Scottish Natural Heritage

ST KILDA
Site of Special Scientific Interest

SITE MANAGEMENT STATEMENT

Site code: 1471

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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 St Kilda SSSI	Condition of feature (date monitored)	Other relevant designations
Maritime cliff	Favourable, maintained (March 2008)	SAC (Vegetated sea cliffs)
Seabird colony	Favourable, maintained (May 2003)	SPA (Breeding seabird assemblage)
Gannet, breeding	Favourable, maintained (July 2000)	SPA
Guillemot, breeding	Favourable, maintained (July 2000)	SPA
Leach's petrel, breeding	Favourable, maintained (July 2000)	SPA
Puffin, breeding	Favourable, maintained (July 2000)	SPA
Razorbill, breeding	Favourable, maintained (July 2000)	SPA
Storm petrel, breeding	Favourable, maintained (July 2000)	SPA
Tertiary igneous	*New feature, monitoring not yet undertaken*	
Quaternary of Scotland	*New feature, monitoring not yet undertaken*	
Coastal geomorphology of Scotland	*New feature, monitoring not yet undertaken*	

Natural features of overlapping Natura sites that are not notified as SSSI natural features	Condition of feature (date monitored)	SPA or SAC
Reefs	Favourable, maintained (October 2000)	SAC
Sea caves	Favourable, maintained (October 2000)	SAC
Fulmar, breeding	Favourable, maintained (July 2000)	SPA
Great skua, breeding	Favourable, maintained (July 2000)	SPA
Kittiwake, breeding	Favourable, maintained (July 2000)	SPA
Manx shearwater, breeding	Favourable, maintained (July 2000)	SPA

Description of the site

The St Kilda archipelago comprises four islands and three main stacks. It is composed of important relict fragments of a volcano which was active around 60-50 million years ago in the Palaeogene geological period. During this time the North Atlantic was opening to the west of Scotland and a chain of volcanoes developed along the west coast. The relics of these volcanoes are now found in Arran, Mull, Ardnamurchan, Skye, and Rum as well as St Kilda. In St Kilda, the volcano has now been eroded down to its core of cooled magma (molten rock).

A variety of types of cooled magma make up St Kilda, and the relationships between them show their relative ages, helping to piece together the history of the volcano during the time it was active. The oldest rocks are dark grey, silica-poor (basic) rocks known as 'gabbros'. Some of the gabbros have been broken up ('brecciated') and re-solidified in a matrix of basalt (fine-grained, silica-poor, cooled magma). The gabbros form the smaller islets of the archipelago and parts of Hirta. Of particular interest, at Glen Bay, the edge of one of the gabbros has been cooled so quickly that it has, unusually, formed a glass. The gabbros were cut by several pulses of mixed basic and acid (silica-rich) magmas. One of the key features of the site is the relationships between these magma types, which show that, in some cases, they were emplaced simultaneously. Again, this is quite unusual. The gabbros and mixed magmas are both cut by later granite (silica-rich). The youngest rocks, which cut across all the types already mentioned, are vertical 'dolerite' (basic) and 'felsite' (acidic) sheets of cooled magma known as 'dykes', and cone-shaped sheets known as 'cone-sheets'. Cliffs in east Hirta show some of the most spectacular cone-sheets in Britain.

Sediments from the Lateglacial and Holocene (approximately the last 11,000 years), which infill a topographic basin in Gleann Mor, contain preserved pollen that provides an important record of vegetation history and environmental change on St Kilda during this time. It shows that an open tundra landscape existed briefly during a warm period around 15,000-13,000 years ago before Ice Age glaciers returned. After the ice finally melted around 11,500 years ago, grassland and heathland communities flourished. Grassland became more dominant for a time, possibly reflecting wetter and stormier conditions; but by 2000 years ago drier, less stormy conditions are indicated by a return of heathland communities. In the last 400 years, grassland has again become more prevalent, coinciding with the 16th-18th century 'Little Ice Age'.

St Kilda is important for the height, scale and diversity of its cliffs and cliff-related landforms formed in a high wave-energy environment – its geomorphology. These include spectacular vertical cliffs, alongside numerous geos, natural arches, stacks, caves, and blowholes at all stages of formation. St Kilda also boasts the highest sea stack in Britain (Stac an Armin, 191 m) and the highest sea cliff in Britain (Conachair, 430 m). The submerged landforms of St Kilda are as important as those above sea level, and consist of a spectacular suite of submerged cliffs and rock-cut sea-floor platforms.

The gabbro peninsular of An Cambir. Natural erosion along a fault will, over time, turn the peninsular into an island.

The sea cliff vegetation is also of importance and because of extreme climactic conditions can be found throughout the islands not just on the cliffs. Key habitats include lichen-covered rocks, guano-affected vegetation, maritime grassland and heath. Cliff-ledge plant communities are typified by roseroot and also contain locally rare plants such as moss campion and purple saxifrage. The coastal grassland is dominated by the grass, red fescue. Thrift is common in the ungrazed or less grazed areas with the grass Yorkshire fog becoming common further inland. Plantains occur where there has been sustained grazing. There are also small areas of coastal heath containing common heather and bell heather, mostly on slopes of Village Bay, on Hirta.

St. Kilda is also renowned for its huge seabird colonies - over 660,000 individual seabirds breed, including in 2000, 140,000 pairs of puffins, 60,000 pairs of gannets, 45,000 pairs of Leach's petrel and over 1000 pairs of storm petrels. There were also 24,000 individual guillemots and 2500 individual razorbills. Although not individually notified features of the SSSI, other seabirds such as fulmar, kittiwake, great skua and Manx shearwater are part of the seabird colony.

Purple saxifrage

Leach's petrel

Past and present management

The islands were inhabited until 1930, with islanders carry out crofting, including cultivation and sheep grazing, as well as seabird harvesting and fishing. It has also given rise to the present flocks of Soay and blackface sheep, on Soay, Hirta and Boreray.

The islands are owned and managed by the National Trust for Scotland as a World Heritage Site and National Nature Reserve, with 1-2 staff present during the summer. The islands receive regular visits from cruise ships, day trips from tour operators or sailors and there are also NTS work parties and researchers visiting.

Part of Hirta is leased to QinetiQ as part of a radar tracking station for the military testing range on South Uist. QinetiQ/MoD operate twice-weekly helicopter flights to St Kilda and occasional re-supply by boat.

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

We aim to work with the owners and tenants to protect the site and to maintain, and where necessary, enhance its features of special interest. SNH will 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 any management arrangements.

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 the physical integrity and visibility of the geological exposures and geomorphology
Ensure site activities do not adversely affect natural coastal processes.

Ensure outcrops are not obscured by, for example, tipping, work associated with maintenance of existing facilities or new developments.

2. To maintain the condition and extent of the maritime cliff habitats
Ensure that sheep numbers do not cause significant damage to coastal vegetation from overgrazing or trampling and that the vegetation continues to support key species such as moss campion and purple saxifrage.

Ensure site activities do not adversely affect the cliff vegetation.

3. To maintain the population and distribution of the breeding seabird populations and avoid significant disturbance
Ensure site operations, including visitors to St Kilda, do not adversely affect nesting birds.

All boat landings to follow best practice to prevent the introduction of land mammals eg. rats.

Helicopters to observe a policy of flying straight in and out of the helipad area.

Other factors affecting the natural features of the site
Sandeel availability - Sandeel feeders such as guillemots and puffins are experiencing Scotland-wide population declines associated with poor sandeel availability.

Predation – the impact of great skua predation on the population of Leach's petrel is being assessed.

Litter/pollution - Concentrations of breeding seabirds are vulnerable to marine pollution, even small oil spills can have a major impact during the breeding season. Marine litter such as fishing net and plastic parcel strapping is incorporated into nests by gannets, for example, and fatal entanglement can occur. Abandoned fishing net at sea can also drown birds.

Date Last Reviewed: 12 June 2009