

HASCOSAY SPECIAL AREA OF CONSERVATION (SAC)

CONSERVATION ADVICE PACKAGE



Image: Sphagnum moss and round-leaved sundew (*Drosera rotundifolia*) © Lorne Gill/NatureScot

Site Details

Site name:	Hascosay
Map:	https://sitelink.nature.scot/site/8270
Location:	Highlands and Islands
Site code:	UK0019793
Area (ha):	164.19
Date designated:	17 March 2005

Qualifying features

Qualifying feature	SCM assessed condition on this site	SCM visit date	UK overall Conservation Status
Blanket bog* [H7130]	Favourable Maintained	2 September 2009	Unfavourable-Bad
Otter (<i>Lutra lutra</i>) [S1355]	Unfavourable No change	7 June 2012	Favourable

Notes:

Assessed condition refers to the condition of the SAC feature assessed at a site level as part of NatureScot's [Site Condition Monitoring \(SCM\)](#) programme.

Conservation status is the overall condition of the feature throughout its range within the UK as reported to the European Commission under Article 17 of the Habitats Directive in 2019.

* A Habitats Directive Priority Habitat

Overlapping and adjacent Protected Areas

Hascosay Special Area of Conservation (SAC) has the same boundary as Hascosay Site of Special Scientific Interest (SSSI) <https://sitelink.nature.scot/site/767>.

Parts of Hascosay SAC are adjacent to parts of Bluemull and Colgrave Sounds Special Protection Area (SPA) <https://sitelink.nature.scot/site/10483> and Fetlar SPA <https://sitelink.nature.scot/site/8498>

Key factors affecting the qualifying features

Blanket bog

This Habitats Directive Priority Habitat is found in areas of moderate to high rainfall and a low level of evapotranspiration, allowing peat to develop over large expanses of undulating ground. Blanket bogs are considered active when they support a significant area of vegetation that is peat-forming.

Key management issues include grazing levels (over and under-grazing), changes in hydrology, non-native species, abiotic natural changes and air pollution.

Further information about blanket bog can be found [here](#).

Otter

Otters require access to unpolluted coastal and fresh waters. There should be a plentiful food supply and features for providing shelter for both resting and breeding. Otters are wide ranging and occur at high densities in Shetland compared with the rest of Scotland.

Based on data collected between 2000 and 2012 otters are considered to be in unfavourable condition at this site due to a decline in the population. This decline has coincided with an increase in the amount of crab remains found in otter spraints which could suggest a shortage of their preferred fish prey. However, there is evidence from other parts of Shetland that the downward trend in otters has since stabilised, albeit at a lower population level than previously. It is unclear whether this is also the case at Hascosay.

Otter are sensitive to exposure to residues from oil spills, bio-accumulating toxins, notably persistent organochlorine compounds, PCBs and heavy metals. They can be sensitive to human disturbance in some areas notably close to places used for breeding purposes. They are also sensitive to physical disturbance caused by any changes in hydrology such as pools or streams drying out and/or barriers between supporting habitats. Accidental entanglement in fish and crustacean traps can be a cause of mortality, though probably not sufficient to affect the population at present.

Otters are not prolific breeders and have a relatively short life expectancy of around 4 years in the wild. Females are capable of producing cubs at yearly intervals, but the litter size is only two or perhaps three, so each female's total reproductive capacity is relatively limited. This has implications for population recovery in the event of a catastrophic mortality event. The loss of a breeding female with dependent young means the loss of juvenile recruitment within her home range for at least a year. Effective measures designed to avoid incidental mortality in creels are therefore essential both within, and adjacent to, the SAC.

Further information about otters can be found [here](#).

Conservation Priorities

Blanket bog is a Habitats Directive Priority Habitat. Appropriate management of blanket bog should therefore have priority if any conflict between management of different SAC features were to arise. In practice, there is unlikely to be any conflict between management of blanket bog and otter within Hascosay SAC.

This SAC is adjacent to parts of Bluemull and Colgrave Sounds SPA and Fetlar SPA and otter from the SAC forage within these sites. Any management for the SAC or assessment of plans or projects will need to take account of the SPA interests as well as both SAC features.

Conservation Objectives for blanket bog

1. To ensure that the qualifying features of Hascosay SAC are in favourable condition and make an appropriate contribution to achieving favourable conservation status

Favourable Conservation Status (FCS) is considered at a European biogeographic level. When determining whether management measures may be required to ensure that the conservation objectives for this site are achieved, the focus should be on maintaining or restoring the contribution that this site makes to FCS.

When carrying out appraisals of plans and projects against these conservation objectives, it is not necessary to understand the status of the feature in other SACs in this biogeographic region. The purpose of the appraisal should be to understand whether the integrity of the site (see objective 2) would be maintained. If this is the case then its contribution to FCS across the Atlantic Biogeographic Region will continue to be met. Further details on how these appraisals should be carried out in relation to maintaining site integrity is provided by objective 2 (including parts a, b and c). If broader information on the feature is available then it should be used to provide context to the site-based appraisal.

Note that “appropriate” within this part of the conservation objectives is included to indicate that the contribution to FCS varies from site to site and feature to feature.

2. To ensure that the integrity of Hascosay SAC is restored by meeting objectives 2a, 2b and 2c

The aim at this SAC is to maintain the qualifying feature in a favourable condition as a contribution to its wider conservation status. Therefore any impacts on the objectives shown in 2a, 2b, or 2c below must not persist so that they prevent the achievement of this overall aim.

When carrying out appraisals of plans or projects the focus should be on restoring site integrity, specifically by meeting the objectives outlined in 2a, 2b and 2c. If these are met then site integrity will be restored. Note that not all of these will be relevant for every activity being considered. Any impacts on the objectives shown in 2a, 2b or 2c below must not persist so that they prevent the restoration of site integrity. Temporary impacts on these objectives resulting from plans or projects can only be permitted where they do not prevent the ability of a feature to recover and there is certainty that the features will be able to quickly recover.

This objective recognises that the qualifying habitats are exposed to a wide range of drivers of change. Some of these are natural and are not a direct result of human influences. Such changes in the habitats’ extent, distribution or condition within the site which are brought about by natural processes, directly or indirectly, are normally considered compatible with the site’s conservation objectives. An exception to this is when the favourable condition of a qualifying feature is dependent on halting or managing natural succession. An assessment of whether a change is natural or anthropogenic, or a combination of both, will need to be looked at on a case by case basis.

2a. Maintain the extent and distribution of blanket bog within the site

There should be no measurable net reduction in the extent or distribution of the habitat on the site such that the current area of blanket bog is maintained.

Blanket bog covers most of the inland part of this site. The extent of the blanket bog feature was estimated at 114 ha on the Standard Data Form when the site was

designated, however a more accurate survey in 1999 suggests that there is 128 ha of this habitat, which is slightly more than previously thought. Blanket bog merges gradually into acid grassland and maritime grassland closer to the coast. Any apparent changes in blanket bog distribution and extent on this site identified by future surveys may represent greater survey accuracy rather than area change in the area of blanket bog.

2b. Maintain the structure, function and supporting processes of the blanket bog

The predominant requirement for blanket bog is to be actively forming peat, a process that relies on peat-forming species (such as those listed in section 2c) having suitable conditions to maintain growth. Blanket bog on this site should have a covering of 'active' peat-forming vegetation. This will protect the peat surface and be more resilient to climate change. Any areas of blanket bog within this site that have been degraded through damage or drying should be restored so that they can resume active peat-forming function following suitable restoration.

Blanket bog habitat requires a high water table, so appropriate hydrology should be maintained on this site. This will depend on management to prevent or reduce detrimental effects of drainage, including in the wider surrounding area and potentially at a distance from the habitat.

In drier areas invasion of non-native species and grasses can lower the water table, and so coverage of grasses and other non-peat forming plants should be minimised. Any non-native species should be removed if they are found on the site.

The main objectives for habitat structure for this SAC are:

- Maintain a natural, diverse and open sward of typical plant species by managing sheep grazing at a low level.
- Maintain hydrological conditions on Hascosay to ensure the water table remains high within the blanket bog.
- Blanket bog should not be burnt as fire damages the habitat and is contrary to the Muirburn Code.

2c. Maintain the distribution and viability of typical species of the blanket bog

Typical species should include important peat-forming species, such as bog-mosses (*Sphagnum* species) and cotton grasses *Eriophorum* species together with heather *Calluna vulgaris* and other ericaceous species, and forbs such as bog asphodel *Narthecium ossifragum* and the carnivorous sundews *Drosera* species.

Other typical species include:

<i>Erica</i> species	heaths
<i>Empetrum nigrum</i>	crowberry
Non-crustose lichens	lichens
Pleurocarpous mosses	mosses
<i>Racomitrium lanuginosum</i>	woolly fringe-moss
<i>Trichophorum</i> sp.	deer grass

Most characteristic bog species rely on a high water table so conservation measures should aim to maintain conditions suitable for these species. Healthy bog vegetation relies on light grazing by livestock, sufficient to maintain a diverse open structure but without causing surface damage/erosion or loss of more grazing-sensitive species.

In addition, the blanket bog provides breeding areas for dunlin *Calidris alpina*, great skua *Stercorarius skua*, greylag goose *Anser anser*, and red-throated diver *Gavia stellata*. Otters also use the blanket bog (see below for Conservation Objectives for otter).

Conservation Objectives for Otter *Lutra lutra*

1. To ensure that the qualifying features of Hascosay SAC are in favourable condition and make an appropriate contribution to achieving favourable conservation status

Favourable Conservation Status (FCS) is considered at a European biogeographic level. When determining whether management measures may be required to ensure that the conservation objectives for this site are achieved, the focus should be on maintaining or restoring the contribution that this site makes to FCS.

When carrying out appraisals of plans and projects against these conservation objectives, it is not necessary to understand the status of the feature in other SACs in this biogeographic region. The purpose of the appraisal should be to understand whether the integrity of the site (see objective 2) would be maintained. If this is the case then its contribution to FCS across the Atlantic Biogeographic Region will continue to be met. Further details on how these appraisals should be carried out in relation to maintaining site integrity is provided by objective 2 (including parts a, b and c). If broader information on the feature is available then it should be used to provide context to the site-based appraisal.

Note that “appropriate” within this part of the conservation objectives is included to indicate that the contribution to FCS varies from site to site and feature to feature.

2. To ensure that the integrity of Hascosay SAC is restored by meeting objectives 2a, 2b and 2c

The aim at this SAC is to restore the qualifying feature to a favourable condition as a contribution to its wider conservation status. Therefore any impacts on the objectives shown in 2a, 2b, or 2c below must not persist so that they prevent the achievement of this overall aim.

When carrying out appraisals of plans or projects the focus should be on restoring site integrity, specifically by meeting the objectives outlined in 2a, 2b and 2c. If these are met then site integrity will be restored. Note that not all of these will be relevant for every activity being considered. Any impacts on the objectives shown in 2a, 2b or 2c below must not persist so that they prevent the restoration of site integrity. Temporary impacts on these objectives resulting from plans or projects can only be permitted where they do not prevent the ability of a feature to recover and there is certainty that the features will be able to quickly recover.

This objective recognises that the qualifying species are exposed to a wide range of drivers of change. Some of these are natural (e.g. population fluctuations/ shifts or habitat changes resulting from natural processes) and are not a direct result of human influences. Such changes in the qualifying species’ distribution and use of the site, which are brought about by natural processes, directly or indirectly, are normally considered compatible with the site’s conservation objectives. An assessment of whether a change is natural or anthropogenic, or a combination of both, will need to be looked at on a case by case basis.

2a. Restore the population of otter as a viable component of the site

The population of otters within Hascosay SAC has previously been estimated at 11-50 individuals and the objective is to restore the population to this level. The number of otter holts across the whole of Hascosay has been monitored for a number of years and has fallen considerably since 2003. Research at Lunna Ness has shown that the number of occupied holts is directly related to the number of otter, and this is presumed to apply to Hascosay SAC as well. Each otter requires several alternative holts, so counts of active holts correspond with a considerably smaller number of individual otters.

The decline in the number of otter holts since 2003 coincided with an increase in the amount of crab remains in spraints in other parts of Shetland, indicating a shortage of their preferred fish prey. Anecdotal evidence suggests that otter populations throughout Shetland have declined over the same period.

Research has indicated that factors such as availability of preferred (fish) prey quality both within and outwith the site have been the most likely potential causes of the decline. The reason for the decline in fish prey is not known. Other causes of decline in otter populations can be ruled out as unlikely – there is no evidence of any increase in pollutants or toxins in the environment and most of the site is distant from any roads so road casualties amongst the resident population are unlikely.

Otters from Hascosay SAC forage for prey in shallow inshore waters (ideally less than 5 m in depth) both within and outwith the boundary of the SAC. There is little food for otters within the site because there are no burns on the island large enough to support fish and the seaward extent of the SAC boundary is the low water mark. The intertidal zone on Hascosay does not have enough food to support the otter population as it is either shingle beach or a roughly 2 m strip of near vertical rock where there is little otter prey. It is therefore essential that there is sufficient abundance of otter prey present in inshore waters neighbouring the SAC.

When assessing the effects of any plan or project consideration should therefore also be given to whether impacts out with the SAC could affect achievement of this Conservation Objective.

This conservation objective is considered to be met if the conditions for the species' long-term existence are in place. This includes:

- avoiding effects that could lead to a permanent reduction in the otter population through mortality, injury, or impacts caused by disturbance or displacement. This includes for example the effects caused by development, water pollution, or entanglement in fishing gear.
- avoiding effects that could prevent or reduce the ability of the otter population to recover
- maintaining the species' ability to use all areas of importance within the site (to be considered under conservation objective 2b)
- maintaining access to, and availability of, undisturbed resting places
- maintaining access to, and availability of, supporting habitats and prey within the site (to be considered under conservation objective 2c).

The Hascosay population is also unlikely to be viable (capable of sustaining itself) in isolation from the wider population of otters in Shetland. The home range of an otter will vary depending on their sex, habitat quality and food availability. Group ranges of females may extend 5-6 km in Shetland with densities as high as 2.5 animals/km.

Otters are a European protected species (EPS) and it is an offence to deliberately or recklessly capture, injure, kill, harass or disturb them in certain circumstances, or to damage or destroy their breeding or resting places anywhere in Scotland unless a licence has been issued to do so. A licence can only be issued for particular purposes which the law allows. Further, there must be no satisfactory alternative and no detrimental impact on the contribution to the maintenance of otter at a favourable conservation status for a licence to be issued. This assessment considers impacts on the otter population at a local and Shetland-wide level. The licensing requirement is in addition to considering whether a plan or project will result in any impacts (including incidental impacts) to the otter population within the SAC.

2b. Maintain the distribution of otter throughout the site

Otters should continue to have undisturbed access to all areas within Hascosay SAC used for shelter, resting, bathing and feeding, including safe passage when moving between marine and freshwater areas.

Otters are a wide-ranging and highly mobile species that are likely to occupy most of the coastline of Shetland. Coastal populations will be predominately feeding at sea however inland locations for shelter and freshwater habitats will also be used on a daily basis. Ensuring safe movement between these locations is important to ensure utilisation of the most optimal habitats. Barriers to movement may reduce the usable habitat for this species and cause the use of sub-optimal foraging or resting areas.

Otters are territorial with female otters occupying smaller territories that are patrolled by males with larger territories. Home ranges will vary depending on their sex, habitat quality and food availability. Female otters with cubs can be particularly vulnerable to disturbance. Otters can breed all year round with cubs dependent on their mother for up to 13 months.

Distribution of otters within the site can be affected by disturbance originating both within and outwith the site and can arise as a result of displacement and barrier effects to the species. Disturbance associated with human activity may take a variety of forms including: noise, night-time lighting, vibration, presence of people and animals, although some habituation is evident in some populations. Disturbance can, for example, result in changes to feeding behaviour, increased energy expenditure due to increased foraging time, abandonment of holts and desertion of supporting habitat (both within or outside the protected area where appropriate). This may affect cub survival and/or may reduce the availability of suitable habitat as otters are displaced and their distribution within the site contracts.

2c. Maintain the habitats supporting otter within the site and availability of food

This objective seeks to maintain the current extent, quality and distribution of supporting habitats otter within the site including maintaining prey resources within the site.

Otters require suitable habitat for foraging, breeding and resting. In coastal areas their preferred habitat includes rocky shores with abundant boulders and/or crevices within peat that provide secure holt sites above high water. These features should ideally be close to gently-shelving shallow inshore waters (ideally less than 5 m in depth) with good habitat for inshore fish species and crustaceans. Otters that come ashore in Hascosay SAC will primarily forage in coastal waters adjacent to the SAC (see conservation objective 2a).

Ample sources of freshwater in pools within the site are essential to enable animals to remove salt from their fur.

Water quality should be maintained in streams and pools within the site as well as within the sea around Hascosay.

Conservation Measures

Hascosay is notified as a Site of Special Scientific Interest and management changes described on the list of Operations Requiring Consent must have prior consent from SNH (NatureScot).

Current and recommended management for blanket bog

Issue	Measure	Responsible party
Alien and invasive species	Alien and invasive species should not be introduced to the site	Land managers, NatureScot
Hydrology	No new drains should be dug and natural hydrology should be restored by blocking existing drains. Re-profiling of old peat banks would be beneficial where they are not re-vegetating naturally.	Land managers, NatureScot, SEPA
Grazing	Ensure grazing by livestock remains at a light to moderate level over the entire site.	Land managers, NatureScot
Tracking/ trampling/ poaching by livestock	Trampling by livestock to be minimal to prevent active drainage of this habitat.	Land managers, NatureScot, SGRPID (GEAC)
Habitat damage	Avoid activities such as ATV use that can damage the habitat and lead to an increase in exposed bare peat.	Land managers, Shetland Islands Council, NatureScot
Research and monitoring	To identify emerging impacts on the habitat and their causes, in order to understand the long term issues, identify refugia, review site-level resilience plans in the light of updated future threat projections and to inform future management of the habitat across Scotland. Research bodies should have a local contact they can call upon if undertaking field data collection remotely.	NatureScot, Researchers

Current and recommended management for otters

Issue	Measure	Responsible party
Ongoing species protection	Otter are a European protected species and therefore the species protection provisions of the Habitats Regulations apply.	All
Marine pollution	Ensure that the risk of spillage of oil and other chemicals from shipping,	Shetland Islands Council SEPA

	aquaculture and other sources is minimised and take prompt action to prevent any spills that do occur affecting the site.	Salmon farm operators
Creels	Creels (and other crustacean traps) should not be set in water less than 10m deep where otters are known to be active in inshore waters.	Creel fishermen
Research and monitoring	Further detailed monitoring of the Hascosay otter population is needed to clarify the current population trend and generate an up to date population estimate for the SAC. On-going inshore fish and crab monitoring is also recommended, using methods consistent with similar studies elsewhere in Shetland.	NatureScot, Researchers

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