupiers to protect the site and to maintain and where necessary enhance its features of special interest. SNH aims to carry out site survey, monitoring and research as appropriate to increase our knowledge and understanding of the site, its natural features and the effectiveness of management.

The EU Habitats and Birds Directives oblige Government to avoid, in SACs and SPAs, the deterioration of natural habitats and the habitats of species, as well as disturbance of the species for which the areas have been designated, in so far as such disturbance could be significant in relation to the objectives of these Directives. The objectives above have been assessed against these requirements. All authorities proposing to carry out or permit to be carried out operations likely to have a significant effect on the European interests of this SSSI must assess those operations against the relevant Natura conservation objectives (which are listed on our website through the SNHi - SiteLink facility).

Other factors affecting the natural features of the site

Persecution – the hen harrier of all the birds of prey on the site suffers, at a population level in Scotland, the effects of persecution. The natural population in eastern Scotland is suppressed by the destruction of adult birds, nests and nestlings. There is no suggestion that this activity takes place on the Forest of Clunie, but it is likely that recruitment into the SSSI is being reduced both from the wider regional population and by the killing of recruits from Forest of Clunie nests when they range off the site. These factors are likely reducing the ability of the population in the Forest of Clunie to recover.

Egg collecting – Some of the rare birds that breed on Forest of Clunie SSSI are potential targets for illegal egg collecting. Any suspicious vehicles or activity should be reported to the Police.

Date last reviewed: 23 March 2010