Scottish Natural Heritage

ABERNETHY FOREST
Site of Special Scientific Interest

SITE MANAGEMENT STATEMENT

Site code: 9

EAST HIGHLAND AREA
Achantoul
Aviemore
Inverness-shire
PH22 1QD

Tel: 01479 810477
Fax: 01479 811363
Email: EAST_HIGHLAND@snh.gov.uk

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

Abernethy Forest is situated between Aviemore and Nethy Bridge in Strathspey and extends from near the River Spey in the north to the foothills of the Cairngorm mountains in the south. The SSSI is located largely in the catchment of the River Nethy between Nethy Bridge in the north, Strathy Nethy in the south, Tulloch Moor in the east and Dorback in the west.

The area of the SSSI also forms the Abernethy Forest Special Protection Area (SPA) and is a component of the wider Cairngorms Special Area of Conservation (SAC). The River Spey SAC includes the River Nethy and Dorback and Duack burns within Abernethy Forest SSSI. These are all designated for wildlife features of European importance.

The SSSI is partly designated for its landforms and earth science interests. It is a key locality for charting the vegetation history of the Cairngorms area since the end of the Ice Age through pollen and plant macrofossil records found within peat and lake sediments. The site is exceptional for the length and completeness of this record and the information it provides on the history of the native pinewood. Dorback Burn is an example of a wandering gravel bed river in an upland Scottish environment. It provides important insights into channel stability and adjustments to floods of different magnitude and frequency. When monitored in 2007, these features were found to be in favourable condition.

The SSSI is also part of an internationally important area recognised for its exceptional

assemblage of pre-glacial, glacial, glaciofluvial and periglacial features. These features incorporate a wealth of information about past environmental change and landscape evolution through periods of tropical, ice age and modern temperate climates. Within the SSSI there is an intact network of landforms created and abandoned by the retreating Spey glacier, including: moraines, kames, kettle holes, terraced outwash deposits of silts, sands and gravels, and drift and rock cut melt-water channels. These landforms have created a varied topography, with marked changes in drainage, from small boggy hollows, to dry sandy ridges. Modern river processes are reworking parts of the sediment legacy of the glaciers, and different types of soils have developed on the deposits, supporting a varied range of habitats.

The SSSI is notified for its native pinewood (which is the largest in Britain) and forms an important link in the continuous tract of native pinewoods stretching south to Glen Feshie that together, form around half of the total extent of this habitat found in Britain. The SSSI is also notified for its peatland, heathland and fen habitats which occur within and around the woodland. When monitored between 2002 and 2008 these habitats were generally found to be in favourable condition. However, the bearberry heath on Tulloch Moor was found to be in unfavourable condition, largely due to a lack of suitable age structures and lack of muirburning and/or grazing.

The SSSI provides nesting and feeding areas for many bird species and has been notified specifically for its breeding populations of capercaillie, Scottish crossbill, crested tit and osprey. It is also notified for its associated assemblage of woodland breeding birds (including spotted flycatcher, tree pipit, redstart and black grouse), When monitored during the period 1998 – 2009 capercaillie, crested tit, osprey and the breeding bird assemblage were found to be in favourable condition. Monitoring reports for Scottish crossbill are awaited.

The site supports an important flowering plant assemblage associated with the native pinewood. For example, twinflower is found at a number of locations and there are also populations of intermediate wintergreen and two populations of one-flowered wintergreen.

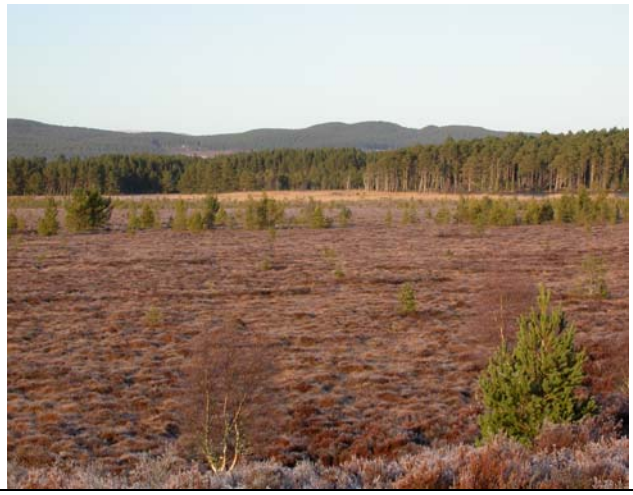
The SSSI is also notified for its assemblages of lichens, fungi, beetles, dragonflies and other invertebrates (including many rare species) associated with the pinewood and other habitats. When monitored during the period 2002 – 2008 these features were found to be in favourable condition.

Abernethy Forest is one several SSSI that form the extensive Cairngorms Special Area of Conservation (SAC). The SAC has been identified for a wide range of upland and woodland habitats as well as its population of otters and green shield-moss. The area of Abernethy Forest SSSI is of particular importance for the following habitat features of European importance: Caledonian forest, bog woodland, quaking mires, blanket bog, juniper scrub, wet heathland, dry heaths, alpine-subalpine heaths, acid peat-stained lakes or ponds and dry grasslands.

When monitored in 2003 and 2004 respectively, both green shield-moss and otter were found to be in favourable condition. When monitored between 2002 and 2009 most habitat features were found to be in favourable condition. However the heath habitats, blanket bog and Caledonian forest were in unfavourable condition due to areas of heavy

trampling and browsing and burning in sensitive areas. The dry grassland habitats were unfavourable due to lack of browsing in some areas. These features were monitored at the larger SAC scale and therefore the locations where these features were considered unfavourable may lie outwith this SSSI. Further fieldwork is being carried out to determine the extent of the unfavourable features and inform necessary management action.

The River Spey SAC overlaps with Abernethy Forest SSSI which is therefore also important for otter and Atlantic salmon. When monitored in 2004, the otter population was in favourable condition. The population of Atlantic salmon was considered to be in an unfavourable condition because of low densities of juvenile fish and a depleted autumn population of adults. Both aspects are thought to be recovering.

Bearberry heath, Tulloch Moor	Peat and lake sediments, Loch Mallachie
	

Natural features of Abernethy Forest SSSI	**Condition of feature (date monitored)**	**Other relevant designations**
Quaternary of Scotland	Favourable - maintained (May 2007)	
Fluvial Geomorphology of Scotland	Favourable - recovered (April 2007)	
Native pinewood	Favourable - maintained (September 2008)	SAC
Basin fen	Favourable - maintained (August 2004)	
Raised bog	Favourable - maintained (August 2003)	SAC
Subalpine dry heath	Unfavourable - no change (September 2004)	SAC
Crested tit	Favourable - maintained (May 1998)	
Capercaillie	Favourable - maintained (April 2009)	SPA
Scottish crossbill	No monitoring results available.	SPA
Osprey	Favourable - maintained (May 2007)	SPA
Breeding bird assemblage	Favourable - maintained (July 2000)	

Vascular plant assemblage	Favourable - maintained (March 2007)	
Fungi assemblage	Favourable - maintained (October 2008)	
Lichen assemblage	Favourable - maintained (December 2008)	
Invertebrate assemblage	Favourable - maintained (November 2002)	
Beetle assemblage	Favourable - maintained (November 2002)	
Dragonfly assemblage	Favourable - maintained (August 2002)	

Features of overlapping Natura sites that are not notified as SSSI natural features * asterisk denotes present on this SSSI	**Condition of feature (date monitored)**	**SPA or SAC**
Acid peat- stained lakes or ponds*	Favourable - maintained (July 2004)	SAC
Acidic scree	Favourable – maintained (May 2007)	SAC
Alpine and subalpine heaths*	Unfavourable – no change (April 2007)	SAC
Blanket bog*	Unfavourable – no change (April 2007)	SAC
Bog woodland*	Favourable - maintained (September 2002)	SAC
Caledonian forest*	Unfavourable – declining (January 2009)	SAC
Clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels	Favourable - maintained (July 2004)	SAC
Dry grasslands and scrublands on chalk or limestone*	Unfavourable - no change. (April 2007)	SAC
Dry heaths*	Unfavourable – no change (April 2007)	SAC
Hard-water springs depositing lime	Favourable – maintained (May 2007)	SAC
High-altitude plant communities associated with areas of water seepage	Unfavourable – no change (May 2007)	SAC
Juniper on heaths or calcareous grasslands*	Favourable – maintained (May 2007)	SAC
Montane acid grasslands	Unfavourable – recovering (July 2006)	SAC

Mountain willow scrub	Unfavourable – no change (April 2007)	SAC
Plants in crevices on acid rocks	Favourable – maintained (May 2007)	SAC
Plants in crevices on base-rich rocks	Unfavourable – no change (May 2007)	SAC
Species-rich grassland and mat-grass in upland areas	Unfavourable – no change (April 2007)	SAC
Tall herb communities	Favourable – maintained (May 2007)	SAC
Very wet mires often identified by a unstable 'quaking' surface*	Favourable – maintained (May 2007)	SAC
Wet heathland with cross-leaved heath*	Unfavourable – no change (April 2007)	SAC
Atlantic salmon*	Unfavourable – recovering (October 2004)	SAC
Freshwater pearl mussel	Unfavourable – recovering (October 2000)	SAC
Green shield-moss*	Favourable – maintained (January 2003)	SAC
Otter*	Favourable – maintained (September 2004)	SAC
Sea lamprey	Favourable – maintained (September 2002)	SAC

Past and present management

There is a long and relatively well documented history of settlement, pastoral use, forest management and exploitation at Abernethy and these have had a major impact on the current condition, composition and extent of habitats within the site.

The first mention of timber exploitation was in 1620 when Sir John Grant granted a 19 year tack to "tak and cutt tymber and weidis for ploughis, Keartis, sledis, harrowis, barrowis, curellis and siclykes uther small necessars". However the scale of felling was small and only in the more accessible areas. By 1700 the timber trade had become brisk and Sir James Grant exchanged several rights to cut yards, masts and planks. In 1728, Sir James Grant sold his woods at Abernethy to the York Building Company of London. New methods of timber extraction were employed and the River Spey and its tributaries were used to float logs to the coast. During the eighteenth century, momentum created by the York Building Co. continued and in 1798, 1803 & 1808, thousands of tons of timber were offered for sale at Garmouth. By the mid nineteenth century, the timber trade dropped sharply and in 1869 the upper forest (southern part) was turned over to a deer forest to meet the demand from sporting. Also at this time, 1869, crofters were denied renewal of their tenancies, removed from the land, and resettled elsewhere in Strathspey.

Further fellings took place between the World Wars and in the 1940s, 1960s and as recently as the 1980s. Subsequent decades saw large scale drainage and planting of

peatland sites within the forest zone.

Much of the SSSI is currently owned and managed as a National Nature Reserve by SNH and RSPB for conservation purposes – involving significant staffing, investment and public promotion. Conservation management includes restoration of native woodland and forest bog habitats, maintenance of important heathland at Tulloch, targeted habitat management for nationally rare species, deer control and re-instatement of unnecessary forest tracks.

The site played a key part in the recent Wet Woodlands Restoration LIFE Project and the Capercaillie LIFE Project. The provision of environmental education and access facilities is found throughout the site, particularly around the RSPB osprey visitor centre at Loch Garten (one of the major focuses of wildlife interpretation and visitors in the Highlands) and the Explore Abernethy visitor centre in Nethy Bridge. The SSSI is also increasingly used as a site for demonstrating conservation management, for research and for monitoring.

Other important land uses within parts of the site include sporting (deer and grouse), commercial forestry (largely native species) and agriculture (grazing of cattle and sheep) including some common grazings. Agriculture is an important land use providing employment and habitat diversity around the periphery of the site.

In common with much of Strathspey, outdoor recreation is an increasingly significant land use.

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

We **wish** to work with the owners 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 and its natural features and monitor the effectiveness of the 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 below 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).

1. To ensure that the habitat features of European importance present on the site are in favourable condition (including Caledonian forest, bog woodland, quaking mires, blanket bog, juniper scrub, wet heathland, dry heaths, alpine-subalpine heaths, acid peat-stained lakes or ponds and dry grasslands). In particular, to restore those habitats which are not currently in favourable condition (such as the bearberry heath on Tulloch Moor).

2. To ensure that populations of bird species of European and Scottish importance present on the site are in favourable condition (including capercaillie, Scottish crossbill, crested tit and osprey).

3. To ensure that the populations of other species of European importance found on the site are in favourable condition (including green shield moss, otter and Atlantic salmon)

4. To maintain the earth science features in favourable condition.

5. To maintain conditions required to support the important assemblages of breeding birds, vascular plants, lichens, fungi, beetles, dragonflies and other invertebrates.

6. To restore and/or extend important habitats which have become scarce or damaged (such as bog woodland) and habitat features which are depleted (such as dead wood).

7. To increase the breeding population and breeding success of capercaillie on the site.

8. To increase populations of other priority species which are associated with the habitats found on the site (such as water vole, pine hoverfly and intermediate wintergreen).

Other factors affecting the natural features of the site

Grazing by red and roe deer constitutes one of the most significant factors influencing both the natural features and management of the SSSI. Existing levels have enabled the establishment of pine regeneration to occur in many areas. However, current browsing pressure appears to be too high for regeneration and expansion of existing broadleaf species. Furthermore, there are indications that the reduction of both grazing levels and disturbed ground is reducing the rate of new tree seedling recruitment. Red deer grazing pressure is influenced by deer management practices across a wide deer range in the Cairngorms and Strathspey.

The continuing vulnerable state of the Scottish capercaillie population is a major factor affecting future management of this site. Further positive management for this species is likely but viable populations require larger areas of suitable habitat than exist on this site. Management of areas outside the SSSI will therefore also influence this species' status on this site.

The status of Atlantic salmon on the site is also subject to influences beyond the site.

Loch Garten was made an Area of Special Protection by Scottish Ministers orders under s3 of the WCA 1981 (as amended). This statutory bird sanctuary was established in 1960 around the osprey nesting tree. Under this Order access within the sanctuary area covering 260ha is illegal during the period April to August inclusive except with the permission of the RSPB Scotland.

Date last reviewed: 16 December 2009