



Scottish Natural Heritage

**Isle of May
Site of Special Scientific Interest**

SITE MANAGEMENT STATEMENT

Site code: 820

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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.

Description of the site

The Isle of May Site of Special Scientific Interest (SSSI) lies at the entrance to the Firth of Forth on the east coast of Scotland. The island is formed from basalt volcanic rock and is tilted in an easterly direction, gradually sloping down to sea level from the vertical cliffs on the western coast. These cliffs reach a height of 60 metres and have numerous arches, stacks and caves. Fault lines have divided the island into a number of islets separated by intertidal channels: North Ness, Rona and the main island. The coastline is mostly rocky with a few small shingle or sand beaches which have formed in sheltered locations.

The island is mostly covered in short, rabbit-grazed grasslands with extensive areas of sea campion. The island is notified for maritime cliff grassland and, while still in favourable condition, the best examples are now restricted and are limited to areas where the influence of birds, seals and salt spray are less pronounced, such as the east and west braes. In parts of the island, burrowing by puffins has had a major effect on the vegetation with many bare, unstable patches visible by mid-summer.

Grey seals inhabit the island all year round but in autumn thousands gather to give birth and to mate. Each year around 2000 pups are born on the May, making the site the largest grey seal colony on the east coast and the fourth largest in the UK. This colony has grown considerably since the 1970s but appears to have now stabilised although a new colony at Fast Castle in the Borders is thought to have been started by seals from the Isle of May. Whilst only on the shoreline in summer, during the breeding season seals can be found almost anywhere on the island.

The seabird colony is one of the largest on the east coast with around 140,000 breeding birds from eleven species including an internationally important colony of

puffins which now has over 40,000 pairs. This has risen considerably since the 1980s and is now the fifth largest in the UK.

Guillemots nest in nationally important numbers. This species is difficult to monitor due to the fact that they barely build nests and so counts are usually undertaken of adults on cliffs. This number is then “corrected” using a standard ratio to give a population figure. These figures are indicating a decline in the breeding population. However, the Reserve staff also undertake a more time-consuming count of pairs, recent figures for which suggest that the guillemot population has now stabilised.

The numbers of nesting shag are also nationally important, although subject to wide fluctuations for reasons which are not fully understood. Currently, the shag population is considered unfavourable but is increasing once again. Kittiwakes have declined seriously in the last few years. As for most seabirds, the reasons for this are unclear but are likely to be linked to fishing activity and climate change. The Isle of May also has an important and currently stable eider breeding population.

Other seabirds which nest on the island include fulmar, several gull species, common and arctic terns and razorbills. Outwith the breeding season various species visit the island either on passage or wintering. Turnstone and purple sandpipers both winter in nationally important numbers. Recent monitoring has suggested a decline in turnstone numbers but the lack of data means this could be unreliable.

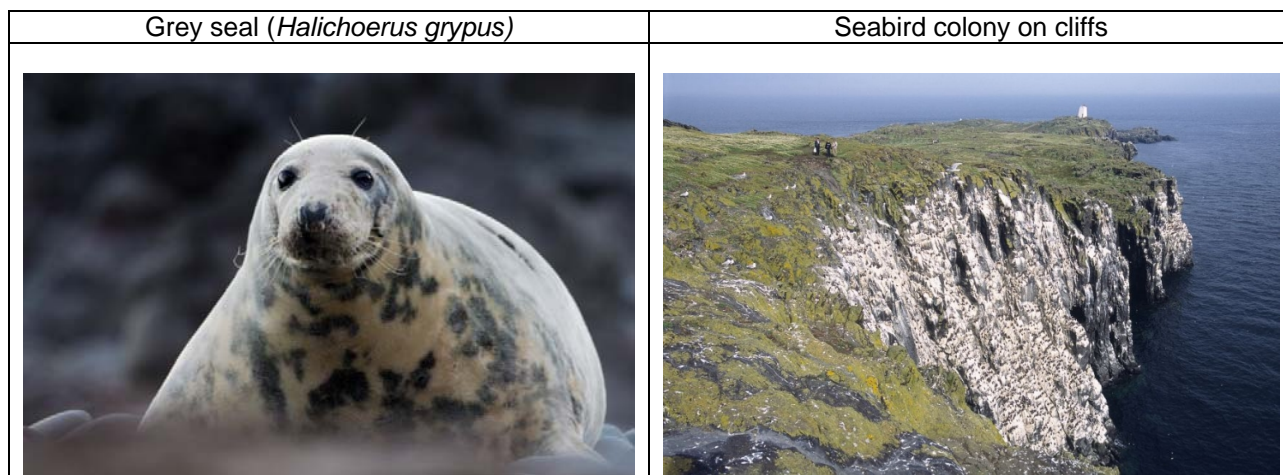
As well as being notified as a SSSI, the island is also part of the Forth Islands special protection area (SPA) which includes a number of other islands in the Firth of Forth. The SPA supports internationally important populations of seabirds. The island is also a special area of conservation (SAC) on account of the breeding grey seal population and also its reef habitat.

Natural features of Isle of May SSSI	Condition of feature (and date monitored)	Other relevant designations
Maritime cliff	Favourable - maintained (September 2000)	
Grey Seal (<i>Halichoerus grypus</i>)	Favourable - maintained (November 2003)	Isle of May SAC
Seabird colony, breeding	Favourable - maintained (June 2002)	Forth Islands SPA
Shag (<i>Phalacrocorax aristotelis</i>), breeding	Unfavourable - recovering (June 2001)	Forth Islands SPA
Puffin (<i>Fratercula arctica</i>), breeding	Favourable - maintained (April 2003)	Forth Islands SPA
Guillemot (<i>Uria aalge</i>), breeding	Unfavourable - declining (June 2007)	Forth Islands SPA
Kittiwake (<i>Rissa tridactyla</i>), breeding	Unfavourable - declining (June 2007)	Forth Islands SPA
Eider (<i>Somateria mollissima</i>), breeding	Favourable - maintained (June 2001)	

Turnstone (<i>Arenaria interpres</i>), non-breeding	Unfavourable - recovering (September 2002)	
Purple sandpiper (<i>Calidris maritima</i>), non-breeding	Favourable - maintained (September 2002)	

Features of overlapping Natura sites that are not notified as SSSI natural features	Condition of feature (date monitored)	SPA or SAC
Reefs	Favourable - maintained (September 2007)	Isle of May SAC
Arctic tern (<i>Sterna paradisea</i>), breeding	Favourable - declining (June 2009)	Forth Islands SPA
Common tern (<i>Sterna hirundo</i>), breeding	Favourable - maintained (June 2003)	Forth Islands SPA
Cormorant (<i>Phalacrocorax carbo</i>) ¹ , breeding	Favourable - declining (March 2010)	Forth Islands SPA
Fulmar (<i>Fulmarus glacialis</i>), breeding	Favourable - maintained (June 2004)	Forth Islands SPA
Gannet (<i>Morus bassanus</i>) ¹ , breeding	Favourable - maintained (July 2004)	Forth Islands SPA
Herring gull (<i>Larus argentatus</i>), breeding	Favourable - maintained (June 2001)	Forth Islands SPA
Lesser black-backed gull (<i>Larus fuscus</i>), breeding	Favourable - maintained (June 2008)	Forth Islands SPA
Razorbill (<i>Alca torda</i>), breeding	Favourable - maintained (June 2007)	Forth Islands SPA
Roseate tern (<i>Sterna dougallii</i>) ¹ , breeding	Unfavourable - declining (July 2009)	Forth Islands SPA
Sandwich tern (<i>Sterna sandvicensis</i>), breeding	Unfavourable - declining (June 2003)	Forth Islands SPA
Seabird assemblage, breeding	Unfavourable - declining (July 2004)	Forth Islands SPA

¹ Does not breed on Isle of May SSSI



Past and present management

The island is thought to have been inhabited since the Bronze Age, possibly as far back as 2000 B.C. Around the 6th or 7th century, the island was used as a retreat by monks and a chapel was built in memory of St Adrian, who was killed by Viking raiders. In 1145, a priory was built and monks lived on the island for the next few hundred years. The ruins of the priory can still be seen on the island. In 1549, the chapel was converted into a manor house for the small farming community which had become established. A village existed into the 18th century, with the last villager dying in 1730. The caves on the island were used by smugglers during the 17th and 18th centuries.

The first lighthouse in Scotland, a coal-fired beacon, was built in 1635 by the landowner who would charge ships a fee for passing the island safely. This beacon used enormous amounts of coal and even now the site of the tern colony next to it is clearly composed of coal ash. The Northern Lighthouse Board (NLB) bought the island in 1814 and Robert Stevenson built the existing lighthouse in 1816. Between 1836 and 1886, further construction included the accommodation for the keepers and their families on Fluke Street, which now houses the Reserve staff and researchers. In 1844, the Low Light was built to provide a pair of lights for alignment to help ships avoid the North Carr Rock. This operated until 1887 and now houses the bird observatory. In 1972, the families of keepers left to live on the mainland while in 1989 the light became entirely automatic. Large walled gardens are found next to the lighthouse itself and by the accommodation buildings. Keepers could grow so much that they supplemented their salaries by selling vegetables in Fife markets.

The island was occupied by the military in both world wars. During the Second World War there was a control centre for inductor loops on the seabed and ASDIC (sonar) which detected U-boats and ships attempting to enter the Forth.

In 1934, the Isle of May Bird Observatory was set up in the old Low Light and is now the oldest continuously run bird observatory in Great Britain. Observatory volunteers use Heligoland traps (large, permanent funnel traps) in some of the walled gardens as well as temporary mist nets to catch migratory birds for ringing. Migration studies pre-date the Observatory, having started in 1907.

In 1956, the island became a National Nature Reserve managed by the then Nature Conservancy. The NLB sold the island to the Nature Conservancy Council in 1989 and now it is owned and managed by SNH. The NLB periodically visit the island to maintain the lighthouse.

Since 1966, the island has been an important site for scientific research into avian biology. Much of this is carried out by staff from the Centre for Ecology and Hydrology (CEH) while students from various universities also visit to carry out research. In the autumn, staff from the Sea Mammal Research Unit (SMRU) based in St Andrews monitor the grey seal breeding season.

The Reserve is managed by two staff who stay on the island from March until October. Management centres on maintaining or enhancing the island for breeding birds and seals as well as to facilitate access and enjoyment by visitors. The Reserve staff carry out breeding bird counts throughout the summer to monitor any changes in bird populations while CEH staff undertake more complex ecological research including

avian food selection, survival rates and breeding success.

Work is carried out on the tern colony to maintain its suitability for nesting terns. In the past, nest boxes were set out within the colony area to give shelter to tern chicks and some of these may still be present. Extensive nettle beds within the tern colony are sprayed annually with pesticide in patches in an attempt to break up the nettles into less homogenous areas and to investigate the effects on other vegetation. This is also carried out in order to prevent eider chicks getting badly stung whilst trying to get to the sea. Stinging causes them temporary paralysis which leads to them losing their mothers and predation by gulls.

'Gull free' areas are maintained around the tern colony and control of individual gulls specialising in predating tern chicks is carried out. Predation of tern chicks by gulls is thought to have a substantial impact on tern productivity, especially when it occurs in conjunction with food shortage or consistent poor weather.

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

We will continue working to protect the site, 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 agreement.

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).

An increase in visitor pressure and disturbance by man is a possibility and could have a substantial effect on flora and fauna which would require careful management.

1. Maintain the breeding seabird populations

Maintain and, where possible, enhance suitable conditions on the island which will allow for the successful nesting and fledging of the populations of the key bird species and associated breeding bird assemblages. Many factors involved in the success or otherwise of seabird populations will be outwith the scope of site management. These include pollution; winter mortality rates of adult birds; and the availability and suitability of summer food supplies which can be affected by fisheries and climate change.

2. Maintain the breeding grey seal populations

Little or no management is necessary for the grey seal colony. However, it should be ensured that no management for other species or for visitors compromises the conditions for seals, for example blocking access by seals to areas they have

utilised historically. Disturbance, particularly during the breeding season, should be minimised.

Other factors affecting the natural features of the site

As it is a National Nature Reserve, one of SNH's key management aims is to facilitate visitor access and enjoyment of the island and its natural and cultural heritage. This includes maintaining the path network, the visitor centre and toilets, and interpretative items. Visitor pressure is managed using a permit system for tourist boats to maintain a maximum number allowable on the island at any one time. Once on the island, visitors are asked to stay on the footpath system to avoid disturbance of seabirds and prevent the crushing of puffin burrows or incubating eider. All management must be carried out without disturbing the birds, seals and habitats and without compromising their breeding success.

Date last reviewed: 17 March 2011