



Scottish Natural Heritage

FANNICH HILLS
Site of Special Scientific Interest

SITE MANAGEMENT STATEMENT

Site code: 627

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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

Fannich Hills is a large upland Site of Special Scientific Interest (SSSI) in the northern Highlands which encompasses most of the mountains between Loch Fannich to the south and Braemore Junction to the north. It contains geological, landform and biological features of national importance. The site has close affinities with Beinn Dearg which lies immediately to the north and together they are representative of the vegetation communities which are characteristic of upland Ross and Cromarty. Most of the Fannich Hills SSSI is also a Special Area of Conservation (SAC).

The Fannich Hills SSSI contains excellent exposures of metamorphic rocks belonging to the Moine group. These rocks were originally formed about 1000 million years ago as sands and muds in an ancient sea. However they were then subject to an episode of mountain building, being metamorphosed and folded together with the older, underlying Lewisian gneisses. During a second episode of mountain-building, around 450 million years ago, the rock sequence was further deformed and rocks from the east were moved over rocks to the west along faults such as the Sgurr Beag Slide, which is exposed in the Fannich Hills SSSI. This brought rocks which had been heated to high temperatures over cooler rocks, and also brought the older Lewisian rocks on top of younger Moines. Later, all the rocks of the Moine group were moved westwards again on a major low angle fault line in the crust called the Moine Thrust. Much of this history has been pieced together using specific evidence from the Fannich Hills, and as such the site is of great importance for research into Moine geology.

The Fannich Hills are also important for Quaternary landforms called solifluction terraces, which are formed through the slow downslope movement of weathered material on mountains. Some of the best examples of solifluction terraces in Britain are

to be found on the southern ridge of Sgurr Mor, the highest Fannich peak. They are up to 5m wide, 0.7m high and still active.

The site contains a mosaic of upland habitats which are of national and European interest including blanket bog, heath, (wet, dry and high altitude), mountain grassland, tall herb communities, snow-bed communities and acidic scree.

The lower ground supports a range of sub-montane heath and mire communities. The latter supporting woolly hair moss and locally abundant dwarf birch, *Betula nana* (a nationally scarce species). There are also patches of various grassland types including bent grass - sweet vernal grass, mat grass, heath rush, and sedge - *Sphagnum* moss communities.

Dwarf shrub heath which supports the nationally scarce alpine bearberry occurs on the higher slopes whilst woolly-hair moss-crowberry heath is luxuriant on the cliff tops. Bilberry-crowberry heath is found on the block strewn slopes along with some patches of mat-grass. Tufted-hair grass grassland is well developed in the corries, along with an extensive range of snowbed communities. These include extensive *Rhytidiadelphus loreus* dominated moss heath communities as well as lady's mantle, and least cinquefoil communities and parsley fern and lady fern communities, with associated mossy springs and flushes.

On the high watersheds woolly-hair moss heath is well developed with a profusion of cushion herbs such as moss campion, *Silene acaulis*, thrift, *Armeria maritima* and the nationally scarce mossy cyphel, *Minuartia sedoides*. Flushed areas are even more diverse and include least cinquefoil, *Sibbaldia procumbens* and the moss *Aulacomnium turgidum* (both nationally scarce).

Exposed parts of the site such as the high ridges and solifluction terraces are dominated by Scottish rush, *Juncus trifidus*, and cushion herbs. Many of the cliffs have ledges supporting tall herb communities, with globe flower, *Trollius europaeus*, on the bigger ledges.

The Fannich Hills support a diverse assemblage of both beetles and flies, which includes a number of species confined to Scotland. Of particular interest are a number of species of leaf beetle which are only found at a few upland sites in the UK.

Monitoring of geological features has shown that they remain in favourable condition. The upland habitat assemblage was monitored in 2005 and also considered to be favourable. However, this assessment focused on the overall extent of the component habitat types. Subsequent monitoring of the SAC features has highlighted that all apart from the Alpine and subalpine heaths are in unfavourable condition due to high levels of localised trampling and grazing impacts by deer in some parts of the site, particularly the lower outer fringes and the central upland core.

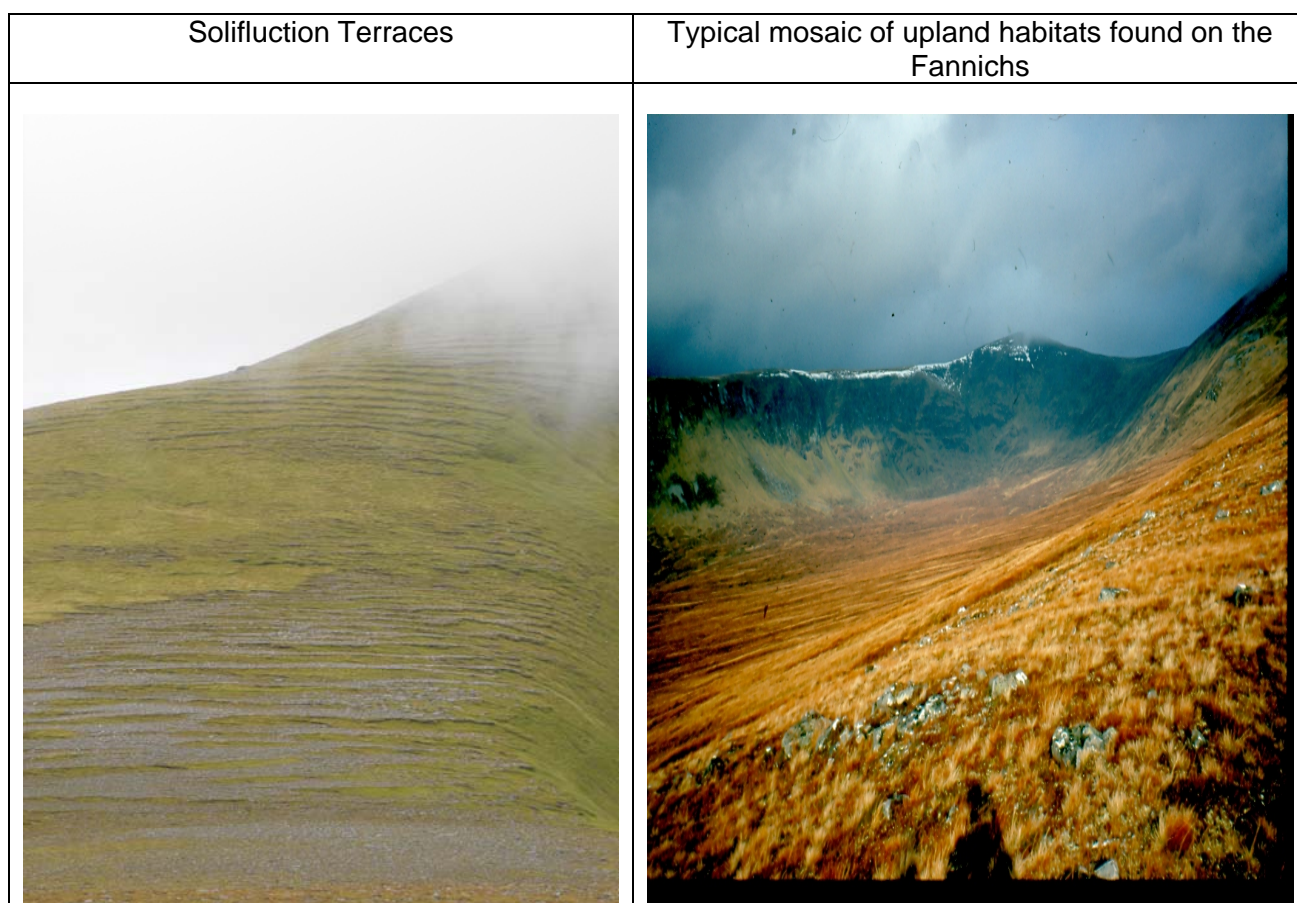
The feature clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels has been selected for re survey in 2010. Beetle and Fly features are due to be monitored in 2010/11.

Although not the reason for their designation as an SSSI, the Fannich Hills site contains many birds, vascular plants, bryophytes and lichens of interest.

The flora of the more inaccessible parts of the site has not been fully surveyed, but is known to include nationally scarce species such as Highland cudweed, russet sedge, black alpine sedge, chestnut rush and alpine saxifrage, many of which have a mainly/entirely Scottish distribution. In total the site supports 11 nationally scarce species of vascular plant as well as a large number of locally scarce species.

The mosses and liverworts include the rare moss *Paraleptodontium recurvifolium* (which grows on base-rich rocks) and the rare liverwort *Anastrophyllum joergensenii*. (which occurs in mats under dwarf shrubs) Bryophytes associated with late snow beds are also well represented.

The diverse bird assemblage, characteristic of montane grassland and heath, includes Dotterel, Golden eagle and Peregrine falcon. Black-throated divers also breed on the site.



Natural features of Fannich Hills SSSI	Condition of Feature (and date monitored)	(Other relevant designations)
Quaternary of Scotland	Favourable, maintained (September 2009)	
Moine	Favourable, maintained (January 2010)	
Upland assemblage	Favourable, maintained (September 2005)	SAC
Beetles	Not monitored	
Flies	Not monitored	

Features of overlapping Natura site that are not notified as a SSSI natural feature	Condition of feature (date monitored)	SPA or SAC
Acidic scree	Unfavourable, no change (September 2005)	SAC *
Alpine and subalpine heaths	Favourable, maintained (September 2005)	SAC *
Blanket bog	Unfavourable, no change (August 2005)	SAC*
Clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels	Favourable, maintained (August 2004)	SAC
Dry heath	Unfavourable, no change (September 2005)	SAC *
Montaine acid grasslands	Unfavourable, no change (September 2005)	SAC*
Plants in crevices on acid rock	Unfavourable, no change (September 2005)	SAC*
Wet heathland with cross-leaved heath	Unfavourable, no change (September 2005)	SAC*

* denotes those habitat types associated with the SSSI feature 'upland assemblage'.

Past and present management

The Fannich Hills are managed mainly as a deer forest, with the stalking primarily taking place during the season September to October. Although ponies are used for stalking in the past, most estates now use All Terrain Vehicles (ATVs). Supplementary food is put out for the deer in winter at a number of locations, some on the periphery of the site and some outwith the site. However, in the light of the unfavourable condition of several of the upland habitats, management of deer on the site is currently being reviewed in collaboration with the estate owners to identify management which will allow future recovery of these features.

Fishing is also an important activity and most of the lochs are stocked with brown trout. Boats are used for fishing on Loch Droma and Loch Fannich.

Sheep numbers have fluctuated over the years but currently no sheep graze within the SSSI. Small numbers of cattle were also formerly grazed on the north shore of Loch Fannich but there are none at present. A small population of Sika deer is known to occur in Fannich West plantation.

Although native woodland would once have covered much of the area up to a height of around 1200ft, today woodland is confined to fragments of birch woodland and isolated patches of rowan and willow on crags and beside streams. There are a number of plantations around the periphery of the site. Loch Droma plantation and the old Fannich West plantation are dominated by Scots pine, planted around 1900 whilst the new Fannich West plantation and Fannich East plantation planted in the late 1960s and early 1970s are dominated by lodgepole pine and sitka spruce. There has been very little active management of these plantations, their main purpose being to provide

shelter for the deer.

In 1976 ~550 acres of land was drained to the NW of Fannich East plantation, with open ditches 10-20 yards apart, in order to encourage grouse. Muirburn has historically been undertaken on the lower ground in order to maintain growth of heather shoots for grouse and nutritious grasses for deer. Fire can be damaging to all of the habitat types particularly those with bryophyte or lichen interest and so it is important that where it is carried out the Muirburn Code should be followed. The development of the fire sensitive communities in the montane zone suggest that there has been little or no burning in these locations in recent times.

There are 9 Munros (hills over 3000ft) within the SSSI and the area is heavily used by hillwalkers, although it does not receive as many visitors as some of the higher profile hills in Ross and Cromarty. Smaller numbers of climbers use the site for ice climbing and rock climbing. There are three main access routes into the Fannichs. There are good paths from Loch Droma, Loch a' Bhraoin, and via the Fannich Lodge track. Most users access the area from along the A835 road however some well established access points have no constructed paths into the hills, which has led to some erosion. Some tops have no discernible path between them, whilst others such as the Meall a' Chrasgaidh and Sgurr Mor show distinct tracks, while Sgurr nan Clach Geala and Sgurr nan Each are beginning to exhibit path erosion. The overall impact of visitors is considered to be light but many of the plant communities especially on the higher ground are sensitive to trampling.

A number of developments have occurred on the periphery of the site in the form of roads, tracks, footpaths, power lines, masts and hydro-electric schemes. Scottish Hydro-Electric (SHE) maintain the Allt a' Mhadaidh diversion aqueduct which feeds into Loch Droma. They also maintain the culvert linking Loch Droma and Loch Glascarnoch. Both Loch Droma and Loch Fannich are part of a series of hydro-electric reservoirs linking to Torr Achilty Power Station and Grudie Power Station respectively. This means that water levels within these lochs fluctuate markedly.

There is a Synoptic Automatic Weather Station situated beside the track leading west from the car park adjacent to the Torrandhu Bridge on the A835. It is run by the Ministry of Defense (MOD) on land leased from SHE.

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

We wish to work with the owners, occupiers and other interests 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 to 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 maintain and enhance the extent, condition and diversity of the upland habitats by, for example:**
 - Working with others to manage browsing and trampling impacts of deer and improve the condition of the upland features where they are locally impacted.
 - Ensuring there is no spread of non native species, particularly rhododendron on to the site.
 - Ensuring any Muirburn is carried out in accordance with the Muirburn Code.
 - Establishing appropriate management of erosion from visitors and All Terrain Vehicle (ATV) use, if required.

- 2) **To maintain the condition of the oligotrophic loch and the species- richness and distribution of important vascular plants by, for example:**
 - Maintaining the existing water quality.

- 3) **To maintain the current status and distribution of flies and beetles by, for example:**
 - Maintaining the range of micro-habitats required by rare species.

- 4) **To maintain the geology and geomorphology interest of the site by for example:**
 - Maintaining the visibility and context of the rock exposures (particularly the Sgurr Beag Slide, Lewisian inliers and Moine amphibolites) and solifluction terraces within the Fannich and Sgurr.
 - Maintaining access to the key features within the Fannich and Sgurr Mor sites.
 - Maintaining the natural condition of the solifluction terraces in the Sgurr Mor site, allowing them to evolve naturally.
 - Maintaining the condition of the Fannich exposures.

Other factors affecting the natural features of the site

Climate change is likely to have an influence on the natural features. Fannich Hills is part of the West Ross Deer Management Group and the importance of managing deer across an area wider than just the designated site is recognised.

A wide range of non-native plants grow around the periphery of the SSSI. The plantations at Loch Droma, Fannich West and Fannich East contain lodgepole pine, sitka spruce and Scots pine (of unknown provenance). In addition there are a wide range of non-native species in the grounds of Fannich Lodge (just outside the SSSI). Of particular concern is the *Rhododendron ponticum* since this species is particularly fast growing and invasive. It is therefore important that the spread of non-native species is monitored so that any necessary action can be taken.

Date last reviewed: 26 May 2010