



Scottish Natural Heritage

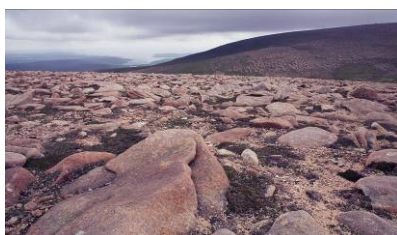
RONAS HILL – NORTH ROE Site of Special Scientific Interest

SITE MANAGEMENT STATEMENT

Site code: 1370

Northern Isles Area
Ground Floor
Stewart Building
Alexandra Wharf
Lerwick
ZE1 0LL
Tel: 01595 693345
Fax: 01595 692565

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.

Natural features of Ronas Hill – North Roe SSSI	Condition of feature (date monitored)	Other relevant designations
Quaternary of Scotland	Favourable Maintained (February 2008)	
Blanket bog	Unfavourable Recovering (September 2007)	Ronas Hill – North Roe SAC
Montane assemblage	Favourable Maintained (August 2006)	
Scrub	Favourable Maintained (July 2001)	
Breeding bird assemblage	Favourable Maintained (September 2002)	
Red-throated diver (<i>Gavia stellata</i>), breeding	Favourable Maintained (July 2006)	Ronas Hill – North Roe and Tingon SPA
Arctic water flea (<i>Eurycercus glacialis</i>)	Favourable Maintained (August 2009)	

Features of overlapping Natura sites that are not notified as SSSI natural features	Condition of feature (date monitored)	SPA or SAC
Acidic scree	Unfavourable No change (December 2004)	SAC
Acid peat-stained lakes and ponds	Favourable Maintained (August 2004)	SAC
Alpine and subalpine heaths	Unfavourable No change (December 2004)	SAC
Clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels	Favourable Maintained (August 2004)	SAC
Dry heaths	Unfavourable No change (August 2006)	SAC
Wet heathland with cross-leaved heath	Unfavourable Recovering (August 2006)	SAC
Great skua (<i>Stercorarius skua</i>), breeding	Favourable Maintained (June 2002)	SPA
Merlin (<i>Falco columbarius</i>), breeding	Unfavourable Declining (June 2007)	SPA

Description of the site

Ronas Hill – North Roe SSSI consists of an extensive area of upland to the north of Ronas Voe, including Ronas Hill itself (the highest point in Shetland at 450 m), the North Roe plateau and the Beorgs of Housetter, Skelberry and Uyea. The site is the largest SSSI in Shetland and is characterised by an open landscape of heathland, bogs, pools, lochs and impressive coastal scenery. It is notified for various qualifying features of national and international importance.

The summits and upper slopes of Ronas Hill, Mid Field and Roga Field have extensive areas of granite gravel or 'fell-field' created by the action of wind and frost. Freezing and thawing of the gravelly soil has produced a range of landforms known as peri-glacial features (formed under extremely cold climates). They include wind stripes, boulder field and solifluction terraces. Some of these are relict (i.e. no longer active), possibly dating from the end of the last ice age, others are still forming. Peri-glacial features are usually found in polar regions or in mountainous areas further south but on Ronas Hill they occur at an unusually low altitude and are relatively undisturbed by human activity. When last assessed in February 2008, the landforms were found in favourable condition, with features clearly visible and accessible and no evidence of disturbance.

The higher ground supports arctic-alpine plant communities. Downy willow, trailing azalea, mountain crowberry, alpine lady's-mantle, three-leaved rush and spiked wood-rush are confined in Shetland to the site. Another species, alpine saw-wort, is known from only one other site in Shetland. The sparse vegetation of the fell-field, characterised by alpine lady's mantle and azalea, grades into subalpine heaths which are typical of the vegetation which develops at high to moderately high altitudes on nutrient poor, free-draining acidic soils. These heaths are dominated either by woolly fringe-moss or by heather with abundant lichens and woolly fringe-moss beneath. The heather is low growing because of the harsh climate and forms a dense mat of intertwined branches. Some areas have stripes or patterns of closed, heath vegetation separated by bare gravel which are caused by freeze-thaw soil movement and by the effects of wind. At lower altitudes on Ronas Hill and across the North Roe plateau the vegetation consists of a mosaic of European dry heath, North Atlantic wet heath and blanket bog depending on the nature of the soil and particularly its drainage characteristics. Free-draining, acidic soils such as sands or gravels, support dry heath dominated by heather (ling) together with other dwarf shrubs such as bell heather, bilberry, crowberry and bearberry. In less well drained areas this gives way to wet heath dominated by mixtures of cross-leaved heath, grasses, sedges and bog-mosses growing in peaty soil or shallow peat and, where the drainage is impeded and the ground is permanently wet, to blanket bog. The montane assemblage comprises alpine heath, alpine summit communities, blanket bog and sub-alpine dry dwarf-shrub heath habitats. Their extent was assessed in August 2006 and targets were met for all habitats.

Blanket bog is an internationally rare habitat that develops only in areas with a cool wet climate, where water evaporates slowly and the ground becomes waterlogged. Dead vegetation is not decomposed in such saturated conditions but instead builds up to form peat. Eventually this becomes so deep that the surface vegetation is no longer able to obtain nutrients from the mineral soil beneath. Consequently blanket bog supports only a limited range of plants that can live in very nutrient-poor conditions, notably heather, cotton-grass and bog-mosses. The presence of the latter is particularly significant, firstly because they indicate that the ground is consistently wet enough for peat to form and secondly because their remains usually make up a large part of the peat. Where the vegetation includes a significant proportion of *Sphagnum* the area is termed "active" blanket bog as peat is still forming. A characteristic feature of Shetland bogs that is particularly well developed on the North Roe plateau is the large number of peat mounds. It is not known how these have formed but they appear similar to mounds found in sub-arctic regions of Europe that are formed by frost heaving. An assessment of the vegetation was carried out in September 2007. Although still in unfavourable condition, the blanket bog habitat showed evidence of improvement since previous survey in 2001. Recent reduction in sheep numbers has led to a decrease in browsing of dwarf-shrubs, and re-vegetation of erosion gullies and tracks caused or kept open by livestock trampling.

The northern part of the site has numerous water bodies, ranging from dystrophic (acidic and nutrient-poor) pools to clear-water lochs with low to moderate nutrient levels. Peaty pools are characteristic of Scottish peatlands and extremely rare elsewhere in the UK. Their acidic water makes conditions intolerable for most plant and animal species. In contrast, the clear-water lochs support brown trout and aquatic plants such as water lobelia and floating bur-reed. Arctic water flea is found in small lochs on the scord between Mid-field and Ronas Hill. This is one of only two sites in Great Britain where it is known to occur, and is of international importance. It was surveyed for Site Condition Monitoring in August 2009, and found to be in favourable condition, with the habitat suitable and water flea present. Other invertebrates of note to be found in these habitats include the northern species of water beetles

Potamonectes griseostriatus and *Agabus arcticus* and the net-spinning caddis fly *Chimarra marginata*.

In addition, the North Roe plateau supports a diverse range of moorland birds, including merlin, dunlin, whimbrel, curlew, greenshank, great skua, Arctic skua and raven. Golden plover and snipe nest at unusually high densities whilst the many lochs and pools provide nesting habitat for one of the densest aggregations of red-throated divers in the UK. The whole assemblage of breeding birds was assessed in 2002 as being in favourable status. The diver and great skua populations, in combination with those at Tington on the opposite side of Ronas Voe, are of international importance and constitute the interest of the composite Special Protection Area. The most recent assessment of the red-throated diver population in July 2006 found that it remained in favourable condition. The larger composite site is also listed under the Ramsar convention for its red-throated divers, as well as the Arctic water flea.

Ronas Hill – North Roe holds a large proportion of the remaining native trees in Shetland. These comprise all of Shetland’s surviving downy birch and numerous rowans, aspens and willows including, on one of the islands in Moosa Water, the only downy willow in Shetland. All these trees are vulnerable to grazing and so are restricted to sites that are inaccessible to sheep, particularly to islands in the larger lochs and the crags overlooking Ronas Voe. The last assessment in July 2001 found the scrub woodland feature to be in favourable condition. These crags also support several endemic species of hawkweeds including three which grow only on Ronas Hill: *Hieracium breve*, *H. ronasia* and *H. subscoticum*. The site is one of only three where Shetland mouse-ear-hawkweed *Pilosella flagellaris* subsp. *bicapitata* occurs.

Peri-glacial features: wind stripes and terraces	Blanket bog and clear water lakes	Dwarf willow
		

Past and present management

Ronas Hill – North Roe SSSI covers parts of Ollaberry, Lochend and North Roe Common Grazings. Although managed independently, there is no fence between the grazings. The land is used for livestock grazing and it is likely to have been so for a long time. Currently only sheep are kept but there may also have been cattle and ponies in the past. Stock density has been significantly reduced in the last ten years across the whole site, as a result of an independent initiative on Lochend and North Roe Common Grazings and under a management agreement with SNH and participation in Rural Stewardship Scheme phased over three years on separate hefts on Ollaberry Common Grazings. The southern part of the site is now in a Rural Priorities agreement to maintain the reduced stock density. Several apportionments have also been taken and have been managed under SNH agreements supporting conservation of heath and bog habitats.

Lochs in the northern part of the SSSI are used by anglers for trout fishing. On the top of Collafirth Hill, a former MoD communications station is fenced off. The transmitter mast within the small compound is a BBC relay site. A public road provides access from the main A970 to the summit, which generally serves as a car park for visitors to Ronas Hill. Roer Water is used as a reservoir supplying water to much of the Shetland North Mainland. Water that would drain off the north west side of the hill is diverted into the Roer Water catchment by means of a short culvert connecting the two Moschella Lochs.

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

We wish to work with the owner and occupiers to protect the site and to maintain and where necessary enhance its features of special interest. SNH aims 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 management agreements.

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 keep the geological interests undisturbed and clearly visible

Peri-glacial features are vulnerable to erosion by trampling and vehicle use. As the highest point in Shetland, the summit of Ronas Hill is a relatively popular attraction for locals and visitors. Although not an issue at present, this creates a risk of path erosion. Sheep are gathered on foot, however given the large distances and absence of hill track, pressure to use all-terrain vehicles may increase. Their use should be kept to a minimum, and avoid sensitive areas.

2. To maintain the extent and enhance the condition of upland habitats by achieving sustainable grazing levels and avoiding damaging activities

Heathland and blanket bog are sensitive to grazing pressure. Successive reductions of sheep numbers on the hill in recent years have significantly reduced the impact of livestock on vegetation. It is hoped that continued conservation management through participation in agri-environment schemes will further support regeneration of heather and restoration of bog habitat. The Rural Development Contracts - Rural Priorities scheme provides support for the management of moorland habitats, in particular where agreements have expired.

Other activities likely to affect the site, if they occurred, include large-scale mechanical peat-cutting, quarrying, excessive trampling and use of vehicles.

3. To maintain the extent, variety and water quality of the lochs and pools by protecting hydrology of the site

The use of the Roer Water catchment for drinking water supply provides an incentive to maintain the water quality in the lochs, which benefits conservation interests of the area. Managing the site as unimproved moorland should prevent nutrient inputs into freshwaters. Any work related to management of water supply infrastructure should aim at minimising impact on habitats and avoiding alteration of water levels.

4. To ensure relict scrub areas are protected from grazing

Reduction of grazing pressure on the site is likely to benefit populations of native trees and shrubs, as well as endemic hawkweeds. Additional protection may be provided where scrub areas are threatened by browsing animals. Sheep crossing frozen lochs to access islands pose a threat to relict scrub. Those islands supporting scrub should be regularly checked during freezing conditions, and livestock promptly removed if present.

5. To maintain and enhance populations of breeding birds and invertebrates by avoiding significant disturbance and damage to habitats

The recent decrease in grazing intensity is likely to impact positively on breeding bird populations, by improving the condition of habitats and reducing the risk of nest damage. Erecting new fences should be avoided so as not to create hazards for birds. The numerous lochs are popular for trout fishing and care should be taken to minimise disturbance of red-throated divers during the breeding season. Raising visitors' awareness of sensitivity of habitats and breeding birds to disturbance could benefit the site.

Other factors affecting the natural features of the site

Climate change: The effects of climate change on the geology, habitats and species of Ronas Hill are uncertain. The geology, many of the habitats, and several of the species are strongly influenced by the Arctic-alpine conditions of Ronas Hill – North Roe SSSI, and under most models of climate change this influence will be expected to decline.

Date last reviewed: 25 February 2011