



## **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.

## **Description of the site**

Rosemarkie to Shandwick Coast Site of Special Scientific interest (SSSI) covers the section of coast between Rosemarkie in the south to Shandwick in the north. The rocky promontories of the north and south Sutors at the entrance to the Cromarty Firth are included in the site.

This SSSI is of special interest for 3 geological and 5 biological features.

### **The geological interests are:**

#### Moine:

The Moine outcrops of rock on this site provide an insight into the history of the earth's crust beneath Eastern Scotland. Once part of an ancient mountain range formed hundreds of millions of years ago, these ancient rocks are now largely obscured by younger *sedimentary* rocks including *Old Red Sandstone* and later *Jurassic* sediments.

#### Callovian:

The inter-tidal zone at Cadh'-an-Righ supports *sedimentary* rocks of *Middle Jurassic* age that contain fossils of marine creatures such as *Ammonites*. These rocks are important as they help understand the geography and environmental conditions that existed around 160 million years ago in the area which is now Northeast Scotland.

#### Mesozoic Palaeobotany:

The inter-tidal zone at Eathie Fishing Station yields *sedimentary* rock layers of *Late Jurassic* age (150 million years old). These layers were deposited in a marine environment and contain the fossil remains of plants, including ancient conifers and tree ferns, washed in from the adjacent land areas. The plant fossils are in such a

perfect state of preservation that they allow detailed anatomical studies down to the cellular level.

The results of monitoring carried out in August 2001 indicate that these three geological natural features (Moine; Callovian; Mesozoic Palaeobotany) are in favourable condition. Current management, is appropriate to maintain the natural feature in favourable condition and no review of management is required. The rocks at Eathie Fishing Station GCR site are only visible at low tide but access is easy.

### **The biological interests are:**

#### Maritime Cliffs

The site supports the only tall coastal cliffs in the Inner Moray Firth. They are especially well developed at the North and South Sutors where they are largely inaccessible from land. Spring cinquefoil (*Potentilla neumanni*), a nationally scarce plant, occurs on low cliffs near Rosemarkie.

The results of monitoring carried out in July 2002 indicate that the maritime cliff natural feature is in favourable condition. Current management, is appropriate although the site could benefit from grazing to maintain the diversity of the habitat. No review of management is required.

#### Sand-dunes

Dune grassland occurs in a small number of locations throughout the site but is especially well developed at Rosemarkie and Shandwick. A wide range of plants occur which are uncommon in the Highlands north of the Great Glen such as carline thistle, wild liquorice, bloody cranesbill and yellow oat grass.

Two main areas of sand dune were monitored in July 2002. The dunes at Rosemarkie were being encroached by bracken, wild rose, brambles and blackthorn. In addition rank grassland with false oat grass and willow herb was developing in the absence of grazing. Lack of grazing has also resulted in a loss of species diversity. The dunes near Shandwick showed signs of localised nitrogen enrichment. The sward was uniformly closely grazed by both stock and rabbits with many unpalatable flowering species present including, ragwort, thistles and daisies. The dune feature at both Rosemarkie and Shandwick are in unfavourable condition and a review of management is required. This should focus on the level of grazing at each site.

#### Upland birch woodland

This habitat has developed in gullies and gorges such as at Brownhill and Eathie on the Black Isle where moisture is not a limiting factor in the summer. The full range of rich, lowland woodland communities are present including oak, ash, wych elm and hazel while more acid communities with birch, rowan and pine occur on the upper margins of the woodlands. This site provides the only East Ross location for the nationally scarce tree, rock whitebeam, (*Sorbus rupicola*).

This natural feature was monitored at four locations between Rosemarkie and Cromarty in July 2002. Overall, the woodland across this site is in favourable condition. There appears to have been expansion of the woodland into areas of open ground at Flowerburn and Hillockhead. However, there are low volumes of deadwood and

standing dead timber but this is due to the relatively young age of the trees rather than removal of timber from the site. The proportion of deadwood would be expected to increase as the woods mature. No review of management is required.

Purple mountain milk-vetch

The nationally rare purple mountain milk-vetch occurs at three known locations on the site between Eathie and Shandwick. The plants occur on south facing, unstable, well drained ground where there is little competition from other species.

This feature was monitored at the three locations where it had been previously recorded in May 2004. The plant was found at only two of the sites and at both the population was less than 25 plants and declining. Only one population showed evidence of regeneration. Gorse had encroached across suitable habitat at Shandwick and forestry adjacent to the Eathie site are thought to contribute to the decline of this species. The feature was found to be unfavourable condition and declining and a review of management is required.

Breeding cormorant

Cormorant breed on the cliffs at the entrance to the Cromarty Firth. The largest concentration occurs at the North Sutor where 206 nesting pairs were noted in 2002.

This feature was monitored over a 5 year period between 1998 and 2002. The feature was found to be favourable with an average of 199 breeding pairs being well above the population necessary to be nationally significant.

Fossil shell-fish shells in sedimentary rock near Eathie.	Cormorant
	

<b>Natural features of Rosemarkie to Shandwick Coast SSSI</b>	<b>Feature condition (date monitored)</b>
Moine	Favourable - maintained (August 2001)
Callovian	Favourable - maintained (August 2001)
Mesozoic Palaeobotany	Favourable - maintained (August 2001)
Maritime cliff	Favourable - maintained (July 2002)
Sand dune	Unfavourable - no change (July 2002)
Upland birch woodland	Favourable - maintained (July 2002)
Purple mountain milk-vetch	Unfavourable - declining (May 2004)
Breeding cormorant	Favourable - maintained (May 2002)

### **Past and present management**

Traditionally, agriculture and fishing were important land uses on this part of the coast and gave rise to a number of tracks from farmland at the top of the cliffs to the beach below. They indicate that greater use was made of the area in the past. There are several old salmon fishing bothies and netting stations along the coast most of which are no longer connected with the fishing industry. However, the salmon bothy at Eathie has recently been upgraded with associated interpretation.

A small part of the SSSI at the North Sutor received planning permission in the late 1970s for the construction of an underground oil storage facility. This project was started but not completed and there is a possibility that the proposal could be revisited in the future.

During the second world war the Ministry of Defence built look out positions on the North and South Sutors. These are still present but are no longer in use or maintained.

The main use of the site now is for access and recreation. Paths to the disused fishing stations and other places of interest, e.g. St Bennet's Well and various caves, are popular walking routes. Several of the paths have been improved recently, especially at Cromarty and the South Sutor, along Rosemarkie Dunes and at Hillockhead and are now well used. Some of the paths, especially at Hillockhead, are also now part of the Black Isle Path Network.

The northern part of the site is less accessible except for the path to the 'Well of Health' at Shandwick and a rough cliff top path between Nigg and Shandwick. There is a small forestry plantation within the site at Eathie.

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

We **wish** to work with the owner 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 monitor the effectiveness of the management.

- 1. To maintain the geological exposures in favourable condition so that they are clearly visible and accessible for the purposes of research and education.**
- 2. To maintain the favourable condition of the maritime cliffs and woodland features within the site by:**
  - Where practical introducing grazing with cattle or sheep to control scrub encroachment by rose, bramble, bracken and gorse.
- 3. To undertake appropriate management so that the condition of the dune grassland natural feature comes into favourable condition by:**
  - reducing the grazing pressure and nutrient input from cattle and rabbits at Shandwick to improve structural and floristic diversity of the dune grassland
  - encouraging grazing by cattle at Rosemarkie to reduce scrub encroachment and the extent of coarse grasses
- 4. To undertake appropriate management so that the three populations of purple milk-vetch come into a favourable condition by:**
  - controlling spread of gorse near the population at Old Shandwick
  - identifying specific management options for the Nigg population
  - reducing tree cover in the vicinity of the population at Eathie
- 5. To encourage responsible visitor access to the site for the purposes of recreation, education and interpretation.**

### **Other factors affecting the natural features of the site**

Gorse is very extensive on this site (and adjacent) and traditionally has been burnt, especially between Shandwick and Nigg. Some of the steep slopes were used for grazing as they are sheltered and grass starts growing earlier than the surrounding area. Changes in both burning and animal husbandry have resulted in changes to the sward allowing both gorse and bracken to become more dominant to the detriment of a biologically more diverse range of habitats and species.

Indiscriminate large-scale hammering by geologists and collectors could damage the interest of the site but this is not thought to be a major threat since access by vehicles is difficult.

Date last reviewed: 21 September 2007

