

**MORVEN AND MULLACHDUBH SITE OF SPECIAL SCIENTIFIC INTEREST
OPERATIONS REQUIRING CONSENT FROM SCOTTISH NATURAL HERITAGE**

If you propose to carry out, or permit to be carried out, any of the operations listed below, you must first obtain consent from SNH unless a local authority has granted you planning permission (under Part III of the Town and Country Planning (Scotland) Act 1997) or a designated regulatory authority has given you written permission (under s.15 of the Nature Conservation (Scotland) Act 2004). If you have such a permission, you may proceed without obtaining consent from SNH for the same operation.

*Standard
Ref. No.*

Type of Operation

- | | |
|-----|---|
| 1 | Cultivation, including ploughing, rotovating, harrowing and re-seeding. |
| 2 | Grazing, the introduction of grazing and changes in the grazing regime (including type of stock, intensity or seasonal pattern of grazing and cessation of grazing). |
| 3 | The introduction of stock feeding and changes in stock feeding practice. |
| 5 | Application of manure, fertilisers and lime. |
| 6 | Application of pesticides, including herbicides (weedkillers). |
| 7 | Dumping, spreading or discharge of any materials. |
| 8 | Burning (and) changes in the pattern or frequency of burning. |
| 9 | The release into the site of any wild, feral or domestic mammal or bird, plant or seed. |
| 10 | The killing or removal of any wild mammal or bird, including pest control, except bird species covered by the General Licence (Scottish Government Rural Directorate); other species under a specific licence issued by SGRD. |
| 11 | The destruction, displacement, removal or cutting of any plant or plant remains, including shrub, herb, dead or decaying wood, moss, lichen, fungus and turf. |
| 12 | The introduction of tree and/or woodland management (including afforestation and planting) and changes in tree and/or woodland management. |
| 13a | Drainage (including moor-gripping, the use of mole, tile, tunnel or other artificial drains). |
| 13b | Modification of the structure of water courses (e.g. rivers, streams, springs, ditches, dykes, drains), including their banks and beds, as by re-alignment, re-grading and dredging. |
| 13c | Management of aquatic and bank vegetation for drainage purposes. |

- 14 The changing of water levels and tables and water utilisation (including irrigation, storage and abstraction from existing water bodies and through boreholes).
- 15 Infilling of ditches, dykes, drains, ponds, pools, marshes or pits.
- 20 Extraction of minerals including peat, topsoil, sub-soil.
- 21 Construction, removal or destruction of roads, tracks, walls, fences, hardstands, banks, ditches or other earthworks, or the laying, maintenance or removal of pipelines and cables, above or below ground.
- 23 Erection of permanent or temporary structures, or the undertaking of engineering works, including drilling.
- 24 Modification of natural or man-made features, clearance of boulders, large stones, loose rock or scree and battering, buttressing or grading rock-faces and cuttings.
- 26 Use of vehicles or craft likely to damage or disturb features of interest except four-wheel drive or similar agricultural vehicles on existing estate roads and tracks.
- 27 Recreational or other activities likely to damage features of interest, other than those carried out responsibly in keeping with the Scottish Outdoor Access Code.
- 28. Introduction of game or waterfowl management and changes in game and waterfowl management and hunting practice.



Scottish Natural Heritage
All of nature for all of Scotland

MORVEN AND MULLACHDUBH
Site of Special Scientific Interest

SITE MANAGEMENT STATEMENT

Site code: 1194

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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 notified 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 site combines the isolated high top of Morven, rising to 870 metres, the surrounding subsidiary hills of Roar to the south-east, the spur of Mullachdubh to the north-west, and the basin which forms the upper catchment of the Morven Burn to the west. The underlying rock is mainly gabbro, which is covered by glacial drift and peat.

The site is important for its overall assemblage of upland habitats, including three individual habitats in particular, and for the assemblages of vascular plants and breeding birds that these support. Two of the three individually important habitats are characteristically eastern in their distribution. Firstly, juniper scrub, which occurs extensively in the Morven burn basin and on the SW slopes of Morven itself. These areas are of European importance as qualifying habitat of the SAC. Further areas of juniper occur on the slopes of Mullachdubh and on the slopes to the east and north of Morven. Secondly, the exceptional examples of lichen-rich alpine heath with stands of prostrate heather, which occur mainly on the summit and upper slopes of Morven, with further areas on the ridge west of Mullachdubh and on the eastern slopes of Morven above Balhennie. Small areas of snow-bed heath dominated by blaeberry are also found. The third individually important habitat, blanket bog, mainly occurs on Mullachdubh and on the ridge west of Mullachdubh to Mona Gowan, with smaller areas on the hill slopes. Extensive areas of sub-montane heath and acidic grassland are also found. This heather-dominated heath includes dry heath, locally with bearberry, damp heath with bog mosses, and smaller areas of wet heath.

A wide range of types of sub-montane acidic grassland types are present. In the basin of the Morven Burn, a base-rich influence is locally evident, with one of the largest areas of species-rich mat-grass grassland in Grampian. Other habitats found include springs, flushes and fen-meadows, and small areas of least willow/bryophyte snowbed and snowbed grassland.

This wide range of upland habitats supports a diverse assemblage of vascular plants, with a number of rare species, such as twinflower, intermediate wintergreen, hairy stonecrop, small cranberry and interrupted clubmoss. Sheathed sedge and least cinquefoil have also been recorded.

The site is used by many typical upland breeding birds including raptors and waders and all three species of upland grouse.

Natural features of Morven and Mullachdubh SSSI	Feature condition (date monitored)	Other relevant designations
Alpine heath	Favourable, maintained (August 2000)	SAC
Moorland juniper	Favourable, maintained (September 2008)	SAC
Blanket bog	Not yet assessed	
Upland assemblage	Not yet assessed	
Vascular plant assemblage	Not yet assessed	
Breeding bird assemblage	Not yet assessed	

SCM results for River Dee SAC of which there is a small overlap with Morven and Mullachdubh

Features of overlapping Natura sites that are not notified as SSSI natural features	Feature condition (date monitored)
Atlantic salmon	Favourable, maintained (September 2004)
Freshwater pearl mussel	Unfavourable, no change (August 2003)
Otter	Favourable, maintained (September 2004)

Site condition monitoring of the juniper scrub carried out in 2005 for cycle 1 of SNH's programme assessed the feature was as Unfavourable, declining. This was mainly due to (a) the localised loss of patches of juniper, to muirburn, by the site boundary to the north and north-west of Morven Lodge, (b) extensive browsing (c) dominance of older, taller bushes, over younger, shorter bushes, less than 75cm tall and (d) lack of viable seed production.

Following this, a more detailed survey of the life-class profile of the juniper scrub and of the impacts of herbivores was carried out in 2008, for cycle 2. This concluded that the juniper population is slowly increasing, with many more healthy pioneer bushes (29%), than ailing, dead or veteran bushes (8%), but noted concerns about the low numbers of seedlings (5%), not being enough to maintain the population in the long term. Fruiting bushes were found to be widespread across the area. Additional concerns were also noted about the predominance of moderate to high browsing levels in older shoots, which was attributed to sheep returning to the hill in the spring. A visit to the north-west of the site in 2010 estimated that less than 1 ha of ground with juniper had been affected by muirburn in that part of the site. Following these surveys, the

condition status of the juniper feature has been re-assessed as favourable, maintained.

The alpine heath and subalpine heath were monitored in 2000 and 2005 respectively. Concerns were noted about burning on fairly thin soils on a relatively steep slope at one location and about the width, approaching 3.5 m, of the footpath on Morven but these habitats were in favourable condition overall.

Past and present management

Grouse moor is the principal land use, with associated muirburn. Red grouse are driven, and shot from butts, and black grouse and ptarmigan were shot in the past. Red and roe deer and hare are also shot for sport. There are a number of vehicle tracks around the edge of the site, which are maintained using locally won materials. In the past, hand cutting of peat occurred on Mullachdubh and on Mona Gowan.

Summer cattle grazing is concentrated around Morven Lodge and The Tom, while sheep grazing is more extensive, occurring along the southern flanks of Morven hill and on the northern slopes in the summer months. Some land drainage previously took place on the slopes around the Morven Burn.

A small section of White Cow Mire, at the north of the site, was included in a mountain bike trail developed by Forest Enterprise in Bunzeach Forest. A hill race to the summit of Morven from Balhennie farm takes place annually and parts of the site were occasionally used for small-scale military exercises.

The burning of small areas of juniper was carried out in one small part of the site between 1999 and 2004 and subsequently without consent in another part of the site in 2005.

Objective for management (and key factors influencing the condition of natural features)

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

To maintain the overall assemblage of upland habitats and in particular the habitats of European and national importance and the flora and fauna that these support

Amongst the assemblage of habitats, the site is of particular importance for its juniper scrub and alpine heath.

Most of the juniper is associated with grassland and browsing levels are moderate to heavy. The relative impact of domestic livestock, as opposed to wild animals such as red and roe deer and mountain hare, is not clear but the 2005 survey attributed browsing damage mainly to sheep. At the same time, grazing can benefit juniper by creating open areas for regeneration.

Muirburn can maintain the condition of heather-dominated dry heath communities but can reduce the abundance of juniper and other fire-sensitive species and can damage alpine heaths. The moss layers of other habitats such as damp heath and blanket bog can also be damaged. It can also potentially lead to erosion. It is therefore important that good muirburn practice is carried out and is directed at the appropriate heather-dominated heath communities and, specifically, away from the most sensitive locations and habitats, in particular areas of dense or young juniper alpine heath, areas of blanket bog and higher altitude damp heath, breeding sites of ground-nesting raptors, and patches of twinflower/other fire-sensitive species.

To avoid erosion, the following habitats should continue to be avoided: areas of exposed peat, areas with thin soils and very steep slopes greater than 1 in 2.

Careful attention should also be given when carrying out muirburn on steep slopes between 1 in 2 and 1 in 3, and in the vicinity of the most sensitive habitats. Appropriate precautions for protecting sensitive habitats include only burning when conditions for fire control are optimal and fire control staff and equipment are on hand, and the careful burning of firebreak strips, swiping or using foam barriers.

The estates should be encouraged to continue to produce muirburn plans.

Lichen-rich alpine heath is fragile, slow to recover when damaged, and is also vulnerable to use by vehicles and trampling.

Other factors affecting the natural features of the site

These include recreational use, and potential impacts from atmospheric pollution and global warming. Morven is well used by walkers.

The Morven Burn and the lower reaches of two of its headwaters form part of the River Dee SAC. In addition, some of the headwaters of the Tullich and Dinnert Burns, which are also part of the River Dee SAC, rise in the south and east of the SSSI. Works along or adjacent to these watercourses, for example on the track along the Morven Burn, could affect the River Dee SAC. SNH will work with the estates to ensure that the River Dee SAC is not affected by any such works.

Date last reviewed: 31 August 2011.

CITATION

MORVEN AND MULLACHDUBH SITE OF SPECIAL SCIENTIFIC INTEREST Aberdeenshire

Site code: 1194

NATIONAL GRID REFERENCE: NJ370045

OS 1: 50 000 SHEET NO: Landranger Series 37
1: 25 000 SHEET NO: Explorer Series 405

AREA: 2508.4 hectares

NOTIFIED NATURAL FEATURES

Biological	:	Upland habitats	:	Upland assemblage
			:	Moorland juniper
			:	Alpine heath
	:	Bogs	:	Blanket bog
	:	Vascular plants	:	Vascular plant assemblage
	:	Birds	:	Breeding bird assemblage

DESCRIPTION

The isolated high-top Morven (871 m) and its spur Mullachdubh (681 m), are located 8 and 10 km north of Ballater, on Deeside. The rock varies from basic to acidic with little exposed apart from scree on the Morven summit and a boulder field on the north-east side of Mullachdubh. The whole area is overlain by glacial drift, with areas of deep peat on spurs and terraces.

The site supports a wide range of upland habitats. The exposed upper slopes, high top and ridges hold excellent examples of wind-clipped dwarf-shrub heath. The slopes of the Morven basin hold exceptionally extensive juniper scrub, amongst sub-montane acidic grassland and dwarf-shrub heath. The deep peats on Mullachdubh and on other spurs and ridges hold well-developed examples of blanket bog. Springs, flushes, fen-meadows and snowbed habitats are also found. This wide range of habitats supports important assemblages of vascular plants and breeding birds.

Sub-montane dwarf-shrub heath

The east slopes of Morven are mainly dwarf-shrub heath dominated by heather *Calluna vulgaris*. This heather moor is generally species poor but, particularly in the east, are patches of bearberry *Arctostaphylos uva-ursi* in mixture with heather and these are richer in herb species, notably intermediate wintergreen *Pyrola media* and mountain everlasting *Antennaria dioica*.

Extensive areas of damp heath dominated by heather with bog mosses (*Sphagnum* species) are found on the north-facing slopes of Morven, with small areas of snow-bed heath dominated by blaeberry *Vaccinium myrtillus* on the south-facing slopes of Morven and in the corrie of the Wheel Burn.

Sub-montane acidic grassland

The slopes south of Morven and in the basin of the Morven Burn hold extensive acidic grassland, with a base-rich influence locally evident. A wide range of types of acidic grassland are present including one of Grampian's largest areas of relatively species-rich grassland dominated by mat-grass *Nardus stricta*. The base-rich influence is evident by the occurrence of species such as flea sedge *Carex pulicaris*, lesser clubmoss *Selaginella selaginoides*, quaking grass *Briza media* and alpine bistort *Persicaria vivipara*. Small areas of calcareous grassland with thyme *Thymus polytrichus* are also found (along with more extensive areas of tussocky grassland dominated by tufted hair-grass *Deschampsia cespitosa*).

Blanket bog

The blanket bog, most extensive on Mullachdubh, is generally dominated by heather and hares'-tail cottongrass *Eriophorum vaginatum*, often with abundant lichens and bog mosses. These include *Sphagnum magellanicum* and *S. fuscum*. The rare small cranberry *Vaccinium microcarpum* is also found.

Juniper scrub

The site is one of the best areas in Britain for juniper scrub, with the largest extent of any site. It occurs in two forms. On the lower slopes of Morven and in the Morven Burn basin juniper forms large bushes, locally developing a fastigiate form. The density of juniper is highest near Morven Lodge, north-west of the burn. Woodland herbs such as wood sorrel *Oxalis acetosella*, hairy wood-rush *Luzula pilosa* and chickweed wintergreen *Trientalis europaea* are widespread below the juniper scrub, and wood anemone *Anemone nemorosa*, moschatel *Adoxa moschatellina* and oak fern *Gymnocarpium dryopteris* each occur locally. At higher altitudes, on the slopes of Morven, the juniper is low-growing, in mixture with blaeberry and crowberry *Empetrum nigrum*.

Alpine heath

The abundance of lichens in the windclipped dwarf shrub heath on the summit ridge of Morven is exceptional, even in comparison with the Cairngorms. The lichen cover, 90% in places, is mainly *Cladonia arbuscula*, accompanied by *C. rangiferina*, *Cetraria islandica* and *Alectoria nigricans*. Two rare lichen species, *Alectoria sarmentosa* ssp. *vexillifera* and *Flavocetraria nivalis*, also occur. On the higher slopes to the south of the summit, the blaeberry and crowberry heath is also rich in lichens, with *C. arbuscula*, *Parmelia physodes* and *Cornicularia aculeata*. Further areas of lichen-rich heath occur on the ridge from Mullachdubh to Mona Gowan and dwarfed heath with bearberry occurs on the eastern slopes of Morven above Balhennie.

Vascular plant assemblage

The vascular plant assemblage includes a number of rare species, such as twinflower *Linnaea borealis*, intermediate wintergreen, hairy stonecrop *Sedum villosum*, small cranberry and interrupted clubmoss *Lycopodium annotinum*. Sheathed sedge *Carex vaginata* and least cinquefoil *Sibbaldia procumbens* have also been recorded.

Birds

All three species of upland grouse are found, including an isolated population of ptarmigan on the higher ground. Golden eagle, buzzard, merlin, peregrine, hen harrier and short-eared owl all regularly hunt over the area. The marshy ground on the Hill of Allamuc and around the Morven Burn hold populations of snipe, lapwing and curlew.

NOTIFICATION HISTORY

First notified under the 1949 Act: 1971.

Re-notified under the 1981 Act: 18 August 1988, with a 1949 ha increase in area.

Notification reviewed under the 2004 Act: 31 August 2011.

REMARKS

Measured area of site corrected (from 2657 ha).

Part of Morven and Mullachdubh SSSI is designated as Morven and Mullachdubh Special Area of Conservation (SAC) for the following European habitat.

Habitat : Juniper on heaths or calcareous grasslands.

Part of Morven and Mullachdubh SSSI is also part of the River Dee Special Area of Conservation (SAC) which is designated for the European species listed below. The species highlighted by an asterisk are most relevant to the area of this SSSI.

Species : Atlantic salmon *Salmo salar**
: Otter *Lutra lutra**
: Freshwater pearl mussel *Margaritifera margaritifera*