



Scottish Natural Heritage
Dualchas Nàdair na h-Alba

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DUNBEATH PEATLANDS
Site of Special Scientific Interest

SITE MANAGEMENT STATEMENT

Site code: 560

The Links, Golspie Business Park, Golspie, Sutherland, KW10 6UB.

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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.

This statement is available in Gaelic on request.

Natural features of Dunbeath Peatlands SSSI	Condition of feature (and date monitored)	Other relevant designations
Blanket bog	Unfavourable – declining (June 2005)	Special Area of Conservation (SAC), Ramsar site
Breeding bird assemblage	Favourable, maintained (June 2005)	Ramsar site
Dunlin, breeding	Unfavourable – declining (July 2009)	Special Protection Area (SPA), Ramsar site
Golden plover, breeding	Favourable, maintained (July 2009)	SPA
Greenshank, breeding	Favourable, maintained (July 2009)	SPA

See Annex 1 for a list of features of overlapping Natura and Ramsar sites that are not notified natural features of Dunbeath Peatlands SSSI.

Description of the site

Dunbeath Peatlands Site of Special Scientific Interest (SSSI) covers an extensive area of blanket bog in central Caithness. The site is nationally important for blanket bog and breeding birds. Dunlin, golden plover and greenshank are of particular importance as these species have been recorded breeding here at densities well above average for the peatlands of Caithness and Sutherland.

Dunbeath Peatlands forms part of an internationally important peatland which is one of the most extensive areas of blanket bog in the world. The peatlands of Caithness and Sutherland also support internationally important populations of upland birds and otters. These species naturally occur at low densities and require large areas of undisturbed land. The body of peat under the blanket bog is also a large store of carbon. Keeping this carbon locked up in the peat and continuing land management

that maintains the peat-forming process makes an important contribution to reducing Scotland's carbon emissions, helping to combat climate change.

Blanket bog

Dunbeath Peatlands is a large expanse of upland, rolling hills and peatland habitat bounded to the west by Knockfin Heights and Rumsdale Peatlands SSSIs and adjoining Morven and Scaraben SSSI to the south. The area is dissected by many streams and contains several large lochs, together forming the headwaters of the Dunbeath Water, Berriedale Water and the River Thurso. The gentle gradients and geology in this area mean that the associated blanket bog exhibits a generally uniform structure and species composition. This site also has erosion features of particular interest. The slope of Cnoc na Stoirm Mor to the north west of Loch Mhadadh shows evidence of 'bog bursts', where a large peat mass has slid downhill and subsequently revegetated.

Monitoring of the blanket bog was undertaken in 2005. The extent and area of the blanket bog had been maintained since previous monitoring visits and plant species typical of this habitat such as *Sphagnum* mosses, heather, deergrass, bog asphodel, and common and hares tail cotton grasses were found on the site. There were no significant concerns with the levels of browsing or presence of species that are not typical of blanket bog. However, the vegetation and physical structure of the blanket bog feature had been damaged by muirburn. The burnt ground included areas that were rich in *Sphagnum* moss that recovers very slowly from burning. Drainage works had been carried out within the last few years which could lead to the drying out and increased erosion of the blanket bog. The planting of a small conifer plantation and its associated drainage was recorded on an area of deep peat within the site. This has damaged the blanket bog in that area. The conclusion was that the blanket bog was in unfavourable condition. It is hoped that the site will return to favourable condition in the medium to longer term, as long as no further damaging activities occur and the plantation area is restored.

Breeding bird assemblage

This extensive area of moorland with its many lochs, streams and bog pools and mosaic of vegetation types supports a wide range of bird species. Among the less common species to breed on the site are red-throated diver, arctic skua, merlin and golden eagle.

Monitoring in 2005 found the feature to be in favourable condition. A diverse range of breeding birds were recorded on the site including arctic skua, buzzard, common sandpiper, common scoter, curlew, dipper, dunlin, golden eagle, golden plover, greenshank, hen harrier, merlin, raven, red grouse, snipe, teal and wigeon.

Dunlin, golden plover and greenshank



The moorland waders are of particular interest, especially greenshank, golden plover and dunlin, which have been recorded breeding at densities well above average for the peatlands of Caithness and Sutherland.

Monitoring of dunlin, golden plover and greenshank on the site in 2009 found breeding densities of golden plover and greenshank to be in a favourable condition. Greenshank density was above the baseline level recorded in 2005. The breeding density of golden plover had declined slightly since 2005 but remained within the range associated with natural fluctuations. Dunlin breeding densities had declined by more

than 25% between 2005 and 2009, resulting in dunlin being assessed to be in unfavourable condition. It is not clear what has caused this decline, particularly as the numbers of golden plover and greenshank have not declined at the same time. Damage to the blanket bog habitat by muirburn may be a factor but dunlin numbers have also declined in some other parts of the peatlands in Caithness and Sutherland so other factors may also be involved (e.g., climate and/or weather patterns, and influences on the dunlin population on the wintering grounds or during migration). Further research is therefore needed to understand the causes behind the low density of dunlin recorded.

Other interests

Otters feed and may also breed within the site. The Dunbeath Peatlands form part of the headwaters of the River Thurso Special Area of Conservation (SAC) and Berriedale and Langwell Waters SAC which support internationally important populations of Atlantic salmon.

Blanket bog vegetation	Dunlin
	

Past and present management

The site is managed primarily for sporting purposes. This involves stalking and grouse shooting. Dunbeath Sheep Stock Club manages an area at the eastern edge of the site and a tenant on the small area owned by The Sinclair Family Trust uses the land for sheep grazing. A small proportion of the site (146 ha) was covered by a Peatland Management Scheme (PMS) Agreement between the land manager and SNH which expired in 2010. This promoted the conservation management of the blanket bog habitat. A small area of the site is under Rural Stewardship Scheme agreements which promote positive land management practices. This agreement also expires in 2010. SNH would encourage land managers to apply for Rural Development Contracts (RDC) through the Scotland Rural Development Programme (SRDP) for funding of future conservation management of the site. These RDCs are awarded on a competitive basis to ensure that contracts are awarded for proposals that are best able to deliver good conservation management.

Drain blocking has been undertaken in the Braemore area of the SSSI as part of the LIFE Peatlands Project restoration scheme. Restoring the water table of the blanket bog allows the peat-forming process to continue in this area.

A small number of people visit the site usually via the track between The Glutt and Braemore.

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

We wish to work with land managers 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 agreement.

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, where 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).

The list of Operations Requiring Consent, and the discussions on land management involved in the issuing of formal consents, are intended to minimise the threat of any damage to the natural features.

1. To enhance the condition and maintain the extent and distribution of the peatland habitats

Blanket bog depends on a continuous cover of vegetation which supports the peat-forming process and protects the underlying body of peat. Damage to the moss cover exposes the peat surface to erosion from extremes of weather (drying, frost, wind) and trampling from animals.

Scottish Natural Heritage and Forestry Commission Scotland are working with land managers to return the blanket bog to favourable condition. This is likely to include design of an appropriate muirburn strategy in accordance with the Muirburn Code, restoring previously planted ground to blanket bog and reducing grazing pressures in specific areas. It is possible that the project could be funded in part under the Scotland Rural Development Programme (SRDP). The strategy, although not yet finalised, will be designed to ensure the longer term sporting interests of the Estates are maintained.

Some grazing of peatland habitats is beneficial, but sheep and deer stocks should be maintained at levels which result in no obvious damage to this vegetation from grazing or trampling. Livestock numbers on areas covered by the Peatland Management Scheme should not exceed the agreed stocking levels.

Use of vehicles can cause damage. Off prepared tracks, only low ground pressure vehicles should be used and care should be taken in their use. The choice of route is important: soft ground, sharp turns and areas where erosion is beginning to start should be avoided as bare peat can be very slow to revegetate.

Muirburn in areas covered by a management agreement (such as a Peatland Management Scheme agreement or Rural Development Contract) should follow the agreed muirburn plan. Outwith areas covered by a management agreement, any muirburn should be carried out following the Muirburn Code, avoiding blanket bog and deep peat.

It is important to maintain the natural water table in peatland habitats so no new drains should be made nor existing ones cleared. It would be beneficial to block old drains that are still active as these drains alter the natural water table and dry out the peat

either side of the drain. They will also continually cut down through the peat until the underlying mineral layer is reached, creating further bare peat erosion surfaces.

Peat cutting for domestic use can be carried out in areas close to the edge of the site that have been agreed with SNH and have traditionally been cut without damaging the blanket bog, as long as the turf is replaced vegetation-side upwards so that new peat can continue to be formed. SNH should be consulted before opening any new peat banks because, depending on the location, it could have the unintended effect of altering the drainage in areas of the bog. This could lead to peat drying out in that area preventing the peat-forming process from continuing.

2. To maintain the water levels, water quality, extent and distribution of the clear water lochs and dubh lochans

Management in the areas around lochs should avoid activities that would release sediment, excessive nutrients or chemicals into the water. In addition, activities that might alter water levels of lochs should be avoided. This objective can readily be achieved by maintaining the present management of lochs that allows natural processes to continue with minimal intervention or disturbance.

3. To maintain breeding bird populations and to avoid significant disturbance of birds during the breeding season

If the habitats on this site are maintained, breeding bird populations are also expected to be maintained, following the advice given in the two Objectives for Management immediately above. Disturbance can reduce the breeding success of nesting birds. It is important that activities on the site are carefully planned to safeguard the nesting birds.

Red-throated and black-throated divers are particularly sensitive to human presence and, along with other uncommon species, are protected by special legislation. Their nests should not be disturbed during the breeding season since eggs may fail to hatch if they become chilled due to the parent birds being disturbed from the nest. Both eggs and young chicks are more likely to be eaten by predators if the parent birds are not there to protect them. It is important that anglers do not unintentionally disturb these birds during the period April to June, when they are nesting. Anglers should look out for divers and keep as far away from their nests as possible if fishing on larger lochs. On small lochs, anglers should move to a different loch if breeding divers are present. A leaflet on 'Black-throated divers and anglers' is available from SNH on request. This explains how anglers can help divers by avoiding their nests.

4. To maintain suitable otter habitat and access routes for otter across the site and avoid activities that might disturb otters

This objective can also be achieved by maintaining the present management that allows natural processes to continue with minimal intervention. Any known otter holts should not be disturbed. To safeguard the food supply of otters, water quality in burns, rivers and lochs should be maintained by avoiding activities that might add excess chemicals, nutrients or sediment. If any management is planned that might affect banks or piles of boulders where there could be otter holts, advice should be sought from SNH on how to avoid impacts on otters.

5. To maintain water quality of the River Thurso SAC and Berriedale and Langwell Waters SAC for the benefit of the Atlantic salmon population

Water levels and water quality play a crucial role in the suitability of the River Thurso SAC and Berriedale and Langwell Waters SAC for Atlantic salmon. The management of the peatland habitat as described in Objective 1 above will assist in meeting this

objective.

Other factors affecting the natural features of the site

Egg collecting: Some of the rare birds that breed on Dunbeath Peatlands SSSI are potential targets for illegal egg collecting. Any suspicious activity and description of cars and car numbers should be reported to the Police as soon as possible.

Date last reviewed: 23 September 2010

Annex 1 List of features of overlapping Natura and Ramsar sites that are not notified natural features of Dunbeath Peatlands SSSI

Features of overlapping Caithness and Sutherland Peatlands SAC, SPA and Ramsar sites that are not notified as SSSI natural features	Condition of feature (date monitored)	SPA, SAC or Ramsar
Acid peat-stained lakes and ponds (dubh lochans)	Favourable, maintained (August 2004)	SAC
Clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels	Favourable, maintained (July 2004)	SAC
Depressions on peat substrates	Favourable, maintained (August 2004)	SAC
Very wet mires often identified by an unstable 'quaking' surface	Favourable, maintained (August 2004)	SAC
Wet heathland with cross-leaved heath	Not assessed	SAC
Black-throated diver	Favourable, maintained (July 2004)	SPA
Common scoter	Favourable, maintained (August 2004)	SPA
Golden eagle	Favourable, maintained (July 2003)	SPA
Greylag goose	Not assessed	Ramsar
Hen harrier	Favourable, maintained (June 2003)	SPA
Merlin	Favourable, maintained (July 2004)	SPA
Red-throated diver	Not assessed	SPA
Short-eared owl	Not assessed	SPA
Wigeon	Not assessed	SPA
Wood sandpiper	Favourable, maintained (June 2004)	SPA
Marsh saxifrage	Not assessed	SAC
Otter	Favourable, maintained (October 2004)	SAC

Note - The list of features of overlapping Natura and Ramsar sites includes habitats and species found in the whole of the Caithness and Sutherland Peatlands SAC, SPA and Ramsar site. Some of these features may not be present on Dunbeath Peatlands SSSI and the presence of some species may vary from year to year. The birds listed above are all part of the SSSI 'breeding bird assemblage' feature

Features of adjacent River Thurso SAC and Berriedale and Langwell Waters SAC that are not notified as SSSI natural features	SPA, SAC or Ramsar
Atlantic salmon	SAC