

CITATION

HOY
SITE OF SPECIAL SCIENTIFIC INTEREST
Orkney Islands

Site code: 798

NATIONAL GRID REFERENCE: HY 225010

OS 1:50,000 SHEET NO: Landranger Series 7
1:25,000 SHEET NO: Explorer Series 462

AREA: 9499.7 hectares

NOTIFIED NATURAL FEATURES

Geological:

Geomorphology:	Coastal Geomorphology of Scotland
Igneous petrology:	Old Red Sandstone Igneous
Quaternary geology and geomorphology:	Quaternary of Scotland
Stratigraphy:	Non-marine Devonian

Biological:

Bogs:	Blanket bog
Freshwater habitats:	Dystrophic loch
Uplands:	Upland assemblage
Woodland:	Upland oak woodland
Birds:	Breeding bird assemblage Seabird colony, breeding Arctic skua (<i>Stercorarius parasiticus</i>), breeding Fulmar (<i>Fulmarus glacialis</i>), breeding Great black-backed gull (<i>Larus marinus</i>), breeding Great skua (<i>Stercorarius skua</i>), breeding Guillemot (<i>Uria aalge</i>), breeding Peregrine (<i>Falco peregrinus</i>), breeding Red-throated diver (<i>Gavia stellata</i>), breeding

DESCRIPTION:

Hoy Site of Special Scientific Interest (SSSI) extends down the west coast of the island of Hoy, from the Bay of the Tongue on the north coast to Tor Ness in the south. The SSSI includes a large part of the interior of the island and reaches as far as the east coast between Lyre Geo and Chalmers Hope. The site is nationally important for its geological features and is internationally and nationally important for a range of habitats and bird species.

Geological

Hoy is mainly composed of rocks of the Upper Old Red Sandstone and this is the only location for rocks of this age in Orkney. Weathering and marine processes have sculpted the soft sandstone, resulting in dramatic land and seascapes. The coast

from Rora Head to Yellow Rock shows geomorphic processes to good effect. Spectacular examples of various cliff forms, cliff-top spray erosion, geos, caves, arches and stacks at different stages of development, are present along the coast. These include the Old Man of Hoy which rises to 137 m and is the tallest sea stack in Britain.

The cliffs contain exposures of the Hoy Volcanic Formation. This comprises layers of igneous rock and Hoy Sandstone. The igneous rock formed when volcanic ash and lava cooled. Comparison of these layers with similar deposits elsewhere in the Orcadian basin (Shetland, Orkney and north Scotland) and further afield in the Midland Valley, helps understanding of long-term environmental change.

Hoy SSSI displays most of the classic features of an area shaped by glaciers during the last Ice Age. Enegar's Corrie and Dwarfie Hamars are the most northerly corries in Britain. Ward Hill, Orkney's highest hill at 479 m, shows an excellent assemblage of both fossil and active periglacial landforms, produced by the action of wind and frost. These have developed over at least the last 10,000 years and include turf-banked terraces, hill dunes, wind stripes and composite strip/terrace formations.

The old red sandstone rocks were laid down during the Devonian age around 420 – 350 million years ago. There are clear examples of sandstone deposits which were created from sediment which was both carried by glacial meltwater and by wind (Aeolian deposits). The former includes braided stream patterns, where meltwater streams became blocked by debris and diverted and reformed. These exposures are important in the interpretation of geographical and environmental change in the area during the Devonian period.

Biological

Blanket bog covers over 4000 hectares of Hoy SSSI, and has a complex and varied structure. Characteristic features include hummocks of woolly fringe-moss *Racomitrium lanuginosum*, pools and carpets of bog mosses. The abundance of peat-forming bog mosses such as *Sphagnum capillifolium* and *S. papillosum*, as well as those more sensitive to disturbance such as *S. magellanicum* and sundew *Drosera anglica*, help to demonstrate the undamaged nature of this habitat. Blanket bog on this scale is uncommon in Orkney.

The site exhibits a variety of pools and lochans. These are particularly widely developed over 200 metres above sea level. These dystrophic lochs (stained yellow or brown with substances which come from peaty soils) are the best example of their kind in terms of size, topography and altitude, in Orkney.

A wide range of habitats makes up the upland assemblage. These include blanket bog, dwarf-shrub heath, acid grassland, montane and fen, marsh and swamp. The transitions between these habitats are well-developed and largely natural, and the SSSI represents one of the best examples of its type in Britain.

Excellent examples of dwarf-shrub heaths, normally characteristic of montane environments, occur at lower altitudes on Hoy due to the high degree of exposure. These alpine and sub-alpine heaths are found on exposed summits and support Arctic-Alpine plants including bearberry *Arctostaphylos uva-ursi*, Alpine bearberry *A. alpinus*, trailing azalea *Loiseleuria procumbens* and dwarf willow *Salix herbacea*. The

site also supports the most northerly example in Britain of hepatic-rich dwarf shrub heath which is characterised by Atlantic bryophytes (non-vascular plants such as liverworts and mosses).

Below the subalpine zone a calcicolous (plants that grow in calcium-rich soils) montane habitat has formed which supports a number of rare or uncommon Arctic-Alpine plants such as holly fern *Polystichum lonchitis*, Alpine meadow-grass *Poa alpina*, hoary whitlow grass *Draba incana*, mountain sorrel *Oxyria digyna*, mountain avens *Dryas octopetala*, Alpine saw-wort *Saussurea alpina* and purple saxifrage *Saxifraga oppositifolia*.

Species-rich flushes occur widely throughout the site, creating base-rich small-sedge fens. They support Alpine meadow rue *Thalictrum alpinum*, yellow saxifrage *Saxifraga aizoides*, starry saxifrage *Saxifraga stellaris* and few-flowered spike-rush *Eleocharis quinqueflora*. Characteristic mosses such as *Scorpidium scorpioides* and *Drepanocladus revolvens* are also found, while the more open flushes support black bog-rush *Schoenus nigricans*.

Hard water springs with an active formation of tufa occur throughout the site. These springs are characterised by dense yellow-orange mats of the feather moss *Cratoneuron commutatum* and other lime-loving species such as yellow sedge *Carex viridula*, ssp. *brachyrhyncha*.

Wet heaths are extensively developed and are characterised by abundant lichens and cross-leaved heath *Erica tetralix*, with grasses, sedges and *Sphagnum* mosses.

Orkney's only indigenous woodland grows at Berriedale and is the most northerly natural woodland in Britain. Tree species found here include rowan, downy birch, aspen and hazel.

These habitats provide nesting and foraging habitat for a wide range of birds. Hoy SSSI is the most important nesting area in Orkney for the great skua and supports 20% of the British population. These birds nest on the moorland, with the densest populations at The Berry and Bailie Fea. Nationally and internationally important populations of Arctic skua and great black-backed gulls nest inland. Red-throated divers breed on many of the lochs throughout the site and make up 5% of the British population.

The moorland supports a nationally important breeding bird assemblage which includes hen harrier, buzzard, merlin, red grouse, golden plover, dunlin, snipe, curlew, redshank, common sandpiper, short-eared owl, stonechat, wheatear, raven and twite.

Peregrines nest on both sea cliffs and inland cliffs and the number of pairs present make the site nationally important for this species. The seabird colony is nationally and internationally important and comprises fourteen different breeding species. Amongst these, both fulmar and guillemots occur in nationally important numbers.

NOTIFICATION HISTORY

First notified under the 1949 Act: 1962

Re-notified under the 1981 Act: 7 November 1986 with a 2840 ha increase in area.

Re-notified under the 1981 Act: 14 February 2000 with a 1484 ha increase in area.

Notification reviewed under the 2004 Act: 28 March 2012

REMARKS

Measured area of site corrected (from 9499.69 ha).

Hoy SSSI is designated as Hoy Special Area of Conservation (SAC) for the European habitats and species listed below and Hoy SSSI is designated as part of Hoy Special Protection Area (SPA) for the birds listed below.

- Habitats : Acid peat-stained lakes and ponds
- : Alpine and subalpine heaths
- : Base-rich fens
- : Blanket bog
- : Dry heaths
- : Hard-water springs depositing lime
- : Plants in crevices on base-rich rocks
- : Vegetated sea cliffs
- : Wet heathland with cross-leaved heath
- Birds : Arctic skua, (*Stercorarius parasiticus*), breeding
- : Fulmar (*Fulmarus glacialis*), breeding
- : Great black-backed gull (*Larus marinus*), breeding
- : Great skua (*Stercorarius skua*), breeding
- : Guillemot (*Uria aalge*), breeding
- : Kittiwake (*Rissa tridactyla*), breeding
- : Peregrine (*Falco peregrinus*), breeding
- : Puffin (*Fratercula arctica*), breeding
- : Red-throated diver (*Gavia stellata*), breeding
- : Seabird assemblage, breeding