



**Report to the
Department of Trade and Industry**

**Conservation Sites in the
SEA 7 Area**

**Final
October 2006**

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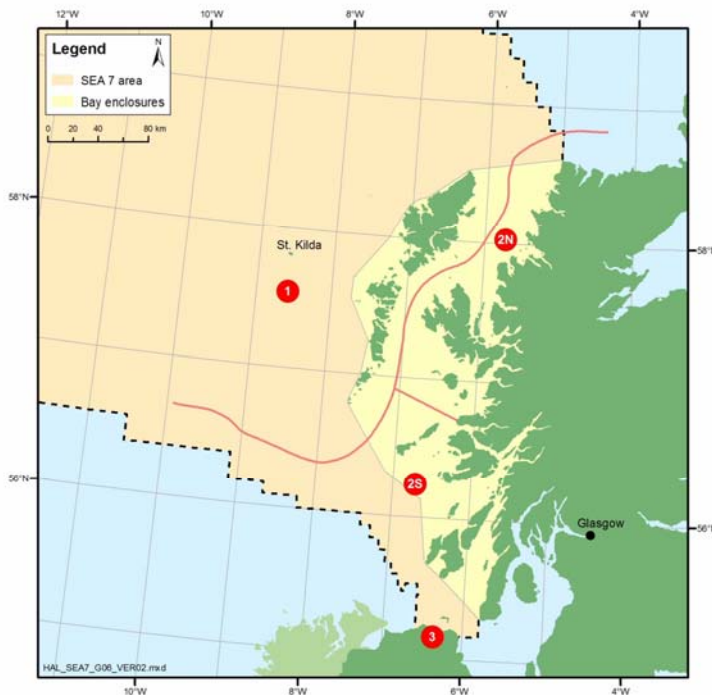
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1 INTRODUCTION AND REGIONAL SETTING

The coastal and marine areas within the SEA 7 boundary are very extensive, longer and more varied than any other SEA area. Stretching westwards into the Atlantic Ocean, the region includes a very large area of relatively shallow continental shelf. There are also a few uninhabited islands to the west of the Outer Hebrides, including St. Kilda with its multiple conservation designations.

Figure 1.1 – Regional divisions of SEA7



For two of the sections of this report (Section 2 and Section 4), the coastal and marine areas have been broken into four regions, each of which has some degree of common physiographic characteristics. As shown in Figure 1.1, the areas are:

1. The Outer Hebrides – including islands to the west at both Atlantic and Minch coastlines.
2. The long west coast of the Scottish mainland with its numerous sea lochs and islands between Cape Wrath and the Mull of Kintyre. This area also includes the Inner Hebrides with major larger islands such as Skye, Mull, Islay, Jura, Coll and Tiree. For cartographic purposes this coastal zone is divided into north and south sections by the Ardnamurchan Peninsula.
3. The north coast of Northern Ireland.

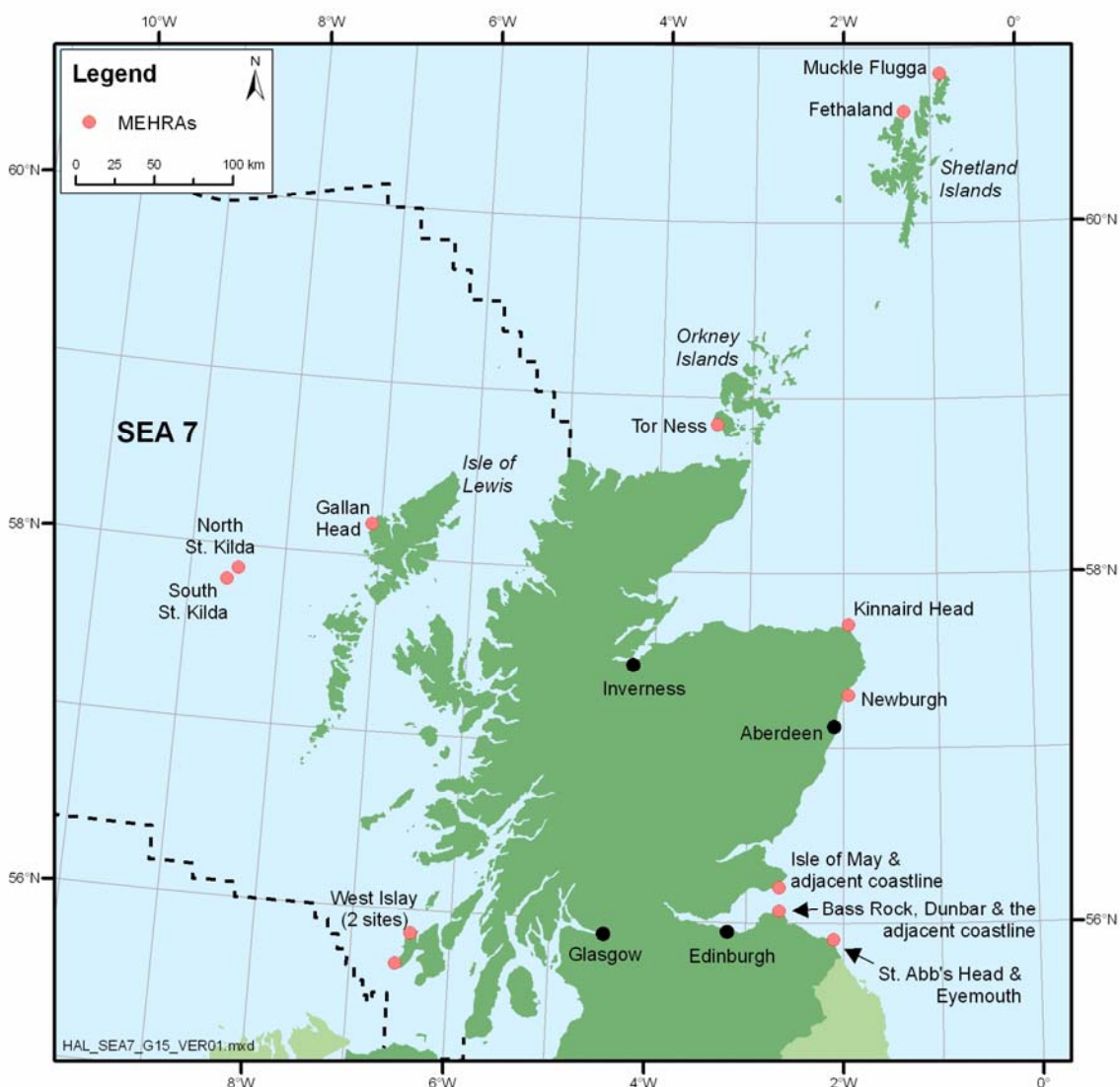
The Outer Hebrides form one of the oldest geological provinces in Europe and is mainly based on Lewisian Gneiss. A major geological fault runs parallel to the east coast (The Minch coast), whereas the western side is normally a continuation of the continental shelf. These features are prominent in the southern islands, notably the Uists. Harris and Lewis present different topographies which include the high massif with Clisham at its centre and the low peat-covered plateaux of most of Lewis to the north. The east Minch coastline is generally steeper and falls to deeper inshore waters. It is also characterised by several transverse sea lochs which resemble similar fjords on the west mainland coast. Although the legacy of glacial processes are complex, the main effect has been to over-deepen sea lochs and inter-island straits (e.g., Sound of Harris) and deposit great masses of glacial debris, especially sands, on the shallow continental shelf to the west where, with the prevalence of strong onshore Atlantic waves and winds, vast beaches were formed in this post glacial period. Large quantities of organic sand (crushed shells) were added to this volume; as a consequence, some of the larger beach and dune systems in Britain are found along the west coast. These extensive blown sand systems are called machairs, and provide a unique series of environmental and ecological systems with very high conservational status at European and international levels.

The west coast of the Outer Hebrides contains many sites of archaeological interest and retains a distinctive cultural landscape as one of the last strongholds of a historical system of land tenure and working found nowhere else in Europe. This way of life is considered to be one of the prime reasons for the creation and maintenance of many of the significant conservational attributes of the Outer Hebrides.

The Mainland Coast is characterised by deep-sea punctuations into an essentially highland topography of ridges and mountains. Over-deepened by ice-movements, this interpenetration of the sea and the land epitomise the image of Highland Scotland. The sea lochs cut into a variety of ancient geological structures, dominated by igneous and metamorphic formations. There are numerous faults including the Moine Thrust which runs the entire length of the west side of Highland Scotland. Elsewhere the landscape reflects the Caledonian Trend, where landscape features align in a southwest to northeast direction. Many sea lochs have extensive areas of high conservation status.

Reflecting concern for environmental protection the location of MEHRAs, as proposed in the Donaldson Report after the oil spill in Shetland, was published in February 2006. This map is shown in Figure 1.2 and includes designated sites which lie outwith SEA 7.

Figure 1.2 – Scottish MEHRAs



The Inner Hebrides is a diverse series of small and large islands, all of which have distinctive characteristics. Above all, these islands have an abundance and variety of conservational designations. The Isle of Skye with its sea lochs, high mountains, Tertiary basaltic lava plateaux and moorland (but few beaches) is the larger of the islands. Mull is also mountainous but has a distinctive

peninsula with shell sand beaches and dunes in the south-west leading towards the low grassy island of Iona.

Both Mull and Skye are characterised by short sea crossings to the adjacent mainland, and Skye is now connected to the mainland by a bridge while all other Hebridean islands rely on relatively large distance ferries and air links.

Other large islands are Islay and Jura, with the former having a number of very important sites for different bird communities, mostly in transit. Jura is almost entirely mountainous and has several geological sites on its open west coast, including the best raised shoreline features in Britain.

Further west, Coll and Tiree are machair covered islands and both have distinctive microclimates, including exceptionally long sunshine hours. The southwest tip of Tiree is fully exposed to the Atlantic (as is part of Islay). This is exceptional, as almost all other Inner Hebridean islands are surrounded by various degrees of sheltered waters.

Other islands include Colonsay and Oronsay, both of which have extensive beaches, dunes and machairs. Some islands contain important plant communities, and some have notable archaeological and historical landscape designations. The relatively mild climate associated with most of the islands and the west mainland coast is reflected in some unique botanical attributes.

Among the small islands, Rhum is of particular interest as it is wholly owned by Scottish Natural Heritage and managed entirely for conservational purposes, including research, especially its red deer population.

The north coast of Ireland is normally described as being mainly a volcanic province (Antrim), epitomised by the hexagonal basaltic columns of the World Heritage Site at the Giant's Causeway (geologically similar to Fingal's Cave in Staffa in the Inner Hebrides) however there is also a variety of older and much younger rocks which form conspicuous headlands at Fair Head (200m high) and the lower more dissected promontory at Benbane. Some areas of Jurassic rocks, including chalk, occur near Whiteport. On the whole, however, this is a high coastline with relatively few bays and beaches, most of which have traditional holiday-making facilities, including golf courses, e.g. Portrush and Whiteport which is encircled by distinctive limestone cliffs. In general, the cliffs tend to occur in a series of relatively small bays and headlands. Each bay has extensive rock platforms and the steep cliffs lie slightly inland and are elevated above present day sea levels. Rathlin Island lies 7km offshore and has several conservational sites for plants and birds and contains good examples of the basaltic and other landscapes which are found elsewhere in the province. West of Rathlin Island the coastline is fully open to the northwest Atlantic fetch. East of Benmore Head the coastline trends southeastwards and although much more complex with rapidly changing geological structures, onshore energy decreases rapidly towards the enclosed North Channel that leads southwards to the Irish Sea. At this point the coastline abuts with the area of SEA 6.

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2 COASTAL AND MARINE SITES OF INTERNATIONAL IMPORTANCE

This section provides an overview of sites designated under international legislation for their scientific, wildlife, natural and cultural heritage and/or landscape value. For presentation purposes, the coastal component of SEA 7 has been sub-divided into four regions, as follows:

1	Outer Hebrides	<i>The Outer Hebrides, including islands to the west at both Atlantic and Minch coastlines</i>
2N	Cape Wrath – Ardnamurchan Peninsula	<i>The long west coast of the Scottish mainland with its numerous sea lochs and islands between Cape Wrath and the Mull of Kintyre. This area also includes the Inner Hebrides with major larger islands such as Skye, Mull, Islay, Jura, Coll and Tiree. For cartographic purposes this coastal zone is divided into north and south sections by the Ardnamurchan Peninsula</i>
2S	Ardnamurchan Peninsula – Mull of Kintyre	
3	Northern Ireland	<i>The north coast of Northern Ireland</i>

The following sections 2.1, 2.2, 2.3 and 2.4 are sub-divided according to these regions and contain reference maps and detailed site boxes for each of the designations that lie within them.

Natura 2000 is the European Union-wide network of nature conservation sites comprising Special Areas of Conservation (SACs) designated under the EC Habitats Directive (92/43/EEC) and Special Protection Areas (SPAs) classified under the EC Wild Birds Directive (79/409/EEC). The UK statutory provisions applying to Natura 2000 sites are contained in the *Conservation (Natural Habitats &c) Regulations 1994* which includes marine areas in or up to the seaward limit of territorial waters (12 nautical miles).

There are several types of marine SPAs being considered for UK territorial and offshore waters (JNCC website):

- Seaward extensions to existing seabird breeding colony SPAs. Current work aims to identify those areas of the sea adjacent to breeding colonies that are important to seabirds for essential activities. Spatial analysis of at-sea survey data allows formulation of guidance on appropriate boundary extensions that may be applied generically for certain species. To date, extensions into the sea of 1 km for those SPAs at which common guillemot, razorbill and Atlantic puffin breed, and 2 km for breeding gannet SPAs, have been recommended;
- Inshore aggregations of non-breeding waterbirds. An initial trawl through various survey data has resulted in a list of inshore sites for seaduck, divers and grebes that might be considered for SPA status. Spatial analyses of aerial survey data from such sites allow assessment of whether a site qualifies as an SPA (using existing criteria formulated by JNCC for application to the terrestrial environment) and if so, where the seaward boundaries of the site might be defined. So far, analysis of data from three sites has allowed formulation of generic guidance for boundary determination.
- Offshore aggregations of seabirds. The European Seabirds at Sea database hosts year-round data on the at-sea distributions of all birds that occur in the waters of the north-west European continental shelf. These data will be analysed in order to identify possible hotspots for seabirds with a view to possible SPA classification.
- Other types of SPA. Some important aggregations of seabirds may not be captured by the above categories and are being considered individually, e.g. diurnal concentrations of Manx shearwaters during the breeding season, which occur at varying distances and locations from the breeding colonies, are being studied using radio-tracking. Similarly, the feeding locations

of red-throated divers are being investigated using the same technology. Feeding concentrations of terns in the breeding season are also the focus of specific study.

The six seabird colony SPAs which showed qualifying seabird species (numbers and population percentages) according to Article 4 of the Birds Directive described in McSorley et al. (2003) did not include any colonies in or around SEA 7. This notwithstanding, as guidelines for selection of sites are further developed, seabird colony SPAs, as well as sites supporting aggregations of non-breeding waterbirds within SEA 7, may be designated in the future.

The Convention on Wetlands of International Importance, especially as Waterfowl Habitats (The Ramsar Convention, 1971) is an intergovernmental treaty that aims to stem the progressive encroachment on and loss of wetland habitat. Ramsar sites are designated for their important waterfowl populations and rare or endangered plant and animal species. Bird Life International identifies sites (IBAs) throughout the world for their importance for the conservation of the world's birds using globally agreed criteria. The sites are recognised as supporting internationally or nationally important numbers of breeding and/or non-breeding birds. There is often a degree of overlap between SPAs, Ramsar sites and IBAs.

Biosphere reserves are sites recognized under UNESCO's Man and the Biosphere Programme which innovate and demonstrate approaches to conservation and sustainable development. They are under national sovereign jurisdiction, yet share their experience and ideas nationally, regionally and internationally within the World Network of Biosphere Reserves. There are two biosphere reserves in SEA 7. UNESCO adopted the World Heritage Convention in 1972, which was ratified in the UK in 1984. The Convention aims to encourage countries to identify, protect and preserve sites of cultural and natural heritage considered to be of outstanding value to humanity at a global scale. Within the SEA 7 boundary, there are two World Heritage Sites: Giant's Causeway and Causeway Coast in Northern Ireland, and the St Kilda archipelago to the west of the Outer Hebrides, Scotland.

2.1 Region 1: The Outer Hebrides and Atlantic Islands

The Atlantic coast of the Outer Hebrides is mainly very low and flat, being an extension of the wide shallow continental shelf to the west. This coast contains the internationally important machair sites. Some higher areas are found in Harris and Lewis which also has eroding cliffs of glacial deposits. In contrast the east (Minch) coast has West Highland characteristics: steep with sea lochs, mountains, cliffs and deep water nearshore. Except for the main ports of Lewis (Stornoway) and Harris (Tarbert) most populations concentrate on the west coast on the basis of traditional crofting agriculture.

Figure 2.1 – Internationally important coastal conservation areas in Region 1

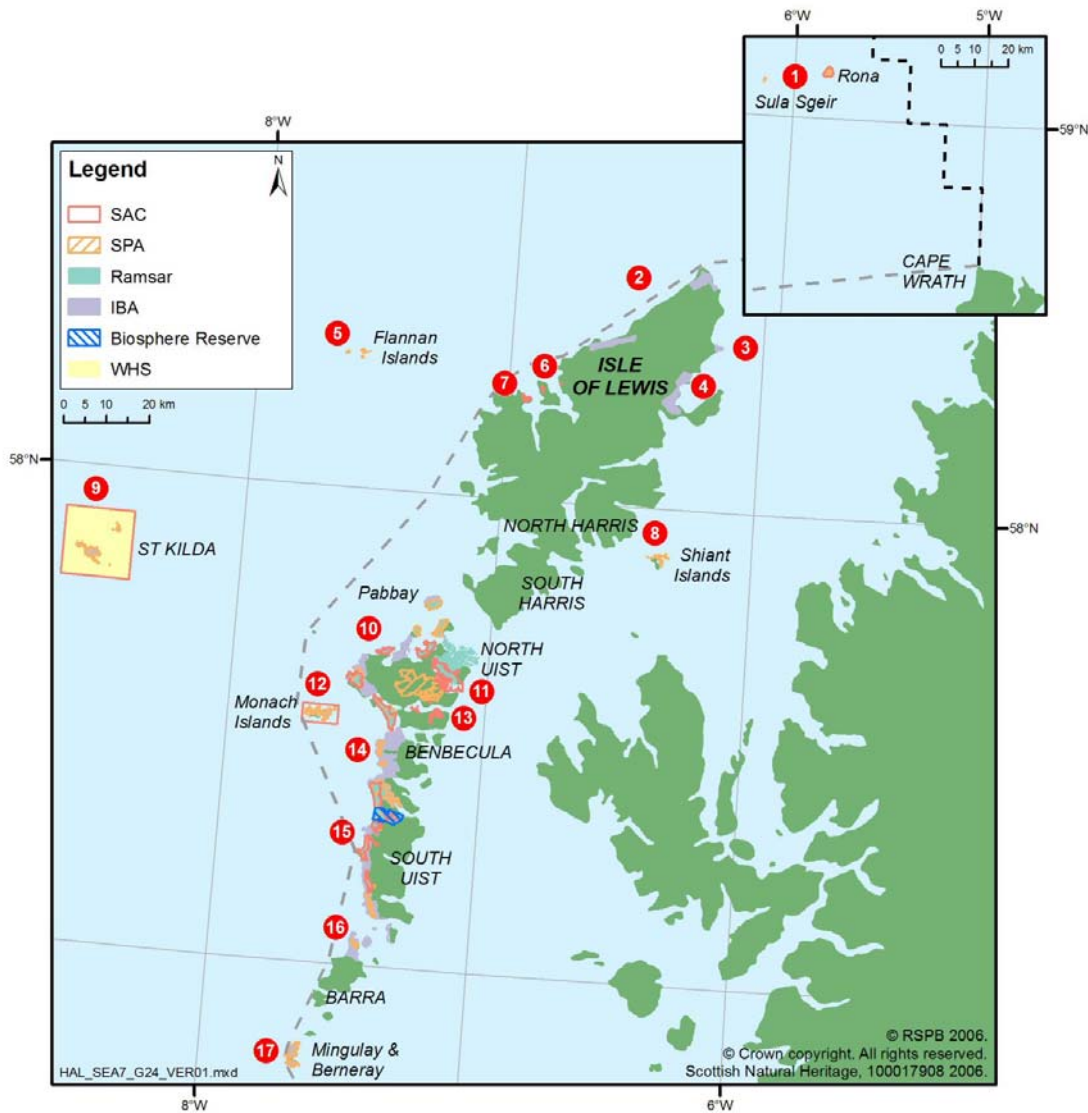


Table 2.1 – Internationally important coastal conservation areas in Region 1

Map Ref	Location	SAC	SPA	R	IBA	BR	WHS
1	North Rona and Sula Sgeir	✓	✓		✓		
2	West Coast Lewis				✓		
3	Tolsta Head Lewis				✓		
4	Stornoway to Back Lewis				✓		
5	Flannan Isles		✓		✓		
6	Loch Roag Lagoons	✓					
7	Tràigh na Berie	✓					
8	Shiant Isles		✓		✓		
9	St. Kilda	✓	✓		✓		✓

Map Ref	Location	SAC	SPA	R	IBA	BR	WHS
10	North Uist Machair and Islands	✓	✓	✓	✓		
11	Loch nam Madadh	✓	✓	✓			
12	Monach Islands	✓	✓		✓		
13	Obain Loch Euphoirt	✓					
14	West Coast of Benbecula		✓		✓		
15	South Uist Machair and Lochs	✓	✓	✓	✓	✓	
16	West Sound of Barra		✓		✓		
17	Mingulay and Berneray		✓		✓		

Abbreviations: SAC (Special Area of Conservation), SPA (Special Protection Area), R (Ramsar), IBA (Important Bird Area), BR (Biosphere Reserve) and WHS (World Heritage Site)

1

North Rona and Sula Sgeir – SAC/SPA/IBA

The two small and remote islands of North Rona and Sula Sgeir lie in the North Atlantic about 65km from the island of Lewis in the Outer Hebrides off the north-west coast of Scotland. The islands are rarely disturbed by human activities in the breeding season. Grey seal *Halichoerus grypus* are found over much of the island and use many of the submerged sea caves that are found around the coast. North Rona supports the third-largest breeding colony in the UK, representing some 5% of annual UK pup production.

Both islands provide strategically placed nesting localities for large numbers of seabirds which feed in the waters off the north coast of Scotland away from the SPA/IBA. They hold a diverse assemblage of species including large numbers of petrels, auks, gulls and gannet *Morus bassanus*. It is one of only seven known nesting localities in the EU for Leach's petrel *Oceanodroma leucorhoa*.

Summary Information – North Rona SAC

Location 59°07'30"N, 05°49'30"W

Area (ha) 628.53

Date designated March 2005

General Site Characteristics:

- Marine areas. Sea inlets (80%)
- Salt marshes. Salt pastures. Salt steppes (3%)
- Shingle. Sea cliffs. Islets (9%)
- Bogs. Marshes. Water fringed vegetation. Fens (2%)
- Dry grassland. Steppes (6%)

Relevant qualifying features:

Annex II species that are a primary reason for the selection of this site:

- Grey seal *Halichoerus grypus*

Annex I habitats present as a qualifying feature, but not a primary reason for the selection of this site:

- Reefs
- Vegetated sea cliffs of the Atlantic and Baltic coasts
- Submerged or partially submerged sea caves

Summary Information – North Rona and Sula Sgeir SPA (Continued)**Location** 59°07'18"N, 05°49'30"W**Area (ha)** 138.81**Date designated** October 2001**Relevant qualifying species:**

The site qualifies under the Habitats Directive by supporting populations of European importance of the following Annex I species:

During the breeding season

- Leach's storm-petrel *Oceanodroma leucorhoa*, 2,750 pairs representing at least 5.0% of the breeding population in Great Britain (Seabird Census Register 1986-88)
- Storm petrel *Hydrobates pelagicus*, 1,000 pairs representing at least 1.2% of the breeding population in Great Britain (Seabird Census Register 1986-88)

The site also qualifies by supporting populations of European importance of the following migratory species:

During the breeding season

- Gannet *Morus bassanus*, 9,000 pairs representing at least 3.4% of the breeding North Atlantic population (Seabird Census Register)
- Guillemot *Uria aalge*, 28,944 pairs representing at least 1.3% of the breeding East Atlantic population (Seabird Census Register)

The area qualifies by regularly supporting at least 20,000 seabirds

Assemblage qualification

- During the breeding season, the area regularly supports 130,000 individual seabirds including: Puffin *Fratercula arctica*, razorbill *Alca torda*, kittiwake *Rissa tridactyla*, great black-backed gull *Larus marinus*, fulmar *Fulmarus glacialis*, guillemot *Uria aalge*, gannet *Morus bassanus*, Leach's storm-petrel *Oceanodroma leucorhoa* and storm petrel *Hydrobates pelagicus*.

Summary Information – North Rona and Sula Sgeir IBA**Location** 59°07'00"N, 05°49'00"W**Area (ha)** 130**Birds of conservation concern:**

- Leach's petrel *Oceanodroma leucorhoa*
- Gannet *Sula bassana*
- Great black-backed gull *Larus marinus*
- Guillemot *Uria aalge*
- Razorbill *Alca torda*

The site is also nationally important for breeding fulmar *Fulmarus glacialis* (9,000 pairs, 1985-1986), kittiwake *Rissa tridactyla* (5,050 pairs, 1986) and puffin *Fratercula arctica* (5,250 pairs, 1986).

2

West Coast, Lewis - IBA

Area of agricultural land on the north-west coast of the Isle of Lewis. The IBA is also important for breeding waders and other upland species and contains internationally important numbers of corncrake.

Summary Information – West Coast, Lewis IBA (continued)	
Location 58°20'00"N, 06°36'00"W Area (ha) 2230 Birds of conservation concern: <ul style="list-style-type: none"> • Corncrake <i>Crex crex</i> 	
3	
Tolsta Head Lewis - IBA	
<p>A headland and associated stacks forming the easternmost point of the Isle of Lewis. The site is important for breeding upland species and contains an internationally important population of golden eagle.</p>	
Summary Information – Tolsta Head Lewis IBA	
Location 58°20'00"N, 06°09'00"W Area (ha) 150 Birds of conservation concern: <ul style="list-style-type: none"> • Golden eagle <i>Aquila chrysaetos</i> 	
4	
Stornoway to Back, Lewis - IBA	
<p>An area of agricultural land situated to the east and north of Stornoway containing internationally important numbers of corncrake.</p>	
Summary Information – Stornoway to Back, Lewis IBA	
Location 58°12'00"N, 06°20'00"W Area (ha) 2130 Birds of conservation concern: <ul style="list-style-type: none"> • Corncrake <i>Crex crex</i> <p>The site is also nationally important for breeding Arctic tern <i>Sterna paradisaea</i> (570 pairs, 1990).</p>	
5	
Flannan Isles – SPA/IBA	
<p>The Flannan Isles are a group of six rocky islands, with outlying skerries, which lie about 30km west of Lewis in the Outer Hebrides off the north-west coast of Scotland. They provide a strategically placed nesting locality for seabirds, which feed in the rich waters off the Western Isles, especially auks, and including Leach's petrel <i>Oceanodroma leucorhoa</i>, for which they are one of only seven known nesting localities in the EU. The seabirds feed outside the SPA/IBA in nearby waters, as well as more distantly in the North Atlantic.</p>	
Summary Information - Flannan Isles SPA	
Location 58°17'20"N, 07°35'30"W Area (ha) 58.87 Date classified 31/08/1992	

Summary Information - Flannan Isles SPA (continued)**Relevant qualifying species:**

The site qualifies under the Habitats Directive by supporting populations of European importance of the following Annex I species:

During the breeding season

- Leach's storm-petrel *Oceanodroma leucorhoa*, 100 pairs representing at least 0.2% of the breeding population in Great Britain (Count, as at 1991)

The area also qualifies by regularly supporting at least 20,000 seabirds:

Assemblage qualification

- Razorbill *Alca torda*, guillemot *Uria aalge*, kittiwake *Rissa tridactyla* and fulmar *Fulmarus glacialis*.

Summary Information – Flannan Isles IBA

Location 58°17'00"N, 07°35'00"W

Area (ha) 59

Birds of conservation concern:

- Storm petrel *Hydrobates pelagicus*
- Leach's petrel *Oceanodroma leucorhoa*
- Razorbill *Alca torda*

These islands are of major importance for their breeding seabird colonies, which support 30,000 pairs on a regular basis. They are also nationally important for breeding guillemot *Uria aalge* (9,050 pairs, 1988).

6

Loch Roag Lagoons - SAC

Loch Roag Lagoons is a complex of silled lagoons illustrating the range of variation from freshwater to marine conditions on the Atlantic coast of the Hebrides. Tòb Valasay has a complex salinity regime, determined by the balance between fully marine water introduced over the sill and freshwater from run-off and small inlet streams. Its basins contain a diverse range of habitats, including rocky outcrops, boulders and muddy sand, with softer mud in the eastern basin, and boulders, cobbles and shell-gravel in the narrows. A range of communities are present, including beds of eelgrass *Zostera* spp. and tasselweed *Ruppia* spp., turfs of marine algae and stands of large brown algae. Loch Shader is a smaller lagoon that is mainly brackish in character. It has soft, sheltered mud and sand sediments, with some boulders and cobbles on the shore and in shallow water. These substrates support a characteristic range of species. The narrows consists of a bedrock and boulder sill, supporting a more diverse community with a variety of species, including kelp *Laminaria* spp., anemones and sponges.

Summary Information – Loch Roag Lagoons SAC

Location 58°14'00"N, 06°52'30"W

Area (ha) 43.62

Date designated 20/05/03

General Site Characteristics:

- Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons (including saltwork basins) (100%)

Summary Information – Loch Roag Lagoons SAC (continued)**Relevant qualifying features:**

- Annex I habitats that are the primary reason for selection of this site:
- Coastal lagoons * Priority feature

7

Tràigh na Berie - SAC

Tràigh na Berie is one of four sites selected for machair in the Western Isles, and is the sole representative on Lewis and Harris, which together form the largest island in this group. The machair grassland within the site is linked to the beach (the source of its sand supply) by marram dune and two types of semi-fixed dune. The inland transitions are atypical and particularly varied, with superb climbing machair-like grassland where sand is blown to considerable heights, enabling plants such as stoneworts to thrive in shallow lochs at 50m above sea level. The wetland transitions on lower ground are also rich and varied, and a large hollow in the east of the site supports an area of dune slack vegetation which is rare in the Western Isles. The machair system as a whole at Tràigh na Berie is particularly notable for its rich botanical diversity, including machair grassland with five types of sand dune vegetation as well as inundation grassland and a range of traditional cultivation types and their fallows.

Summary Information – Tràigh na Berie SAC

Location 58°12'47"N, 06°55'42"W

Area (ha) 153.75

Date designated 20/05/03

General Site Characteristics:

- Coastal sand dunes. Sand beaches. Machair (60%)
- Shingle. Sea cliffs. Islets (5%)
- Inland water bodies (standing water, running water) (5%)
- Bogs. Marshes. Water fringed vegetation. Fens (20%)
- Other arable land (10%)

Relevant qualifying features:

- Annex I habitats that are the primary reason for selection of this site:
- Machairs

8

Shiant Isles – SPA/IBA

The Shiant Isles are a small uninhabited island group lying in the Minch east of the Outer Hebrides off the north-west coast of Scotland. The site comprises three large islands and several small islands and skerries, lying about 6km east of the island of Lewis. The islands are composed mainly of a basaltic sill and include various types of coastline, including sheer cliffs and boulder scree, both of which provide suitable nesting sites for seabirds. In summer, the Shiant Islands are important for breeding seabirds, especially auks and fulmar *Fulmarus glacialis*. In winter, the close-cropped turf of the islands supports a flock of Greenland barnacle goose *Branta leucopsis*. The seabirds feed outside the SPA/IBA in nearby waters, as well as more distantly elsewhere in the Minch.

Summary Information – Shiant Isles SPA

Location 57°54'00"N, 06°22'00"W

Area (ha) 212.33

Date classified 31/08/1992

Summary Information – Shiant Isles SPA (continued)**Relevant qualifying species:**

The site qualifies under the Habitats Directive by supporting populations of European importance of the following Annex I species:

Over winter

- Barnacle goose *Branta leucopsis*, 172 individuals representing at least 0.6% of the wintering population in Great Britain (Three count mean, 1994, 1995 & 1997)

The site also qualifies by supporting populations of European importance of the following migratory species:

During the breeding season

- Puffin *Fratercula arctica*, 76,100 pairs representing at least 8.4% of the breeding population (Count, as at 1970)
- Razorbill *Alca torda*, 7,337 pairs representing at least 1.3% of the breeding population (Count as at 1986)
- Shag *Phalacrocorax aristotelis*, 1,780 pairs representing at least 1.4% of the breeding Northern Europe population (Count, as at 1986)

The area qualifies by regularly supporting at least 20,000 seabirds

Assemblage qualification

- During the breeding season, the area regularly supports 200,000 individual seabirds including: guillemot *Uria aalge*, kittiwake *Rissa tridactyla*, fulmar *Fulmarus glacialis*, puffin *Fratercula arctica*, razorbill *Alca torda* and shag *Phalacrocorax aristotelis*.

Summary Information – Shiant Isles IBA

Location 57°53'00"N, 06°21'00"W

Area (ha) 212

Birds of conservation concern:

- Shag *Phalacrocorax aristotelis*
- Barnacle goose *Branta leucopsis*
- Razorbill *Alca torda*
- Puffin *Fratercula arctica*

They area also nationally important for breeding fulmar *Fulmarus glacialis* (6,800 pairs, 1986) and guillemot *Uria aalge* (12,300 pairs, 1986).

9

St. Kilda – SAC/SPA/IBA/World Heritage Site

The St. Kilda archipelago is a westerly outlier of the Outer Hebrides and represents extremely wave-exposed reefs. Littoral reef communities extend several metres above mean high water because of wave exposure, and populations of the uncommon exposed-shore furoid *Fucus distichus* are present. Rock faces may extend sublittorally to reach depths of 50m and support communities characteristic of very exposed conditions on rock walls, overhangs and ledges, in surge gullies and amongst boulders. The clarity of the Atlantic sea water is high, and dense kelp forests may occur as deep as 35m. Sublittoral fringe biotopes which, elsewhere, are found only at low-water mark, may here reach depths of 12m. Circalittoral rock is dominated by diverse communities of anemones, sponges and soft corals, with different species of sponge, hydroid and bryozoan occurring in surge gullies and caves. The site supports one of the most extensive sea cave systems in the UK.

St. Kilda – SAC/SPA/IBA/World Heritage Site (continued)

The communities these support are diverse and reflect the degree of surge to which they are exposed. These include the sponge *Myxilla incrustans*, the northern anemone *Phellia gausapata*, the anemones *Corynactis viridis* and *Sagartia elegans*, the fan-worm *Sabella pavonina* and the crab *Bathynectes longipes*.

The islands of St. Kilda provide a strategic nesting locality for seabirds that feed in the rich waters to the west of Scotland. The total population of seabirds exceeds 600,000 pairs, making this one of the largest concentrations in the North Atlantic and the largest in the UK. Notable among the many breeding species are auks, petrels and shearwaters, gulls and large proportions of the national and international populations of gannet *Morus bassanus* and puffin *Fratercula arctica*. These species feed outside the SPA/IBA, not only in the waters close to the islands, but also further away in the North Atlantic. It is one of only seven known nesting localities in the EU for Leach's petrel *Oceanodroma leucorhoa*.

Summary Information – St. Kilda SAC

Name Location 57°49'00"N, 08°35'00"W

Area (ha) 25467.58

Date designated 20/05/03

General Site Characteristics:

- Marine areas. Sea inlets (68.5%)
- Shingle. Sea cliffs. Islets (25%)
- Bogs. Marshes. Water fringed vegetation. Fens (1%)
- Heath. Scrub. Maquis and garrigue. Phygrana (1%)
- Inland rocks. Screes. Sands. Permanent snow and ice (4%)
- Other land (including towns, villages, roads, waste places, mines, industrial sites) (0.5%)

Relevant qualifying features:

Annex I habitats that are the primary reason for selection of this site:

- Reefs
- Vegetated sea cliffs of the Atlantic and Baltic coasts
- Submerged or partially submerged sea caves

Summary Information – St. Kilda SPA

Location 57°49'00"N, 08°35'00"W

Area (ha) 865.51

Date classified 31/08/1992

Relevant qualifying species:

The site qualifies under the Habitats Directive by supporting populations of European importance of the following Annex I species:

During the breeding season

- Leach's storm-petrel *Oceanodroma leucorhoa*, 5,000 pairs representing at least 9.1% of the breeding population in Great Britain (Count as at 1987)
- Storm petrel *Hydrobates pelagicus*, 850 pairs representing at least 1.0% of the breeding population in Great Britain

The site also qualifies by supporting populations of European importance of the following migratory species:

Summary Information – St. Kilda SPA (continued)During the breeding season

- Gannet *Morus bassanus*, 60,400 pairs representing at least 23.0% of the breeding North Atlantic population (Count, as at 1994)
- Great skua *Catharacta skua*, 270 pairs representing at least 2.0% of the breeding World population (1997)
- Puffin *Fratercula arctica*, 155,000 pairs representing at least 17.2% of the breeding population (Count, as at 1989)

The area qualifies by regularly supporting at least 20,000 seabirds

Assemblage qualification

- During the breeding season, the area regularly supports 600,000 individual seabirds including: razorbill *Alca torda*, guillemot *Uria aalge*, kittiwake *Rissa tridactyla*, Manx shearwater *Puffinus puffinus*, fulmar *Fulmarus glacialis*, puffin *Fratercula arctica*, great skua *Catharacta skua*, gannet *Morus bassanus*, Leach's storm-petrel *Oceanodroma leucorhoa* and storm petrel *Hydrobates pelagicus*.

Summary Information – St. Kilda IBA

Location 57°48'00"N, 08°34'00"W

Area (ha) 865

Birds of conservation concern:

- Fulmar *Fulmarus glacialis*
- Leach's petrel *Oceanodroma leucorhoa*
- Gannet *Sula bassana*
- Great skua *Stercorarius skua*
- Razorbill *Alca torda*
- Puffin *Fratercula arctica*

The IBA is also nationally important for breeding kittiwake *Rissa tridactyla* (7,850 pairs, 1987, 2%) and guillemot *Uria aalge* (15,200 pairs, 1987, 2%). An endemic subspecies of wren *Troglodytes* occurs on the islands.

Summary Information – St. Kilda World Heritage Site

Location 57°49'02"N, 08°34'36"W

Area (ha) 853

Date inscribed 1986 and extended 2004, 2005

St. Kilda is a volcanic archipelago comprising the islands of Hirta, Dun, Soay and Boreray. The area was initially given World Heritage Site status for satisfying natural criteria alone. However, after extensions in 2004 and 2005, it is currently one of only 24 sites worldwide with both natural and cultural status. Uninhabited since 1930, it bears the evidence of more than 2,000 years of human occupation in the extreme conditions prevalent in the Hebrides.

Relevant qualifying criteria:

The site is considered to be of outstanding universal value due to the satisfaction of the following specific criteria as described in the Operational Guidelines for the Implementation of the World Heritage Convention (UNESCO 2005):

Summary Information – St. Kilda World Heritage SiteCultural:

- (iii) to bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or has disappeared
- (v) to be an outstanding example of a traditional human settlement, land-use, or sea-use which is representative of culture (or cultures), or human interaction with the environment especially when it has become vulnerable under the impact of irreversible change

Natural:

- (vii) to contain superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance
- (ix) to be outstanding examples representing significant on-going ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals
- (x) to contain the most important and significant natural habitats for in-situ conservation of biological diversity, including those containing threatened species of outstanding universal value from the point of view of science or conservation

10

North Uist Machair and Islands – SAC/SPA/Ramsar/IBA

North Uist Machair and Islands SPA is a coastal site encompassing areas of rocky shore, sandy beaches and dunes, cultivated machair, saltmarsh, calcareous coastal plains and acid grassland. The area is important for both breeding waders and wintering geese and waders.

The saltmarshes of north-west Scotland are usually small, and differ considerably from other saltmarshes in Europe, notably in their morphology, the scarcity or absence of a pioneer zone and the prevalence of the turf fucoid *Fucus cottonii* in closely-grazed turf. North Uist Machair is one of the larger composite examples. The area contains very extensive areas of both wet and dry machair and supports the second-largest extent of machair in the Outer Hebrides. There is a mosaic of other habitats, with well-developed lochs and fens (e.g. at Balranald Bog) and transition to saltmarsh and sediment flats (e.g. Baleshare and Kirkibost, and Vallay). Machairs Robach and Newton is regarded as the most dynamic system in the Uists. Areas such as these are also important for both large numbers and high densities of breeding waders as well as corncrake *Crex crex*. In migration periods and during winter, the SPA/IBA holds important numbers of waders on the rocky and sandy shorelines, together with wintering Greenland barnacle goose *Branta leucopsis*.

This area incorporates large sand dune systems grading into machair landscape, including machair lochs. The lochs are therefore surrounded by machair landforms and represent high-quality naturally eutrophic waterbodies that reflect a strong maritime influence and have been protected from any major modifications. The lochs support a diverse aquatic plant flora typical of eutrophic conditions.

The RSPB maintains a small visitors' centre and guided walks at the Balranald Bog part of the Ramsar site. The spread of the invasive American mink is considered to be a potential threat and measures are being taken. Human activities include nature conservation, tourism, and permanent pastoral agriculture.

Summary Information – North Uist Machair SAC

Location 57°32'00"N, 07°22'45"W

Area (ha) 3048.54

Date designated 20/05/03

Summary Information – North Uist Machair SAC (continued)**General Site Characteristics:**

- Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons (including saltwork basins) (26%)
- Salt marshes. Salt pastures. Salt steppes (3%)
- Coastal sand dunes. Sand beaches. Machair (56%)
- Shingle. Sea cliffs. Islets (2%)
- Inland water bodies (standing water, running water) (2%)
- Bogs. Marshes. Water fringed vegetation. Fens (4%)
- Improved grassland (6%)
- Other arable land (1%)

Relevant qualifying features:

Annex I habitats that are the primary reason for selection of this site:

- Atlantic salt meadows *Glauco-Puccinellietalia maritima*
- Machairs
- Natural eutrophic lakes with *Magnopotamion* or *Hydrocharition*-type vegetation

Annex I habitats present as a qualifying feature, but not a primary reason for the selection of this site:

- Annual vegetation of drift lines
- Embryonic shifting dunes
- Shifting dunes along the shoreline with *Ammophila arenaria* ('white dunes')
- Fixed dunes with herbaceous vegetation ('grey dunes') * Priority feature
- Humid dune slacks

Annex II species present as a qualifying feature, but not a primary reason for site selection:

- Slender naiad *Najas flexilis*

Summary Information – North Uist Machair and Islands SPA

Location 57°32'00"N, 07°22'45"W

Area (ha) 4876.35

Date classified 29/03/1999

Relevant qualifying species:

The site qualifies under the Habitats Directive by supporting populations of European importance of the following Annex I species:

During the breeding season

- Corncrake *Crex crex*, 25 individuals representing at least 5.2% of the breeding population in Great Britain (1993-1997)

Over winter

- Barnacle goose *Branta leucopsis*, 1,500 individuals representing at least 5.6% of the wintering population in Great Britain

The site also qualifies by supporting populations of European importance of the following migratory species:

Summary Information – North Uist Machair and Islands SPA (continued)	
<u>During the breeding season</u>	<ul style="list-style-type: none"> • Dunlin <i>Calidris alpina schinzii</i>, 260 pairs representing at least 2.4% of the breeding Baltic/UK/Ireland population (1994/5) • Oystercatcher <i>Haematopus ostralegus</i>, 630 pairs representing at least 0.2% of the breeding Europe & Northern/Western Africa population (1993-1997) • Redshank <i>Tringa totanus</i>, 470 pairs representing at least 0.8% of the breeding Eastern Atlantic - wintering population (1994/95) • Ringed plover <i>Charadrius hiaticula</i>, 240 pairs representing at least 1.5% of the breeding Europe/Northern Africa - wintering population (3 year mean, 1993-1995)
<u>Over winter</u>	<ul style="list-style-type: none"> • Purple sandpiper <i>Calidris maritima</i>, 370 individuals representing at least 0.7% of the wintering Eastern Atlantic - wintering population (1994/95) • Ringed plover <i>Charadrius hiaticula</i>, 590 individuals representing at least 1.2% of the wintering Europe/Northern Africa - wintering population • Turnstone <i>Arenaria interpres</i>, 670 individuals representing at least 1.0% of the wintering Western Palearctic - wintering population
Summary Information – North Uist Machair and Islands Ramsar	
<p>Location 57°32'00"N 007°22'00"W Area (ha) 4705 Date submitted 22/07/99, significantly extended 03/11/00</p> <p>The site comprises "machair" areas (grassland upon sand, commonly behind coastal sand dunes in northwestern Scotland) which show a range of habitats from intertidal sand and rock through sand dunes and dune slacks to a calcareous coastal plain and acid grassland. The area supports a rich and diverse range of plant communities, including some nationally scarce plants and mosses, and qualifies under Criterion 6 by supporting internationally important numbers of dunlin and ringed plover during the breeding season and barnacle goose, ringed plover, and turnstone during the winter. The extended designation now includes four sites on the west and north coasts of North Uist and all or part of three islands in the Sound of Harris south of Lewis and Harris.</p>	
Summary Information – North Uist Machair and Islands IBA	
<p>Location 57°35'00"N, 07°28'00"W Area (ha) 6900</p> <p>Birds of conservation concern:</p> <ul style="list-style-type: none"> • Storm petrel <i>Hydrobates pelagicus</i> • Greylag goose <i>Anser anser</i> • Barnacle goose <i>Branta leucopsis</i> • Corncrake <i>Crex crex</i> • Oystercatcher <i>Haematopus ostralegus</i> • Ringed plover <i>Charadrius hiaticula</i> • Dunlin <i>Calidris alpina</i> • Redshank <i>Tringa totanus</i> • Little tern <i>Sterna albifrons</i> <p>The IBA is also nationally important for breeding <i>Anas clypeata</i> (13 pairs, 1991-1993, 1%), and for wintering <i>Calidris alba</i> (415 birds, 1993, 2%) and <i>Calidris maritima</i> (365 birds, 1993, 2%). <i>Anser anser</i> are from the Hebridean population, while <i>Branta leucopsis</i> are from the Greenland breeding population.</p>	

Loch nam Madadh – SAC/SPA/Ramsar

Rock-bound silled lagoons in Europe are virtually restricted to the Outer Hebrides in Scotland, where they are known as oban. Loch nam Madadh (Loch Maddy) is one of two sites selected in North Uist to reflect this distribution. Loch nam Madadh lagoons form the most extensive and diverse saline lagoon system in the UK. These connect with the extensive system of freshwater lochs and lochans in the North Uist hinterland and the fjardic sea loch of Loch nam Madadh itself. There are a wide range of types, from large, complex lagoons with several sills and basins to small, shallow single lagoons. Together they encompass the full transition from freshwater to marine conditions, through a series of basins and sills, and have an exceptionally wide range of habitat types with associated characteristic communities.

Loch nam Madadh (Loch Maddy) is also representative of fjardic sea lochs on the coast of north-west Scotland. It is predominantly shallow, with deeper water only in its entrance, and wave exposure grades from moderately exposed to extremely sheltered in the inner basins. There are numerous rocks and islands and at least 22 shallow sills and associated basins. The fjardic marine biotopes on this site are more diverse than on any other known site in the EU. The area also supports a key dense otter *Lutra lutra* population which is a reflection of the shelter and food availability within this highly productive area.

Mointeach Scadabhaigh, located on the island of North Uist, supports a notable assemblage of breeding birds typical of bogs and moorlands but is especially important for productive breeding populations of both black-throated diver *Gavia arctica* and red-throated diver *Gavia stellata* – the latter being one of the highest-density populations in the UK. Red-throated divers feed away from the SPA in surrounding marine areas.

Summary Information – Loch nam Madadh SAC

Name Location 57°37'20"N, 07°09'20"W

Area (ha) 2320.38

Date designated 20/05/03

General Site Characteristics:

- Marine areas. Sea inlets (75%)
- Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons (including saltwork basins) (12%)
- Inland water bodies (standing water, running water) (0.5%)
- Bogs. Marshes. Water fringed vegetation. Fens (12.5%)

Relevant qualifying features:

Annex I habitats that are the primary reason for selection of this site:

- Coastal lagoons * Priority feature
- Large shallow inlets and bays

Annex II species that are a primary reason for the selection of this site:

- Otter *Lutra lutra*

Annex I habitats present as a qualifying feature, but not a primary reason for the selection of this site:

- Sandbanks which are slightly covered by sea water all the time
- Mudflats and sandflats not covered by seawater at low tide
- Reefs

Summary Information – Mointeach Scadabhaigh SPA (continued)
<p>Location 57°36'00"N, 07°17'00"W Area (ha) 4148.44 Date classified 02/02/1999</p> <p>Relevant qualifying species: The site qualifies under the Habitats Directive by supporting populations of European importance of the following Annex I species:</p> <p><u>During the breeding season</u></p> <ul style="list-style-type: none"> • Black-throated diver <i>Gavia arctica</i>, 3 pairs representing at least 1.9% of the breeding population in Great Britain (Count, as at 1993) • Red-throated diver <i>Gavia stellata</i>, 48 pairs representing at least 5.1% of the breeding population in Great Britain (Count, as at 1994)
Summary Information – Loch an Duin Ramsar
<p>Location 57°38'00"N 007°09'00"W Area (ha) 2559 Date submitted 25/04/90</p> <p>The largest fiardic loch system in Britain featuring a complex system of freshwater and brackish sea lochs, tidal channels, coastline, and adjacent islands. Most of the site is acid moorland, and the salinity of the loch varies from 4% to 34%, strongly influencing vegetation types. Nationally important numbers of the native goose population breed at the site, and important numbers of the otter <i>Lutra lutra</i> are supported.</p>

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Monach Islands – SAC/SPA/IBA

The Monach Islands complex is a group of five low-lying islands consisting of both sandy and rocky shorelines, extensive machair as well as dunes, maritime grassland, fens, marshes and shallow brackish lochs. These islands consist almost entirely of machair and support some of the best examples of grazed uncultivated machair in the Outer Hebrides. There are rich calcareous grasslands as well as transitions to loch and acidic grassland. The islands are separated from outside human influences by 10km of sea, and have been uninhabited and uncultivated since 1947. There are few human visitors, and therefore little interference with ecological processes compared with other machair systems. They provide a reference point for measuring the impact of human activities on machair systems.

The Monach Islands offer a wide area of habitat for breeding grey seal *Halichoerus grypus*. These islands hold the largest breeding colony in the UK, contributing over 20% of annual UK pup production. The machair and coastline also attracts wintering geese and breeding seabirds. The islands are of importance as a breeding area in summer for terns (which feed in surrounding inshore areas outside the SPA), whilst in winter the islands are a traditional wintering locality for Greenland barnacle goose *Branta leucopsis*.

Summary Information – Monach Islands SAC

Location 57°31'30"N, 07°36'30"W
Area (ha) 3646.58
Date designated 20/05/03

Summary Information – Monach Islands SAC (continued)**General Site Characteristics:**

- Marine areas. Sea inlets (83.7%)
- Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons (including saltwork basins) (3%)
- Coastal sand dunes. Sand beaches. Machair (8%)
- Shingle. Sea cliffs. Islets (5%)
- Bogs. Marshes. Water fringed vegetation. Fens (0.3%)

Relevant qualifying features:

Annex I habitats that are the primary reason for selection of this site:

- Machairs

Annex II species that are a primary reason for the selection of this site:

- Grey seal *Halichoerus grypus*

Annex I habitats present as a qualifying feature, but not a primary reason for the selection of this site:

- Shifting dunes along the shoreline with *Ammophila arenaria* ('white dunes')
- Fixed dunes with herbaceous vegetation ('grey dunes') * Priority feature

Summary Information – Monach Islands SPA

Location 57°31'30"N, 07°36'30"W

Area (ha) 595.74

Date classified 19/09/1994

Relevant qualifying species:

The site qualifies under the Habitats Directive by supporting populations of European importance of the following Annex I species:

During the breeding season

- Common tern *Sterna hirundo*, 194 pairs representing at least 1.6% of the breeding population in Great Britain (Count, as at 1985)
- Little tern *Sterna albifrons*, 26 pairs representing at least 1.1% of the breeding population in Great Britain (Count as at 1992)

Over winter

- Barnacle goose *Branta leucopsis*, 540 individuals representing at least 2.0% of the wintering population in Great Britain (Three count mean, 1994, 1955 & 1997).

Summary Information – Monach Islands IBA

Location 57°31'00"N, 07°37'00"W

Area (ha) 595

Birds of conservation concern:

- Barnacle goose *Branta leucopsis*
- Black guillemot *Cephus grylle*

Branta leucopsis from the Greenland breeding population.

Obain Loch Euphoirt – SAC

Rock-bound silled lagoons in Europe are virtually restricted to the Outer Hebrides in Scotland, where they are known as oban. Obain Loch Euphoirt (Loch Eport) is one of two sites selected in North Uist to reflect this centre of distribution and forms one of the most extensive and diverse systems of coastal lagoons in the UK. The only comparable site is Loch nam Madadh (which also occurs in SEA 7). The site is a complex of four individual lagoons, which together support the complete range of physical conditions and communities characteristic of this part of Scotland. Loch Obisary is a silled lagoon and is unique amongst the brackish basins of the UK on account of its size, depth (over 40m), permanent hydrographic stratification and the range of communities it supports. Oban nam Fiadh is an extensive system of sluiced lagoons consisting of a series of basins separated by channels and sills with a full transition from marine to freshwater conditions. The smaller Oban Sponish is a silled lagoon separated from Loch Euphoirt by a boulder sill and the fourth lagoon in this site is the small brackish silled lagoon, Baigh Uaine, west of Loch Euphoirt.

Summary Information – Obain Loch Euphoirt SAC

Location 57°32'10"N, 07°11'30"W

Area (ha) 348.59

Date designated 20/05/03

General Site Characteristics:

- Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons (including saltwork basins) (100%)

Relevant qualifying features:

Annex I habitats that are the primary reason for selection of this site:

- Coastal lagoons * Priority feature

West Coast of Benbecula – SPA/IBA

Aird and Borge SPA is located on the west coast of the island of Benbecula in the Outer Hebrides off the north-west coast of Scotland. It comprises two areas. The Aird section extends south to Nunton and encompasses sand dunes, cultivated machair and croftland, wet machair and marsh with some reedbeds and Iris beds, and two small lochs. The Borge section is mainly cultivated machair, with sand dunes, croftland and some small marshes. These areas are of importance for their breeding populations of corncrake *Crex crex*.

Summary Information - Aird and Borge, Benbecula SPA

Location 57°27'20"N, 07°23'30"W

Area (ha) 361

Date classified 28/10/1999

Relevant qualifying species:

The site qualifies under the Habitats Directive by supporting populations of European importance of the following Annex I species:

During the breeding season

- Corncrake *Crex crex*, 19 individuals representing at least 4.0% of the breeding population in Great Britain (1993-1997)

Summary Information – West Coast of Benbecula IBA (continued)**Location** 57°26'00"N, 07°23'00"W**Area (ha)** 233300**Birds of conservation concern:**

- Corncrake *Crex crex*
- Bar-tailed godwit *Limosa lapponica*
- Red-necked phalarope *Phalaropus lobatus*

Both ringed plover *Charadrius hiaticula* (390 birds, 1991-1996) and Slavonian grebe *Podiceps auritus* (4 birds) winter in nationally important numbers, whilst sanderling *Calidris alba* (350 birds, 1991-1996) stop over on passage.

15

South Uist Machair and Lochs - SAC/SPA/Ramsar/IBA/Biosphere Reserve

The South Uist Machair is situated on the Isle of South Uist west of the Scottish coast and is part of the largest "machair" (sandy coastal plain) system in the British Isles. Coastal dunes with dune slacks grade into the machair plain consisting of shallow, nutrient-rich lochs, associated fens and marshes.

The area supports internationally important populations of breeding waders, corncrake *Crex crex* and little tern *Sterna albifrons*. The west coast machair plain of South Uist also contains a cluster of eleven lochs, which support the slender naiad *Najas flexilis* (an Annex I species). The machair is used for traditional rotational cultivation and grazing, as well as for nature conservation, tourism, and recreation. There are, in total, six types of international designations applied to this area which highlight the particular significance of the region for wildlife and habitat conservation.

South Uist Machair and Lochs - SAC/SPA/Ramsar/IBA/Biosphere Reserve (continued)

South Uist Machair and Lochs is a complex site along the west coast of South Uist in the Outer Hebrides off the north-west coast of Scotland. This area is of outstanding importance for its transition of habitats from acidic moorland to the calcareous coastal plain, and for the transition from freshwater to saltwater habitats. This complex includes outstanding examples of, moorland and blanket bog, large oligotrophic lochs, acidic blacklands, wet and dry machair with eutrophic machair lochs, freshwater marsh, saltmarsh, coastal dunes and sandy and rocky shores. These areas are of outstanding importance for their populations of breeding waterbirds, especially corncrake *Crex crex*, terns and waders. The densities of breeding waders are some of the highest in the world. The site is also important in winter in supporting large numbers of Sanderling *Calidris alba* on the coast.

The site also includes the subsumed SPA of Loch Druidibeg, Loch a' Machair and Loch Stilligary, a site that was subject to separate classification. There is also a biosphere reserve at this location. The area is managed for strict conservation purposes, however traditional cultivation and cattle grazing practices are encouraged as an integral part of management for biodiversity.

Summary Information - South Uist Machair SAC**Location** 57°18'50"N, 07°20'00"W**Area (ha)** 3432.65**Date designated** 20/05/03

Summary Information - South Uist Machair SAC (continued)

General Site Characteristics:

- Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons (including saltwork basins) (8.7%)
- Coastal sand dunes. Sand beaches. Machair (52%)
- Inland water bodies (standing water, running water) (21%)
- Bogs. Marshes. Water fringed vegetation. Fens (10%)
- Improved grassland (5%)
- Other land (including towns, villages, roads, waste places, mines, industrial sites) (3.3%)

Relevant qualifying features:

Annex I habitats that are the primary reason for selection of this site:

- Machairs
- Oligotrophic waters containing very few minerals of sandy plains *Littoretalia uniflorae*
- Oligotrophic to mesotrophic standing waters with vegetation of the *Littoretalia uniflorae* and/or of the *Isoëto-Nanojuncetea*
- Hard oligo-mesotrophic waters with benthic vegetation of *Chara* spp.
- Natural eutrophic lakes with *Magnopotamion* or *Hydrocharition*-type vegetation

Annex II species that are a primary reason for the selection of this site:

- Slender naiad *Najas flexilis*

Annex I habitats present as a qualifying feature, but not a primary reason for the selection of this site:

- Coastal lagoons
- Annual vegetation of drift lines
- Shifting dunes along the shoreline with *Ammophila arenaria* ('white dunes')
- Fixed dunes with herbaceous vegetation ('grey dunes')
- Humid dune slacks

Annex II species present as a qualifying feature, but not a primary reason for site selection:

- Otter *Lutra lutra*

Summary Information - South Uist Machair and Lochs SPA

Location 57°18'50"N, 07°20'00"W

Area (ha) 3352.28

Date classified 01/12/1997

Relevant qualifying species:

The site qualifies under the Habitats Directive by supporting populations of European importance of the following Annex I species:

During the breeding season

- Corncrake *Crex crex*, 15 individuals representing at least 3.1% of the breeding population in Great Britain (5 year mean, 1993-1997)
- Little tern *Sterna albifrons*, 31 pairs representing up to 1.3% of the breeding population in Great Britain (Four year mean, 1986-1990)

The site also qualifies by supporting populations of European importance of the following migratory species:

Summary Information - South Uist Machair and Lochs SPA (continued)During the breeding season

- Dunlin *Calidris alpina schinzii*, 357 pairs representing up to 3.2% of the breeding Baltic/UK/Ireland population (Count, as at 1995)
- Oystercatcher *Haematopus ostralegus*, 577 pairs representing up to 0.2% of the breeding Europe & Northern/Western Africa population (1994/5)
- Redshank *Tringa totanus*, 350 pairs representing up to 0.6% of the breeding Eastern Atlantic - wintering population (1994/95)
- Ringed plover *Charadrius hiaticula*, 393 pairs representing up to 2.5% of the breeding Europe/Northern Africa - wintering population (Count, as at 1995)

Over winter

- Ringed plover *Charadrius hiaticula*, 490 individuals representing up to 1.0% of the wintering Europe/Northern Africa - wintering population (Two year peak mean, 1993/4-1994/5)
- Sanderling *Calidris alba*, 700 individuals representing up to 0.7% of the wintering Eastern Atlantic/Western & Southern Africa - wintering population (Count as at 1994/5)

Summary Information - South Uist Machair Ramsar**Location** 57°19'N 007°20'W**Area (ha)** 3352**Date submitted** 05/01/76

A complex site that includes inland, marine and coastal wetlands, with outstanding examples of relict woodland, moorland, blanket bog, freshwater marsh, salt marsh, coastal dunes, and sandy rock shores. Part of the largest "machair" (sandy coastal plain) system in the British Isles. Coastal dunes with dune slacks grade into the machair plain consisting of shallow, nutrient-rich lochs, associated fens and marshes. The site is important for wintering and breeding waterfowl such as greylag goose *Anser anser* and *Charadrius hiaticula*.

Summary Information - South Uist Machair and Lochs IBA**Location** 57°19'00"N, 07°20'00"W**Area (ha)** 8900**Birds of conservation concern:**

- Whooper swan *Cygnus cygnus*
- Greylag goose *Anser anser*
- Spotted crane *Porzana porzana*
- Corncrake *Crex crex*
- Oystercatcher *Haematopus ostralegus*
- Ringed plover *Charadrius hiaticula*
- Dunlin *Calidris alpina*
- Redshank *Tringa totanus*
- Turnstone *Arenaria interpres*
- Little tern *Sterna albifrons*

It is also nationally important for wintering sanderling *Calidris alba* (1,060 birds, 1993-1995) and purple sandpiper *Calidris maritima* (310 birds, 1993-1995). Greylag geese *Anser anser* are from the Hebridean population.

Summary Information - Loch Druidibeg Biosphere (continued)**Location** 07°20'W, 57°20'N**Area (ha)** 1677**Date submitted** 1976

Loch Druidibeg Biosphere Reserve exhibits a cross-section of habitats from alkaline machair grassland through oligotrophic loch to acidic moorland. This highly diverse range of habitats is variously influenced by the oceanic exposure with high levels of salt spray and humidity, and the influence of settled agriculture on which the species-rich machair grassland depends.

Relevant qualifying features:

Major ecosystem

- Freshwater wetlands including coastal/marine component (farmland, moorland, lochs)

Major habitats and landcover

- Freshwater lochs; wetland; moorland; croftland; machair; sand dunes and beach; small plantation and relict scrub on islands in the loch.

16

West Sound of Barra – SPA/IBA

Eoligarry is located at the northern tip of the island of Barra, the most southerly of the major islands of the Outer Hebrides off the north-west coast of Scotland. The site comprises sand dunes, cultivated machair and croftland, together with small areas of wetland and rough pasture. This combination of cultivation, including hayfields with damp grassland and marsh, provides habitat that supports a breeding population of corncrake *Crex crex* of European importance.

Summary Information – Eoligarry, Barra SPA**Location** 57°02'50"N, 07°25'48"W**Area (ha)** 144.04**Date classified** 29/03/1999**Relevant qualifying species:**

The site qualifies under the Habitats Directive by supporting populations of European importance of the following Annex I species:

During the breeding season

- Corncrake *Crex crex*, 28 individuals representing at least 5.8% of the breeding population in Great Britain (5 year mean, 1993-1997)

Summary Information – West Sound of Barra IBA**Location** 57°02'00"N, 07°25'00"W**Area (ha)** 1310**Birds of conservation concern:**

- Barnacle goose *Branta leucopsis*
- Corncrake *Crex crex*

The IBA is also nationally important for wintering purple sandpiper *Calidris maritima* (330 birds, 1992). Barnacle geese *Branta leucopsis* are from the Greenland breeding population.

Mingulay and Berneray – SPA/IBA

Mingulay and Berneray are adjacent islands that lie at the southern end of the Outer Hebrides off the north-west coast of Scotland. Mingulay, the more northerly, is larger, rising to 275m with sheer cliffs of up to 210m. Berneray rises to about 190m. There are a number of adjacent stacks. The islands are largely covered by maritime grassland, with some machair and heath. They are an important breeding site for a diverse assemblage of seabirds, especially auks and gulls. These seabirds feed in the surrounding waters of the south Minch, outside the SPA/IBA. These islands are of major importance, holding 45,800 pairs of breeding seabirds and 10,000 pairs of breeding waterbirds on a regular basis.

Summary Information - Mingulay and Berneray SPA

Location 56°48'18"N, 07°38'33"W

Area (ha) 911.07

Date classified 16/12/1994

Relevant qualifying species:

The site also qualifies by supporting populations of European importance of the following migratory species:

During the breeding season

- Razorbill *Alca torda*, 11,323 pairs representing at least 2.0% of the breeding population (Count as at 1985)

The area qualifies by regularly supporting at least 20,000 seabirds:

Assemblage qualification

- During the breeding season, the area regularly supports 110,000 individual seabirds including: puffin *Fratercula arctica*, guillemot *Uria aalge*, kittiwake *Rissa tridactyla*, shag *Phalacrocorax aristotelis*, fulmar *Fulmarus glacialis* and razorbill *Alca torda*.

Summary Information - Mingulay and Berneray IBA

Location 56°48'00"N, 07°38'00"W

Area (ha) 911

Birds of conservation concern:

- Shag *Phalacrocorax aristotelis*
- Guillemot *Uria aalge*
- Razorbill *Alca torda*

The IBA is also nationally important for breeding fulmar *Fulmarus glacialis* (10,500 pairs, 1985) and kittiwake *Rissa tridactyla* (8,600 pairs, 1985).

2.2 Region 2N: North section of West Highlands and Inner Hebrides

The diversity of this area rests on the combination of numerous islands, some of which are large and well populated e.g. Skye, an even greater number of small rocky islands and the classic sea lochs and mountains of the Mainland. Diversity is based on both geology and the history of glaciation which tended to be erosive and overdeepened sea lochs and inter-island straits. The mild oceanic climate and rich coastal waters provide a great variety of habitats and the small number of towns and villages has produced very little disturbance. Fishing, crofting and tourism are the main occupations.

Figure 2.2 – Internationally important coastal conservation areas in Region 2N

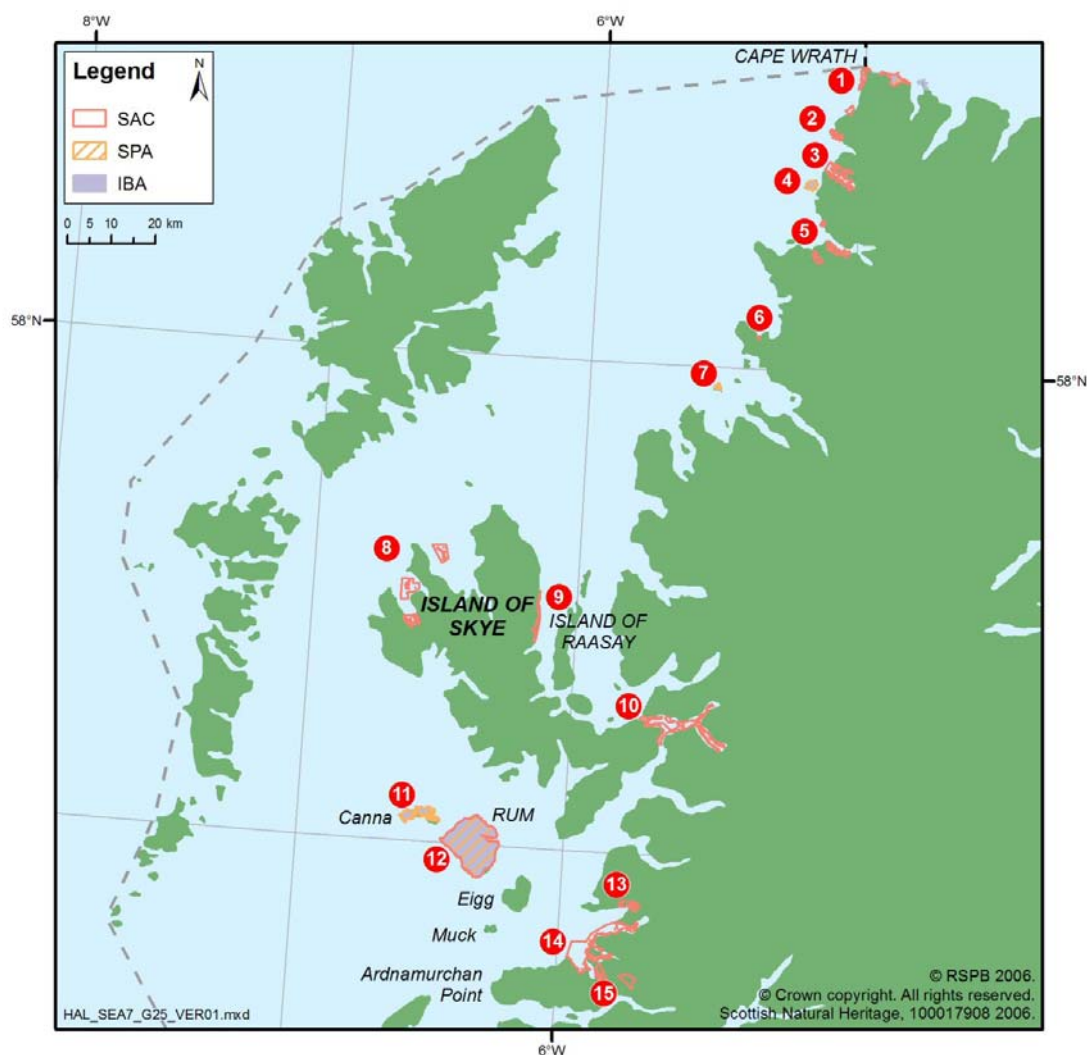


Table 2.2 – Internationally important coastal conservation areas in Region 2N

Map Ref	Location	SAC	SPA	R	IBA	BR	WHS
1	Cape Wrath	✓	✓		✓		
2	Oldshoremore and Sandwood	✓					

Map Ref	Location	SAC	SPA	R	IBA	BR	WHS
3	Loch Laxford	✓					
4	Handa Island		✓		✓		
5	Ardvar and Loch a'Mhuilinn Woodlands	✓					
6	Achnahaird	✓					
7	Priest Island		✓		✓		
8	Ascrib, Islay and Dunvegan	✓					
9	Rigg - Bile	✓					
10	Lochs Duich, Long and Alsh Reefs	✓					
11	Canna and Sanday		✓		✓		
12	Rum	✓	✓		✓		
13	Glen Beasedale	✓					
14	Sound of Arisaig	✓					
15	Claisch Moss and Kentra Moss	✓					

Abbreviations: SAC (Special Area of Conservation), SPA (Special Protection Area), R (Ramsar), IBA (Important Bird Area), BR (Biosphere Reserve) and WHS (World Heritage Site)

1

Cape Wrath – SAC/SPA/IBA

Cape Wrath includes Clò Mór, the highest vertical sea cliffs in mainland Britain. Here and on some of the surrounding cliffs and cliff tops the vegetation is heavily bird-influenced, and locally dominated by common scurvygrass *Cochlearia officinalis*. There is a wide range of cliff habitats ranging from very exposed faces and crevices to comparatively sheltered gullies and even, at Cape Wrath itself, remarkable cliff-top sand dunes. Grasslands and heaths are also well represented. Cape Wrath is especially important for gulls and auks. The seabirds feed outside the SPA/IBA in the nearby waters and more distantly in the North Atlantic.

Summary Information - Cape Wrath SAC

Location 58°36'00"N, 04°53'30"W

Area (ha) 1019.18

Date designated March 2005

General Site Characteristics:

- Coastal sand dunes. Sand beaches. Machair (1%)
- Shingle. Sea cliffs. Islets (14%)
- Inland water bodies (standing water, running water) (1%)
- Bogs. Marshes. Water fringed vegetation. Fens (15%)
- Heath. Scrub. Maquis and garrigue. Phygrana (62%)
- Alpine and sub-alpine grassland (7%)

Relevant qualifying features:

Annex I habitats that are the primary reason for selection of this site:

- Vegetated sea cliffs of the Atlantic and Baltic coasts

Summary Information – Cape Wrath SPA (continued)**Location** 58°36'00"N, 04°53'30"W**Area (ha)** 1019.18**Date classified** 15/03/1996**Relevant qualifying species:**

The area qualifies by regularly supporting at least 20,000 seabirds:

Assemblage qualification

- During the breeding season, the area regularly supports 50,000 individual seabirds including: puffin *Fratercula arctica*, razorbill *Alca torda*, guillemot *Uria aalge*, kittiwake *Rissa tridactyla* and fulmar *Fulmarus glacialis*

Summary Information – Cape Wrath IBA**Location** 58°37'00"N, 04°59'00"W**Area (ha)** 1010**Birds of conservation concern:**

- Razorbill *Alca torda*

The IBA holds 17,100 pairs of breeding seabirds and 10,800 pairs of breeding waterbirds on a regular basis. The site is also nationally important for breeding kittiwake *Rissa tridactyla* (10,300 pairs, 1987-1988) and guillemot *Uria aalge* (9,800 pairs, 1987-1988).

2

Oldshoremore and Sandwood – SAC

Oldshoremore and Sandwood complex is one of the largest and least-disturbed examples of machair on mainland Scotland. It is perhaps the most species-rich in the SAC series for the habitat type. The areas of machair grassland within the site are uncultivated and, mostly, grazed. They represent floristic communities not found on any other machair, for example mountain avens *Dryas octopetala* heath. The sands of the three small bay dune systems at Oldshoremore and its neighbouring beaches display a range of dune types, principally fixed dunes with herbaceous vegetation and shifting dunes along the shoreline. Sandwood is very exposed and has a good sand supply, and the margins of the site have unusual climbing dunes with mountain avens *Dryas octopetala*. All the systems at this site are rich in bryophytes.

Summary Information – Oldshoremore and Sandwood SAC**Location** 58°29'00"N, 05°06'00"W**Area (ha)** 443.73**Date designated** March 2005**General Site Characteristics:**

- Coastal sand dunes. Sand beaches. Machair (87%)
- Shingle. Sea cliffs. Islets (2%)
- Inland water bodies (standing water, running water) (5%)
- Bogs. Marshes. Water fringed vegetation. Fens (1%)
- Heath. Scrub. Maquis and garrigue. Phygrana (3%)
- Alpine and sub-alpine grassland (2%)

Relevant qualifying features:

Annex I habitats that are the primary reason for selection of this site:

- Fixed dunes with herbaceous vegetation (‘grey dunes’) * Priority feature
- Machairs

Summary Information – Oldshoremore and Sandwood SAC (continued)

Annex I habitats present as a qualifying feature, but not a primary reason for the selection of this site:

- Shifting dunes along the shoreline with *Ammophila arenaria* ('white dunes')

3

Loch Laxford - SAC

Loch Laxford, on the west coast of Scotland, is a complex fjard with numerous small islands and side branches that include two subsidiary lochs. It is an excellent example of large shallow inlets and bays and contains a wide variety of marine habitats and communities. The outermost part of the site is very exposed, but the many reefs and islands near to the narrow loch entrance result in sheltered conditions over most of the loch. The most important area for sediments, a sheltered littoral inlet at the head of the loch, contains the only extensive sheltered sediment shore in the northern part of the west coast. The soft muds of the inner subsidiary loch, Loch a'Chadh-Fi, contain particularly dense beds of the anemone *Sagartiogeton laceratus*, and the snake blenny *Lumpenus lumpretaeformis* (which usually occurs in burrows in deeper water) is also common here. In the outer more exposed reaches of the site, coarser sediments predominate supporting sea cucumbers, hydroids, heart-urchins and bivalves. Beds of maerl *Phymatolithon calcareum*, with their associated species-rich communities, also occur in various channels of the loch.

Summary Information – Loch Laxford SAC

Location 58°24'08"N, 05°05'05"W

Area (ha) 1221.33

Date designated March 2005

General Site Characteristics:

- Marine areas. Sea inlets (100%)

Relevant qualifying features:

Annex I habitats that are the primary reason for selection of this site:

- Large shallow inlets and bays

Annex I habitats present as a qualifying feature, but not a primary reason for the selection of this site:

- Reefs

4

Handa Island – SPA/IBA

Handa is an island surrounded by high sea-cliffs lying a short distance from the west coast of Sutherland in Scotland. It provides a strategic nesting locality for seabirds that feed in the productive waters of the northern Minch, outside the SPA/IBA. Most of the island is vegetated with sub-maritime grasslands and heaths. The SPA's principal ornithological importance is for its breeding seabirds, especially guillemot and razorbill.

Summary Information – Handa Island SPA

Location 58°23'00"N, 05°11'12"W

Area (ha) 367.49

Date classified 25/04/1990

Summary Information – Handa Island SPA (continued)**Relevant qualifying species:**

The site qualifies under the Habitats Directive by supporting populations of European importance of the following Annex I species:

During the breeding season

- Guillemot *Uria aalge*, 76105 pairs representing at least 3.4% of the breeding East Atlantic population (Count as at 1994)
- Razorbill *Alca torda*, 10,432 pairs representing at least 1.8% of the breeding population (Count as at 1997)

The area qualifies by regularly supporting at least 20,000 seabirds:

Assemblage qualification

- During the breeding season, the area regularly supports 200,000 individual seabirds including: kittiwake *Rissa tridactyla*, great skua *Catharacta skua*, fulmar *Fulmarus glacialis*, razorbill *Alca torda* and guillemot *Uria aalge*.

Summary Information – Handa IBA

Location 58°22'00"N, 05°11'00"W

Area (ha) 363

Birds of conservation concern:

- Great skua *Stercorarius skua*
- Guillemot *Uria aalge*
- Razorbill *Alca torda*

The island is of major importance for breeding seabirds, holding 91,100 pairs on a regular basis. It is also nationally important for breeding kittiwake *Rissa tridactyla* (7,400 pairs, 1995).

5

Ardvar and Loch a'Mhuilinn Woodlands - SAC

This complex of woods represents old sessile oak woods at the extreme north of its range in Scotland. The site includes the extensive and diverse Ardvar Woodlands, which are mainly birch-dominated with oak throughout, and the woodland at Loch a'Mhuilinn, the other component of this complex, to the north, which has small areas dominated by oak. Both sites are very important rich oceanic bryophyte sites with good examples of the macrolichen *Lobarion* community.

Summary Information - Ardvar and Loch a'Mhuilinn Woodlands SAC

Location 58°15'00"N, 05°05'05"W

Area (ha) 805.99

Date designated March 2005

General Site Characteristics:

- Shingle. Sea cliffs. Islets (5%)
- Inland water bodies (standing water, running water) (5%)
- Bogs. Marshes. Water fringed vegetation. Fens (15%)
- Heath. Scrub. Maquis and garrigue. Phygrana (33%)
- Broad-leaved deciduous woodland (32%)
- Inland rocks. Screes. Sands. Permanent snow and ice (10%)

Summary Information - Ardvar and Loch a'Mhuilinn Woodlands SAC (continued)**Relevant qualifying features:**

Annex I habitats that are the primary reason for selection of this site:

- Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles

Annex II species present as a qualifying feature, but not a primary reason for site selection:

- Freshwater pearl mussel *Margaritifera margaritifera*
- Otter *Lutra lutra*

7

Priest Island – SPA/IBA

Priest Island is the outermost and most exposed of the Summer Isles, lying about 6km off the west coast of Wester Ross. The island rises to about 75m and supports one of the largest storm petrel *Hydrobates pelagicus* colonies in the UK, together with small numbers of other breeding seabirds. These species feed outside the SPA/IBA in surrounding and more distant marine areas.

Summary Information – Priest Island (Summer Isles) SPA

Location 57°57'40"N, 05°30'30"W

Area (ha) 131.68

Date classified 01/10/1986

Relevant qualifying species:

The site qualifies under the Habitats Directive by supporting populations of European importance of the following Annex I species:

During the breeding season

- Storm petrel *Hydrobates pelagicus*, 2,200 pairs representing at least 2.6% of the breeding population in Great Britain (Count, as at 1995)

Summary Information – Priest Island IBA

Location 57°57'00"N, 05°30'00"W

Area (ha) 138

Birds of conservation concern:

- Storm petrel *Hydrobates pelagicus*

8

Ascrib, Islay and Dunvergen - SAC

The complex of skerries, islets, undisturbed mainland shores and offshore islands in north-west Skye consistently support a breeding colony of the common seal *Phoca vitulina*. The site represents one of the larger discrete colonies of common seals in the UK, holding around 2% of the UK population.

Summary Information - Ascrib, Islay and Dunvergen SAC

Location 57°30'50"N, 06°38'20"W

Area (ha) 2584.99

Date designated March 2005

General Site Characteristics:

- Marine areas. Sea inlets (100%)

Summary Information - Ascrib, Islay and Dunvergen SAC (continued)**Relevant qualifying features:**

Annex II species that are the primary reason for selection of this site:

- Common seal *Phoca vitulina*

9

Rigg-Bile - SAC

The flora of the Rigg-Bile cliffs includes mountain avens *Dryas octopetala*, hairy rock-cress *Arabis hirsuta*, moss campion *Silene acaulis*, false brome *Brachypodium sylvaticum* and melancholy thistle *Cirsium heterophyllum*. At Rubh na h-Airde Glaise on the dry, exposed cliffs there is a good assemblage of rupestral bryophytes. The transition to woodland, which is dominated by dense hazel *Corylus avellana* scrub with birch *Betula* spp. and grey willow *Salix cinerea*, also features a wide range of bryophytes and lichens.

Summary Information – Rigg-Bile SAC

Location 57°27'40"N, 06°08'40"W

Area (ha) 500.89

Date designated March 2005

General Site Characteristics:

- Shingle. Sea cliffs. Islets (90%)
- Improved grassland (3%)
- Broad-leaved deciduous woodland (7%)

Relevant qualifying features:

Annex I habitats that are the primary reason for selection of this site:

- Vegetated sea cliffs of the Atlantic and Baltic coasts

Annex I habitats present as a qualifying feature, but not a primary reason for the selection of this site:

- *Tilio-Acerion* forests of slopes, screes and ravines * Priority feature

10

Lochs Duich, Long and Alsh Reefs - SAC

This site is an extensive area of extremely sheltered reefs within a system of fjordic sea lochs in north-west Scotland. There is considerable diversity within the site, with areas of sheltered sublittoral rock supporting unusual assemblages of encrusting sponges and solitary ascidians, and, on shallower reefs, tide-swept kelp forests influenced by brackish water. Loch Duich is particularly notable for its well-developed communities of brachiopods and sea anemones on sheltered bedrock. The reefs in Kyle Rhea and Kyle Akin are subject to some of the strongest tidal streams in the UK, and the bedrock in Kyle Rhea supports rich communities typically dominated by the hydroids *Tubularia indivisa* and *Sertularia argentea*, the barnacle *Balanus crenatus*, anemones, sponges and ascidians. Tide-swept reefs also support unusually dense beds of the brittlestar *Ophiopholis aculeata*, an extremely rare feature in the UK. The sheltered reefs in Loch Long, the second most brackish of the large Scottish sea lochs, are unusual in that they are subject to variable salinities and support communities characterised by encrusting sponges and large numbers of ascidians, such as *Ascidia virginea*, *Boltenia echinata* and *Pyura squamulosa*.

Summary Information - Lochs Duich, Long and Alsh Reefs SAC**Location** 57°16'30"N, 05°34'30"W**Area (ha)** 2380.86**Date designated** March 2005**General Site Characteristics:**

- Marine areas. Sea inlets (95%)
- Shingle. Sea cliffs. Islets (5%)

Relevant qualifying features:

Annex I habitats that are the primary reason for selection of this site:

- Reefs

11

Canna and Sanday – SPA/IBA

Canna and Sanday are two adjacent basaltic islands in the Small Isles, north-west of Rum in the Lochaber district of the Scottish Highlands. Canna is ringed with steep cliffs and is capped by a ridge of wet heath and maritime blanket bog. Sanday and low-lying parts of Canna support coastal grassland and maritime heath.

The islands are particularly important for their breeding seabird colonies (including gulls, auks and shag *Phalacrocorax aristotelis*). The seabirds feed outside the SPA/IBA in the nearby waters, as well as more distantly.

Summary Information - Canna and Sanday SPA**Location** 57°04'00"N, 06°30'00"W**Area (ha)** 1341.27**Date classified** 20/02/1998**Assemblage qualification:**

The area qualifies by regularly supporting at least 20,000 seabirds:

- During the breeding season, the area regularly supports 21,000 individual seabirds including: puffin *Fratercula arctica*, guillemot *Uria aalge*, kittiwake *Rissa tridactyla*, herring gull *Larus argentatus* and shag *Phalacrocorax aristotelis*.

Summary Information – Canna and Sanday IBA**Location** 57°03'00"N, 06°32'00"W**Area (ha)** 1356**Birds of conservation concern:**

- Shag *Phalacrocorax aristotelis*

The IBA holds important seabirds colonies. Breeding species of global conservation concern that do not meet IBA criteria: Corncrake *Crex crex* (2 pairs).

Rum – SAC/SPA/IBA

The mountainous terrain of the island of Rum off the west coast of Scotland supports waterbodies typical of oligotrophic to mesotrophic standing waters. The lochs in this site can be extremely oligotrophic with a low species diversity. However, some coastal lochs exhibit a strong maritime influence and, as a consequence, support a greater diversity and abundance of macrophytes. Rum also contains dystrophic lochans (formed mainly at mid-altitude in areas of upland blanket bogs) and Northern Atlantic wet heaths (with *Erica tetralix* over Torridonian sandstone).

Rum has an extensive development of the black bog-rush *Schoenus nigricans*-rich form of northern Atlantic wet heaths that is restricted to western Scotland. European dry heaths typical of the Inner Hebrides are also present. The area is one of the best sites in the UK for open rocky Calaminarian vegetation and Rum is one of five sites on the oceanic west coast of Scotland representing low- to moderately high-altitude oceanic sub-types of species-rich *Nardus* grasslands. The site is also representative of mildly calcareous and calcshist screes up to moderately high altitude in oceanic western Scotland.

This island contains numerous freshwater lochs and lochans at a range of altitudes from near sea level to over 400m, a wide range of small rivers and streams, and an extensive area of coastline. Such habitat provides the full range of marine and freshwater requirements necessary for otter *Lutra lutra* including breeding, feeding and resting sites. Rum's otter population is representative of otter populations throughout the Small Isles and Inner Hebrides.

Rum is particularly noted for its huge colony of Manx shearwater *Puffinus puffinus* – the largest colony of this species in the world – breeding on the slopes of some of the higher hills. It also supports golden eagle *Aquila chrysaetos*, as well as a number of other breeding seabirds (auks and gulls) on the cliffs. The seabirds feed outside the SPA/IBA in nearby waters, as well as more distantly.

Summary Information – Rum SAC

Location 57°00'00"N, 06°20'00"W

Area (ha) 10835.33

Date designated March 2005

General Site Characteristics:

- Shingle. Sea cliffs. Islets (2%)
- Inland water bodies (standing water, running water) (1.5%)
- Bogs. Marshes. Water fringed vegetation. Fens (15%)
- Heath. Scrub. Maquis and garrigue. *Phygrana* (47%)
- Dry grassland. Steppes (6%)
- Humid grassland. Mesophile grassland (7.5%)
- Alpine and sub-alpine grassland (2%)
- Mixed woodland (2%)
- Inland rocks. Scree. Sands. Permanent snow and ice (12%)
- Other land (including towns, villages, roads, waste places, mines, industrial sites) (5%)

Summary Information – Rum SAC**Relevant qualifying features:**

Annex I habitats that are the primary reason for selection of this site:

- Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or of the *Isoëto-Nanojuncetea*
- Natural dystrophic lakes and ponds
- Northern Atlantic wet heaths with *Erica tetralix*
- European dry heaths
- Calaminarian grasslands of the *Violetalia calaminariae*
- Species-rich Nardus grassland, on siliceous substrates in mountain areas (and submountain areas in continental Europe) * Priority feature
- Calcareous and calcshist scree of the montane to alpine levels (*Thlaspietea rotundifolii*)

Annex I habitats present as a qualifying feature, but not a primary reason for the selection of this site:

- Vegetated sea cliffs of the Atlantic and Baltic coasts
- Alpine and Boreal heaths
- Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels
- Blanket bogs * Priority feature
- Depressions on peat substrates of the *Rhynchosporion*
- Alkaline fens
- Siliceous scree of the montane to snow levels (*Androsacetalia alpinae* and *Galeopsietalia ladani*)
- Calcareous rocky slopes with chasmophytic vegetation
- Siliceous rocky slopes with chasmophytic vegetation

Annex II species present as a qualifying feature, but not a primary reason for site selection:

- Otter *Lutra lutra*

Summary Information – Rum SPA

Location 57°00'00"N, 06°20'00"W

Area (ha) 10942.38

Date classified 31/08/1982

Relevant qualifying species:

The site qualifies under the Habitats Directive by supporting populations of European importance of the following Annex I species:

During the breeding season

- Golden eagle *Aquila chrysaetos*, 4 pairs representing at least 1.0% of the breeding population in Great Britain (Count, as at 1992.)
- Red-throated diver *Gavia stellata*, 11 pairs representing at least 1.2% of the breeding population in Great Britain (5 year mean, 1992-1996)

The site also qualifies by supporting populations of European importance of the following migratory species:

Summary Information – Rum SPA (continued)During the breeding season

- Manx shearwater *Puffinus puffinus*, 61,000 pairs representing at least 23.0% of the breeding population (Count, as at 1995)

The area qualifies by regularly supporting at least 20,000 seabirds

Assemblage qualification

- During the breeding season, the area regularly supports 130,000 individual seabirds (Count, as at 1992) including: guillemot *Uria aalge*, kittiwake *Rissa tridactyla* and Manx shearwater *Puffinus puffinus*.

Summary Information – Rum IBA

Location 56°59'00"N, 06°19'00"W

Area (ha) 10794

Birds of conservation concern:

- Manx shearwater *Puffinus puffinus*

The IBA holds 66,200 pairs of breeding seabirds on a regular basis, and is also nationally important for breeding golden eagle *Aquila chrysaetos* (4 pairs, 1992).

13

Glen Beasedale - SAC

Glen Beasedale is one of the largest oakwoods in Lochaber. It is an extensive area of coastal old sessile oak wood on acid soils, derived from Moine rocks, and has a healthy ground cover with heather *Calluna vulgaris* and purple moor-grass *Molinia caerulea*.

Summary Information – Glen Beasedale SAC

Location 56°53'40"N, 05°44'30"W

Area (ha) 507.32

Date designated March 2005

General Site Characteristics:

- Marine areas. Sea inlets (4.5%)
- Coastal sand dunes. Sand beaches. Machair (1%)
- Shingle. Sea cliffs. Islets (4%)
- Inland water bodies (standing water, running water) (0.5%)
- Bogs. Marshes. Water fringed vegetation. Fens (2%)
- Heath. Scrub. Maquis and garrigue. Phygrana (22.7%)
- Humid grassland. Mesophile grassland (2.8%)
- Broad-leaved deciduous woodland (62%)
- Other land (including towns, villages, roads, waste places, mines, industrial sites) (0.5%)

Relevant qualifying features:

Annex I habitats that are the primary reason for selection of this site:

- Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles

Annex II species present as a qualifying feature, but not a primary reason for site selection:

- Freshwater pearl mussel *Margaritifera margaritifera*
- Otter *Lutra lutra*

Sound of Arisaig - SAC

The Sound of Arisaig is representative of sublittoral sandbanks on the west coast of Scotland. It is sheltered, with low turbidity, and has an unusually high diversity of sublittoral sediment habitats within a relatively small area. These range from very soft mud and muddy sands in Loch Ailort and the deeper parts of its entrance to coarse, clean shell-sand in the more exposed parts of the site. This site is particularly significant in that it supports some of the most extensive beds of maerl in the UK. Eelgrass *Zostera marina* is found on shallow sand in outer Loch Ailort. In the more sheltered conditions in inner Loch Ailort muddy sand occurs, supporting large populations of the echiuran worm *Amalosoma eddystonense*, a nationally scarce species.

The Sound of Arisaig supports species with predominantly southern distributions, such as the sipunculan worm *Sipunculus nudus*, and those with predominantly northern distributions, such as the starfish *Luidia sarsi*. The site is an important part of the transition from southern to northern communities that occurs along the coast of the UK.

Summary Information – Sound of Arisaig SAC

Location 56°48'30"N, 05°52'15"W

Area (ha) 4556.65

Date designated March 2005

General Site Characteristics:

- Marine areas. Sea inlets (100%)

Relevant qualifying features:

Annex I habitats that are the primary reason for selection of this site:

- Sandbanks which are slightly covered by sea water all the time

Claish Moss and Kentra Moss - SAC

Claish Moss lies along the southern shore of Loch Shiel, while neighbouring Kentra Moss opens into Kentra Bay. They are representative of a highly oceanic blanket bog type found on the north-west coast of Scotland. These are two of the only three known 'eccentric' mires in Britain and are selected because of the rarity of this bog form.

Summary Information - Claish Moss and Kentra Moss SAC

Location 56°44'30"N, 05°43'50"W

Area (ha) 1013.78

Date designated March 2005

General Site Characteristics:

- Salt marshes. Salt pastures. Salt steppes (2%)
- Bogs. Marshes. Water fringed vegetation. Fens (70%)
- Heath. Scrub. Maquis and garrigue. Phygrana (16%)
- Humid grassland. Mesophile grassland (12%)

Summary Information - Claish Moss and Kentra Moss SAC (continued)

Relevant qualifying features:

Annex I habitats that are the primary reason for selection of this site:

- Blanket bogs * Priority feature

Annex I habitats present as a qualifying feature, but not a primary reason for the selection of this site:

- Depressions on peat substrates of the *Rhynchosporion*

2.3 Region 2S: South section of West Highlands and Inner Hebrides

This area is broadly similar to the northern area but has wider and deeper sea lochs including the Firth of Lorne, the entrance to the Great Glen. The long peninsula of Kintyre with its distinctive west coast raised shoreline structures is also unique. Coll and Tiree are open, low machair islands. Mull is mountainous, including a core of volcanic rocks, but contains a southwest peninsula with beaches and machair. Colonsay is a unique combination of low hills and bayhead beaches. Islay is exposed in the west and is relatively heavily populated but contains a wide variety of coastal types. Jura is almost uninhabited and is characterised by high mountains and the finest raised shingle beaches in Britain. The South Minch provides an open productive sea but southwards the protection offered by Northern Ireland reduces Atlantic wave energy. In general, this south area is more densely populated than further north being nearer the Firth of Clyde and the Glasgow conurbation.

Figure 2.3 – Internationally important coastal conservation areas in Region 2S

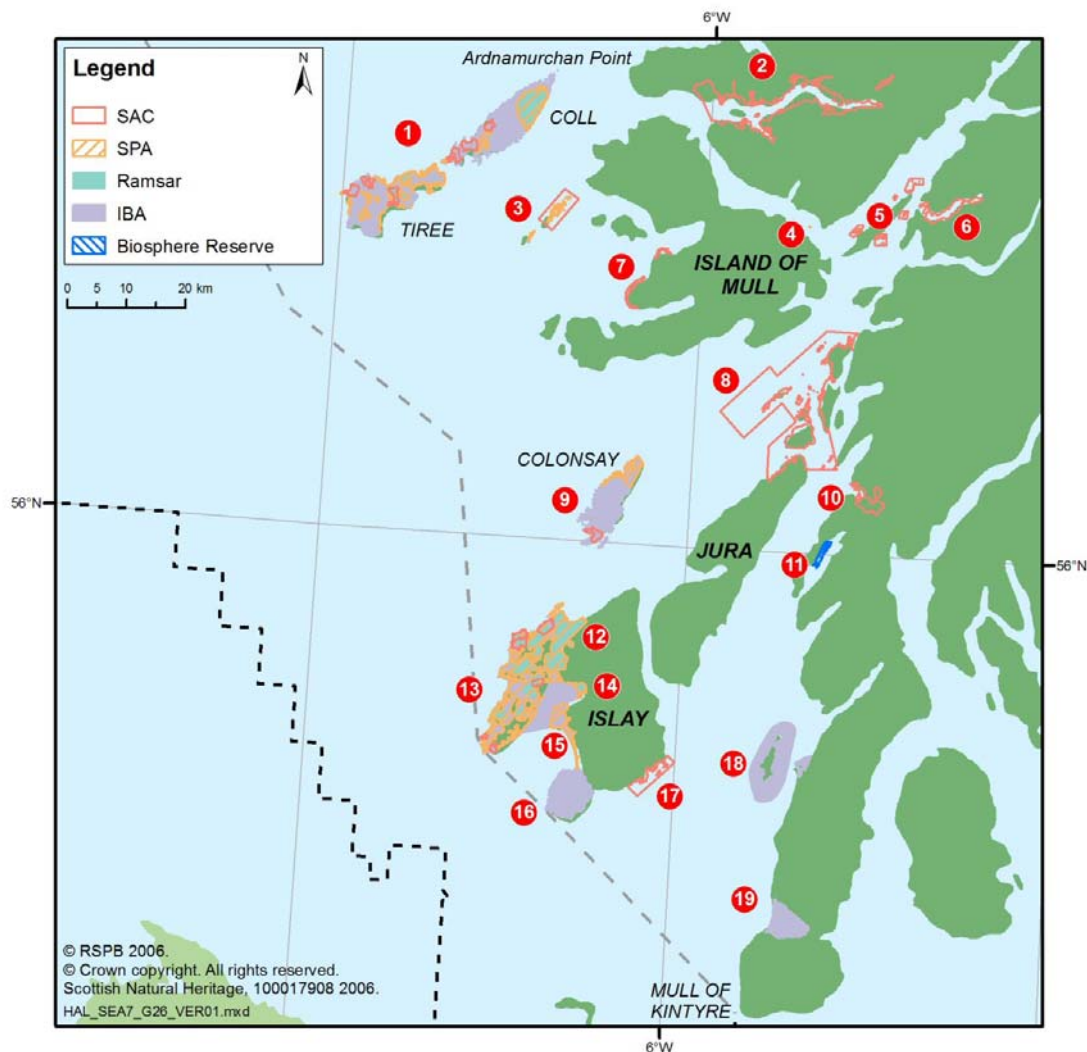


Table 2.3 – Internationally important coastal conservation areas in Region 2S

Map Ref	Location	SAC	SPA	R	IBA	BR	WHS
1	Coll and Tiree	✓	✓	✓	✓		
2	Sunart	✓					
3	Treshnish Isles	✓	✓		✓		
4	Glas Eileanan		✓				
5	Eileanan agus Sgeirean Lios Mor	✓					
6	Loch Creran	✓					
7	Ardmeanach	✓	✓				
8	Firth of Lorn	✓					
9	Colonsay and Oronsay	✓	✓		✓		
10	Moine Mhor	✓					
11	Taynish					✓	
12	Gruinart		✓	✓	✓		
13	Rinns of Islay	✓	✓	✓	✓		
14	Bridgend Flats		✓	✓	✓		
15	Laggan		✓		✓		
16	The Oa				✓		
17	South East Islay Skerries	✓					
18	Gigha Island and Islets				✓		
19	Kintyre				✓		

1

Coll and Tiree – SAC/SPA/Ramsar/IBA

Coll Machair complex is uncultivated, seasonally grazed in parts and has a high species diversity. The site is a complex of dune, wetland and machair habitats. It has a particularly diverse series of transitions to other habitats because of its complex physical structure. This area is of major international importance for a range of birds of wetland and low intensity agricultural land.

Coll Machair features the highest proportion of semi-fixed dune in western Scotland, which extends as much as 600m inland, reflecting a combination of high exposure and high moisture levels. Blowout activity is high; this has given rise to a highly varied dune and machair landscape with blowouts in various stages of development and restabilisation, and with the floors of some blowout scars having a high water table. The semi-fixed dune often has a high cover of mosses, mainly *Tortula ruralis* ssp. *ruraliformis*.

Coll Machair is the second-largest area of machair in this part of Scotland. On Totamore Dunes, a foredune ridge is succeeded by a series of erosion and accretion features, dominated by a mosaic of semi-fixed dune and particularly species-rich slack communities. On the landward side, Machair Mhór is the best example of a machair plain on Coll, grading from dry to wet machair and then into swamp communities. In the north the dune system has dammed a valley, resulting in the formation of Loch Ballyhaugh. The Annex II species slender naiad *Najas flexilis* is present, for which the SAC is also selected. Semi-fixed dune communities dominate Crossapol and Gunna, interspersed with a mosaic of fixed dune communities that are particularly species-rich. On the edge there are transitions from wet machair and dune slacks to wet heath, and a complex of small, species-rich machair lochs.

Coll and Tiree – SAC/SPA/Ramsar/IBA (continued)

The dunes at Crossapol and Feall Bay have the greater part of the mobile dune on Coll, maintained not only by high exposure and good sand supply but by a number of significant blowouts including three very large cauldron blowouts, one of which rises to 35m O.D. As is frequently the case in western Scotland, there is very little foredune, and the dune front is steep with slumped turfs. Marram *Ammophila arenaria* dominates the dunes to the extent of being the only species present in some areas.

Coll SPA comprises an extensive area of maritime heath, blanket mire and open water in north-east Coll and the small islands of Gunna and Soy Gunna off the south-west coast. The site supports internationally important numbers of Greenland barnacle goose *Branta leucopsis* and Greenland white-fronted goose *Anser albifrons flavirostris*, both of which roost within the site. The feeding areas of both goose species lie outside the SPA/IBA in other localities of Coll and Tiree. Coll (corncrake) SPA lies towards the south-west of the island. It is of European importance for breeding corncrake *Crex crex*.

Summary Information - Coll Machair SAC

Location 56°35'20"N, 06°39'30"W

Area (ha) 851.33

Date designated March 2005

General Site Characteristics:

- Coastal sand dunes. Sand beaches. Machair (92%)
- Shingle. Sea cliffs. Islets (1%)
- Inland water bodies (standing water, running water) (2%)
- Bogs. Marshes. Water fringed vegetation. Fens (2%)
- Inland rocks. Screes. Sands. Permanent snow and ice (3%)

Relevant qualifying features:

Annex I habitats that are the primary reason for selection of this site:

- Shifting dunes along the shoreline with *Ammophila arenaria* ('white dunes')
- Fixed dunes with herbaceous vegetation ('grey dunes') * Priority feature
- Machairs

Annex II species that are a primary reason for the selection of this site:

- Slender naiad *Najas flexilis*

Annex I habitats present as a qualifying feature, but not a primary reason for the selection of this site:

- Humid dune slacks
- Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or of the *Isoëto-Nanojuncetea*

Summary Information – Coll SPA

Location 56°39'16"N, 06°30'05"W

Area (ha) 2321.88

Date classified 31/03/1995

Relevant qualifying species:

The site qualifies under the Habitats Directive by supporting populations of European importance of the following Annex I species:

Summary Information – Coll SPA (continued)Over winter

- Barnacle goose *Branta leucopsis*, 1,029 individuals representing at least 3.8% of the wintering population in Great Britain (winter peak means)
- Greenland white-fronted goose *Anser albifrons flavirostris*, 789 individuals representing at least 5.6% of the wintering population in Great Britain (winter peak means)

Summary Information – Coll (Corncrake) SPA

Location 56°36'10"N, 06°37'15"W

Area (ha) 371.13

Date classified 27/03/2000

Relevant qualifying species:

The site qualifies under the Habitats Directive by supporting populations of European importance of the following Annex I species:

During the breeding season

- Corncrake *Crex crex*, 24 individuals representing at least 5.0% of the breeding population in Great Britain (1993-1997)

Summary Information – Coll Ramsar

Location 56°39'00"N 006°30'00"W

Area (ha) 2208

Date submitted 31/03/95

The site supports substantial areas of maritime heath, blanket mire, and open water. The occurrence and botanical composition reflect the long interaction between landforms and low-intensity agriculture. The site supports internationally important numbers of geese, together with several nationally rare wetland plant species.

Summary Information – Tiree and Coll IBA

Location 56°30'00"N 06°52'00"W

Area (ha) 16510

Birds of conservation concern:

- Whooper swan *Cygnus cygnus*
- White-fronted goose *Anser albifrons*
- Greylag goose *Anser anser*
- Barnacle goose *Branta leucopsis*
- Corncrake *Crex crex*
- Ringed plover *Charadrius hiaticula*
- Turnstone *Arenaria interpres*
- Little tern *Sterna albifrons*

It is also nationally important for breeding red-throated diver *Gavia stellata* (10 pairs, 1993-1996), pintail *Anas acuta* (2 pairs, 1994), Ringed plover *Charadrius hiaticula* (100 pairs, 1994), arctic skua *Stercorarius parasiticus* (49 pairs, 1987), common tern *Sterna hirundo* (185 pairs, 1995) and Arctic tern *Sterna paradisaea* (465 pairs, 1995), as well as for wintering sanderling *Calidris alba* (380 birds, 1989). The white-fronted goose *Anser albifrons* is the *flavirostris* subspecies, greylag goose *A. anser* is from the Hebridean population, and the barnacle goose *Branta leucopsis* is from the Greenland breeding population.

Sunart – SAC

Sunart on the west coast of Scotland contains the richest complex of Atlantic bryophyte-rich old sessile oak woods in the UK and is representative of the mid-west Highlands bryophyte zone. The site is also characterised by one of the UK's most extensive areas of ancient semi-natural woodland, much of which is oak-dominated.

Sunart supports a relatively high density of otter *Lutra lutra*. Records show that the site has supported consistently strong populations, indicating that the habitat is suitable for the species. The site is representative of coastal otter populations on the west coast of Scotland, which is a stronghold for the species. The otters mainly forage in the extensive wrack and kelp beds that occur throughout shallow areas of Loch Sunart and which serve as habitat for important prey species. Over 1400 otter holts, typically in areas of dense vegetation and rock boulder cover, have been recorded in the terrestrial areas bordering the edge of the loch and on the main islands. There is also a large influx of freshwater from numerous streams and rivers around the site which are important to the otter for washing.

Summary Information – Sunart SAC

Location 56°40'30"N, 05°48'30"W

Area (ha) 10246.72

Date designated March 2005

Summary Information – Sunart SAC (continued)**General Site Characteristics:**

- Marine areas. Sea inlets (46%)
- Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons (including saltwork basins) (2%)
- Salt marshes. Salt pastures. Salt steppes (0.4%)
- Inland water bodies (standing water, running water) (0.4%)
- Bogs. Marshes. Water fringed vegetation. Fens (5%)
- Heath. Scrub. Maquis and garrigue. Phygrana (20%)
- Dry grassland. Steppes (0.2%)
- Broad-leaved deciduous woodland (18%)
- Coniferous woodland (6%)
- Inland rocks. Scree. Sands. Permanent snow and ice (0.3%)
- Other land (including towns, villages, roads, waste places, mines, industrial sites) (1.7%)

Relevant qualifying features:

Annex I habitats that are the primary reason for selection of this site:

- Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles

Annex II species that are a primary reason for the selection of this site:

- Otter *Lutra lutra*

Annex I habitats present as a qualifying feature, but not a primary reason for the selection of this site:

- Reefs
- Northern Atlantic wet heaths with *Erica tetralix*
- European dry heaths
- *Tilio-Acerion* forests of slopes, scree and ravines * Priority feature

Treshnish Isles – SAC/SPA/IBA

The Treshnish Isles are a remote chain of uninhabited islands and skerries situated in south-west Scotland. The islands, numerous skerries, islets and reefs support a breeding colony of grey seals *Halichoerus grypus*, contributing just under 3% of annual UK pup production. The islands are also important for their breeding seabird colonies, especially storm petrel *Hydrobates pelagicus*. The most important seabird colonies are on Lunga, which supports the majority of storm petrels. The Treshnish Isles are also of importance as a traditional wintering locality for Greenland barnacle goose *Branta leucopsis*.

Summary Information – Treshnish Isles SAC

Location 56°30'00"N, 06°24'24"W

Area (ha) 1962.66

Date designated March 2005

General Site Characteristics:

- Marine areas. Sea inlets (91%)
- Coastal sand dunes. Sand beaches. Machair (1%)
- Shingle. Sea cliffs. Islets (2%)
- Humid grassland. Mesophile grassland (6%)

Summary Information – Treshnish Isles SAC**Relevant qualifying features:**

Annex II species that are a primary reason for the selection of this site:

- Grey seal *Halichoerus grypus*

Annex I habitats present as a qualifying feature, but not a primary reason for the selection of this site:

- Reefs

Summary Information – Treshnish Isles SPA

Location 56°29'30"N, 06°25'10"W

Area (ha) 240.67

Date classified 30/08/1994

Relevant qualifying species:

The site qualifies under the Habitats Directive by supporting populations of European importance of the following Annex I species:

During the breeding season

- Storm petrel *Hydrobates pelagicus*, 5,040 pairs representing at least 5.9% of the breeding population in Great Britain (Count, as at 1996)

Over winter

- Barnacle goose *Branta leucopsis*, 82 individuals representing at least 0.3% of the wintering population in Great Britain (Three count mean, 1994, 1955 & 1997)

Summary Information – Treshnish Isles IBA

Location 58°20'00"N, 06°09'00"W

Area (ha) 150

Birds of conservation concern:

- Great black-backed gull *Larus marinus*

4

Glas Eileanan SPA

Glas Eileanan lies 2km north of Craignure in the Sound of Mull off the west coast of Scotland. It comprises a group of three small islets, the surface of which is largely maritime grassland, although with many rocky outcrops. The islets are an important breeding area for common tern *Sterna hirundo*, supporting one of the largest breeding colonies in the UK. The terns nest over the entire surface of the main islet and feed outside the SPA in nearby waters.

Summary Information – Glas Eileanan SPA

Location 56°29'48"N, 05°42'50"W

Area (ha) 1.43

Date classified 20/02/1998

Relevant qualifying species:

The site qualifies under the Habitats Directive by supporting populations of European importance of the following Annex I species:

During the breeding season

- Common tern *Sterna hirundo*, 530 pairs representing at least 4.3% of the breeding population in Great Britain

5

Eileanan agus Sgeirean Lios Mor - SAC

The island of Lismore on the west coast of Scotland provides the most sheltered and enclosed site for the common seal *Phoca vitulina*. Lismore is a composite site comprising five groups of small offshore islands and skerries which are extensively used as haul-out sites by the colony. Seal numbers represent just over 1% of the UK population.

Summary Information - Eileanan agus Sgeirean Lios Mor SAC

Location 56°34'05"N, 05°26'15"W

Area (ha) 1139.62

Date designated March 2005

General Site Characteristics:

- Marine areas. Sea inlets (85%)
- Shingle. Sea cliffs. Islets (15%)

Relevant qualifying features:

Annex II species that are a primary reason for the selection of this site:

- Common seal *Phoca vitulina*

6

Loch Creran - SAC

Loch Creran, situated at the northern end of the Firth of Lorn, is a typical fjordic sea loch. The site is particularly notable for biogenic reefs of the calcareous tube-worm *Serpula vermicularis*, which occur in shallow water around the periphery of the loch. This species has a world-wide distribution but the development of reefs is extremely rare; Loch Creran is the only known site in the UK to contain living *S. vermicularis* reefs and there are no known occurrences of similarly abundant reefs in Europe. Biogenic reefs of the horse mussel *Modiolus modiolus*, also confined to the shallow sublittoral, occur in the upper basin of the loch.

Loch Creran – SAC (continued)

The biogenic reefs increase habitat complexity and are colonised by an abundant and diverse faunal assemblage, including bryozoans, ascidians and sponges. Localised areas of bedrock reef, which support further species-rich assemblages, are also included within the site.

Summary Information – Loch Creran SAC

Location 56°31'56"N, 05°20'30"W

Area (ha) 1226.39

Date designated March 2005

General Site Characteristics:

- Marine areas. Sea inlets (99%)
- Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons (including saltwork basins) (1%)

Relevant qualifying features:

Annex I habitats that are the primary reason for selection of this site:

- Reefs

7

Ardmeanach – SAC/SPA

Ardmeanach is one of five sites representing the range of low-altitude sub-types of species-rich *Nardus* grasslands on the oceanic west coast of Scotland. Ardmeanach is one of the most westerly and maritime of the sites selected. The species-rich *Nardus* grasslands occur extensively as short swards on a large basalt escarpment. The upper base-rich basalt cliffs of Ardmeanach support well-developed examples of hydrophilous tall herb fringe communities in the relatively mild south-west of Scotland. The stands represent some of the best examples known on basalt crags and in south-west Scotland generally. The SAC overlaps at the coast with Cnuc agus Cladach Mhuile (Mull Coast and Hills) SPA. The SPA is largely an upland site and is home to 9 pairs of golden eagle.

Summary Information – Ardmeanach SAC

Location 56°24'10"N, 06°09'40"W

Area (ha) 374.79

Date designated March 2005

General Site Characteristics:

- Shingle. Sea cliffs. Islets (3%)
- Heath. Scrub. Maquis and garrigue. Phygrana (15%)
- Alpine and sub-alpine grassland (80%)
- Inland rocks. Screes. Sands. Permanent snow and ice (2%)

Relevant qualifying features:

Annex I habitats that are the primary reason for selection of this site:

- Species-rich *Nardus* grassland, on siliceous substrates in mountain areas (and submountain areas in continental Europe) * Priority feature
- Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels

Annex I habitats present as a qualifying feature, but not a primary reason for the selection of this site:

- Vegetated sea cliffs of the Atlantic and Baltic coasts

Summary Information - Cnuc agus Cladach Mhuile (Mull Coast and Hills) SPA (continued)**Location** 56°26'34"N, 05°59'48"W**Area (ha)** To be confirmed on classification**Date classified** 07/12/200**Relevant qualifying species:**

The site qualifies under the Habitats Directive by supporting populations of European importance of the following Annex I species:

During the breeding season

- Golden eagle *Aquila chrysaetos*, 9 pairs representing at least 2.3% of the breeding population in Great Britain (1992)

8

Firth of Lorn - Marine SAC

This well-defined, discrete area encompasses a complex group of islands, sounds and inlets characterised by some of the strongest tidal streams in the UK. Reefs extend from the shallow depths between the islands and mainland into depths of over 200m, in many places close inshore. The varied physical environment is reflected in the variety of reef types and associated communities and species, which are amongst the most diverse in both the UK and Europe.

Species present include some which are normally characteristic of deeper water (the sponges *Mycale lingua* and *Clathria barleii*, and the featherstar *Leptometra celtica*), and others which are considered scarce (including the brown alga *Desmarestia dresnayi*).

Summary Information - Firth of Lorn Marine SAC**Location** 56°13'00"N, 05°43'00"W**Area (ha)** 20975.01**Date designated** March 2005**General site characteristics:**

- Marine areas. Sea inlets (100%)

Relevant qualifying features:

Annex I habitats that are the primary reason for selection of this site:

- Reefs

9

Colonsay and Oronsay – SAC/SPA/IBA

The North Colonsay and Western Cliffs SPA is located on the island of Colonsay in the southern Inner Hebrides off the west coast of Scotland. It comprises the northern promontory of Colonsay and a 2km section of cliffs on the western coast. The hills rise to about 140m above sea level and the cliffs include some almost sheer sections up to about 100m in height. The whole area is craggy, and the mainly acidic rocks support dry and wet heath over the northern hills. The site is of importance for breeding seabirds, including gulls and auks. These feed outside the SPA/IBA in surrounding waters as well as further away. Cough *Pyrhocorax pyrrhocorax* is also a resident species, breeding on cliff areas and foraging widely. They depend on the diverse mix of habitats present within the site and their continued low-intensity agricultural management. Also in the region, 340ha of machair found on Oronsay have been designated as an SAC.

Summary Information – Oronsay SAC (continued)
<p>Location 56°00'42"N, 06°15'00"W Area (ha) 340.07 Date designated March 2005</p> <p>General Site Characteristics:</p> <ul style="list-style-type: none"> • Coastal sand dunes. Sand beaches. Machair (100%) <p>Relevant qualifying features: Annex I habitats that are the primary reason for selection of this site:</p> <ul style="list-style-type: none"> • Machairs
Summary Information – North Colonsay and Western Cliffs SPA
<p>Location 56°06'28"N, 06°10'00"W Area (ha) 973.96 Date classified 24/03/1997</p> <p>Relevant qualifying species: The site qualifies under the Habitats Directive by supporting populations of European importance of the following Annex I species:</p> <p><u>During the breeding season</u></p> <ul style="list-style-type: none"> • Chough <i>Pyrrhocorax pyrrhocorax</i>, 9 pairs representing at least 2.6% of the breeding population in Great Britain (Count, as at 1998) <p><u>Over winter</u></p> <ul style="list-style-type: none"> • Chough <i>Pyrrhocorax pyrrhocorax</i>, 18 pairs representing at least 2.6% of the wintering population in Great Britain (Count as at 1998) <p>The area qualifies by regularly supporting at least 20,000 seabirds:</p> <ul style="list-style-type: none"> • During the breeding season, the area regularly supports 30,000 individual seabirds including: Guillemot <i>Uria aalge</i> and kittiwake <i>Rissa tridactyla</i>.
Summary Information – Colonsay and Oronsay IBA
<p>Location 56°06'00"N, 06°09'00"W Area (ha) 5086</p> <p>Birds of conservation concern:</p> <ul style="list-style-type: none"> • Barnacle goose <i>Branta leucopsis</i> • Chough <i>Pyrrhocorax pyrrhocorax</i> <p>The IBA holds 11,000 pairs of breeding seabirds on a regular basis, and is also nationally important for breeding corncrake <i>Crex crex</i> (globally threatened: 8 calling males, 1996), kittiwake <i>Rissa tridactyla</i> (5,650 pairs, 1986) and guillemot <i>Uria aalge</i> (9,050 pairs, 1986) and for wintering Greenland white-fronted goose <i>Anser albifrons flavirostris</i> (200 birds). The barnacle goose <i>Branta leucopsis</i> is from the Greenland breeding population.</p>

Mòine Mhór - SAC

Most peat on the west coast of Scotland is classified as blanket bog and the small amount of raised bog present in this area has suffered significant human impact. Mòine Mhór is the largest area of raised bog in this part of Scotland and represents the hyper-oceanic zone within the raised bog SAC series. The bog is very close to sea level and has maritime affinities, grading into saltmarsh. It is the most extensive westerly raised bog in Scotland. The bog-moss *Sphagnum magellanicum* is abundant around the highest part of the bog and cranberry *Vaccinium oxycoccos* is also common.

Summary Information – Mòine Mhór SAC

Location 56°04'50"N, 05°31'05"W

Area (ha) 1150.41

Date designated March 2005

General Site Characteristics:

- Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons (including saltwork basins) (12%)
- Salt marshes. Salt pastures. Salt steppes (8%)
- Shingle. Sea cliffs. Islets (0.5%)
- Bogs. Marshes. Water fringed vegetation. Fens (68%)
- Broad-leaved deciduous woodland (10%)
- Mixed woodland (1%)
- Other land (including towns, villages, roads, waste places, mines, industrial sites) (0.5%)

Relevant qualifying features:

Annex I habitats that are the primary reason for selection of this site:

- Active raised bogs * Priority feature
- Degraded raised bogs still capable of natural regeneration

Annex I habitats present as a qualifying feature, but not a primary reason for the selection of this site:

- Mudflats and sandflats not covered by seawater at low tide
- Atlantic salt meadows *Glauco-Puccinellietalia maritimae*
- Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles

Annex II species present as a qualifying feature, but not a primary reason for site selection:

- Marsh fritillary butterfly *Euphydryas (Eurodryas, Hypodryas) aurinia*
- Otter *Lutra lutra*

Taynish – Biosphere Reserve

Taynish Biosphere Reserve, located in south-west Scotland on the coast of Argyll, represents native mixed woodland, with wet and dry heath, grassland, and coastal ecosystems. There is grazing of beef cattle and sheep in land adjacent and near to the biosphere reserve, with some controlled grazing carried out within the area. In the wider area, there is considerable coniferous forestry development, fishing (including creels) and fish farming in the lochs. Natural harbours, such as Crinan, form a base for small-scale commercial boat trips and local and visiting private craft. The area has a significant amenity value to tourists.

Taynish – Biosphere Reserve (continued)

The current biosphere reserve consists of Taynish NNR, which occupies the majority of the Taynish Woods SSSI. The NNR is mainly owned by SNH and is also a SAC. The reserve is contiguous with the Linne Mhuirich SSSI. Nearby are the Tayvallich Juniper and Fern, West Tayvallich Peninsula, and the Ulva Danna and McCormaig Isles SSSIs. Together these SSSIs form much of the Tayvallich Estate, with which SNH has secured management agreements. The area falls within the Knapdale Oakwood Forest Area and within the Knapdale NSA.

Summary Information – Taynish Biosphere Reserve

Location 05°38'W, 56°00'N

Area (ha) 353

Date submitted 1977

Taynish is significant as an area large enough to sustain itself as a discrete ecosystem, with a large variety of species. The site is an important example of native mixed woodland, with wet and dry heath, grassland, coastal communities, over 250 species of mosses and liverworts, and over 250 species of lichen.

Relevant qualifying features:

Major ecosystem

- Temperate broadleaf forests or woodlands

12

Gruinart – SPA/Ramsar/IBA

Gruinart Flats are located on the Hebridean island of Islay on the west coast of Scotland. The SPA comprises a diverse array of coastal habitats typical of western Scotland. The main features are a sheltered estuarine and intertidal sea loch surrounded by pastoral farmland and backed by semi-natural upland habitats. The grass fields of the farmland support large wintering goose populations which roost at night on the saltmarsh, whilst the intertidal areas support a diverse assemblage of wintering waterbirds important in a regional context. The entire population of the Greenland race of barnacle goose *Branta leucopsis* arrives at the site in early autumn before dispersing to other wintering areas in Ireland and western Scotland.

Summary Information – Gruinart Flats SPA

Location 55°50'42"N, 06°09'33"W

Area (ha) 3261.32

Date classified 14/07/1988

Relevant qualifying species:

The site qualifies under the Habitats Directive by supporting populations of European importance of the following Annex I species:

Over winter

- Barnacle goose *Branta leucopsis*, 20,000 individuals representing at least 74.1% of the wintering population in Great Britain (5 year peak mean 1991/2-1995/6)
- Greenland white-fronted goose *Anser albifrons flavirostris*, 1,000 individuals representing at least 7.1% of the wintering population in Great Britain (Count, as at mid-1990s)

Summary Information - Gruinart Flats Ramsar

Location 55°51'00"N 006°20'00"W

Area (ha) 3261

Date Submitted 14/07/88

Summary Information - Gruinart Flats Ramsar (continued)

A sea loch with extensive intertidal mud and sand flats, saltmarsh, blanket mire, and a well-developed dune complex. The area supports internationally important numbers of wintering and passage geese *Branta leucopsis* of the Greenland breeding population, and over 95% of the Greenland breeding population stages at the site in autumn. Various other breeding birds, including the globally threatened corncrake *Crex crex*, use the area.

Summary Information – Loch Gruinart, Islay IBA

Location 55°48'00"N 06°20'00"W

Area (ha) 3261

Birds of conservation concern:

- Whooper swan *Cygnus cygnus*
- White-fronted goose *Anser albifrons*
- Barnacle goose *Branta leucopsis*

The site holds 23,200 intering waterbirds on a regular basis, and is also nationally important for breeding corncrake *Crex crex* (globally threatened: 10 pairs, 1995). White-fronted goose *Anser albifrons* are the *flavirostris* subspecies, while the banarcle goose *Branta leucopsis* is from the Greenland breeding population.

13

Rinns of Islay – SAC/SPA/Ramsar/IBA

The site comprises extensive areas of the western side of the island, being a mosaic of natural and semi-natural habitats including blanket bog (of international importance), moorland, dune grassland, maritime grassland, marsh and farmland. These habitats are used by an extremely rich assemblage of scarce bird species throughout the year. The site is of particular importance for a number of breeding and wintering birds, including raptors, Greenland white-fronted goose *Anser albifrons flavirostris* and chough *Pyrhacorax pyrrhacorax*. The choughs depend on the diverse mix of habitats present and their continued low-intensity agricultural management. The site also includes the subsumed SPAs of Glac na Criche and Feur Lochain, which were subject to separate classification.

Summary Information – Glac na riche, Islay SAC

Location 55°51'06"N, 06°26'10"W

Area (ha) 265.33

Date designated March 2005

General Site Characteristics:

- Coastal sand dunes. Sand beaches. Machair (4%)
- Shingle. Sea cliffs. Islets (18%)
- Bogs. Marshes. Water fringed vegetation. Fens (40%)
- Heath. Scrub. Maquis and garrigue. Phygrana (20%)
- Humid grassland. Mesophile grassland (18%)

Relevant qualifying features:

Annex I habitats that are the primary reason for selection of this site:

- Blanket bogs * Priority feature

Annex I habitats present as a qualifying feature, but not a primary reason for the selection of this site:

- Vegetated sea cliffs of the Atlantic and Baltic coasts
- European dry heaths

<p>Summary Information – Glac na riche, Islay SAC (continued)</p> <p>Annex II species present as a qualifying feature, but not a primary reason for site selection:</p> <ul style="list-style-type: none"> Marsh fritillary butterfly <i>Euphydryas (Eurodryas, Hypodryas) aurinia</i>
<p>Summary Information – Rinns of Islay SAC</p> <p>Location 55°45'50"N, 06°25'00"W Area (ha) 1149.7 Date designated March 2005</p> <p>General Site Characteristics:</p> <ul style="list-style-type: none"> Coastal sand dunes. Sand beaches. Machair (5%) Shingle. Sea cliffs. Islets (5%) Inland water bodies (standing water, running water) (5%) Bogs. Marshes. Water fringed vegetation. Fens (5%) Heath. Scrub. Maquis and garrigue. Phygrana (55%) Humid grassland. Mesophile grassland (20%) Improved grassland (5%) <p>Relevant qualifying features: Annex II species that are a primary reason for the selection of this site:</p> <ul style="list-style-type: none"> Marsh fritillary butterfly <i>Euphydryas (Eurodryas, Hypodryas) aurinia</i>
<p>Summary Information – Rinns of Islay SPA</p> <p>Location 55°46'55"N, 06°21'00"W Area (ha) 9407.46 Date classified 27/11/1995</p> <p>Relevant qualifying species: The site qualifies under the Habitats Directive by supporting populations of European importance of the following Annex I species:</p> <p><u>During the breeding season</u></p> <ul style="list-style-type: none"> Chough <i>Pyrrhocorax pyrrhocorax</i>, 31 pairs representing at least 9.1% of the breeding population in Great Britain (Count, as at 1998) Corncrake <i>Crex crex</i>, 2 individuals representing at least 0.4% of the breeding population in Great Britain (5 year mean, 1993-1997) Hen harrier <i>Circus cyaneus</i>, 7 pairs representing at least 1.4% of the breeding population in Great Britain (Count, as at 1998) <p><u>On passage</u></p> <ul style="list-style-type: none"> Whooper swan <i>Cygnus cygnus</i>, 140 individuals representing at least 2.5% of the population in Great Britain (Count, as at 1988) <p><u>Over winter</u></p> <ul style="list-style-type: none"> Chough <i>Pyrrhocorax pyrrhocorax</i>, 62 pairs representing at least 9.0% of the wintering population in Great Britain (Count as at 1998) Greenland white-fronted goose <i>Anser albifrons flavirostris</i>, 1,600 individuals representing at least 11.4% of the wintering population in Great Britain (Count, as at 1993/4) <p>The site also qualifies by supporting populations of European importance of the following migratory species:</p> <p><u>During the breeding season</u></p> <ul style="list-style-type: none"> Common scoter <i>Melanitta nigra</i>, 10 pairs representing <0.1% of the breeding Western Siberia/Western & Northern Europe/Northwestern Africa population (Count, as at 1997)

Summary Information – Rinns of Islay Ramsar (continued)**Location** 55°51'00"N 006°23'00"W**Area (ha)** 3587**Date submitted** 25/04/90

A mosaic of natural and semi-natural habitats including bog, moorland, blanket mires, dune and maritime grasslands, and farmland. The site supports a peatland flora of exceptional interest that includes several nationally scarce wetland species. An important staging area for internationally important numbers of sandwich tern *Sterna sandvicensis* and redshank *Tringa totanus*, and nationally important numbers of ringed plover *Charadrius hiaticula* and sanderling *Calidris alba*. The site supports a diverse assemblage of breeding waders and internationally important numbers of wintering geese *Anser albifrons flavirostris*.

Summary Information – Rinns, Islay IBA**Location** 55°46'00"N, 06°24'00"W**Area (ha)** 12084**Birds of conservation concern:**

- White-fronted goose *Anser albifrons*
- Barnacle goose *Branta leucopsis*
- Chough *Pyrrhocorax pyrrhocorax*

White-fronted goose *Anser albifrons* is the *flavirostris* subspecies, and barnacle goose *Branta leucopsis* is from the Greenland breeding population. The site is also nationally important for breeding teal *Anas crecca* (16 pairs, 1994), common scoter *Melanitta nigra* (20 pairs, 1995) and corncrake *Crex crex* (globally threatened: 6 pairs, 1995).

14

Bridgend Flats – SPA/Ramsar/IBA

Bridgend flats lie at the head of Loch Indaal, on the south-west coast of Islay and are used as a roosting site for internationally important numbers of overwintering barnacle goose *Branta leucopsis* (representing roughly 20% of the UK population). The geese feed during the day outside the SPA/IBA on surrounding areas of farmland as well as in other wetland habitats.

Summary Information – Bridgend Flats, Islay SPA**Location** 55°46'22"N, 06°16'05"W**Area (ha)** 331.16**Date classified** 14/07/1988**Relevant qualifying species:**

The site qualifies under the Habitats Directive by supporting populations of European importance of the following Annex I species:

Over winter

- Barnacle goose *Branta leucopsis*, 6,700 individuals representing at least 24.8% of the wintering population in Great Britain

Summary Information - Bridgend Flats, Islay Ramsar**Location** 55°46'22"N 06°16'05"W**Area (ha)** 331.16**Date Submitted** 14/07/1988

Summary Information - Bridgend Flats, Islay Ramsar (continued)

An area of saltmarsh and intertidal flats of international importance as a roosting site for wintering geese. Areas above mean high water include natural vegetation supporting high densities of breeding waders and terns along with agricultural land, frequently used by geese.

Summary Information – Loch Indall and Bridgend Flats IBA

Location 55°46'00"N 06°15'00"W

Area (ha) 3750

Birds of conservation concern:

- Barnacle goose *Branta leucopsis*
- Scaup *Aythya marila*

The IBA is important for wintering geese and other wildfowl, and is also nationally important for wintering red-breasted merganser *Mergus serrator* (160 birds). Barnacle geese *Branta leucopsis* are from the Greenland breeding population.

15

Laggan – SPA/IBA

Laggan is located on the Hebridean island of Islay on the west coast of Scotland. The Laggan Peninsula is situated on the eastern shore of Loch Indaal, a sea loch, and comprises the rocky headland of Laggan Point and the land backing Laggan Point and Laggan Bay. The bay is an 11km long sandy sweep open to the Atlantic. This is backed by a rare and uninterrupted habitat transition from sand dunes and intertidal rocky shore habitats through acidic dune grassland, coastal heath and ultimately to blanket bog. The blanket bog is used as a roost by wintering Greenland white-fronted goose *Anser albifrons flavirostris*. Intensively managed farmland on the site is an important feeding area for wintering Greenland barnacle goose *Branta leucopsis*. Geese using this site as a feeding area also use roosts elsewhere (including Bridgend Flats SPA for Greenland barnacle goose and Eilean na Muice Duibhe SPA for Greenland white-fronted goose).

Summary Information – Laggan, Islay SPA

Location 55°43'16"N, 06°18'24"W

Area (ha) 1230.02

Date classified 14/07/1988

Relevant qualifying species:

The site qualifies under the Habitats Directive by supporting populations of European importance of the following Annex I species:

Over winter

- Barnacle goose *Branta leucopsis*, 1,800 individuals representing at least 6.7% of the wintering population in Great Britain (Count as at mid 1990s)
- Greenland white-fronted goose *Anser albifrons flavirostris*, 300 individuals representing at least 2.1% of the wintering population in Great Britain (Count as at mid 1990s)

Summary Information – Laggan, Islay IBA

Location 55°43'00"N, 06°18'00"W

Area (ha) 1230

Summary Information – Laggan, Islay IBA (continued)**Birds of conservation concern:**

- White-fronted goose *Anser albifrons*
- Barnacle goose *Branta leucopsis*
- Chough *Pyrhcorax pyrrhcorax*

White –fronted geese *Anser albifrons* are the *flavirostris* subspecies, and barnacle geese *Branta leucopsis* are from the Greenland breeding population. Breeding species of global conservation concern that do not meet IBA criteria: Corncrake *Crex crex* (2 pairs, 1995, although none present in 1997/98).

16

The Oa, Islay - IBA

A peninsula in the south-west of Islay, exposed to the prevailing south-westerly weather. This results in a highly oceanic climate with closer ecological affinities to western Ireland than to the rest of Britain. The IBA includes rocky shore, blanket mire, heathland and farmland habitats. The IBA is particularly important for white-fronted goose and chough. The site is also important for breeding raptors and other upland species.

Summary Information – The Oa, Islay IBA

Location 55°37'00"N, 06°17'00"W

Area (ha) 4380

Birds of conservation concern:

- White-fronted goose *Anser albifrons*
- Chough *Pyrhcorax pyrrhcorax*

White-fronted geese *Anser albifrons* are the *flavirostris* subspecies.

17

South East Islay Skerries - SAC

The skerries, islands and rugged coastline of the Inner Hebridean island of Islay hold a nationally-important population of the common seal *Phoca vitulina*. The south-east coastline areas are extensively used as pupping, moulting and haul-out sites by the seals, which represent between 1.5% and 2% of the UK population.

Summary Information - South East Islay Skerries SAC

Location 55°39'10"N, 06°03'40"W

Area (ha) 1498.3

Date designated March 2005

General Site Characteristics:

- Marine areas. Sea inlets (80%)
- Salt marshes. Salt pastures. Salt steppes (2%)
- Shingle. Sea cliffs. Islets (18%)

Relevant qualifying features:

Annex II species that are a primary reason for the selection of this site:

- Common seal *Phoca vitulina*

Gigha Island and Islets - IBA

A large island and series of smaller islets, stacks and rocks, located to the west of Rhunahaorine Point. The IBA is important for breeding seabirds.

Summary Information - Gigha Island and Islets IBA

Location 55°41'00"N, 05°44'00"W

Area (ha) 442

Birds of conservation concern:

- Black guillemot *Cephus grylle*

Breeding species of global conservation concern that do not meet IBA criteria: Corncrake *Crex crex* (1 pair in 1995, although none present 1997-1998).

Kintyre - IBA

Rhunahaorine is one of the largest vegetated shingle forelands in Britain, with older ridges running south-west to north-east, and younger ridges running north-west to south-east. The IBA at Rhunahaorine Point includes adjacent grasslands and associated coastal heaths. Also on Kintyre, Machrihanish IBA comprises pasture and arable farmland, and a loch situated about 4km to the north-east. Both sites contain Important populations of white-fronted geese.

Summary Information – Rhunahaorine Point IBA

Location 55°40'00"N, 05°40'00"W

Area (ha) 326

Birds of conservation concern:

- White-fronted goose *Anser albifrons*

The site is also nationally important for summer moulting assemblages of red-breasted merganser *Mergus serrator* (400 birds, 1992). White-fronted geese *Anser albifrons* are the *flavirostris* subspecies.

Summary Information – Machrihanish IBA

Location 55°26'00"N, 05°42'00"W

Area (ha) 2520

Birds of conservation concern:

- White-fronted goose *Anser albifrons*

The site is also nationally important for wintering red-breasted merganser *Mergus serrator* (200 birds, 1992). White-fronted geese *Anser albifrons* are the *flavirostris* subspecies.

2.4 Region 3: Northern Ireland

This short coastline faces north and is partly sheltered by Rathlin Island. There is considerable variety of small scale coastal types, including cliffs, beaches and rock platforms. There is great geological variety but most sections are based on the basaltic formations including the Giant’s Causeway which links directly to the tertiary volcanic province of the Inner Hebrides. Unlike the other areas this is a rich agricultural area with a relatively dense coastal population.

Figure 2.4 – Internationally important coastal conservation areas in Region 3

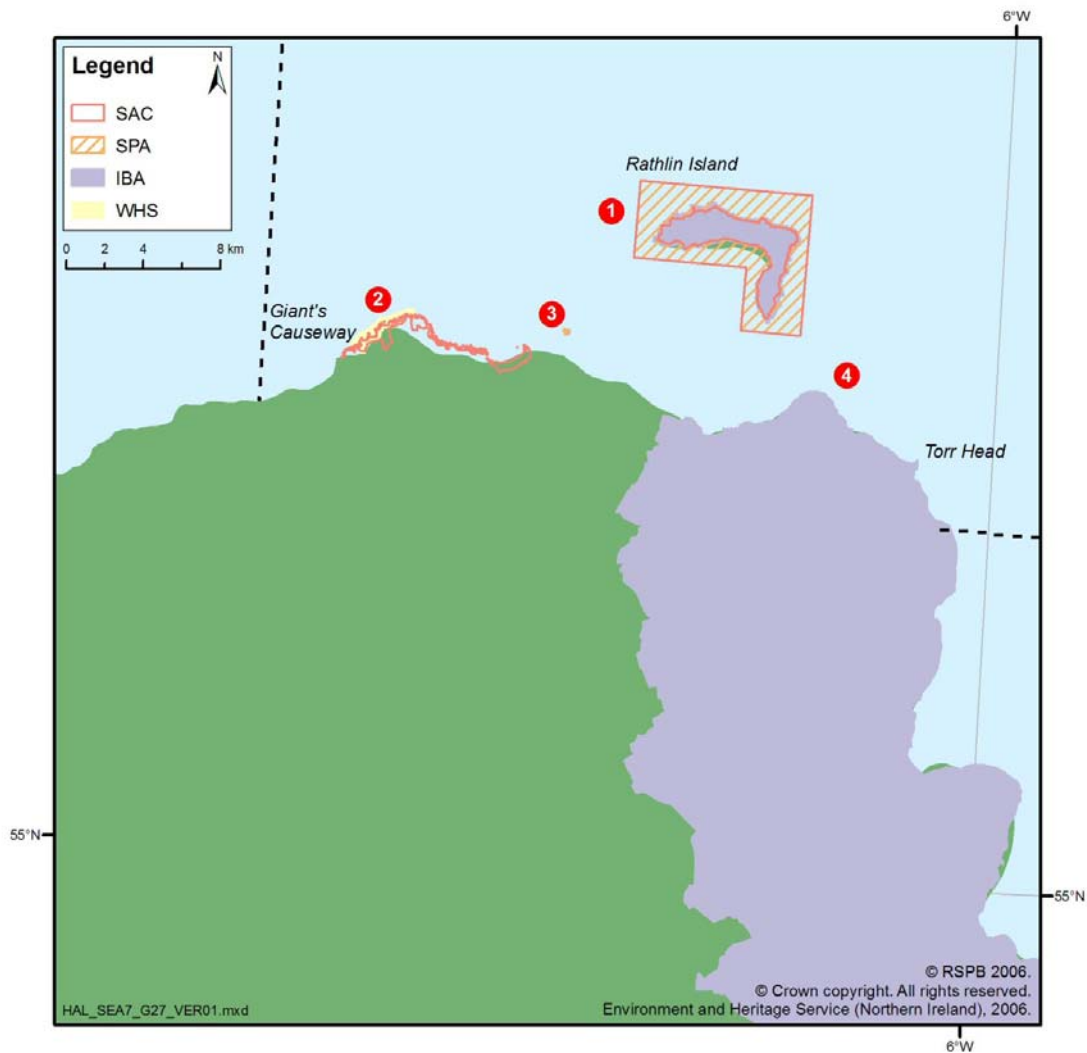


Table 2.4 – Internationally important coastal conservation areas in Region 3

Map Ref	Location	SAC	SPA	R	IBA	BR	WHS
1	Rathlin Island	✓	✓		✓		
2	North Antrim Coast	✓					✓
3	Sheep Island		✓		✓		
4	Antrim Plateau				✓		

Rathlin Island – SAC/SPA/IBA

Rathlin Island is a large inhabited island located some 4km off the north coast of County Antrim in Northern Ireland. The site exhibits contrasting geology, with Cretaceous chalk overlain by Tertiary basalts. The steep sea cliffs, some as high as 100m, support internationally important breeding population of peregrine. There are also several sea-stacks on the north and west shores of the island which are important for seabirds, including auk and gull. The south and east shores are more gently sloping with areas of maritime grassland and rocky shore. As a result of these variations in height and slope, in addition to the diversity of aspects, exposure and rock type, a wide range of maritime cliff vegetation communities is present.

Rathlin Island is surrounded by a variety of rocky habitats and is one of the best examples of reefs in Northern Ireland and includes well-developed examples of both partially submerged and submerged caves. A wide range of species has been recorded, including a high proportion of species of international interest and national rarity such as *Tubularia indivisa* in deeper water and a diverse assemblage of algae in the shallows. The reefs and sea caves also support important assemblages of hydroids (including *Polyplumaria flabellate* and *Diphasia alata*) and sponges (such as *Axinella infundibuliformis*).

Summary Information – Rathlin Island SAC

Location 55°18'00"N, 06°13'00"W

Area (ha) 3344.62

Date designated May 2005

General Site Characteristics:

- Marine areas. Sea inlets (93%)
- Shingle. Sea cliffs. Islets (7%)

Relevant qualifying features:

Annex I habitats that are the primary reason for selection of this site:

- Reefs
- Vegetated sea cliffs of the Atlantic and Baltic coasts
- Submerged or partially submerged sea caves

Annex I habitats present as a qualifying feature, but not a primary reason for the selection of this site:

- Sandbanks which are slightly covered by sea water all the time
- Annual vegetation of drift lines

Summary Information – Rathlin Island SPA

Location 55°17'30"N, 06°13'30"W

Area (ha) 3344.62

Date classified 25/02/1999

The island supports an important breeding assemblage of seabirds, especially including auk and gull species. Large numbers of peregrine *Falco peregrinus* also nest on the cliffs. Although the SPA supports a substantial marine area, the seabirds also feed outside the SPA in surrounding marine areas.

Summary Information – Rathlin Island SPA (continued)**Relevant qualifying species:**

The site qualifies under the Habitats Directive by supporting populations of European importance of the following Annex I species:

During the breeding season

- Peregrine *Falco peregrinus*, 6 pairs representing at least 1.6% of the breeding population in Ireland (5 year mean, 1992-1996)

The site also qualifies by supporting populations of European importance of the following migratory species:

During the breeding season

- Guillemot *Uria aalge*, 28,064 pairs representing at least 1.2% of the breeding East Atlantic population (Seafarer Count 1985)
- Razorbill *Alca torda*, 5,978 pairs representing at least 1.0% of the breeding population

Assemblage qualification:

In addition, the area qualifies by regularly supporting at least 20,000 seabirds:

- During the breeding season, the area regularly supports 66,000 individual seabirds including: puffin *Fratercula arctica*, kittiwake *Rissa tridactyla*, herring gull *Larus argentatus*, lesser black-backed gull *Larus fuscus*, common gull *Larus canus*, fulmar *Fulmarus glacialis*, razorbill *Alca torda*, guillemot *Uria aalge*.

Summary Information – Rathlin Island IBA

Location 55°18'N 6°13'W

Area (ha) 1500

The IBA is important for breeding seabirds. It holds 52,000 pairs of breeding seabirds and 11,200 pairs of breeding waterbirds on a regular basis, and is also nationally important for breeding herring gull *Larus argentatus* (4,040 pairs, 1985) and kittiwake *Rissa tridactyla* (6,800 pairs, 1985).

Birds of conservation concern:

- Guillemot *Uria aalge*
- Razorbill *Alca torda*

2

North Antrim Coast – SAC/World Heritage Site

The North Antrim Coast represents an extensive area of hard cliffs along one of the most exposed coastlines in Northern Ireland. The site exhibits contrasting geology. The western part is centred on the Giant's Causeway with its alkaline and intermediate basaltic high cliff, interspersed with a series of coves. The eastern section hosts the limited active and extensive fossil chalk sea-cliffs. The basalt series supports a range of communities including those associated with rock crevices and cliff ledges, and with a range of typical maritime grasslands and heath. Notable species for the site include Wilson's filmy-fern *Hymenophyllum wilsonii*, thyme broomrape *Orobanche alba*, hare's-foot clover *Trifolium arvense*, zigzag clover *Trifolium medium* and common juniper *Juniperus communis*. The chalk cliffs support mesotrophic and calcareous grasslands.

North Antrim Coast – SAC/World Heritage Site (continued)

The North Antrim Coast also supports the only known living population of narrow-mouthed whorl snail *Vertigo angustior* in Northern Ireland. The species was rediscovered in 2002 at two separate localities on the site. Both support strong populations of the species in areas of ideal habitat – i.e. tall, lightly-grazed, damp grassland – and it is likely that they have persisted for many decades. This area also includes the Giant's Causeway World Heritage Site as summarised in the following.

Summary Information – North Antrim Coast SAC

Location 55°13'57"N, 06°23'36"W

Area (ha) 314.59

Date designated May 2005

General Site Characteristics:

- Salt marshes. Salt pastures. Salt steppes (2%)
- Coastal sand dunes. Sand beaches. Machair (10%)
- Shingle. Sea cliffs. Islets (21%)
- Heath. Scrub. Maquis and garrigue. Phygrana (15%)
- Dry grassland. Steppes (4%)
- Humid grassland. Mesophile grassland (48%)

Relevant qualifying features:

Annex I habitats that are the primary reason for selection of this site:

- Vegetated sea cliffs of the Atlantic and Baltic coasts

Annex II species that are a primary reason for the selection of this site:

- Narrow-mouthed whorl snail *Vertigo angustior*

Annex I habitats present as a qualifying feature, but not a primary reason for the selection of this site:

- Annual vegetation of drift lines
- Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)
- Shifting dunes along the shoreline with *Ammophila arenaria* ('white dunes')
- Fixed dunes with herbaceous vegetation ('grey dunes') * Priority feature
- Species-rich *Nardus* grassland, on siliceous substrates in mountain areas (and submountain areas in continental Europe) * Priority feature

Summary Information - Giant's Causeway and Causeway Coast World Heritage Site

Location 55°15'00"N, 06°29'07"W

Area (ha) 230

Date inscribed 1986

The site occupies approximately 70ha of cliffs and foreshore on the North Antrim Coast with a further 160ha offshore. It is an area of spectacular coastal landscape characterised by rugged cliffs, unparalleled geological formations, secluded bays and magnificent views. The geological formations are dominated by some 40,000 massive black basalt columns protruding from the sea, created by volcanic activity during the Tertiary, some 50–60 million years ago. This represents the largest remaining lava plateau in Europe. Geological studies of these formations over the last 300 years have provided internationally important contributions to the development of earth sciences.

Summary Information - Giant's Causeway and Causeway Coast World Heritage Site (cont)**Relevant qualifying criteria:**

The site is considered to be of outstanding universal value due to the satisfaction of the following specific criteria as described in the Operational Guidelines for the Implementation of the World Heritage Convention (UNESCO 2005):

Cultural:

None

Natural:

- (vii) to contain superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance
- (viii) to be outstanding examples representing major stages of earth's history, including the record of life, significant on-going geological processes in the development of landforms, or significant geomorphic or physiographic features

3

Sheep Island – SPA/IBA

Sheep Island is located off the north coast of County Antrim in Northern Ireland. It is a small, exposed island with steep cliffs and rocky shores, and is important for breeding seabirds, in particular an internationally important breeding colony of cormorant *Phalacrocorax carbo*.

Summary Information – Sheep Island SPA

Location 55°14'56"N, 06°21'00"W

Area (ha) 3.5

Date classified 21/12/1992

The SPA holds a breeding colony of cormorant *Phalacrocorax carbo*.

Relevant qualifying species:

The site qualifies under the Habitats Directive by supporting populations of European importance of the following Annex I species:

During the breeding season

- Cormorant *Phalacrocorax carbo*, 249 pairs representing at least 0.6% of the breeding Northwestern Europe population (5 year mean 1992-1996)

Summary Information – Sheep Island IBA

Location 55°14'N 6°21'W

Area (ha) 4

The IBA is important for breeding seabirds.

Birds of conservation concern:

- Cormorant *Phalacrocorax carbo*

Antrim Plateau - IBA

An extensive upland plateau that is the dominant geographical feature of County Antrim. It supports fine remnant semi-natural *Quercus* woodlands and is drained by fast-flowing streams, including the rivers of the nine glens of Antrim. The border of SEA 7 transects this site in the north leaving a relatively small coastal section within the study area.

Summary Information - Antrim Plateau IBA

Location 55°00'N, 06°07'W

Area (ha) 71100

The area supports a typical assemblage of upland species and is also important for wood warbler *Phylloscopus sibilatrix*.

Birds of conservation concern:

- Hen harrier *Circus cyaneus*
- Peregrine *Falco peregrinus*
- Chough *Pyrrhonorax pyrrhonorax*

3 OFFSHORE SITES OF INTERNATIONAL IMPORTANCE

3.1 Offshore conservation (beyond 12 nautical miles)

Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora and the *Council Directive of 2 April 1979 on the conservation of wild birds (79/409/EEC)* require member states to afford protection for certain species and habitats through the designation of Special Areas of Conservation (SAC) and Special Protection Areas (SPA) and protection of certain species respectively. These sites are known as European sites (on land) and European marine sites. Collectively these sites are known as Natura 2000 sites or the Natura 2000 network.

The Conservation (Natural Habitats, &c.) Regulations 1994 provided for the designation of sites in the UK on land and within territorial waters (12nmiles).

The *Offshore Petroleum Activities (Conservation of Habitats) Regulations, 2001* implemented the above directives in relation to oil and gas plans or projects carried out in whole or in part on the UKCS outside territorial waters – although there was then no mechanism for the designation of sites outside 12nmiles. Where it is considered that an activity completed under a project consent may have a significant effect on a SAC or SPA, the DTI must conduct an Appropriate Assessment (AA) prior to granting the consent.

The government has introduced draft regulations *the Offshore Marine Conservation (Natural Habitats, & C.) Regulations 2006* which provide the mechanism for the UK designation of offshore (outside 12 nautical miles) SACs and SPAs and the protection of certain species, primarily cetaceans, turtles, certain fish and birds. The types of habitat and the species protected are listed in the Annexes to the Directives. The new sites will be known as European offshore marine sites.

The existing *Offshore Petroleum Activities (Conservation of Habitats) Regulations 2001* remain in force, although the draft regulations make some amendments to them.

3.2 Offshore SPAs

The Wild Birds Directive requires Member States to classify those areas which are most suitable for the conservation of species on Annex I of the Directive and also for regularly occurring migratory species, as SPAs. This includes areas on land and at sea, and work in support of identifying SPAs for birds at sea is delivered through the JNCC Marine Natura Project Group (MNPG) (JNCC 2006).

There are three possible types of marine SPA recognised:

- Marine extensions to existing seabird breeding colony SPAs
- Inshore areas used by aggregations of non-breeding waterbirds outside the breeding season
- Offshore areas used by seabirds in feeding or any other type of aggregations

Of these, only the third wholly falls within the offshore area (marine extensions to existing breeding colony SPAs and inshore aggregations are discussed in detail in Section 2 of this report).

The approach to the selection of offshore areas will be based, initially on analysis of the European Seabirds at Sea database (ESAS), by JNCC who will then prepare a technical report for consideration by the MNPG. The SPA and Ramsar Scientific Working Group will also be consulted. This initial analysis will determine if ESAS data are sufficient for the identification of areas within this category, or if other additional survey data are required.

At present little progress in identifying possible offshore SPAs has been made (Reid 2006). Some funding for the work has been confirmed, with several analyses of the ESAS data proposed. The aim will be to spatially model the ESAS data (the database contains approximately 2 million records of seabird occurrence in north-west European waters spanning 27 years) to allow application of further tools to enable determination of seabird aggregations (Reid 2006). Therefore, at present, although there are no offshore areas designated as SPAs within SEA 7 or currently identified as potential SPAs, areas within SEA 7 may be identified and possibly designated in the future.

3.3 Offshore SACs

Since 2002, identification of SACs in UK offshore waters has been undertaken by JNCC in consultation with the country conservation agencies (Countryside Council for Wales, Scottish Natural Heritage & Natural England (formally English Nature)) to ensure that the work is consistent with that which has already been undertaken to designate Natura 2000 sites in the inshore marine and terrestrial environment (JNCC website).

Habitats for which SACs may be selected in UK offshore waters are:

- Sandbanks which are slightly covered by sea water all the time
- Reefs
- Submarine structures made by leaking gases
- Submerged or partially submerged sea caves

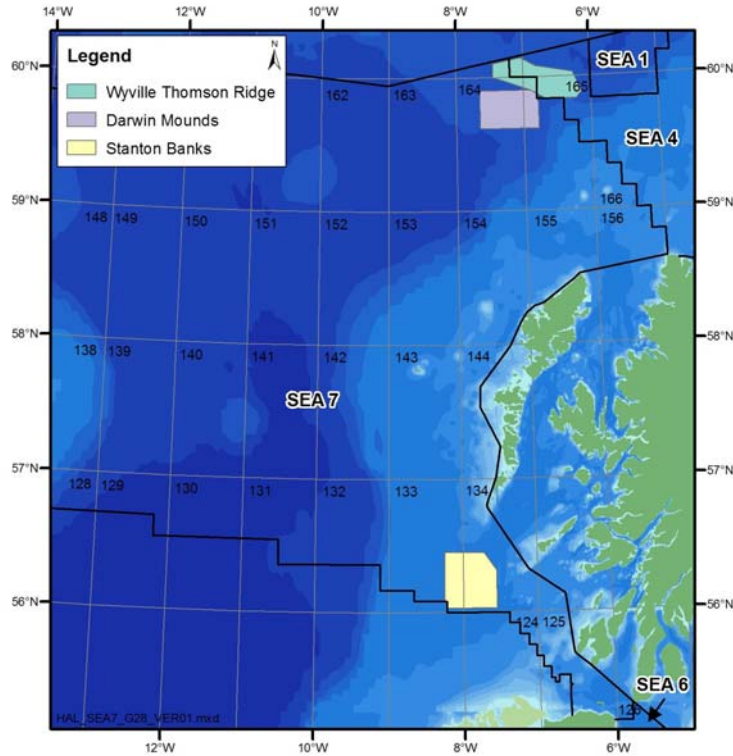
By September 2005, 6 marine areas had been approved for recommendation to DEFRA as suitable for selection as SACs, all for habitat interest features. JNCC followed that with a programme of work which further identified areas suitable for recommendation. The suite of areas examined for habitat selection were to encompass the likely range of ecological variation to be found in Reef, Sandbank and Submarine structure habitats in UK offshore waters (Turnbull *et al.* 2005). All areas are considered against the Habitats Directive Annex III selection criteria and boundaries are suggested in accordance with previously agreed guidance (see Johnston *et al.* 2003).

There is one possible (pSAC¹) and 7 draft (dSAC²) offshore sites identified. Of these, the pSAC (Darwin Mounds) occurs wholly within SEA 7, as does one of the dSACs (Stanton Banks), while the boundary of a second dSAC, (the Wyville Thomson Ridge), partially extends into the SEA 7 area (Figure 7.1). These sites are further summarised below (Johnston *et al.* 2004, Johnstone & Turnbull 2004, JNCC in press).

¹ Possible SACs (pSACs) are sites that have been formally advised to UK Government but have not, as yet, been submitted to the European Commission.

² Draft SACs (dSACs) are areas that have been formally advised to UK Government as suitable for selection as SACs, but have not been formally approved by government as sited for public consultation.

Figure 7.1 – Draft and Possible SACs in the SEA 7 area



Source: Johnston et al. 2004, Johnston & Turnbull 2004,

Darwin Mounds - pSAC
Continental shelf west of Scotland.
Summary Information –
<p>Site centre location 59.7583°N, 7.2167°W Area (ha) 152,900 Notes The Darwin Mounds are considered an exceptional example of cold coral reefs in UK waters, with the “tail” feature thought to be unique. The site has also provided the first record of cold coral <i>Lophelia</i> growing on a sand substrate.</p> <p>General Site Characteristics:</p> <ul style="list-style-type: none"> • Site is hundreds of mounds comprised of cone shaped mounds of sand, with living stands of <i>Lophelia pertusa</i> and other cold water corals at their summits. • They are located in the Rockall Trough and form 2 main fields (Darwin Mounds East and Darwin Mounds West) • The mounds are unusual in that the cold coral <i>Lophelia</i> is growing on sand rather than a hard substratum • Each of the mounds is approximately 100m in diameter and 5m high and distinguished by a “tail” feature visible on sidescan sonar • The corals provide a habitat for various species of larger sessile or hemi-sessile invertebrates (i.e. sponges and brisingiids) • Mounds support significant populations of xenophyophore <i>Syringammina fragilissima</i> <p>Relevant qualifying features:</p> <ul style="list-style-type: none"> • Reefs

Wyville Thomson Ridge - dSAC
Continental shelf west of Scotland.
Summary Information –
<p>Site centre location 59.9834°N, 6.7767°W Area (ha) 153,324 (flat mapped extent, using interpreted sidescan of the feature) Notes The Wyville Thomson Ridge is representative of iceberg ploughmarks - a regional variant of stony reefs and is periodically subject to hydrodynamic conditions associated with the Faroe-Shetland Channel</p> <p>General Site Characteristics:</p> <ul style="list-style-type: none"> • The ridge divides Rockall Trough warm water from Faroe-Shetland Channel cold water • Iceberg ploughmarks are present across the surface of the ridge, with ploughmark depths typically up to 5m • Small areas of bedrock outcrop intermittently between areas of ploughmarks • Encrusting sponges and featherstars are common on larger particles associated with the ridges of ploughmarks • Faunal communities are composed of species representative of hard marine substrata in deep water, e.g. sponges, brachiopods, octocorals, carpet forming featherstars and sedentary, filter-feeding holothurians, and also less specialist fauna, e.g. crabs, squat lobster/other <i>Munida</i> spp. and sea urchin. <p>Relevant qualifying features:</p> <ul style="list-style-type: none"> • Reefs

Stanton Banks - dSAC
Continental shelf west of southern Scotland.
Summary Information –
<p>Site centre location 56.2362°N, 7.9097°W Area (ha) 192,380 (flat mapped extent, using dataset of the feature provided by BGS) Notes Stanton Banks are an example of bedrock mounds in offshore waters.</p> <p>General Site Characteristics:</p> <ul style="list-style-type: none"> • The Banks are a series of granite rises fringed with boulders and cobbles and inter-connected by a series of gullies • Communities present are typical of moderately exposed/exposed circalittoral bedrock reef habitat • Tops of the banks are characterised by numerous barnacles and brittlestars and extensive encrusting coralline red algae. Sea urchins (<i>Echinus</i> sp.) and <i>Filograna</i> spp colonies are also common • Flank areas are dominated by brittlestars with sponges and <i>Alcyonium digitatum</i> also present. <p>Relevant qualifying features:</p> <ul style="list-style-type: none"> • Reefs

To date the pSAC and dSACs identified have been for habitat features, however there is also a requirement to designate sites for their Annex II features.

The bottlenose dolphin is listed on Annex II of the EU Habitats Directive, thereby requiring classification of SACs for the species. The species is also listed in Annex IV of the Directive, which provides for its strict protection (JNCC website). This species has an extensive, worldwide distribution and in UK waters, the distribution is somewhat localised, with well-known inshore resident populations, notably in the Moray Firth and off south-west Wales. Data for this species was reviewed in 2004/2005 to determine any distribution “hotspots” in offshore waters. The examination of data and resulting advice paper was reviewed by the Marine Natura Project Group and then put out to public consultation; responses were received from two NGOs, an umbrella NGO organisation, and the Ministry of Defence. Responses were noted although none resulted in modifications to the conclusions of the paper - which were that there existed few data suggesting unequivocally that offshore SACs can in fact be reliably determined and that no SACs can be classified in offshore waters for the interest feature of bottlenose dolphins (Turnbull *et al.* 2005).

Further research is needed to fully clarify the offshore distribution of these species beyond the 12 nautical mile limit, and it is possible that offshore areas in this region may be protected in the future.

Little information is available on offshore SAC site identification or designation for other Annex II species.

3.4 Conservation Initiatives

There are a number of nature conservation initiatives applicable to the marine environment, including the OSPAR Marine Protected Areas network, the JNCC led MESH (Mapping European Seabed Habitats), Irish Sea Pilot (UKSeaMap), marine spatial planning projects (the nature and statutory context of which will be defined by the Marine Bill, which is in the final stages of its consultation process) and Integrated Coastal Zone Management plans, most of which concentrate on areas within 12 nautical miles. For the purposes of the offshore area, the OSPAR Marine Protected Areas and Marine Bill will be discussed here.

3.4.1 OSPAR Marine Protected Areas

A network of Marine Protected Areas (MPAs) is currently in the process of being identified by OSPAR, which has produced an *Initial List of Threatened and/or Declining Species and Habitats*. This list, which will inform the identification of MPAs, was agreed by OSPAR in 2003 and updated in 2004, 2005 and 2006. This list is not finalised and additional species and habitats may be added to it. OSPAR ministers agreed in the Bremen Statement that, working with HELCOM (The Helsinki Commission) and the European Community, OSPAR will identify the first set of MPAs by 2006, establish what gaps remain and complete a joint network of well managed MPAs by 2010, that, together with the Natura 2000 network, is ecologically coherent. There may be a number of species on the OSPAR list which may occur either throughout the year or seasonally in the SEA 7 area including: dolphins and whales, harbour porpoise, loggerhead and leatherback turtles (OSPAR 2004, 2005, 2006).

3.4.2 Marine Bill

The UK Government’s Marine Bill is currently in the final stages of the consultation process. The Bill will help implement the UK Government’s strategy for sustainable development and will create a fit-for-purpose framework founded on the principles of good regulation and modern government (DEFRA 2006).

The aim of the Marine Bill will be to improve the delivery of policies relating to marine activities operating in coastal and offshore waters and to marine natural resource protection, in particular by

providing an integrated approach to sustainable management, enhancement and use of the marine natural environment for the benefit of current and future generations (DEFRA 2006).

The Marine Bill has been developed between the UK Government and the devolved administrations in order to develop the best way to manage the marine area around the UK. Individual administrations will decide whether to consider or to take any of the ideas within the document forward.

The Bill covers “UK waters” which means UK internal waters, the UK territorial sea and either the sea within the area of the continental shelf, or where applicable, the area over which the UK otherwise enjoys rights in relation to the exploitation of certain marine resources:

- The UK territorial sea is the sea adjacent to the UK identified under the Territorial Sea Act 1987 (75) as extending to a maximum of 12 nautical miles from the prescribed baseline or, if less, to the median line between the UK and an adjacent state;
- UK internal waters comprise marine waters on the landward side of the baseline from which the width of the territorial sea is measured;
- The area of the continental shelf is defined under the Continental Shelf Act 1964 (58) and generally extends from the edge of the territorial sea to 200 nautical miles from the prescribed baseline, or where less, to the median line between the UK and an adjacent state - in some cases, including to the north-west of Scotland, the area of the continental shelf extends beyond 200 nautical miles and therefore so too do consequent UK rights, with respect to seabed and subsoil and their natural resources.

The Government are developing policy for the Bill in five significant areas:

- Managing marine fisheries
- Planning in the marine area
- Licensing marine activities
- Improving marine nature conservation
- The potential for a new marine management organisation

Development of the Marine Bill is currently at a post-consultation phase. The offshore extent of the Bill will be dependant upon the aspect of the Bill (e.g. marine spatial planning, fisheries) and decisions of the devolved administrations (Pers. Com Amanda Thomas, DEFRA).

4 SPECIES OF INTERNATIONAL IMPORTANCE

While the EC Habitats and Wild Birds Directives form the basis of internationally important habitat and species protection in Europe, many plant and animal species have also been identified by additional international conventions as being of significant conservational value. Internationally protected species* with such protection have been listed in Table 4.1. Further information regarding each convention and agreement is provided in Sections 4.1 to 4.7. It should be noted that the individual conventions protect further species that are not listed in the EC Habitats and Wild Birds Directives. Such species have not been listed here.

Table 4.1 – Internationally important species known to occur in SEA 7

SEA 7 Species of international importance	EPS	JNCC Birds	CITES	Bonn	Bern	IUCN	OSPAR
Mammals							
• Dolphins, porpoises and whales	✓		✓	✓	✓	✓	✓
• Common otter	✓					✓	
• Grey seal					✓	✓	
• Common seal					✓	✓	
Marine turtles							
• Loggerhead	✓			✓		✓	✓
• Green turtle	✓		✓	✓		✓	
• Atlantic ridley	✓			✓		✓	
• Hawksbill turtle	✓		✓	✓		✓	
• Leatherback	✓		✓	✓		✓	✓
Amphibians							
• Natterjack toad	✓				✓	✓	
• Great crested newt	✓				✓	✓	
Plants							
• Killarney fern	✓				✓		
• Slender naiad	✓				✓		
• Floating-leaved water plantain	✓				✓		
• Yellow marsh saxifrage	✓				✓		
Molluscs							
• Freshwater pearl mussel					✓	✓	
• Narrow-mouthed whorl snail						✓	
Arthropods							
• Marsh fritillary butterfly					✓		
Birds							

* Internationally important species refers to all species occurring within SEA 7 and listed in the Habitats and Birds Directives (Annexes I and II) and Conservation Regulations (Schedules 2 and 4).

SEA 7 Species of international importance	EPS	JNCC Birds	CITES	Bonn	Bern	IUCN	OSPAR
• Barnacle goose		✓				✓	
• Black-throated diver		✓					
• Chough		✓				✓	
• Common scoter		✓					
• Common tern						✓	
• Corncrake		✓		✓		✓	
• Dunlin		✓				✓	
• Fulmar						✓	
• Gannet		✓				✓	
• Golden eagle		✓	✓			✓	
• Golden plover		✓				✓	
• Great black-backed gull						✓	
• Great skua		✓				✓	
• Greenland white-fronted goose							
• Guillemot		✓				✓	
• Hen harrier		✓					
• Herring gull		✓	✓			✓	
• Kittiwake						✓	
• Leach's storm-petrel		✓				✓	
• Little tern		✓		✓		✓	
• Manx shearwater		✓				✓	
• Merlin		✓	✓			✓	
• Oystercatcher		✓				✓	
• Puffin		✓				✓	
• Purple sandpiper		✓				✓	
• Razorbill		✓				✓	
• Redshank						✓	
• Red-throated diver		✓					
• Ringed plover		✓				✓	
• Sanderling						✓	
• Shag		✓				✓	
• Storm petrel		✓				✓	
• Turnstone		✓				✓	
• Whooper swan						✓	

Note: Information extracted from JNCC species distribution maps (JNCC Report 312)

Note: Information extracted from IUCN Red List 2006 website

Note: Information extracted from ARKive website

4.1 EC Habitats Directive European Protected Species

Part III of the 1994 Conservation Regulations (and Part III of the 1995 Conservation Regulations, Northern Ireland) establishes a protective regime for the species of animal and plants which are listed in Annex IV of the EC Habitats Directive, namely European Protected Species (EPS). EPS are protected wherever they occur and this protection is not limited to specific, designated areas such as Natura 2000 sites, SSSIs or ASSIs. Special licences must be obtained from either SNH or the Environment and Heritage Service for any activities that involve the killing, injuring, taking or disturbance of such species. Table 4.1 lists the EPS known to occur in SEA 7 (this list was guided by the qualifying SAC species listed in Section 2 of this report and by JNCC species distribution maps (JNCC Report 312) which can be found online at <http://www.jncc.gov.uk/page-2447>). The identified species include several lower plant species, all cetaceans, the common otter, marine turtles, the natterjack toad and the great crested newt.

4.2 Birds of Conservation Concern

In May 1996 the JNCC published a list of bird species that due to their international status or their declining populations are of conservation importance in Britain. This list, Birds of Conservation Importance, outlines current priorities for ornithological conservation effort by the statutory nature conservation agencies.

The list of Birds of Conservation Importance arises from a joint statutory agency-NGO working group, which collated and analysed data on British and European bird populations. The members of the working group were representatives from the JNCC, RSPB, British Trust for Ornithology and BirdLife International. Table 4.1. identifies SEA 7 birds which appear on the Birds of Conservation Importance list.

4.3 CITES: Convention on International Trade of Wild Flora and Fauna

CITES (the Convention on International Trade in Endangered Species of Wild Fauna and Flora) is an international agreement between governments which aims to ensure that international trade in specimens of certain wild plants and animals does not threaten their survival (CITES website). The convention entered into force in 1975 and currently 169 governments are implementing CITES at a national level through domestic legislation. Approximately 33,000 species are awarded varying levels of protection by the convention. Species are listed on one of 3 appendices, with the most threatened on Appendix 1 and the least threatened on Appendices 2 and 3. Each list is accompanied by certain controls on the import, export, re-export and introduction of listed species. In SEA 7, marine turtles, the golden eagle, herring gull and merlin are all listed within the CITES Appendices.

4.4 Bonn Convention: Conservation of Migratory Species of Wild Animals

The Bonn Convention (also known as the Convention on the Conservation of Migratory Species of Wild Animals (CMS)) is an intergovernmental treaty which aims to conserve terrestrial, marine and avian migratory species throughout their range (<http://www.cms.int/>). The convention entered into force in 1983, was ratified in the UK in 1985, and currently 98 governments (states) are operating under its obligations. Over 300 species are listed on two appendices.

Appendix I lists species in danger of extinction throughout a significant proportion of their range, and states are obliged to protect these species and their habitats, and minimise any threats to their

existence. All of the marine turtles which are believed to occur in SEA 7 have been listed in Appendix I of the convention.

Appendix II species are those with an unfavourable conservation status which would significantly benefit from international co-operation towards their protection. States are encouraged to produce global or regional agreements towards conserving and managing these species. SEA 7 contains three species from Appendix II, the corncrake, golden eagle and little tern.

4.5 Bern Convention: Convention on the Conservation of European Wildlife and Natural Habitats

The Bern Convention (also known as the Convention on the Conservation of European Wildlife and Natural Habitats) aims to ensure conservation of wild plant and animal species and their natural habitats, increase international co-operation on this issue, and provide special protection to the most vulnerable or threatened species. It entered into force in 1982, and is implemented in Europe through the EC Wild Birds Directive and the EC Habitats Directive. In 2005, there were 45 contracting parties to the convention, with legal obligations to protect over 1500 plant and animal species. The level and nature of protection is specified in three appendices, with the most vulnerable or threatened species on Appendix 3. All other identified flora and fauna are listed on Appendices 1 and 2, respectively.

4.6 IUCN Red List of Threatened Species

The 2006 IUCN Red List of Threatened Species is widely recognized as the most authoritative assessment of the global status of plants and animals. It provides an accurate measure of progress, or lack of it, in achieving the globally agreed target to significantly reduce the current rate of biodiversity loss by 2010. The list classifies species according to their extinction risk. It is a searchable online database containing the global status and supporting information on about 40,000 species. Its primary goal is to identify and document the species most in need of conservation attention and provide an index of the state of biodiversity. The IUCN Red List threat categories are the following, in descending order of threat:

1. Extinct or Extinct in the Wild
2. Critically Endangered, Endangered and Vulnerable: species threatened with global extinction
3. Near Threatened: species close to the threatened thresholds or that would be threatened without ongoing specific conservation measures
4. Least Concern: species evaluated with a low risk of extinction
5. Data Deficient: no evaluation because of insufficient data.

IUCN species identified in Table 4.1 are predominantly of 'Least Concern', however some (including freshwater pearl mussel, corncrake, all the marine turtles and a number of marine mammals) are under greater threat. Further information regarding each of the species mentioned can be found using the IUCN searchable online database (<http://www.iucnredlist.org/>).

4.7 OSPAR initial list of threatened species

The 2004 OSPAR initial list of threatened and/or declining species and habitats fulfils the requirements of Paragraph 2.2 of the OSPAR Strategy on the Protection and Conservation of the Ecosystems and Biological Diversity of the Maritime Area. The purpose of the list is to guide the OSPAR Commission in setting priorities for its further work on the conservation and protection of marine biodiversity. The list has been compiled taking into account a) inventories of species and

habitats in the maritime area, and b) relevant lists developed by other international forums. The list is divided into two parts:

1. Part I – Species
 1. Invertebrates
 2. Birds
 3. Fish
 4. Reptiles
 5. Mammals
2. Part II – Habitats
 1. Habitats

The 2004 list of threatened species will be periodically updated, adding or removing species and habitats depending on changes to their conservation status and to the threats they face and in the light of the latest scientific assessments, according to the Texel/Faial criteria (www.ospar.org).

5 SITES OF NATIONAL IMPORTANCE

This section provides an overview of sites designated under national legislation for their wildlife, landscape and/or amenity value. For presentation purposes, the coastal component of SEA 7 has again been sub-divided into four regions, as follows:

1	Outer Hebrides	<i>The Outer Hebrides, including islands to the west at both Atlantic and Minch coastlines</i>
2N	Cape Wrath – Ardnamurchan Peninsula	<i>The long west coast of the Scottish mainland with its numerous sea lochs and islands between Cape Wrath and the Mull of Kintyre. This area also includes the Inner Hebrides with major larger islands such as Skye, Mull, Islay, Jura, Coll and Tiree. For cartographic purposes this coastal zone is divided into north and south sections by the Ardnamurchan Peninsula</i>
2S	Ardnamurchan Peninsula – Mull of Kintyre	
3	Northern Ireland	<i>The north coast of Northern Ireland</i>

In the Scottish component of SEA 7, sites of national importance include National Nature Reserves (NNR), Sites of Special Scientific Interest (SSSI) and National Scenic Areas (NSA). For the purposes of this report the Geological Conservation Review sites (GCR) are discussed in this section as, although not statutory, they often form the basis of the NNR and SSSI sites and are of national importance. In Northern Ireland, sites of national importance occurring within SEA 7 include nature reserves, Areas of Special Scientific Interest (ASSI), Earth Science Conservation Review sites (ESCR) and Areas of Outstanding Natural Beauty (AONB). These various designation types are introduced below and listed in greater detail in Sections 5.1 - 5.4.

National Nature Reserves (NNRs) contain examples of some of the most important natural and semi-natural ecosystems in Great Britain. They are managed to conserve their habitats, providing special opportunities for scientific study of the habitats, communities and species represented within them. All NNRs are underpinned by Sites of Special Scientific Interest (SSSI). SSSIs are the main nature conservation designation in the UK (notified as being of special interest under the *Wildlife and Countryside Act 1981*). These sites are special for their plants, animals or habitats, their rocks or landforms or any combination of these. There are over 100 SSSIs in the Scottish component of SEA 7. Sections 5.1.1, 5.1.2, 5.2.1, 5.2.2, 5.3.1 and 5.3.2 specifically list these sites and provide tabulated information including their qualifying features and Ordnance Survey grid references. Scottish Natural Heritage is responsible for identifying and protecting SSSIs in Scotland.

Furthermore, geological sites encompassed within the SSSI series in Great Britain were selected according to a set of rigorous criteria during the Geological Conservation Review (GCR) process, which commenced in 1977 and was complete by 1990 (i.e. all geological SSSIs comprise at least one or more GCR sites). The GCR series was intended to reflect the range and diversity of Great Britain's Earth heritage and were significant because they placed merit on the international and/or national relevance of geological features. The Geological Conservation Review was designed to identify those sites of national and international importance needed to show all the key scientific elements of the Earth heritage of Britain. These sites display sediments, rocks, fossils and features of the landscape that make a special contribution to our understanding and appreciation of Earth science and the geological history of Britain. There are 156 coastal GCR sites in SEA 7, selected for 25 different categories (the GCR 'Blocks'), which cover a range of geological and geomorphological features of Britain. Similarly, Nature Conservation Review (NCR) sites are non-statutory sites that are the best representative examples of wildlife habitat; for some coastal sites, for example estuaries, all sites that were above a critical standard of nature conservation importance were selected. NCRs have not been detailed in this report, as no up-to-date information was available, however NNR, SSSI and GCR sites are described in the following sections.

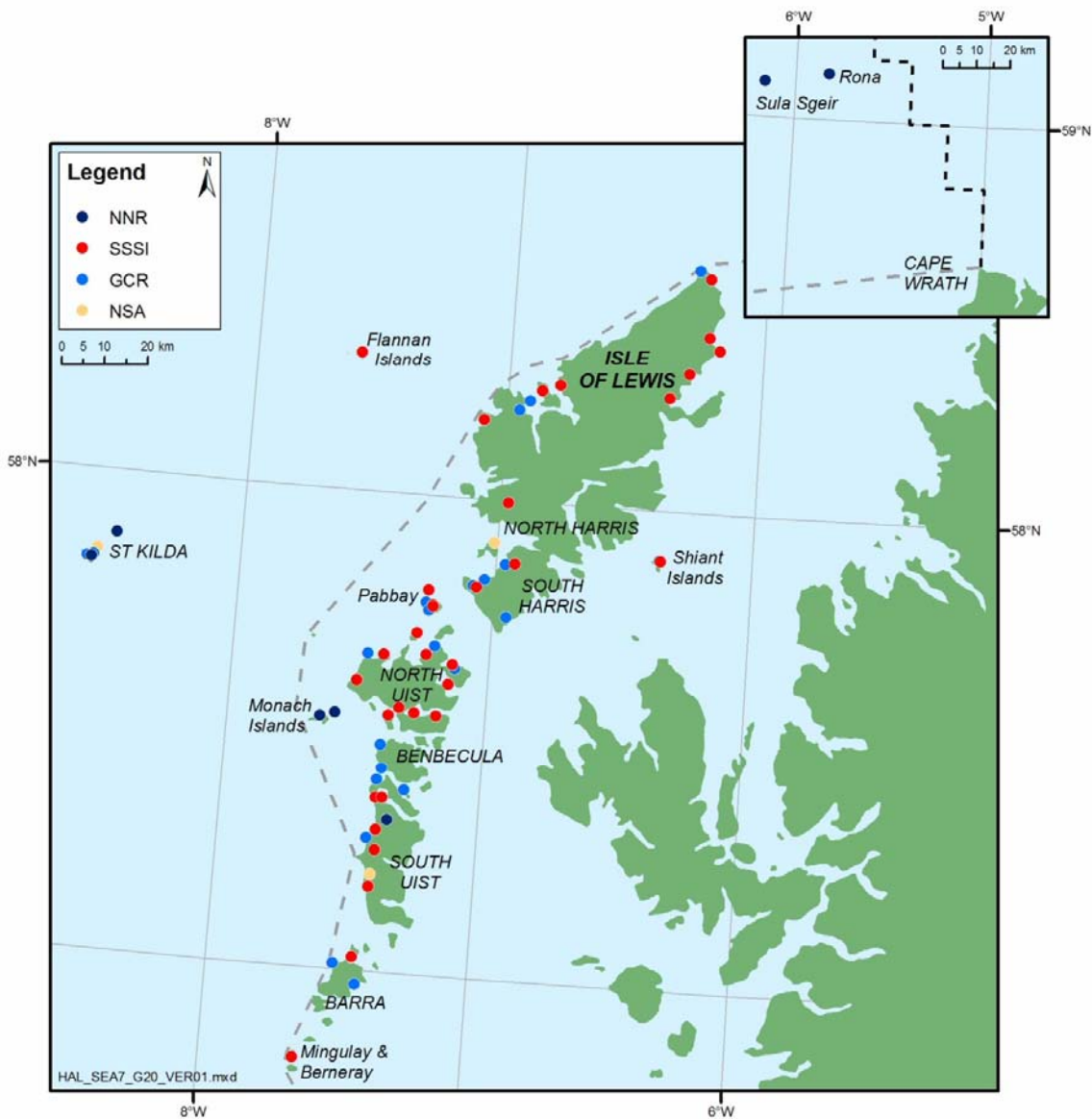
National Scenic Areas (NSAs) are Scotland's only national landscape designation. They are areas of land considered to be of national significance on the basis of their outstanding scenic interest which must be conserved as part of the country's natural heritage. They were identified by Countryside Commission for Scotland (since incorporated into SNH) in the report "Scotland's Scenic Heritage" and introduced by the Government in 1980 under Town and Country Planning legislation. A diverse array of features contribute towards these designations, including prominent landforms, coastline, sea and freshwater lochs, rivers, woodland and moorland. Sections 5.1.4, 5.2.4 and 5.3.4 provide overviews of the NSAs found in SEA 7.

In Northern Ireland a nature reserve is defined as an area of importance for flora, fauna or features of geological or other special interest, which are reserved and managed for conservation and to provide special opportunities for study or research. The Environment and Heritage Service declares nature reserves under the *Nature Conservation and Amenity Lands (Northern Ireland) Order 1985*.

Areas of Special Scientific Interest (ASSI) are areas of land that have been identified by scientific survey as being of the highest degree of conservation value in Northern Ireland. They have a well-defined boundary and by and large remain in private ownership. The Earth Science Conservation Review (ESCR) is the means whereby geological sites in Northern Ireland are assessed to determine their importance to science and hence to earth science conservation. The review is based on the statutory obligation of the *Nature Conservation and Amenity Lands (Northern Ireland) Order 1985 (amended 1989)*. ESCR sites are those where geological and/or geomorphological features are deemed to be of national significance. For its small area, Northern Ireland has a great variety of scenic countryside and although there are no National Parks, large areas of landscape of distinctive character and special scenic value have been designated Areas of Outstanding Natural Beauty (AONB). This designation is designed to protect and enhance the qualities of each area and to promote their enjoyment by the public. All of these designations are described further in Section 5.4.

5.1 Region 1: The Outer Hebrides and Atlantic Islands

Figure 5.1 – Sites of National Importance in Region 1



5.1.1 National Nature Reserves

There are four NNRs in Region 1 as described in the following tables (refer to Figure 5.1 for site location).

Table 5.1 - National Nature Reserves in Region 1

Loch Druidibeg, South Uist NNR
<p>Location NF782378 Area (ha) 1677 Date last declared 1958</p> <p>This reserve is an area of striking contrasts. The colourful species-rich machair grassland on the Atlantic coast contrasts with the moorland of the interior. Lochans support many of the distinctive plants and birds of the Uists, including the corncrake.</p> <p>Habitats:</p> <ul style="list-style-type: none"> • Sandy shores, islets, dunes, machair, freshwater lochs
Monach Isles NNR
<p>Location NF626623, NF661630 Area (ha) 577 Date last declared 1966</p> <p>Every autumn these five islands play host to one of the most important breeding colonies of Atlantic grey seals in the world. The Monach Isles are also home to large numbers of seabirds, including black guillemots and terns, whilst the machair displays a rich variety of plants.</p> <p>Habitats:</p> <ul style="list-style-type: none"> • Islands, reefs, shell sand dunes, uncultivated machair
St. Kilda NNR
<p>Location NA155050, NF095995 Area (ha) 853 Date last declared 1957</p> <p>One of the most remote reserves in Britain, St.Kilda supports the largest gannet colony in the world and over a million seabirds in total. The island also has its own subspecies of wren and field mouse, as well as a wild flock of primitive Soay sheep.</p> <p>Habitats:</p> <ul style="list-style-type: none"> • Grazed coastal grassland, seabird colonies, gannetry, endemic species
Rona & Sula Sgeir NNR
<p>Location HW620305, HW810324 Area (ha) 130 Date last declared 1956</p> <p>Some 130,000 seabirds inhabit these remote Atlantic islands during the breeding season, including storm petrel, Leach's petrel, gannet and guillemot. Rona is also internationally important for its breeding grey seal population.</p> <p>Habitats:</p> <ul style="list-style-type: none"> • Bare rock and coastal grassland islands, large breeding colony of grey seals, gannetry, other seabirds

5.1.2 Sites of Special Scientific Interest

SNH has a duty under the *Wildlife and Countryside Act 1981*, as amended, to notify any area of land which in their opinion is 'of special interest by reason of any of its flora, fauna, or geological or physiographical features'. Such areas are known as Sites of Special Scientific Interest (SSSIs).

Table 5.2 - Sites of Special Scientific Interest in Region 1

Site Name	Notified feature	Location	Area (ha)	Date Designated
Baleshare and Kirkibost	<ul style="list-style-type: none"> • Breeding bird assemblage • Machair • Saltmarsh • Sand dune 	NF785623	1360	Feb-85
Balranald Bog and Loch nam Feithean	<ul style="list-style-type: none"> • Barnacle goose <i>Branta leucopsis</i> • Breeding bird assemblage • Eutrophic loch • Machair • Mudflat • Saltmarsh • Sand dune 	NF712705	821	Dec-84
Berneray	<ul style="list-style-type: none"> • Barnacle goose <i>Branta leucopsis</i> • Greylag goose <i>Anser anser</i> • Machair 	NF890875	670	Oct-99
Boreray	<ul style="list-style-type: none"> • Barnacle goose <i>Branta leucopsis</i> • Greylag goose <i>Anser anser</i> 	NF852814	257	Oct-99
Bornish and Ormiclate Machairs	<ul style="list-style-type: none"> • Breeding bird assemblage • Loch trophic range • Machair • Sand dune 	NF753309	661	Nov-88
Eoligarry	<ul style="list-style-type: none"> • Coastal geomorphology • Machair • Sand dune 	NF700061	441	Mar-90
Flannan Islands	<ul style="list-style-type: none"> • Fulmar <i>Fulmarus glacialis</i> • Guillemot <i>Uria aalge</i> • Kittiwake <i>Rissa tridactyla</i> • Leach's petrel <i>Oceanodroma leucorhoa</i> • Puffin <i>Fratercula arctica</i> • Razorbill <i>Alca torda</i> • Seabird colony 	NA726468	59	Dec-83
Gress Saltings	<ul style="list-style-type: none"> • Saltmarsh 	NB487414	87	Sep-84
Howmore Estuary, Lochs Roag and Fada	<ul style="list-style-type: none"> • Breeding bird assemblage • Dunlin <i>Calidris alpina schinzii</i> • Machair • Oligotrophic loch • Redshank <i>Tringa totanus</i> • Saline lagoon 	NF756356	418	May-85
Loch an Duin	<ul style="list-style-type: none"> • Brackish water cockle <i>Cerastoderma lanacki</i> 	NF935740	2621	Aug-85

Site Name	Notified feature	Location	Area (ha)	Date Designated
	<ul style="list-style-type: none"> • Breeding bird assemblage • Machair • Otter <i>Lutra lutra</i> • Saline lagoon • Tidal rapids 			
Loch Bee	<ul style="list-style-type: none"> • Brackish water cockle <i>Cerastoderma lanacki</i> • Breeding bird assemblage • Coastal geomorphology • Machair • Mute swan <i>Cygnus olor</i> • Saline lagoon • Saltmarsh 	NF770430	1106	Oct-84
Loch Bee Machair	<ul style="list-style-type: none"> • Breeding bird assemblage • Coastal geomorphology • Dunlin <i>Calidris alpina schinzii</i> • Machair 	NF755430	795	Oct-89
Loch Druidibeg	<ul style="list-style-type: none"> • Blanket bog • Breeding bird assemblage • Coastal geomorphology • Greylag goose <i>Anser anser</i> • Machair • Machair loch • Oligotrophic loch • Sand dune • Scrub • Subalpine dry heath 	NF782378	1665	Mar-87
Loch Hallan	<ul style="list-style-type: none"> • Breeding bird assemblage • Machair • Machair loch 	NF738224	377	Feb-88
Loch na Cartach	<ul style="list-style-type: none"> • Eutrophic loch • Maritime cliff • Sand dune 	NB534499	25	Jan-84
Loch nam Madadh	<ul style="list-style-type: none"> • Mudflat • Reefs • Saline lagoon • Stonewort <i>Lamprothamnium populosum</i> • Tidal rapids 	NF925694	301	Mar-97
Loch Obisary	<ul style="list-style-type: none"> • Saline lagoon 	NF896620	348	Aug-86
Loch Siadar	<ul style="list-style-type: none"> • Saline lagoon • Tidal rapids 	NB187389	9	Dec-96
Lochs at Clachan	<ul style="list-style-type: none"> • Dystrophic loch • Saline lagoon 	NF810640	104	Mar-84
Luskentyre Banks and Saltings	<ul style="list-style-type: none"> • Breeding bird assemblage • Coastal geomorphology • Dystrophic and oligotrophic types present • Flood-plain fen • Machair 	NG080973	1081	Mar-84

Site Name	Notified feature	Location	Area (ha)	Date Designated
	<ul style="list-style-type: none"> • Saltmarsh • Sand dune • Sandflat • Upland assemblage 			
Machairs Robach and Newton	<ul style="list-style-type: none"> • Coastal geomorphology • Machair • Sand dune 	NF873763	739	Aug-85
Mangersta Sands	<ul style="list-style-type: none"> • Coastal geomorphology 	NB009309	18	Aug-85
Mingulay and Berneray	<ul style="list-style-type: none"> • Fulmar <i>Fulmarus glacialis</i> • Guillemot <i>Uria aalge</i> • Kittiwake <i>Rissa tridactyla</i> • Puffin <i>Fratercula arctica</i> • Razorbill <i>Alca torda</i> • Seabird colony 	NL560830	911	Dec-83
Monach Islands	<ul style="list-style-type: none"> • Barnacle goose <i>Branta leucopsis</i> • Black guillemot <i>Cepphus grylle</i> • Breeding bird assemblage • Machair • Sand dune 	NF626623	598	Dec-83
North Harris	<ul style="list-style-type: none"> • Muscii moss <i>Campylopus shawii</i> • Subalpine wet heath 	NB065115	13166	Sep-84
North Rona and Sula Sgeir	<ul style="list-style-type: none"> • Fulmar <i>Fulmarus glacialis</i> • Gannet <i>Morus bassanus</i> • Greater black-backed gull <i>Larus marinus</i> • Grey seal <i>Halichoerus grypus</i> • Guillemot <i>Uria aalge</i> • Kittiwake <i>Rissa tridactyla</i> • Leach's petrel <i>Oceanodroma leucorhoa</i> • Puffin <i>Fratercula arctica</i> • Razorbill <i>Alca torda</i> • Seabird colony 	HW810324	139	Dec-83
Northton Bay	<ul style="list-style-type: none"> • Breeding bird assemblage • Machair • Mineralogy of Scotland • Saline lagoon • Saltmarsh • Sand dune • Sandflat • Transition saltmarsh 	NF990920	451	Sep-84
Obain Loch Euphoirt	<ul style="list-style-type: none"> • Saline lagoon • Stonewort <i>Lamprothamnium populosum</i> 	NF845628	65	Mar-97
Pabbay	<ul style="list-style-type: none"> • Barnacle goose <i>Branta leucopsis</i> • Breeding bird assemblage • Bryophyte assemblage • Coastal geomorphology 	NF890879	553	Sep-97

Site Name	Notified feature	Location	Area (ha)	Date Designated
	<ul style="list-style-type: none"> • Machair • Springs (including flushes) 			
Port of Ness	• Quaternary of Scotland	NB537636	5	Jan-90
Shiant Islands	<ul style="list-style-type: none"> • Barnacle goose <i>Branta leucopsis</i> • Puffin <i>Fratercula arctica</i> • Razorbill <i>Alca torda</i> • Seabird colony • Tertiary igneous 	NG418978	212	Jan-84
Small Seal Islands	• Grey seal <i>Halichoerus grypus</i>	NF880914	162	Mar-84
St Kilda	<ul style="list-style-type: none"> • Gannet <i>Morus bassanus</i> • Guillemot <i>Uria aalge</i> • Leach's petrel <i>Oceanodroma leucorhoa</i> • Maritime cliff • Puffin <i>Fratercula arctica</i> • Razorbill <i>Alca torda</i> • Seabird colony • Storm petrel <i>Hydrobatas pelagicus</i> 	NF095995 NF095995	872	Mar-84
Tob Valasay	<ul style="list-style-type: none"> • Saline lagoon • Tidal rapids 	NB144376	39	Dec-96
Tolsta Head	• Quaternary of Scotland	NB557468	4	Aug-85
Tong Saltings	<ul style="list-style-type: none"> • Breeding bird assemblage • Maritime cliff • Mudflat • Saltmarsh • Sand dune 	NB440358	441	Mar-84
Vallay	<ul style="list-style-type: none"> • Barnacle goose <i>Branta leucopsis</i> • Breeding bird assemblage • Machair • Saltmarsh • Sand dune 	NF775765	306	Sep-90

5.1.3 Geological Conservation Review sites

These sites are listed in the table below. Several sites appear more than once due to the presence of more than one GCR block at the location.

Table 5.3 – Geological Conservation Review sites in Region 1

GCR blocks	Site name	Location
Precambrian and structural geology		
Lewisian	Cnoc an Fhithich	NF655047
	Cnoca Breac	NF733337
	Garry A Sier to Balivanich	NF767555
	North Pabbay	NF873885
	North Uist Coast	NF738767

GCR blocks	Site name	Location
	Rhughasinish Borve Leanish	NF821448 NG009937 NL706998
Igneous and mineralogy		
Mineralogy of Scotland	Cnoc a`Chapuill Chaipaval Pegmatite South Harris Anorthosite	NB091331 NF983924 NG059849
Tertiary Igneous	St Kilda Shiant Islands	NA100000 NG415980
Quaternary geology and geomorphology		
Quaternary of Scotland	North-west coast of Lewis Port of Ness Tolsta Head Borve Gleann Mor, Hirta	NB512656 NB537636 NB557468 NF769499 NF086997
Geomorphology		
Coastal Geomorphology of Scotland	St Kilda Archipelago Mangersta Sands, Lewis Triagh na Berie Ardivachar to Stoneybridge Eoligarry Loch Maddy – Sound of Harris Coastline Machairs Robach and Newton Pabbay Luskentyre to Corran Seilebost	NA100000 NB009309 NB116352 NF758472 NF700060 NF940730 NF894783 NF880866 NG057972

5.1.4 National Scenic Areas

There are three National Scenic Areas (NSAs) in Region 1.

Table 5.4 – National Scenic Areas in Region 1

Summary Information – South Lewis, Harris and North Uist NSA
<p>Location 57°54'07"N, 07°00'06"W Area (ha) 109600 Date designated 1980</p> <p>The coast of South Lewis is rocky and indented with wide sandy beaches between rocky headlands. Harris has the highest peaks in the Outer Hebrides, and a variety of coastal landscapes including deep sea lochs and sandy beaches between headlands with numerous stacks. The wide, sandy beaches of North Uist are separated from Harris by an island-studded sound.</p>
Summary Information – South Uist Machair NSA
<p>Location 57°12'01"N, 07°23'08"W Area (ha) 6100 Date designated 1980</p>

Summary Information – South Uist Machair NSA (continued)

It is an extremely flat area of machair dune formations with diverse vegetation, interspersed with shallow lime-rich lochans. This area is also the most extensive cultivated machair system in Scotland, extending the whole length of the island and up to 2km inland.

Summary Information – St. Kilda NSA

Location 57°50'00"N, 08°33'05"W

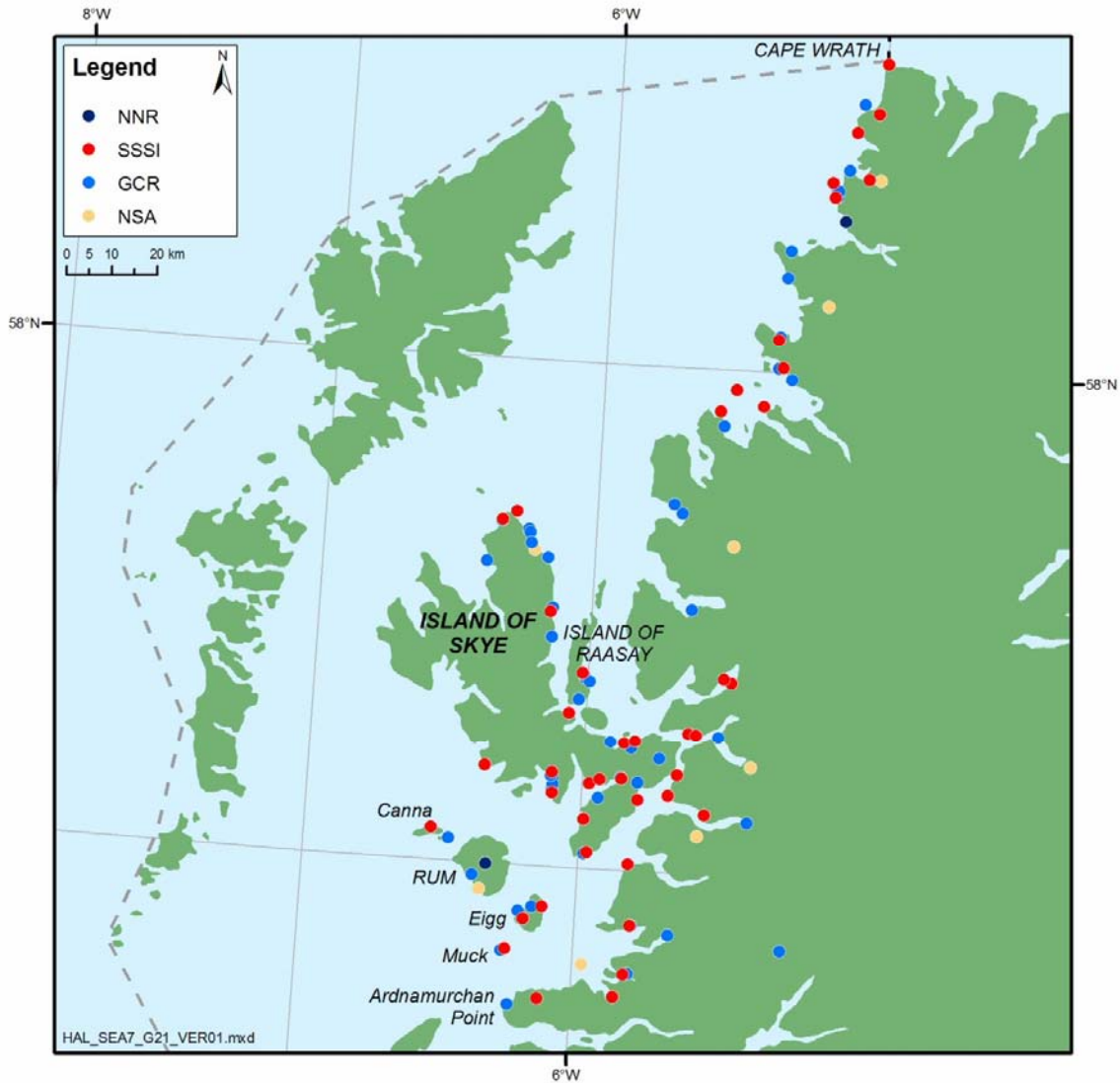
Area (ha) 900

Date designated 1980

St. Kilda NSA is the most remote part of the British Isles, located 66km west of the Outer Hebrides in the west of Scotland. It comprises the entire archipelago of islands and stacks, including Hirta, Soay, Boreray and Dun. These volcanic islands have been weathered into a dramatic landscape of towering black cliffs and stacks alongside steep grassed slopes. Below the sea surface lies an extensive network of submarine caves.

5.2 Region 2N: North section of West Highlands and Inner Hebrides

Figure 5.2 – Sites of National Importance in Region 2N



5.2.1 National Nature Reserves

There are two NNRs in Region 2N as described in the following tables (refer to Figure 5.2 for site location).

Table 5.5 – Sites of National Importance in Region 2N

Rum NNR
<p>Location NM370980 Area (ha) 10684 Date last declared 1957</p> <p>Once the core of an ancient volcano, Rum has a unique mountain top colony of Manx shearwaters and is host to around a third of the world population. The island was also the base for reintroducing sea eagles to Scotland. Since the late 1950s it's also been the setting for important red deer research and a native woodland restoration programme.</p> <p>Habitats:</p> <ul style="list-style-type: none"> • Geological interest, montane flora, breeding birds
Loch a'Mhuilinn NNR
<p>Location NC166394 Area (ha) 67 Date last declared 1980</p> <p>The most northern remnant of native oak woodland in Britain survives on this reserve. The stunting effects of westerly gales are clearly visible with some of the oaks reduced to a creeping form near the sea. Loch a' Mhuilinn also features grassland, peatbog, freshwater and seashore habitats, which help to attract a wide range of wildlife.</p> <p>Habitats:</p> <ul style="list-style-type: none"> • North-west Highland birchwood, heathland, freshwater loch, swamp, bog

5.2.2 Sites of Special Scientific Interest

SNH has a duty under the *Wildlife and Countryside Act 1981*, as amended, to notify any area of land which in their opinion is 'of special interest by reason of any of its flora, fauna, or geological or physiographical features'. Such areas are known as Sites of Special Scientific Interest (SSSIs).

Table 5.6 – Sites of Special Scientific Interest in Region 2N

Site Name	Notified feature	Location	Area (ha)	Date Designated
Achnahaird	• Bryophyte assemblage	NC017133	21	Sep-00
Aird Thuirinis - Port na Long	• Moine	NG593004	13	Dec-84
Airdghunail	• Moine	NG705118	47	Mar-85
Allt Cracaig Coast	• Moine	NG793173	43	Aug-85
Allt Geodh A Ghamna	• Tertiary igneous	NG369197	1	Sep-84
Ard Hill	• Moine	NG818265	23	Dec-84
Ardnamurchan	• Tertiary igneous	NM483683	3827	Mar-89
Attadale	• Moine	NG913376	7	Jan-89
Aultbea	• Torridonian stratigraphy	NG890975	79	Oct-88

Site Name	Notified feature	Location	Area (ha)	Date Designated
Avernish	• Moine	NG834262	24	Sep-84
Bagh Tharsgabhaig	• Moine	NG587077	517	Jul-84
Boirearaig-Carn Dearg	• Hettangian, Sinemurian, Pleinsbachian	NG599155 NG622164	43	May-84
Cailleach Head	• Torridonian stratigraphy	NG985985	10	Apr-88
Camus Mor, Muck	• Tertiary Igneous	NM412792	59	Aug-86
Canna and Sanday	• Machair • Maritime cliff • Moths • Seabird colony • Shag <i>Phalacrocorax aristotelis</i> • Tertiary Igneous • Butterflies • White tailed eagle <i>Haliaeetus albicilla</i>	NG250060	1341	Aug-87
Cape Wrath	• Alpine heath • Fulmar <i>Fulmarus glacialis</i> • Guillemot <i>Uria aalge</i> • Kittiwake <i>Rissa tridactyla</i> • Maritime cliff • Puffin <i>Fratercula arctica</i> • Razorbill <i>Alca torda</i> • Seabird colony	NC260740	1019	Feb-90
Ceann Loch Eishort	• Torridonian stratigraphy	NG670165	42	Nov-88
Druimindarroch	• Moine	NM688842	13	Nov-86
Eigg - An Sgurr and Gleann Charadail	• Blanket bog • Maritime cliff • Scrub • Subalpine dry heath • Tertiary Igneous petrology	NM453858	957	Dec-88
Eigg - Laig to Kildonnan	• Bathonian stratigraphy • Jurassic-Cretaceous-Reptilia • Lichen assemblage • Maritime cliff • Scrub	NM495885	388	Mar-89
Eilean Chlamail - Camas nan Ceann	• Moine	NG773128	24	Aug-85
Elgol Coast	• Bathonian stratigraphy • Callovian stratigraphy • Maritime cliff • Mesozoic mammalia palaeontology • Oxfordian stratigraphy • Scrub	NG517135 NG517180	66	Apr-90
Handa Island	• Arctic skua <i>Stercorarius parasiticus</i>	NC138480	368	Jun-86

Site Name	Notified feature	Location	Area (ha)	Date Designated
	<ul style="list-style-type: none"> • Breeding bird assemblage • Guillemot <i>Uria aalge</i> • Kittiwake <i>Rissa tridactyla</i> • Maritime cliff • Razorbill <i>Alca torda</i> • Seabird colony 			
Kentra Bay and Moss	<ul style="list-style-type: none"> • Blanket bog • Bryophyte assemblage • Lichen assemblage • Maritime cliff • Mudflat • Saltmarsh • Upland oak woodland • Vascular plant assemblage 	NM650685	993	Mar-90
Loch Laxford	<ul style="list-style-type: none"> • Lewisian 	NC217486	1660	Jan-63
Loch Moidart	<ul style="list-style-type: none"> • Beetles • Moine • Mudflat • Saltmarsh • Upland oak woodland 	NM672734	797	Nov-86
Mallaig Coast	<ul style="list-style-type: none"> • Moine 	NM684977	47	Jan-64
Meall A Mhaoil	<ul style="list-style-type: none"> • Tertiary igneous 	NG555312	297	Jul-84
Ob Lusa - Ard Nis Coast	<ul style="list-style-type: none"> • Hettangian, Sinemurian, Pleinsbachian stratigraphy 	NG676245 NG701249	130	Jul-84
Priest Island	<ul style="list-style-type: none"> • Maritime cliff • Storm petrel <i>Hydrobates pelagicus</i> 	NB925022	132	Jun-85
Raasay	<ul style="list-style-type: none"> • Aalenian-Bajocian stratigraphy • Dystrophic and oligotrophic types present (open water and canals) • Hettangian, Sinemurian, Pleinsbachian stratigraphy • Mass movement (geomorphology) • Rocky slopes (includes inland cliff, rocky outcrops, chasmophytic vegetation) • Upland assemblage • Upland oak woodland • Vascular plant assemblage 	NG585400	742	Feb-87
Rigg-Bile	<ul style="list-style-type: none"> • Aalenian-Bajocian stratigraphy • Maritime cliff • Mesozoic palaeobotany • Scrub • Tertiary igneous • Toarcian stratigraphy 	NG515535	501	Jun-87
Rubha Camas na Cailinn	<ul style="list-style-type: none"> • Moine 	NG852084	27	Dec-84

Site Name	Notified feature	Location	Area (ha)	Date Designated
Rubha Dunan	<ul style="list-style-type: none"> Hydromorphological mire range Torridonian stratigraphy 	NC028070	22	Apr-89
Rubha Hunish	<ul style="list-style-type: none"> Maritime cliff Tertiary Igneous 	NG410739 NG441757	237	Dec-84
Rum	<ul style="list-style-type: none"> Bryophyte assemblage Invertebrate assemblage Machair Manx shearwater <i>Puffinus puffinus</i> Maritime cliff Quaternary of Scotland Sand dune Tertiary Igneous Upland assemblage Vascular plant assemblage 	NM370980	10942	Mar-87
Scourie Coast	<ul style="list-style-type: none"> Lewisian Mineralogy of Scotland 	NC143446	219	Jun-89
Sheigra - Oldshore More	<ul style="list-style-type: none"> Machair Sand dune 	NC192589	251	Feb-87
Slumbay Island	<ul style="list-style-type: none"> Moine 	NG896385	8	Feb-88
Southern Parphe	<ul style="list-style-type: none"> Alpine heath Blanket bog Coastal geomorphology Maritime cliff Sand dune 	NC240630	5286	Feb-90

5.2.3 Geological Conservation Review sites

The Geological Conservation Review was designed to identify those sites of national and international importance needed to show all the key scientific elements of the Earth heritage of Britain. These sites are listed in the table below. Several sites appear more than once due to the presence of more than one GCR block at the location.

Table 5.7 – Geological Conservation Review sites in Region 2N

GCR blocks	Site name	Location
Precambrian and structural geology		
Lewisian	An Fharaid Mor - Clachtoll	NC038270
	Badcall	NC146461
	Scourie Bay	NC148448
	Scourie Mor	NC144450
	Sithean Mor	NC150460
	Tarbet to Ruabha Ruadh	NC174506
	An Ard	NG805751
	Loch Braigh to Sidhean Mor	NG788770
Moine	Allt Craraig Coast	NG793173
	Ard Ghunel	NG705118
	Ard Hill	NG818265
	Ard Thurinish to Port na Long	NG587001

GCR blocks	Site name	Location
	Attadale	NG913376
	Avernish	NG834262
	Dornie-Inverinate Road Section (A87)	NG884256
	Eilean Chlamail to Camas Nan Ceann	NG773126
	Kinloch Hourn	NG945067
	Rubha Camas na Cailinn	NG852084
	Slumbay Point - Loch Carron	NG896385
	Driumindarroch	NM690842
	Loch Moidart Road Cuttings	NM681736
	Lochailort	NM771820
	Fassfern to Loch Ailort Road Cuttings	NN017785
Torridonian	Achduart	NC046044
	Enard Bay	NC021140
	Rubha Dunan	NC018069
	Stoer	NC045329
	Cailleach Head	NG985985
	Kylerhea Glen	NG754209
	Loch Eishort	NG669168
	Loch na Dal	NG705156
	Loch Torridon	NG826538
Igneous and mineralogy		
Mineralogy of Scotland	Camas nam Buth	NC142446
Tertiary Igneous	Allt Geodh a` Ghamhna	NG369197
	East Canna and Sanday	NG288037
	Rubh` an Eireannaich	NG646247
	Rubha Hunish	NG410739
	Ardnamurchan Point to Sanna	NM418670
	Camus Mor, Isle of Muck	NM403789
	Harris Bay	NM340955
	South-west Eigg	NM442876
Palaeozoic stratigraphy		
Cambrian - Tremadoc	Ord	NG618124
Permian - Triassic	Eyre Point	NG577342
	Gruinard Bay	NG897943
Mesozoic-tertiary stratigraphy		
Aalenian - Bajocian	Bearreraig Bay	NG520545
	Beinn na Leac	NG592389
Bathonian	Dun Skudiburgh	NG374648
	Duntulm (Cairidh Ghlumraig & Lon Ostatein)	NG409736
	Elgol - Glen Scaladal	NG517144
	Staffin Bay	NG473687
	Valtos	NG509654
	Eigg	NM472885
Callovian	North Elgol Coast	NG515173
	Staffin	NG471710
Hettangian, Sinemurian and Pliensbachian	Boreraig to Carn Dearg	NG599155
	Hallaig Shore	NG588396
	Ob Lusa to Ardnish Coast	NG676245
	Rubha na` Leac	NG600381

GCR blocks	Site name	Location
Kimmeridgian	Kildorais	NG468714
Oxfordian	North Elgol Coast Staffin	NG518154 NG468717
Toarcian	Prince Charles Cave to Holm	NG517480
Palaeontology		
Mesozoic Mammalia	Loch Scavaig	NG518168
Quaternary geology and geomorphology		
Quaternary of Scotland	Loch Ashik	NG691233
Geomorphology		
Coastal Geomorphology of Scotland	Sandwood	NC208651

5.2.4 National Scenic Areas

National Scenic Areas (NSAs) are Scottish national landscape designations, administered by SNH.

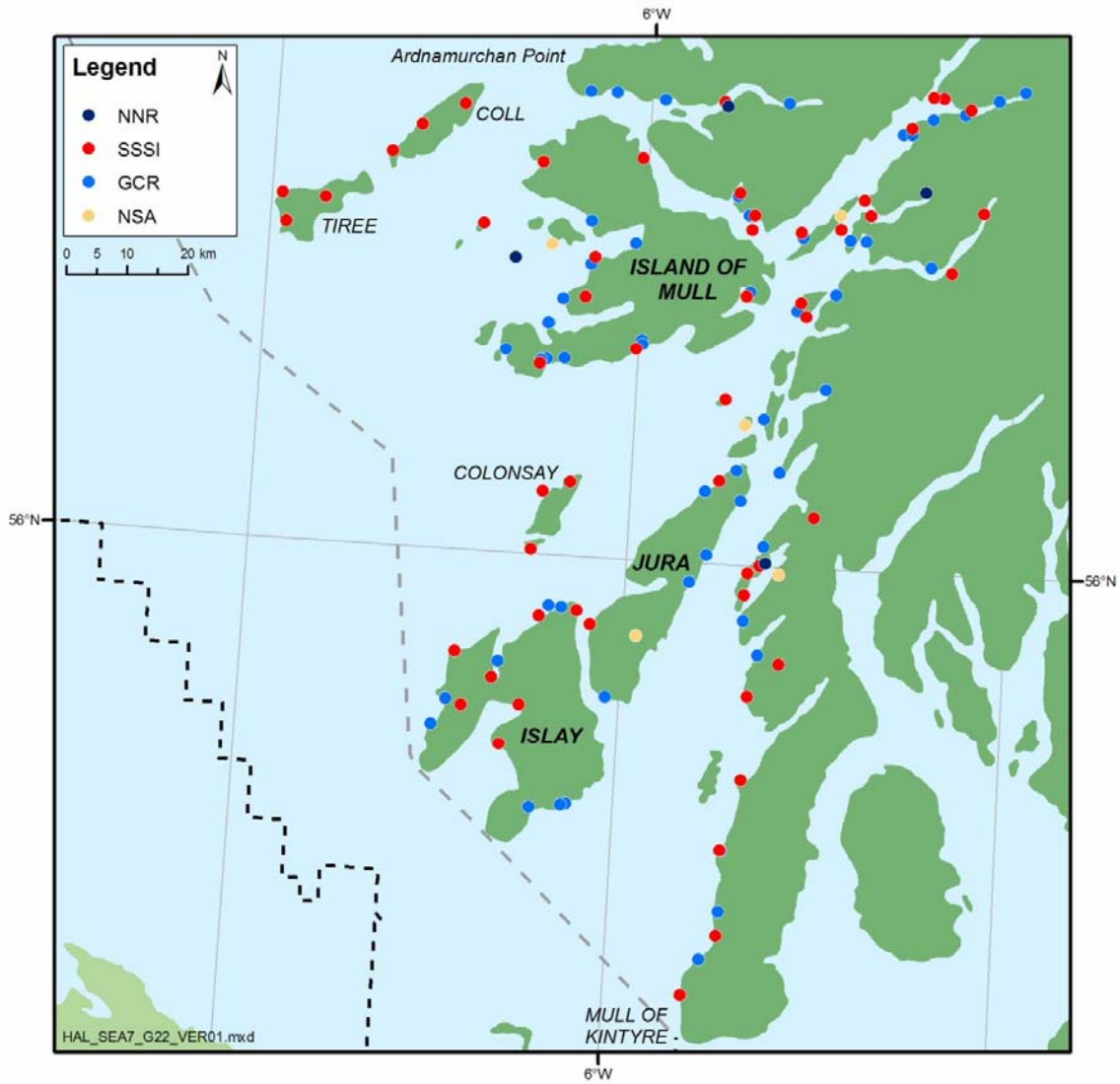
Table 5.8 – National Scenic Areas in Region 2N

Summary Information – Assynt – Coigach NSA
<p>Location 58°08'10"N, 05°10'09"W Area (ha) 90200 Date designated 1980</p> <p>Assynt – Coigach NSA is located in the north-west of Scotland, north of Ullapool. Inland, there are spectacularly shaped steep hills, rising from moorland and lochs. The coastline presents a diverse landscape of inlets, sandy bays, rivers, lochs and native woodland.</p>
Summary Information – Northwest Sutherland NSA
<p>Location 58°23'03"N, 05°00'04"W Area (ha) 20500 Date designated 1980</p> <p>Northwest Sutherland NSA includes the north-west coast of Scotland. It is characterised by a bare, rugged and occasionally mountainous landscape, attributable to the Lewisian gneiss geology – one of the oldest known formations in the world. The Clo Mor cliffs near Cape Wrath in the north are the highest on the Scottish mainland.</p>
Summary Information – Kintail NSA
<p>Location 57°13'00"N, 05°23'03"W Area (ha) 15500 Date designated 1980</p> <p>Kintail NSA is located on the west coast of mainland Scotland. Three long mountain ranges terminate in this area, and it is home to one of Britain's highest waterfalls, the Falls of Glomach. The coastline is dominated by mountains dropping sharply into sea lochs.</p>

<p>Summary Information – Knoydart NSA</p> <p>Location 57°04'05"N, 05°34'03"W Area (ha) 39500 Date designated 1980</p> <p>Knoydart NSA is a remote peninsula on the west coast of Scotland, only accessible by boat or a 26km walk across mountains and moorland. It includes four Munros and several lesser peaks, separated by broad glens, rivers and high lochs.</p>
<p>Summary Information – Morar, Moidart and Ardnamurchan NSA</p> <p>Location 56°48'06"N, 05°57'07"W Area (ha) 13500 Date designated 1980</p> <p>This is essentially a coastal area on the west coast of Scotland, extending from the south shore of the Morar Peninsula to include the Sound of Arisaig, Loch Moidart, Kentra Bay and the northern shore of Ardnamurchan. There are numerous unspoilt sandy beaches with mountainous backdrops, the deepest lake in Britain at Loch Morar, and the most western point on mainland Britain at Ardnamurchan Point.</p>
<p>Summary Information – The Small Isles NSA</p> <p>Location 56°56'08"N, 06°21'00"W Area (ha) 15500 Date designated 1980</p> <p>The Small Isles NSA is a small archipelago in the inner Hebrides, off the west coast of Scotland. The four main islands include Rum, Eigg, Muck and Canna, while several other small islands and skerries are also present. Rum is now an important study site for research into the ecology of red deer, while Canna is well known for its populations of puffins and Manx shearwaters.</p>
<p>Summary Information – Trotternish NSA</p> <p>Location 57°37'05"N, 06°13'03"W Area (ha) 5000 Date designated 1980</p> <p>Trotternish NSA is located in the northeast of the Isle of Skye, on the west coast of Scotland. This peninsula comprises steep mountains with rocky pinnacles inland, with peat moorland and crafting settlements at lower altitudes. The coastline possesses cliffs of varying height with occasional waterfalls dropping sheer into the sea. There are spectacular views across the island of Raasay to the mountainous Scottish mainland.</p>
<p>Summary Information – Wester Ross NSA</p> <p>Location 57°39'01"N, 05°29'04"W Area (ha) 145300 Date designated 1980</p> <p>Wester Ross NSA is located in the northwest of Scotland. It is the largest of all the NSAs, and comprises a diverse range of landscapes including the Applecross Forest, Ben Damph Forest, Torridon Mountains and Loch Maree. It has some of the most remote and wild land in the UK. Along the coast, Gruinard Bay, Loch Ewe and Loch Gairloch present a mixture of beaches, islands, headlands, inlets, woodlands and crafting settlements.</p>

5.3 Region 2S: South section of West Highlands and Inner Hebrides

Figure 5.3 – Sites of National Importance in Region 2S



5.3.1 National Nature Reserves

There are four NNRs in Region 2S as described in the following tables (refer to Figure 5.3 for site location).

Table 5.9 – National Nature Reserves in Region 2S

<p>Staffa NNR</p> <p>Location NM325355 Area (ha) 30.72 Date last declared 2000</p> <p>The uninhabited island of Staffa includes the famous Fingal's Cave. The island's distinctive six-sided columns of rock are formed from basalt, the same as the Giant's Causeway in Northern Ireland. During spring and early summer, the cliffs and grassy slopes provide nesting sites for various seabirds including guillemots, razorbills and puffins.</p> <p>Habitats:</p> <ul style="list-style-type: none"> • Geological interest, seabird colonies
<p>Glasdrum Wood NNR</p> <p>Location NN000460 Area (ha) 169 Date last declared 1967</p> <p>This woodland climbs from the seashore near the head of Loch Creran up the slopes of Ben Churalain. The changes in altitude and the presence of both acid and lime-rich rocks make for a rich variety of trees, plants and insects. The reserve is also notable for a range of butterfly species, including the rare chequered skipper.</p> <p>Habitats:</p> <ul style="list-style-type: none"> • Deciduous woodland
<p>Glencripesdale NNR</p> <p>Location NM675602 Area (ha) 631 Date last declared 1993</p> <p>Woodland on the shores of wild Loch Sunart. The damp, shady conditions of the broadleaf woodland are ideal for ferns, mosses, liverworts and lichens.</p> <p>Habitats:</p> <ul style="list-style-type: none"> • Ashwood slopes

Taynish NNR
<p>Location NR735850 Area (ha) 362 Date last declared 1977</p> <p>The ancient deciduous woodland at Taynish is one of the largest in Britain. It lies on a scenic peninsula overlooking Loch Sween. The woodland's ferns and mosses, marshland and grassland support over 300 plant species and more than 20 kinds of butterfly. While the loch shores are home to a variety of marine life.</p> <p>Habitats:</p> <ul style="list-style-type: none"> • Native deciduous woodland, foreshore and sea lochs

5.3.2 Sites of Special Scientific Interest

SNH has a duty under the *Wildlife and Countryside Act 1981*, as amended, to notify any area of land which in their opinion is 'of special interest by reason of any of its flora, fauna, or geological or physiographical features'. Such areas are known as Sites of Special Scientific Interest (SSSIs).

Table 5.10 – Sites of Special Scientific Interest in Region 2S

Site Name	Notified feature	Location	Area (ha)	Date Designated
Ard Trilleachan	<ul style="list-style-type: none"> • Bryophyte assemblage • Upland oak woodland 	NN095425	580	Jan-86
Ardalanish Bay	<ul style="list-style-type: none"> • Mineralogy of Scotland • Moine 	NM365180	75	Aug-86
Ardmeanach	<ul style="list-style-type: none"> • Geology • Maritime cliff • Montane assemblage • Slender Scotch Burnet moth <i>Zygaena loti</i> • Subalpine calcareous grassland • Tertiary igneous • Vascular plant assemblage 	NM440290	3257	Feb-86
Ardsheal Peninsula	<ul style="list-style-type: none"> • Caledonian Igneous series • Dalradian series 	NM977565	103	Feb-81
Ardura - Auchnacraig	<ul style="list-style-type: none"> • Marsh fritillary butterfly <i>Eurodryas aurinia</i> • Permian Triassic (red beds) • Saltmarsh • Tertiary igneous • Upland oak woodland 	NM705290	1784	Sep-86
Barran Dubh	<ul style="list-style-type: none"> • Bryophyte assemblage • Upland oak woodland 	NN042327	83	Mar-03
Bernera Island	<ul style="list-style-type: none"> • Maritime cliff 	NM795395	42	Apr-86
Bridgend Flats	<ul style="list-style-type: none"> • Barnacle goose <i>Branta leucopsis</i> • Breeding bird assemblage • Greenland whitefronted goose 	NR330620	331	Nov-83

Site Name	Notified feature	Location	Area (ha)	Date Designated
	<ul style="list-style-type: none"> <i>Anser albifrons flavirostris</i> • Greylag goose <i>Anser anser</i> • Saltmarsh • Sandflat 			
Calgary Dunes	• Machair	NM372512	23	Jun-86
Callert	• Dalradian	NN074595	11	Dec-88
Ceann a'Mhara to Loch a'Phuill	<ul style="list-style-type: none"> • Eutrophic loch • Machair • Sand dune 	NL949416	628	Mar-99
Clach Tholl	• Geomorphology	NM899448	7	Feb-90
Crossapol and Gunna	<ul style="list-style-type: none"> • Barnacle goose <i>Branta leucopsis</i> • Greenland white-fronted goose <i>Anser albifrons flavirostris</i> • Machair • Sand dune 	NM124530	920	Aug-85
Dun Ban	<ul style="list-style-type: none"> • Chough <i>Pyrhacorax pyrrhacorax</i> • Subalpine calcareous grassland • Tall herb ledge 	NR595141	254	Jun-85
Garvellachs	<ul style="list-style-type: none"> • Limestone pavement • Maritime cliff 	NM670120	255	Aug-85
Glac Na Criche	<ul style="list-style-type: none"> • Blanket bog • Chough <i>Pyrhacorax pyrrhacorax</i> • Seabird colony 	NR225708	265	Nov-83
Glas Eileanan	• Common tern <i>Sterna hirundo</i>	NM714400	1	Aug-97
Glenacardoch Point	• Geomorphology	NR660379	82	Mar-90
Gribun Shore and Crags	<ul style="list-style-type: none"> • Stratigraphy • Maritime cliff • Mudflat • Permian Triassic (red beds) • Rocky slopes (includes inland cliff, rocky outcrops, chasmophytic vegetation) • Saline lagoon • Subalpine calcareous grassland 	NM456355	223	Oct-88
Gruinart Flats	<ul style="list-style-type: none"> • Barnacle goose <i>Branta leucopsis</i> • Blanket bog • Coastal geomorphology • Greenland whitefronted goose <i>Anser albifrons flavirostris</i> • Lichen assemblage • Mudflat • Salt marsh • Sand dune 	NR285665	3262	Nov-83

Site Name	Notified feature	Location	Area (ha)	Date Designated
	<ul style="list-style-type: none"> • Scrub • Shingle 			
Hough Bay and Balevullin Machair	<ul style="list-style-type: none"> • Machair • Machair loch • Sand dune • Subalpine dry heath 	NL943463	513	Feb-85
Inninmore Bay	<ul style="list-style-type: none"> • Upland mixed ash woodland • Upper Carboniferous [Namurian (part)-Westphalian] 	NM719423	127	Oct-86
Kilberry Coast	<ul style="list-style-type: none"> • Maritime cliff • Sand dune • Shingle • Vascular plant assemblage 	NR705632	209	Mar-86
Knapdale Lochs	<ul style="list-style-type: none"> • Black-throated diver <i>Gavia arctica</i> 	NR757685	112	Apr-00
Laggan Peninsula and Bay	<ul style="list-style-type: none"> • Barnacle goose <i>Branta leucopsis</i> • Blanket bog • Greenland whitefronted goose <i>Anser albifrons flavirostris</i> • Sand dune 	NR297555	1230	Nov-83
Linne Mhuirich	<ul style="list-style-type: none"> • Fen meadow • Lowland calcareous grassland • Saltmarsh • Upland mixed ash woodland 	NR726847	108	Oct-84
Loch Aline	<ul style="list-style-type: none"> • Bryophyte assemblage • Geology • Upland mixed ash woodland 	NM695460	86	Sep-00
Lynn of Lorn Small Islands	<ul style="list-style-type: none"> • Common seal <i>Phoca vitulina</i> • Maritime cliff 	NM860400	107	Dec-86
Machrihanish Dunes	<ul style="list-style-type: none"> • Sand dune 	NR653238	293	Feb-86
Moine Mhor	<ul style="list-style-type: none"> • Breeding bird assemblage • Estuarine raised bog • Marsh fritillary butterfly <i>Eurodryas aurinia</i> • Saltmarsh • Upland oak woodland 	NR815925	1173	Dec-90
North Colonsay	<ul style="list-style-type: none"> • Chough <i>Pyrhocorax pyrrhocorax</i> • Lowland dry heath • Lowland wet heath • Machair • Marsh fritillary butterfly <i>Eurodryas aurinia</i> • Sand dune • Upland oak woodland • Vascular plant assemblage 	NR415985	933	Jul-96

Site Name	Notified feature	Location	Area (ha)	Date Designated
North East Coll Lochs and Moors	<ul style="list-style-type: none"> • Blanket bog • Breeding bird assemblage • Greenland white fronted goose <i>Anser albifrons flavirostris</i> • Lichen assemblage • Machair • Vascular plant assemblage 	NM243608	2315	Dec-93
Onich Shore	<ul style="list-style-type: none"> • Dalradian series 	NN030614	18	Feb-81
Oronsay	<ul style="list-style-type: none"> • Machair • Sand dune 	NR350875	330	Nov-83
Rhunahaorine Point	<ul style="list-style-type: none"> • Greenland white fronted goose <i>Anser albifrons flavirostris</i> • Shingle 	NR695493	326	Aug-85
Rinns of Islay	<ul style="list-style-type: none"> • Barnacle goose <i>Branta leucopsis</i> • Beetles • Blanket bog • Breeding bird assemblage • Chough <i>Pyrhacorax pyrrhacorax</i> • Coastal geomorphology • Corncrake <i>Crex crex</i> • Greenland white fronted goose <i>Anser albifrons flavirostris</i> • Hen harrier <i>Circus cyaneus</i> • Machair 	NR235620	8785	Apr-87
Rubha A Mhail to Uamhannan Donna Coast	<ul style="list-style-type: none"> • Geomorphological features 	NR363766 NR425774	412	Feb-90
Rudha Cuil - Cheanna	<ul style="list-style-type: none"> • Dalradian series 	NN013616	15	Feb-81
Sleibhtean agus Cladach Thiriodh	<ul style="list-style-type: none"> • Barnacle goose <i>Branta leucopsis</i> • Breeding bird assemblage • Dunlin <i>Calidris alpina schinzii</i> • Greenland white fronted goose <i>Anser albifrons flavirostris</i> • Machair • Oligotrophic loch • Oystercatcher <i>Haematopus ostralegus</i> • Purple sandpiper <i>Calidris maritima</i> • Redshank <i>Tringa totanus</i> • Ringed plover <i>Charadrius hiaticula</i> 	NM014455 NM014455 NM014455	513 1773 1773	Feb-85 Jan-01 Feb-01
Sound of Mull Cliffs	<ul style="list-style-type: none"> • Upland mixed ash woodland 	NM535517	33	Jun-86
South Kerrera and Gallanach	<ul style="list-style-type: none"> • Old red sandstone igneous • Quaternary of Scotland • Silurian-Devonian Chordata 	NM794279 NM803256	81	Dec-89

Site Name	Notified feature	Location	Area (ha)	Date Designated
South Mull Coast	<ul style="list-style-type: none"> • Maritime cliff • Mineralogy of Scotland • Tertiary Igneous 	NM523204	591	Oct-88
South Shian and Balure	<ul style="list-style-type: none"> • Geomorphology 	NM909422	9	Feb-90
Staffa	<ul style="list-style-type: none"> • Coastal geomorphology • Fulmar <i>Fulmarus glacialis</i> • Maritime cliff • Puffin <i>Fratercula arctica</i> • Shag <i>Phalacrocorax aristotelis</i> 	NM325355	46	Jun-86
Sunart	<ul style="list-style-type: none"> • Bryophyte assemblage • Caledonian igneous • Chequered skipper <i>Carterocephalus palaemon</i> • Dragonfly assemblage • Eel grass bed • Egg wrack <i>Ascophyllum nodosum ecad mackaii</i> • Lichen assemblage • Moine series • Moths • Otter <i>Lutra lutra</i> 	NM670610	5516	May-01
Taynish Woods	<ul style="list-style-type: none"> • Beetles • Bryophyte assemblage • Dragonfly assemblage • Fen meadow • Flies • Lichen assemblage • Marsh fritillary butterfly <i>Eurodryas aurinia</i> • Mesotrophic loch • Moths • Reefs 	NR735850	398	Mar-90
Totamore Dunes and Loch Ballyhaugh	<ul style="list-style-type: none"> • Belted beauty moth <i>Lycia zonaria</i> • Machair • Machair loch • Open water transition fen • Sand dune • Vascular plant assemblage 	NM173574	210	Jul-97
Treshnish Isles	<ul style="list-style-type: none"> • Barnacle goose <i>Branta leucopsis</i> • Grey seal <i>Halichoerus grypus</i> • Maritime cliff • Geomorphology • Seabird colony 	NM274412	241	Aug-86
Ulva, Danna and The McCormaig Isles	<ul style="list-style-type: none"> • Barnacle goose <i>Branta leucopsis</i> • Bryophyte assemblage • Cormorant <i>Phalacrocorax carbo</i> 	NR700799	737	Mar-92

Site Name	Notified feature	Location	Area (ha)	Date Designated
	<ul style="list-style-type: none"> • Greenland white fronted goose <i>Anser albifrons flavirostris</i> • Lowland calcareous grassland • Lowland dry heath • Lowland wet heath • Maritime cliff • Mudflat • Saline lagoon 			
West Coast of Jura	<ul style="list-style-type: none"> • Coastal features • Geomorphology 	NR447752 NR660986	1894	Mar-92
West Colonsay Seabird Cliffs	<ul style="list-style-type: none"> • Guillemot <i>Uria aalge</i> • Kittiwake <i>Rissa tridactyla</i> • Maritime cliff • Razorbill <i>Alca torda</i> • Seabird colony 	NR370970	43	Jun-84
West Tayvallich Peninsula	<ul style="list-style-type: none"> • Dalradian series 	NR706834	658	Mar-92

5.3.3 Geological Conservation Review sites

The Geological Conservation Review was designed to identify those sites of national and international importance needed to show all the key scientific elements of the Earth heritage of Britain.

Table 5.11 – Geological Conservation Review sites in Region 2S

GCR blocks	Site name	Location
Precambrian and structural geology		
Dalradian	Ardsheal Peninsula	NM977555
	Black Mill Bay, Luing	NM733087
	Camas Nathais	NM875382
	Fearnach Bay	NM835135
	Garvellach Isles	NM670120
	Port Selma, Ardmucknish	NM902380
	South Coast, Lismore Island	NM798386
	Nathrach	NN164624
	Onich Shore Section	NN030614
	Rubh`ard Paraich	NN074595
	Rubha Cladaich	NN120610
	Rubha Cuil-cheanna	NN013616
	St John`s Church, Loch Leven	NN065587
	Ardfin, Jura	NR471632
	Bun-an-uillt, Islay	NR295691
	Craignish Point	NR759999
	Kilchiaran to Ardnave Point, Islay	NR185589
	Kilmory Bay	NR698756
	Kilnaughton Bay, Islay	NR346450
	Kinuachdrach, Jura	NR695953
	Lagavulin Bay, Dunyveg Castle	NR406456
	Lussa Bay	NR638865
	Port Cill Maluaig	NR722700
	Rubha a`Mhail, Islay	NR379783
	Surnaig Farm, Islay	NR398454

GCR blocks	Site name	Location
	Tarbert, Jura West Tayvallich Peninsula	NR610820 NR732878
Moine	Ardalanish Bay, Mull Eilean Mor and Camas Choire Mhuilinn	NM376188 NM572613
Igneous and mineralogy		
Caledonian Igneous	Ardsheal Hill & Peninsula Cnoc Mor to Rubh` Ardalanish Knockvologan to Eilean a`Chalmain Loch Sunart Bonawe to Cadderlie Burn Kentallen	NM963555 NM367186 NM309204 NM776607 NN008336 NN012579
Mineralogy of Scotland	Ardalanish Bay Nuns Pass Port Bheathain	NM369183 NM534211 NM405189
Old Red Sandstone Igneous	South Kerrera	NM794279
Tertiary Igneous	Ardtun Beinn na Seilg to Beinn nan Ord Carsaig Bay Glas Eilean to Mingary Pier Laggan Bay Loch Spelve to Auchnacraig	NM378248 NM450627 NM533219 NM493626 NM451415 NM711297
Carboniferous - Permian Igneous	Machrihanish Coast and South Kintyre	NR625200
Palaeozoic stratigraphy		
Permian - Triassic	Gribun	NM450344
Westphalian	Inninmore Bay	NM710423
Mesozoic-tertiary stratigraphy		
Hettangian, Sinemurian and Pliensbachian	Aird na h-lolaire Allt Leacach	NM404287 NM692454
Palaeontology		
Palaeoentomology	Ardtun	NM379248
Silurian - Devonian Chordata	Ardmore to Gallanach	NM788266
Tertiary Palaeobotany	Ardtun	NM381248
Quaternary geology and geomorphology		
Quaternary of Scotland	Isle of Lismore, The Dog Stone, Clach Tholl Pulpit Hill Scarisdale South Shian and Balure Glenacardoch Point Rubha a`Mhail to Rubha Bholsa coast - (Northern Islay) Tangy Burn West Coast of Jura (Bagh Gleann Speireig - Carragh an t-Sruith)	NM899447 NM852292 NM523378 NM910421 NR662378 NR400780 NR657278 NR636969
Geomorphology		
Coastal Geomorphology of Scotland	West Coast of Jura Loch Gruinart, Islay Machir Bay	NM688003 NR285665 NR210630

5.3.4 National Scenic Areas

National Scenic Areas (NSAs) are Scottish national landscape designations, administered by SNH.

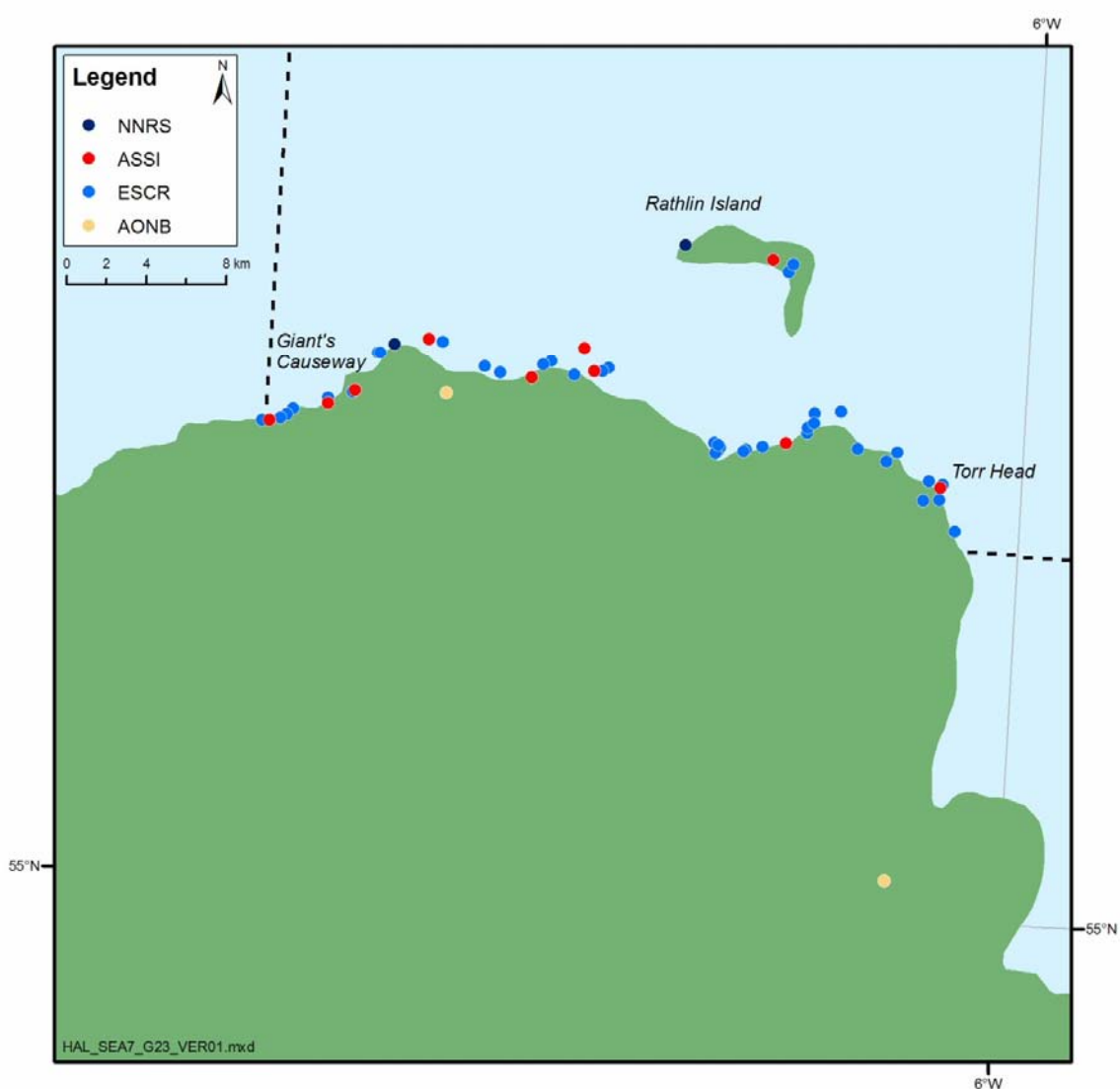
Table 5.12 – National Scenic Areas in Region 2S

Summary Information – Jura NSA
<p>Location 55°53'03"N, 05°57'08"W Area (ha) 21800 Date designated 1980</p> <p>Jura is an island in the Inner Hebrides, adjacent and to the northeast of Islay, on the west coast of Scotland. It is dominated by three steep-sided conical mountains (the Paps of Jura), which rise to 762m above sea level. Jura also has a large population of red deer.</p>
Summary Information – Knapdale NSA
<p>Location 55°59'04"N, 05°35'08"W Area (ha) 19800 Date designated 1980</p> <p>Knapdale NSA is situated on the west coast of Scotland. Its landscape is dominated by the dense Knapdale Forest, covering many hills and providing scenic views across the Western Isles.</p>
Summary Information – Loch na Keal, Isle of Mull NSA
<p>Location 56°27'05"N, 06°14'06"W Area (ha) 12700 Date designated 1980</p> <p>Loch na Keal NSA comprises the sea lochs of Loch na Keal and Loch Tuath, and the several small islands amongst them. A variety of landscapes exist, including island-studded seascape, various cliff forms, hills and woodland.</p>
Summary Information – Lynn of Lorn NSA
<p>Location 56°31'04"N, 05°28'09"W Area (ha) 4800 Date designated 1980</p> <p>Lynn of Lorn NSA is on the west coast of Scotland, and includes the island of Lismore and its surrounding islets and skerries. It presents an island-studded waterway dominated by parallel limestone ridges both on land and partially submerged. These ridges support rich vegetation, varying from green, lush meadows to dense oaks and conifers.</p>
Summary Information – Scarba, Lunga and the Garvellachs NSA
<p>Location 56°12'01"N, 05°42'03"W Area (ha) 1900 Date designated 1980</p> <p>This NSA is located to the north of the island of Jura on the west coast of Scotland. It includes the islands of Scarba, Lunga, the four Garvellach islands and many smaller islands and skerries. Scarba rises sharply from the sea to a pyramid peak of 449m in height, while the Garvellachs are smaller and lower in elevation, but sharply angular with vertical cliffs to the north-west. The landscape is visually enhanced by the strong tidal currents which cause water to race amongst the islands.</p>

5.4 Region 3: Northern Ireland

This section provides an overview of conservation sites designated in Northern Ireland under national legislation for their wildlife, landscape and/or amenity value; namely Nature Reserves, Areas of Special Scientific Interest, Earth Science Conservation Review sites and Areas of Outstanding Natural Beauty. Figure 5.4 shows the distribution of these sites along the Northern Ireland's coast, it is to be noted that sites are mapped using central points and, in the case of the large AONB to the south of the area (Antrim Coasts and Glens AONB), some of the larger sites can appear to lie at a distance from the coast.

Figure 5.4 – Sites of National Importance in Region 3



5.4.1 Nature Reserves

To date, 47 nature reserves have been declared in Northern Ireland, two of which lie on the coast of SEA 7 (as detailed in the tables below).

Table 5.13 – Nature Reserves in Region 3

Summary Information – Giant’s Causeway National Nature Reserve
<p>Location 55°14'44"N, 6°29'59"W Area (ha) 67 Date last declared 24/03/1987</p> <p>Cliffs and headlands faced with basalt columns of different heights give shelter to a number of bays, while pavements of "Causeway Stone" march out in regular shapes from the foot of the cliffs towards the sea.</p> <p>In early summer, the ledges and cliff tops are carpeted with wild flowers such as bird's-foot trefoil, kidney vetch, spring squill and thrift. Buzzards, peregrine falcons and rare choughs can be found around the cliffs while eider ducks and oystercatchers often feed in the sheltered bays below.</p> <p>Habitats:</p> <ul style="list-style-type: none"> • Cliffs, headlands and bays
Summary Information – Keble Nature Reserve
<p>Location 55°17'54"N, 6°16'33"W Area (ha) 127.3 Date last declared 01/07/1976</p> <p>At the western end of Rathlin Island, sheer cliffs rise more than 100m above raised beaches of rounded cobbles. From early May to mid July, the cliffs and rocky islands are crowded with thousands of breeding seabirds. Guillemots, razorbills, kittiwakes and fulmars nest on bare ledges, while puffins nest in burrows dug into the cliff-side grassland. Peregrine falcons, buzzards and ravens can also be found here. Grey seals can be found hauling themselves out onto the rocky foreshore.</p> <p>The cliff top contains an area of rough grassland and heather and an area of marsh. These wet areas attract nesting waterfowl such as ducks, snipe, grebes and coots.</p> <p>Habitats:</p> <ul style="list-style-type: none"> • Offshore stacks, cliffs, rocky foreshore and raised beaches

5.4.2 Areas of Special Scientific Interest

The region is particularly important for its geological and geomorphological interest (further details of which can be found in the ESCR section 5.4.3).

Table 5.14 – Areas of Special Scientific Interest in Region 3

Site Name	Key features	Location	Area (ha)	Date Designated
Rathlin Island Coast	<ul style="list-style-type: none"> • Breeding sea bird assemblage • Coastal vegetated shingle • Earth science • Maritime cliff and slope • Seabird assemblage 	D13955114	236	Sep-91

Site Name	Key features	Location	Area (ha)	Date Designated
	<ul style="list-style-type: none"> • Subtidal sea caves • Sand banks • Reefs 			
Sheep Island	• Breeding sea bird assemblage	D049459	3	Feb-92
Carrickarade	• Earth science	D05494476	18	Oct-96
White Park Bay	<ul style="list-style-type: none"> • Coastal sand dune • Earth science • Higher plant assemblage • Invertebrate assemblage • Maritime cliff and slope 	D024442	88	Jul-96
Giant's Causeway and Dunseverick	<ul style="list-style-type: none"> • Coastal saltmarsh • Coastal vegetated shingle • Earth science • Invertebrate assemblage 	C971457	226	Feb-00
Runkerry	• Earth science	C936428	24	Jan-99
Portballintrae	• Earth science	C92324201	1	Jul-95
White Rocks	• Earth science	C8945440945	17	Nov-97
Ballycastle Coalfields	• Earth science	D154420	70	Dec-97
Torr Head	• Earth science	D233404	3	Oct-03

5.4.3 Earth Science Conservation Review sites

The Earth Science Conservation Review (ESCR) is the method of assessing the scientific importance of geological sites in Northern Ireland. Note some of the sites occur twice in the table below as they contain features from multiple time periods e.g. Ballintoy-Ballycastle.

Table 5.15 – Earth Science Conservation Review sites in Region 3

Rock Period	Site Name	Grid Ref
Precambrian	Altmore Burn	D233398
	Benvan	D205415
	Escort Port	D227407
	Leckpatrick Point	D225397
	Loughan Bay	D242383
	Torr Head	D234406
Carboniferous	Ballycastle Coalfield	D133414 D164426
	Carboniferous Subarea-9; Ballycastle	D119412
	Faragandoo	D167436
	North Star Colliery, Ballycastle	D14244172
	Portnaloub	D167431
	Carrickmore Blister	D16404285
	White Rocks - Tertiary	C900411
Jurassic	White Park Bay	D008443 D029449

Rock Period	Site Name	Grid Ref
Cretaceous	Ballycastle Pellet Chalk	D118417
	Dunnagelea-Larry Bane Bay	D033451 D059448
	Murlough Bay	D2142
	Port Calliagh-Ballycastle	D109420 D120416
Cretaceous	White Rocks - Cretaceous	C903413
	White Park Bay	D008443 D029449
	Larrybane Stalactite Cave, Larrybane Bay	D055448
	White Rocks - Coastal Geomorphology	C891409 C906416
	Ballintoy-Ballycastle	D045445 D120413
Tertiary	Carrickarade	D062450
	Dunseverick Slip	C99994455
	Fairhead	D180438
	Giant's Causeway	C946448 C947448
	Port Moon (Contham Head)	C978456
	Rathlin Island	D150510
	Ballintoy-Ballycastle	D045445 D120413
	Carrickmore Blister	D1640285
	White Rocks - Tertiary	C900411
Quaternary	Ballycastle Beach	D121415 D134415
	Church Bay, Rathlin Island	D148506
	Portballintrae	C923423
	Runkerry Strand, Bushfoot	C935427
	Larrybane Stalactite Cave, Larrybane Bay	D055448
	White Rocks - Coastal Geomorphology	C891409 C906416
	Ballintoy-Ballycastle	D045445 D120413

5.4.4 Areas of Outstanding Natural Beauty

There are nine Areas of Outstanding Natural Beauty (AONBs) in Northern Ireland, and two of these lie either wholly or partly within SEA 7. Taken together, the Causeway Coast AONB and Antrim Coast and Glens AONB, stretch along the majority of the Northern Irish mainland component of SEA 7 which emphasised the particular significance of the region for its landscape value.

Table 5.16 – Areas of Outstanding Natural Beauty in Region 3

Summary Information – Causeway Coast AONB
<p>Location 55°14'44"N, 6°29'59"W Area (ha) 4200 Date last declared 1989</p> <p>The AONB encompasses 18 miles of spectacular coastal scenery of dramatic cliffs and headlands broken by the wide sweep of fresh sandy beaches backed by dunes. Dark volcanic rocks and brilliant white chalk, eroded by the vigorous North Atlantic, form magnificent geological features including the renowned Giant's Causeway and Carrick-a-Rede. This natural beauty is made all the more impressive by the small harbours, fisheries and farms found along the coast. A rich and varied wildlife thrives on the offshore islands and rocks, amid the cliffs, sand dunes and hinterland.</p>
Summary Information – Antrim Coast and Glens AONB
<p>Location 55°14'44"N, 6°29'59"W Area (ha) 70600 Date last declared 1988</p> <p>The coastline of County Antrim from Ballycastle to Larne and the world famous Glens of Antrim contain some of the most beautiful and varied scenery in Northern Ireland. The area is dominated by a high undulating plateau cut by deep glens which open north and eastwards to the sea. It is an area of contrasts: gentle bays are separated by blunt headlands; exposed moorland gives way to sheltered valleys; wide open expanses to enclosed farmland. Rathlin Island, lying offshore to the north, is rich in historical, geological and botanical interest.</p>

6 NON-STATUTORY AND OTHER GOVERNMENT SITES

This section covers sites which, although not protected by statute, have been identified by statutory agencies as being of nature conservation or landscape importance in SEA 7. MoD sites are also listed here because although conservation is not their primary function, the restrictions on public access means that they are often amongst the most pristine areas of wildlife habitat in the region and are therefore intrinsically conservational. Most conservational designations differ between Scotland and Northern Ireland under regional legislative protocols.

6.1 Local Authority Nature Reserves

Local Authority Nature Reserves (LANRs) are the Northern Ireland equivalent of LNRs in Scotland, England and Wales. They are declared and managed by local authorities under the *Nature Conservation and Amenity Lands (Northern Ireland) Order 1985*. LANRs are designated for their research and/or preservation value with matters relating to flora, fauna or habitats, in addition to geological or geomorphological features of special interest. While there are no LNRs in the Scottish component of SEA 7, one LANR has been identified in Northern Ireland (Table 6.1).

Table 6.1 – Local Authority Nature Reserves in SEA 7

Site Name	Description	Grid Reference
Portrush	A seashore exposure of metamorphosed shale rock, rich in fossils.	C856412

6.2 Marine Consultation Areas

In Scotland, the non-statutory Marine Consultation Area (MCA) designation identifies areas considered by SNH to deserve particular distinction in respect of the quality and sensitivity of the marine environment within them. They are areas in which SNH wish to be consulted on developments which are likely to have an impact on the marine environment. Their selection encourages coastal communities and management bodies to be aware of marine conservation issues in the area. There are 20 MCAs in the SEA 7 area.

Table 6.2 – Marine Consultation Areas in SEA 7

Site Name	Grid Ref	Area (ha)	Designated Date
Dunvegan Head	NG178569	8	1990
Firth of Lorn	NM750150	33900	1986
Loch Carron	NG830250	6970	1986
Loch Creran	NM957430	1510	1990
Loch Duich	NG910220	1200	1990
Loch Etive	NM060370	3070	1986
Loch Eynort, S. Uist	NF820270	1565	1986
Loch Indaal, Islay	NR280600	3075	1986
Loch Laxford	NC200500	916	1986

Site Name	Grid Ref	Area (ha)	Designated Date
Loch Long	NG897283	310	1990
Loch Maddy, N. Uist	NF930690	2120	1986
Loch Obe, Harris	NF710010	48	1986
Loch Roag, Lewis	NB130370	10146	1986
Loch Seaforth, Lewis	NB213123	2260	1990
Loch Sunart	NM700630	5410	1990
Loch Sween	NR730820	6328	1986
Loch Torridon	NG830560	2820	1986
Sound of Iona, Mull	NM290230	1525	1986
St. Kilda	NA130030	11390	1990
The Obbe, Barra	NG013869	28	1986

6.3 Regional Landscape Designations

Regional Landscape Designations (RLDs), identified in 1974, provide a mechanism whereby Scottish planning authorities can identify sites where there should be a strong presumption against development. The designation recognises that these scenic areas have considerable unexploited potential for tourism and therefore benefiting local economies. Local circumstances and the absence of central guidance since 1962 means that RLD vary in title, scale and objectives from one planning authority to another, and there are now five different types of RLD: Areas of Great Landscape Value (AGLV), Highland Areas of Regional Landscape significance (ARLS), Areas of Scenic Value (ASV), Regional Scenic Areas (RSA) and Regional Scenic Coasts (RSC). RLDs occurring in SEA 7 have been tabulated below.

According to the JNCC Coasts and Seas of the UK Series there are at least seven AGLVs in SEA 7 but information has only been made available by Local Authorities for three of the seven sites.

Table 6.3 – Regional Landscape Designations in SEA 7

Site Name	RLD Type	Area (ha)
West Skye Coast (Skye and Lochalsh)	AGLV	unavailable
Rona and Raasay (Skye and Lochalsh)	AGLV	unavailable
Trotternish (Skye and Lochalsh)	AGLV	unavailable
Mull of Kintyre	RSA	17647
Knapdale/Melfort	RSA	45195
Jura	RSA	35131
South East Islay	RSA	7061
Central, South and West Mull	RSA	59257
Dorlin/Castle of Eilean Tioram, Moidart	RSA	<100
Plock of Kyle	RSA	31
River Leasgeary, Portree	RSA	7

Site Name	RLD Type	Area (ha)
Leth Allt Gorge, Staffin	RSA	<100
Strome Castle and Castle Bay	RSA	4
Applecross Bay, Inner Sound	RSA	10
Badachro Gorge and Woodland, Loch Gairloch	RSA	31
Gruinard Bay	RSA	75
Sandwood Loch, Kinlochbervie	RSA	<100
West Kintyre	RSC	40
South West Islay	RSC	21
North and West Islay	RSC	66
North and West Argyll	RSC	108

Note: All information taken from JNCC Coasts and Seas of the UK Series (JNCC 1997a, 1997b)

Note: There are no Highland Areas of Regional Landscape Significance or Areas of Scenic Value in SEA 7

6.4 Preferred Conservation Zones

Preferred Conservation Zones (PCZs) are non-statutory coastal areas in Scotland, of particular national, scenic, environmental or ecological importance, in which major new oil- and gas- related developments would in general be inappropriate or would have a socio-economic impact on a small community, and would only be justified in exceptional circumstances. They are areas with a distinctive aesthetic appeal, heritage and character, where tourism and recreation take priority over major industrial processes. There is one PCZ in SEA 7 for which information is currently available: The West Coast: Dounreay - Machrihanish PCZ which covers a significant proportion of the west coast of Scotland (including the islands of Jura and Islay).

6.5 MoD sites

A recent review of known biodiversity interest on the defence estate showed that approximately 80% of the estate supports nationally important habitats and species³. The main MoD sites on the west coast of Scotland are listed below. There are several smaller sites not identified. Byelaws cover a defined geographical area, normally regulating certain activities in the interests of safety and security. Byelaws are a form of delegated legislation, used mostly by local authorities and government departments; they cover a defined geographical area, normally regulating certain activities in the interests of safety and security. Presently under the provisions of the *Military Lands Act 1892 (s14)*, the Secretary of State for Defence is empowered to make byelaws to regulate the use of land being used for military purposes. Many of these byelaws date back to the early part of the 20th century and do not reflect subsequent changes within the Department, changes of use within sites or the impact of recent legislation, such as the *Countryside and Rights of Way Act 2000*. Breach of a byelaw is a criminal offence and as such the enforcement of byelaws is one of number of tools which the Department can use to help protect its sites. Equally the presence of a byelaw can allow public access over areas that would otherwise be prohibited. MoD byelaws are currently under review. Safeguarded areas surrounding military establishments (e.g. military aerodromes, technical sites and explosive storage areas covered by the *Town and Country Planning (Aerodromes) (Scotland) Direction 1982* are highlighted. There appear to be no MoD sites in the Northern Ireland component of SEA 7.

³ Source: MOD Magazine, 'Sanctuary', Number 35, 2006

Table 6.4 – MoD sites in SEA 7

Site Name	Byelaws	Safeguarding
St. Kilda	No	Yes
Aird Uig	No	Yes
Stornoway	No	No
Benbecula	No	No
South Uist	No	Yes
Loch Carnan	No	No
Rubha Ardvule	No	No
Cape Wrath	Yes	No
Aultbea	No	Yes
Rona & Raasay	No	No
Applecross	Yes	No
Kyle of Lochalsh	No	No
Tiree	No	No
Colonsay	No	No
Islay	No	No
Machrihanish	No	Yes
Cambeltown	No	No
Torr Mor	No	No

6.6 Gardens and Designed Landscapes

Since 1980 Historic Scotland has worked with SNH in order to study and research gardens and landscapes of national importance. This project culminated in the Inventory of Gardens and Designed Landscapes in 1988. These are defined as grounds which are laid out for artistic effect and often include architectural features, trees, shrubs, flowers, lawns and parkland. There are many threats to the survival of gardens and designed landscapes, often through inappropriate development such as road building, new industry or housing. There are 19 gardens and designed landscapes that lie on the coast of the SEA 7 area.

Table 6.5 – Gardens and Designed Landscapes in SEA 7

Site Name	Grid Ref	Area
Achnacloich	NM955340	404793.347
An Cala	NM748173	9473.616
Ardtornish	NM703475	157167.115
Arduaine Gardens	NM794103	72830.196
Arisaig House	NM691848	406522
Armadale castle	NG640417	1099655
Balmacara Estate – Lochalsh Woodland Garden	NG760270	411491

Site Name	Grid Ref	Area
Duntrune Castle	NR793956	58279.354
Dunvegan	NG247490	154511
Eilean Shona	NM656730	244669
Glenborrodale Castle	NM606608	87475
Inverewe	NG860830	231280
Kinloch Castle	NM401955	303841
Kinlochmoidart	NM716724	416990
Kyle House	NG745265	33127
Leckmelm	NH162912	43609
Lews Castle and Lady Lever Park	NB419331	2833366
Raasay House	NG546366	2240501
Torosay Castle (Duart House)	NM728352	1071930.4

6.7 Historic Parks, Gardens and Demesnes

The Environment and Heritage Service (EHS) of Northern Ireland provides a list of designated sites which fall into the category of Historic Parks, Gardens and Demesnes worthy of protection through the planning process (EHS website). They are designated in accordance with satisfaction of one or more of the following criteria: they provide some particular aspect of garden history or design, they contain a notable plant collection, they form an integral setting for a building or buildings of historical importance, they are associated with particular people or events. The Northern Ireland Heritage Gardens Inventory (1992) lists two coastal sites in the SEA 7 area which are classified as Historic Parks, Gardens and Demesnes.

Table 6.6 – Historic Parks, Gardens and Demesnes in SEA 7

Site Name	Description	Grid Reference
Runkerry	Sea-shore house of 1883	C935435
The Manor House, Rathlin Island	House from 1760 on seashore	D147510

7 OTHER SITES

Many conservation sites in Scotland and Northern Ireland are protected and managed by non-government organisations (NGOs). The RSPB, for example, exists to conserve wild birds and the environment in which they live and breed and manages reserves across the whole of the UK. Founded in 1889 the RSPB is now Europe's largest wildlife conservation charity.

Within SEA 7 there are a number of NGO sites which either fall wholly on the coast or contain coastal areas. In Scotland, these include the John Muir Trust (formed in 1983 to protect and conserve wild places and to increase awareness and understanding of the value of such places) which owns and manages three land holdings; at Knoydart, Skye and Northwest Sutherland and the Scottish Wildlife Trust (SWT) which is the leading Scottish voluntary organisation for the conservation of all forms of wildlife and their habitats.

The National Trust has reserves in both Northern Ireland and Scotland. The National Trust is unique in that its activities cover the full range of the cultural, built and natural heritage. Of particular note in the area are the three National Trust for Scotland seabird sites at St.Kilda, Mingulay and Canna.

The Woodland Trust, a conservation charity dedicated to the protection of native woodland heritage, has one coastal reserve in SEA 7 on the Isle of Skye.

7.1 John Muir Trust

The Li and Coire Dhorrcail site lies along Loch Hourn on the north-east coast of the peninsula, within the Knoydart National Scenic Area. The farm of Li is on the coast at the north end, and Coire Dhorrcail is the biggest of the corries of Ladhar Bheinn.

Both the Torrin and Strathaird John Muir areas in Skye are of national and international significance, for their scenery, archaeology, plant and animal life, and geology.

Sandwood Estate in Sutherland is the northernmost John Muir Trust land. The whole estate is under crofting tenure. There are three grazings, Sheigra, Oldshorebeg and Oldshoremore. A local management committee with representatives from each grazing deals with issues like visitor management and estate maintenance. The glacially eroded, peatland landscape with coastal crofting settlements is characteristic of north-west Sutherland and unique to Scotland. Some of the features are considered to be of world class; notably Sandwood Bay, bordered by dramatically eroded cliffs and backed by dynamic sand dunes set in a coastline which curves towards the most north-westerly point on mainland Britain.

Table 7.1 – John Muir Trust sites in SEA 7

Site Name	Grid Ref	Area (ha)	Designated Date
Li and Coire Dhorrcail	NG845060	1300	1987
Torrin, Skye	NG567220	2200	1991
Strathaird, Skye	NG525120	6073	1994
Sandwood	NC185617	4600	1993

7.2 Royal Society for the Protection of Birds

There are eleven RSPB sites in the Scottish component of SEA 7, it should be noted that not all reserves are open for public access.

Table 7.2a – RSPB reserves in SEA 7: Scotland

Site Name	Features	Grid Ref	Area (ha)	Current boundary from:
Priest Island	Heath communities, numerous lochs and a small amount of woodland. One of the largest storm petrel colonies in the UK and small numbers of other breeding seabirds.	NB925020	130.79	16/10/1980
Rathlin	Tall, rugged cliffs with large numbers of breeding puffins, guillemots, razorbills, kittiwakes and fulmars.	D127524	52.93	26/02/1990
Balranald	Sandy beaches and a rocky foreshore are separated from the machair and marshes by sand dunes; there are also shallow lochs. Many species of wading birds nest on the flower-rich machair and the croftland.	NF707699	827.03	28/05/1991
Smaull Farm	Hay meadows with corncrakes and chough	NR220685	373.59	24/05/1996
Coll	Beaches, sand dunes, machair, fen meadows, hay meadows and moorland-nesting corncrakes, breeding waders, overwintering geese	NM150540	1440.3	18/01/1994
Glenborrodale	Ancient oakwood on the north shore of Loch Sunart. Warblers, woodland birds, otters and seals.	NM600615	101.8	03/12/1990
The Reef, Tiree	The Reef covers over 380ha of sand dunes, dry machair, wet machair and fen with open mesotrophic pools in the centre of Tiree. Designated under European law for its nationally important populations of breeding waders and terns, and for its internationally important numbers of wintering Greenland white-fronted geese.	NM005450	389.93	01/10/1993
Oronsay	Traditional cattle grazing/machair with corncrakes and chough	NR355885	914.84	29/11/1996
The Oa	Choughs, seabirds and occasional golden eagles. Greenland white-fronted geese	NR290436	2210.39	12/12/2002

Site Name	Features	Grid Ref	Area (ha)	Current boundary from:
	use the bog and twites can be seen on farmland.			
Loch Gruinart/Ardnave	Improved and rough pasture, saltmarsh, tidal loch, moorland and woodland; extensive numbers of overwintering geese, breeding and overwintering raptors, nesting waders	NR274675	2690.58	unavailable

Within SEA 7 there is one RSPB site in Northern Ireland on Rathlin Island. The island lies six miles off the north Antrim Causeway coast. From late April to early August the cliffs on the island are home to thousands of seabirds including breeding puffins, guillemots, razorbills, kittiwakes and fulmars.

Table 7.2b – RSPB reserves in SEA 7: Northern Ireland

Site Name	Features	Grid Ref	Area (ha)	Current boundary from:
Rathlin Island Cliffs	Breeding seabirds	D127524	53	Feb 90

7.3 Scottish Wildlife Trust

There are eleven SWT sites in SEA 7 which contain coastal areas of various sizes, as listed below.

Table 7.3 – Scottish Wildlife Trust reserves in SEA 7

Site Name	Features	Grid Ref	Area (ha)	Designated Date
Largiebaan	Birds, flowers, mammals	NR614143	1620	1993
Knapdale Habitats Partnership Reserve	Butterflies and insects, flowers, freshwater life, lichens and mosses, plants, trees	NR766884	750	1982, expanded in 2002
Shian Wood	Birds, butterflies and insects, flowers	NM907418	22	1995
Ballachuan Hazel Wood	Butterflies and insects, flowers, lichens and mosses, mammals, trees	NM763146	49	1984
Islands of Shillay	International importance for breeding seals	NF880913	35	1998
Isle of Eigg	Birds, butterflies and insects, flowers, lichens and mosses, mammals, marine life	NM474875	1518	1978
Eilean na Creige Duibhe	Birds	NG824335	1	1970
Isle Ristol	Flowers	NB971112	225	1993

Site Name	Features	Grid Ref	Area (ha)	Designated Date
Ben Mor Coigach	Birds, flowers, freshwater life, mammals, marine life	NC075065	5949	1988
Handa Island	Birds	NC138480	363	1991
Doire Donn	Oak wood	NN050703	168	1966

7.4 National Trust

There are eleven National Trust for Scotland sites in SEA 7, of particular relevance are the NTS seabird sites (represented in bold in the table below). St. Kilda is home to the largest colony of seabirds in northern Europe, including a quarter of the world's population of northern gannets. The coastline of Canna and Sanday is home to large colonies of seabirds, including shags, puffins, razorbills and black guillemots. Mingulay (12 miles south of Barra) and Berneray are Sites of Special Scientific Interest for the marine vegetation, rock shore and spectacular cliff habitats found here. Along with Pabbay, they are a Special Protection Area for the seabird population. Other RSPB sites listed have coastal locations. National Trust for Scotland sites are listed in Table 7.4.

The Giant's Causeway National Trust site is a geological phenomenon on the North Antrim coast and is Northern Ireland's only World Heritage Site. Its geology, flora and fauna are of international importance. While the Carrick-a-Rede site is a rock island connected to the mainland cliffs by a rope bridge. It is also Site of Special Scientific Interest for its unique geology, flora and fauna.

Table 7.4 – National Trust for Scotland sites in SEA 7

Site Name	Grid Ref	Area (ha)	Designated Date
St. Kilda Archipelago	NF094997	846	1957
Canna & Sanday, Small Isles	NG250060	1514	1981
Shieldag Island Torridon, Ross-shire. In Loch Torridon. Off Shieldaig.	NG810543	13	1970
Torridon	NG894580	6438	1967-68
Inverewe Garden	NG860820	909	1953-93
Strome Castle	NG862354	unavailable	1939
Iona	NM275240	911	1979
Burg	NM417275	569	1932
Staffa	NM325355	28	1986
Mingulay, Berneray & Pabbay	NL560830	910	2000
Arduaine Garden	NM794103	8	1992

7.5 Woodland Trust

Established in 1972, The Woodland Trust is the UK's leading woodland conservation charity with over 1,000 sites in its care covering around 20,000 hectares of woodland. The Woodland Trust aims to conserve, restore and re-establish the UK's woodland. There is only one coastal woodland trust site occurring in the Scottish component of SEA 7.

Uig Wood forms a strip of woodland around the northwest and southeastern side of Uig village on the Trotternish Peninsula of Skye. The wood consists of two steep sided gully woods on the Rha and Conon burns that are linked by a flat wood that fringe the shoreline around the eastern sections of Uig bay.

Table 7.5 – Woodland Trust sites in SEA 7

Site Name	Grid Ref	Area (ha)
Uig Wood, Uig, Isle of Skye	NG396643	17.6

8 MANAGEMENT SCHEMES AND COASTAL FORUMS

8.1 Agri-environmental Schemes

Agri-environment schemes are co-funded by the European Union as part of their rural development programme. They are the main mechanism used by Government to encourage farmers and landowners to adopt environmentally friendly practices. The Environmentally Sensitive Areas (ESA) Scheme was introduced in Scotland to help conserve specially designated areas of the countryside where the landscape, wildlife or historic interest is of particular importance and where these environmental features can be affected by farming operations. ESAs were designated under powers given to the Secretary of State in the *Agriculture Act 1986*. In addition, Parliament approved individual Statutory Instruments which set out the terms and conditions for each designated area. In Northern Ireland, agri-environment schemes contribute to the delivery of the Northern Ireland Biodiversity Strategy through both the Environmentally Sensitive Areas Scheme (ESA) and the Countryside Management Scheme (CMS). The Country Side Management Scheme has not been discussed here as the area of Northern Ireland's coastline within SEA7 is covered by the Antrim Coast Glens and Rathlin ESA (the CMS applies only to land outside the ESAs).

The Argyll Islands ESA in Scotland addresses a number of environmental management initiatives, which include the incorporation of corncrake management requirements. The ESA, for example, requests the provision and safeguarding of tall vegetation suitable for corncrakes in spring and autumn. The ESA overlaps with the following sites of international importance:

Box 8.1a - International sites covered by the Argyll Islands ESA

- | | | |
|-----------------------------------|---------------------------|-----------------------------|
| • Bridgend Flats | • Firth of Lorn | • Rinns of Islay |
| • Cnuc agus Cladach Mhuile | • Gigha Island and Islets | • South East Islay Skerries |
| • Coll and Tiree | • Gruinart | • Taynish and Knapdale |
| • Collinsay and Oronsay | • Laggan | • The Oa |
| • Eileanan agus Sgeirean Lios Mor | • Moine Mhor | • Treshnish Isles |

The Machair of Uists, Benbecula, Barra and Watersay ESA was submitted in 1988 and covers 18,110ha. The ESA contains dry machair plain with nearby wetland important for breeding waders and corncrakes, unimproved, herb-rich and coastal grasslands, dunes and maritime heath, an extensive range of wild flowers, many rare; archaeologically rich with well preserved structures. The ESA overlaps with the following sites of international importance:

Box 8.1b - International sites covered by the Machair of Uists, Benbecula, Barra and Watersay ESA

- | | |
|----------------------------------|---------------------------|
| • North Uist Machair and Islands | • West Coast of Benbecula |
| • South Uist Machair and Lochs | • West Sound of Barra |

The Antrim Coast, Glens and Raithlin Island ESA overlaps with the majority of sites of international importance in the Northern Ireland component of SEA 7:

Box 8.1c- International sites covered by the Antrim Coast, Glens and Raithlin Island ESA

- | | |
|----------------------|------------------|
| • North Antrim Coast | • Sheep Island |
| • Raithlin Island | • Antrim Plateau |

8.2 SNH Management Schemes

Scottish Natural Heritage (SNH) launched Natural Care in October 2001 to help conserve and improve Scotlands SSSIs and Natura sites. SNH works with over 10,000 separate owners and land managers to conserve these important sites. There are four Natural Care Management Schemes currently operating within SEA 7 (listed in the box below). Three of the schemes address bird species also identified by SNH in their proposed Species Framework (as described in Section 8.3).

Box 8.2 - SNH Natural Care Management Schemes in SEA 7	
Mull Eagle Scheme	The island of Mull supports one of the largest concentrations of eagles in Britain, including golden- and sea- eagles. The island makes a major contribution to eagle conservation nationally.
Corncrake Management Scheme	The Scheme provides financial incentives to help safeguard populations of breeding corncrakes within corncrake Special Protection Areas by encouraging and supporting the sympathetic management of agricultural land.
Local Goose Management Schemes	The schemes aim to help integrate productive farming with the conservation of wild geese and their grazing on farm and crofting land. Most of the Schemes provide payments towards the maintenance of disturbance free feeding areas where geese are resident whilst encouraging the scaring of geese from other parts of the farm. Four of the schemes overlap with the SEA 7 area: Uists, Coll and Tiree, Islay and Kintyre.
Peatland Management Schemes (PMS)	To secure adequate protection for the internationally important peatland habitats, to build public support for that objective, and to provide a financial incentive for the continued management of peatland in a traditional and sustainable way in sympathy with natural heritage interests. All three of the Peatland Management Schemes overlap with SEA 7: Lewis PMS, Skye PMS and Caithness and Sutherland PMS.

8.3 SNH Species Framework

The UK government has signed up to the Convention on Biological Diversity and to the European Union target to halt the loss of biodiversity by 2010. In Scotland the *Nature Conservation (Scotland) Act 2004* makes it a duty on all public bodies to further the conservation of biodiversity, and the Scottish Biodiversity Strategy (2005) sets out what should be done to conserve and enhance biodiversity over the next 25 years. Management of individual species is often necessary, in order to enhance the status of some species, or control others, or to manage the interactions between species and people. SNH's Species Framework seeks to provide a basis for species management decisions to be as clear as possible. The Species Framework is currently under public consultation. Species identified for action within the framework and occurring within SEA 7 are listed in the box below.

Box 8.3 - Conservation Action (targeted action to increase the range or population of selected species which are either at risk or play a vital role in achieving healthy ecosystems)	
Corncrake	Although once widespread across the UK the corncrake is now mainly restricted to the Scottish islands of the far west and north. Management action has included schemes to support corncrake-sensitive farming, designation of core populations within protected sites and grant schemes.

Box 8.3 - Conservation Action (targeted action to increase the range or population of selected species which are either at risk or play a vital role in achieving healthy ecosystems)	
White tailed eagle (sea eagle)	Since its reintroduction in 1970, the population has slowly recovered but has been restricted to the west coast islands, especially Mull, Skye and Western Isles.
Freshwater pearl mussel	Has suffered substantial decline as a result of pearl fishing, pollution and habitat loss. Action includes enforcing the ban on pearl fishing and the illegal trade of pearls.
Conflict Management (where the behaviour of a wild species brings it into conflict with peoples interests or the conservation of other habitats and species)	
Greenland white-fronted goose	The conservation of this population is currently addressed by the Goose Management Scheme on Islay.

8.4 Biodiversity Action Plans

In 1993, the UK government consulted over three hundred organisations throughout the UK and held a two day seminar to debate the key issues raised at the Convention of Biological Diversity. The product of this was the launch of Biodiversity: the UK Action Plan in 1994 which outlined the UK Biodiversity Action Plan for dealing with biodiversity conservation in response to the Rio Convention.

Three types of Action Plans have been developed which set priorities for nationally and locally important habitats and wildlife. Each plan has costed actions and targets and reporting on the targets is done on a 3-5 year cycle.

- Species Action Plans
- Habitat Action Plans
- Local Biodiversity Action Plans (LBAP)

A major review of the UK BAP and its priorities and targets is soon to be completed.

The UK BAP review is currently attempting to make BAP targets SMARTer i.e. Specific, Measureble, Acheivable, Relevant and Time-related. New targets for these priority habitats include for specified hectares to be maintained in favourable condition, to be restored or re-established. For priority species, targets include maintaining populations or increasing populations by specific amounts such as pairs of breeding birds, or maintaining and expanding the range of the species. There are also changes proposed for the habitats and species listed in the UK BAP.

8.4.1 Local Biodiveristy Action Plans

LBAPs work on the basis of partnership to identify local priorities and to determine the contribution they can make to the delivery of the national Species and Habitat Action Plan targets. There are three LBAPs in SEA 7; Comhairle nan Eilean Siar (Western Isles), Highland and Argyll and Bute.

8.5 Coastal Zone Management

Both Northern Ireland and Scotland are examining the value of Integrated Coastal Zone Management and Marine Spatial Planning. Three institutes are active in European networks that promote these approaches. These are the 'Centre for Coastal and Marine Research' in the University of Ulster, the 'Coastal Group' in Down District Council (both in Northern Ireland) and the 'Aberdeen Institute for Coastal Science and Management' (Aberdeen). In Scotland there is also the Scottish Coastal Forum

and a number of coastal management partnerships at the regional level including the Western Isles. Parts of the West Mainland Coast have also been used as pilot projects for Coastal Zone Management as described here. For further information please consult the relevant websites for the above organisations.

Western Isles Coastal Zone Management Forum - Set up in June 2002, the Forum comprises a wide range of organisations interested in the coastal zone, which covers about 1500 miles of coastline. At its first meeting the Forum established a Coastal Zone Management Plan Steering Group with 15 members to oversee the development of a Management Plan for the coastline of the Western Isles. The Group has co-ordinated a number of activities, including a Harbour Development Plan for Loch Roag and the monitoring of coastal erosion at Liniclete.

Argyll and Bute Coastal Framework Plans (Argyll and Bute Council), in line with European, national and local policy thinking, is developing coastal framework plans in Loch Etive and Loch Fyne to address the growing pressures between competing loch users (aquaculture, angling, transport, access, tourism and recreation). These plans are being used to identify the key users and activities in the lochs and will be important in guiding and informing future activities and developments.

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APPENDIX I – GLOSSARY AND ABBREVIATIONS

Term	Definition
Aalenian	The Aalenian is a subdivision of the Middle Jurassic epoch of the geologic timescale that extends from about 175.6Ma to about 171.6Ma
AGLV	Areas of Great Landscape Value
Alluvial deposits	Sediment deposited by flowing water, as in a riverbed, flood plain, or delta
Amphipods	Small flat-bodied semi-terrestrial crustaceans
AONB	Area of Outstanding Natural Beauty
ARLS	Areas of Regional Landscape Significance
Ascidians	Ascidacea (commonly known as the ascidians or sea squirts) is a class in the Tunicata subphylum of sac-like marine filter feeders.
ASSIs	Areas of Special Scientific Interest
Bajocian	The Bajocian is an age of the Middle Jurassic epoch of the Jurassic period of the Mesozoic era of the Phanerozoic eon. It lasted from approximately 171.6Ma to around 167.7Ma
Bathonian	The Bathonian epoch is a stage during the Middle Jurassic, of the Mesozoic era of the Phanerozoic eon. It lasted from approximately 167.7 Ma to around 164.7 Ma (million years ago).
Bern Convention	Convention on the Conservation of European Wildlife and Natural Habitats
Biodiversity	Diversity of species
Biosphere Reserve	A biosphere reserve is an international conservation designation given by UNESCO under its Programme on Man and the Biosphere (MAB)
Bivalves	Marine or freshwater molluscs having a soft body with plate like gills enclosed within two shells hinged together
Bog	A bog is a wetland type that accumulates acidic peat, a deposit of dead plant material.
Bonn Convention	Convention on the Conservation of Migratory Species of Wild Animals
BR	Biosphere Reserve
Brackish	Slightly salty
Bryophyte	The bryophytes are those embryophyte plants ('land plants') that are non-vascular: they have tissues and enclosed reproductive systems, but they lack vascular tissue that circulates liquids. They neither flower nor produce seeds, reproducing via spores
Callovian	The Callovian is a stage on the geologic timescale occurring from 164.7 +/- 4Ma to 161.2 +/- 4Ma
Carboniferous	The Carboniferous is a major division of the geologic timescale that extends from the end of the Devonian period, about 359.2Ma, to the beginning of the Permian period, about 299Ma
Carse	A low flat, peat or marsh covered plain, normally estuarine
CITES	Convention on International Trade in Endangered Species

Term	Definition
	of Wild Fauna and Flora
CMNP	Coastal and Marine National Park
CMS	Countryside Management Scheme
Coniferous	Trees or shrubs bearing cones and evergreen leaves
Cretaceous	The Cretaceous Period is one of the major divisions of the geologic timescale, reaching from the end of the Jurassic Period (i.e. from about 146 to 136 million years ago (Ma)) to the beginning of the Paleocene epoch of the Tertiary Period (about 65.5 to 64 Ma).
cSAC	Candidate Special Area of Conservation
Dalradian	Dalradian, in geology, a series of metamorphic rocks, typically developed in the high ground which lies south-east of the Great Glen of Scotland.
Deciduous	Shedding foliage at the end of the season
EC	European Community
EHSNI	Environment and Heritage Service Northern Ireland
EPS	Environmental Protected Species
ESA	Environmentally Sensitive Area
Estuary	The wide part of a river where it nears the sea; normally where fresh and salt water mix
ESCR	Earth Science Conservation Review
Eutrophic	Rich in dissolved nutrients, photosynthetically productive and often deficient in oxygen during warm weather
Fjord	Sea lochs created by the slow movement of glacial ice sheets over low-lying land
Flora	All the plant life in a particular region
Gastropods	A class of mollusks typically having a one-piece coiled shell and flattened muscular foot with a head bearing stalked eyes
GCR	Geological Conservation Review Sites
Geomorphology	The study of the underlying form, and weathering processes, of rocks and land surfaces
Grey dunes	Mature dunes, normally vegetated and inland
Ha	Hectare
Hexagonal	A hexagon is a polygon with six edges and six vertices
IBA	Important Bird Area
ICS	The International Commission on Stratigraphy
Igneous	Type of rocks formed when molten rock (magma) cools and solidifies
Intertidal	The coastal zone between high water mark and low water mark
Invertebrates	Animals without backbones
Islets	Very small islands
IUCN	The World Conservation Union
IUGS	International Union of Geological Sciences
JNCC	Joint Nature Conservation Committee

Term	Definition
Jurassic	The Jurassic Period is a major unit of the geologic timescale that extends from about 200Ma, at the end of the Triassic to 146Ma, at the beginning of the Cretaceous.
Kimmeridgian	The Kimmeridgian is a stage of the Late Jurassic epoch. It spans the time between 155.7 ± 4Ma and 150.8 ± 4Ma.
Km	Kilometre
LANR	Local Authority Nature Reserve (Northern Ireland)
LBAPs	Local Biodiversity Action Plans
LNR	Local Nature Reserve
Lochan	A small lake or pond
Ma	Millions of years
Machair	Gaelic word for links or dune pasture
Machrophytes	Macrophytes are aquatic plants, growing in or near water that are either emergent, submergent, or floating
Maquis and garrigue	Terms defining vegetation in the mediterranean area, normally developing on limestone, and degraded
MCA	Marine Consultation Area
MEHRAs	Marine Environment High Risk Areas
Mesozoic	The Mesozoic Era is one of three geologic eras of the Phanerozoic eon
Mesotrophic	Mesotrophic is a term applied to clear water lakes and ponds with beds of submerged aquatic plants and medium levels of nutrients
Metamorphic	Metamorphic rocks make up a large part of the earth's crust and are classified by texture and by chemical and mineral assembly
Mineralogy	Mineralogy is an earth science focused around the chemistry, crystal structure, and physical (including optical) properties of minerals
MoD	Ministry of Defence
Morphological	Concerned solely with shape
Mud-flats	Intertidal areas which are composed of mud and silt
Natura 2000 Network	Sites of conservational value designated under the EU Habitats Directive
NCR	Nature Conservation Review sites
NGO	Non-governmental organisation
NNR	National Nature Reserve
Non-statutory	Having no basis in statute or in law
NSA	National Scenic Area
Oban	Silled lagoons restricted to the north and west of Scotland. May occur as sedimentary basins or in bedrock ('where they are called oban')
Oligochaetes	Hermaphroditic terrestrial and aquatic annelids (worm) having bristles borne singly along the length of the body
Oligotrophic	Oligotrophic refers to any environment which offers little to sustain life. This term is usually used to describe bodies of water or soils with very low nutrient levels

Term	Definition
OSPAR	The Convention for the Protection of the Marine Environment of the North-East Atlantic
Palaeontology	Palaeontology, or the science of fossils, deals with extinct or primeval animals and plants
Palaeozoic	The Paleozoic Era (from the Greek palaio, "old" and zoion, "animals", meaning "ancient life") is the earliest of three geologic eras of the Phanerozoic eon. The Paleozoic spanned from roughly 542 MYA to roughly 251 MYA and is subdivided into six geologic periods; from oldest to youngest they are: the Cambrian, Ordovician, Silurian, Devonian, Carboniferous, and Permian
PCZ	Preferred Conservation Zone
Perennial	Plants with a life cycle lasting more than 2 years.
Permian	The Permian is a geologic period that extends from about 299Ma to 248Ma
Polychaetes	Chiefly marine annelids (worms) possessing both sexes and having paired appendages bearing bristles
Precambrian	The Precambrian (or Pre-Cambrian) is an informal name for the eons of the geologic timescale that came before the current Phanerozoic eon.
Progradation	General term for a coastline which is advancing into the sea
Quaternary	The Quaternary Period is the geologic time period from the end of the Pliocene epoch roughly 1.8-1.6Ma to the present
Raised beach	A raised beach is an emergent coastal landform. Raised beaches are beaches or wave cut platforms raised above the shore line by a relative fall in the sea level
Ramsar Sites	Areas designated by the UK under the Ramsar Convention (Convention on Wetlands of International Importance especially as waterfowl habitat)
Riverine	Relating to or resembling a river
RLD	Regional Landscape Designation
RSA	Regional Scenic Areas
RSC	Regional Scenic Coasts
RSPB	Royal Society for the Protection of Birds
SAC	Special Areas of Conservation designated as European Sites (Natura 2000) under the Habitats and Species Directive
Saline Lagoons	Saline lagoons are essentially bodies of saline water, either natural or artificial, that are partially (but not completely) separated from the adjacent sea
Salt pastures	General term, usually applied to higher levels of saltmarshes which are used for grazing
Saltmarsh	Low coastal grassland normally overflowed by the tide
Screes	A sloping mass of rocks at the base of a cliff
SEA	Strategic Environmental Assessment - an appraisal process through which environmental protection and sustainable development is considered in advance of decisions on policy, plans and programmes
SEPA	Scottish Environmental Protection Agency
Skerries	Small coastal islands

Term	Definition
SNH	Scottish Natural Heritage
SPA	Special Protection Areas designated as European Sites under the Wild Birds Directive
SSSI	Site of Special Scientific Interest
Statutory	Prescribed, authorised or punishable under a statute
Stratigraphy	A branch of geology which is the study of rock layers and layering (stratification)
Sublittoral	That part of the earth's surface which is immediately below the intertidal zone and thus permanently covered with seawater
SWT	Scottish Wildlife Trust
Taxa	Taxonomic category or group
Tertiary	Tertiary period was previously one of the major divisions of the geologic timescale, from the end of the Cretaceous period about 65Ma to the start of the Quaternary period about 1.6Ma
Toarcian	The Toarcian Stage was the last faunal stage of the Early Jurassic period. It is usually used to cover the period from 183 Ma to 175Ma
Triassic	The Triassic is a geologic period that extends from about 251 to 200Ma
UK	United Kingdom
UNESCO	United Nations Educational, Scientific & Culture Organisation
Vascular Plants	Plants in the Kingdom Plantae (also called Viridiplantae) that have specialised tissues for conducting water. Vascular plants include the ferns, clubmosses, horsetails, flowering plants, conifers and other gymnosperms
VMR	Voluntary Marine Reserve
Waders	Any of many long-legged birds that wade in water in search of food, e.g. oystercatcher, whimbrel, snipe, avocets, stilts, plovers, sandpipers, godwits, curlews and phalarope
Waterbirds	Group of birds which include divers and grebes, bitterns and herons, rails, crakes and coots, wildfowl and waders.
Waterfowl	Collective term for all swimming waterbirds including grebes, coots and all wildfowl
Westphalian	Represents the Upper Carboniferous Period from roughly 310 – 300Ma
White dunes	Embryonic small dunes on the upper beach
WHS	World Heritage Site
Wildfowl	Collective term for all ducks, shelducks, geese and swans

APPENDIX II – INTERNATIONAL CONSERVATION DESIGNATIONS

This appendix identifies and gives details of the major statutory and non-statutory mechanisms that operate at international level to conserve the SEA 7 environment.

Sites of international importance

The numbers of sites of international importance in the SEA 7 region are detailed in Box A.1

Box A.1 - Sites of international importance in the SEA 7 area.	
Special Areas of Conservation (SACs)	38
Special Protection Areas (SPAs)	28
Ramsar Sites	7
Important Bird Areas (IBAs)	32
Biosphere Reserves	2
World Heritage Sites	2

The UK Government has entered into a number of international natural heritage obligations. These flow from European Directives affecting all Member States of the European Union, and from the UK being a signatory to several wider international conventions or treaties on habitats and species. Consequently a number of international natural heritage designations now exist in addition to national ones. They are normally based on national designations, notably SSSIs.

EC Habitats and Birds Directives

In 1979 the European Community adopted *Council Directive 79/409/EC on the conservation of wild birds*, known as the Birds Directive. One of the key provisions of this Directive is the establishment of an internationally co-ordinated network of protected areas. Member states are required to identify and classify the most suitable territories in size and number for rare or vulnerable species listed in Annex I to the Directive and for regularly occurring migratory species (Annex 11). These sites are known as Special Protection Areas (SPAs).

In 1992 the Community adopted *Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora*, known as the Habitats Directive. The Habitats Directive includes a requirement to establish a European network of important high quality conservation sites that will make a significant contribution to conserving the habitat types and species listed in Annexes I and II of the Directive. The listed habitat types and species are those considered to be most in need of conservation at a European level. Each member state is required to prepare and propose to the EC a national list of sites, which will be evaluated in order to form a network of Sites of Community Importance (SCIs). These are then designated by Member States as Special Areas of Conservation (SACs). SACs and SPAs, together, are known as the *Natura 2000 Network*.

The Conservation (Natural Habitats, &c.) Regulations 1994

The Conservation (Natural Habitats, &c.) Regulations 1994 provided for the designation of sites in the UK on land and within territorial waters (12n miles).

The Offshore Petroleum Activities (Conservation of Habitats) Regulations 2001

The *Offshore Petroleum Activities (Conservation of Habitats) Regulations, 2001* implemented the above directives in relation to oil and gas plans or projects carried out in whole or in part on the UKCS outside territorial waters – although there was then no mechanism for the designation of sites outside 12n miles. Where it is considered that an activity completed under a project consent may have a significant effect on a SAC or SPA, the DTI must conduct an Appropriate Assessment (AA) prior to granting the consent.

The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2006

The government has introduced draft regulations *the Offshore Marine Conservation (Natural Habitats, & c.) Regulations 2006* which provide the mechanism for the UK designation of offshore (outside 12 nautical miles) SACs and SPAs and the protection of certain species primarily cetaceans, turtles, certain fish and birds. The types of habitat and the species protected are listed in the Annexes to the Directives. The new sites will be known as European offshore marine sites.

The existing *Offshore Petroleum Activities (Conservation of Habitats) Regulations 2001* remain in force, although the draft regulations make some amendments to them.

Special Areas of Conservation (SAC)

The UK statutory provisions applying to *Natura 2000* sites are contained in the *Conservation (Natural Habitats & c.) Regulations 1994* which includes marine areas in or up to the seaward limit of territorial waters (12 nautical miles).

Advice to Government on the selection of possible SACs has been provided by the statutory nature conservation agencies – Countryside Council for Wales (CCW), English Nature (EN) and Scottish Natural Heritage (SNH), coordinated through the Joint Nature Conservation Committee (JNCC).

Sites are submitted to the European commission, following consultation with site owner/occupiers and other interested parties. At this stage, sites become known as candidate Special Areas of Conservation (cSACs). The process that the UK Government and the European Commission must follow for cSAC selection is in two stages and is described in Box A.2.

Box A.2- cSAC Selection Process

Stage 1 – Assessment of relative importance of sites containing examples of the individual Annex I habitats and Annex II species in each member state. Factors considered:

- Percentage of national resources contained within the site series
- The quality of habitats, including features that are important for associated species
- Member States' special responsibility for particular habitats and species
- Coverage of geographical range of habitat or species within the site series
- Coverage of ecological variation of habitat or species within the site series

Box A.2- cSAC Selection Process

Stage 2 – Assessment of overall importance of sites in the context of the biogeographical region and the EU as a whole. Factors considered:

- The relative value of the site at a national level
- The relationship of the site to migration routes
- The total area of the site
- The diversity of habitats and species present on the site
- The overall quality of the site in the context of the biogeographical region and/or the EU

There is a considerable overlap in sites with SPAs.

Sources of information

Joint Nature Conservation Committee website

<http://www.jncc.gov.uk/>

UK Marine SAC Project website

<http://www.ukmarinesac.org.uk/>

Special Protection Areas (SPA)

Natura 2000 will also comprise Special Protection Areas (SPAs) classified under the *EC Birds Directive*.

The process of selecting SPAs in the UK has been hindered by lack of agreed selection criteria formalised at a European level. The UK has therefore used internationally recognised criteria, especially those given under the Ramsar Convention (see Box A3 - Categories of criteria for site selection under the Ramsar Convention) to select SPAs.

The UK SPA network has been compiled by the JNCC together with the various UK conservation agencies and comprises 243 sites (c.a. 1,454,500ha). The total area of those on land is roughly 6% of Scotland. Marine SPAs may be introduced in due course.

Sources of information

JNCC UK SPA Network website

<http://www.jncc.gov.uk/UKSPA/sites/>

Ramsar sites

The *Convention on Wetlands of International Importance, Especially as Waterfowl Habitats (The Ramsar Convention, 1971)* is an inter-governmental treaty that aims to stem the progressive encroachment on and loss of wetland habitat. Ramsar sites are designated for their important waterfowl populations and rare or endangered plant and animal species. The criteria for site selection are shown in Box A.3.

Box A.3 - Categories of criteria for site selection under the Ramsar Convention.

- Representative, rare, or unique example of a natural or near-natural wetland type found within the appropriate biogeographic region
- Supports vulnerable, endangered, or critically endangered species or threatened ecological communities
- Supports populations of plant and/or animal species important for maintaining the biological diversity of a particular biogeographic region

Box A.3 - Categories of criteria for site selection under the Ramsar Convention.

- Supports plant and/or animal species at a critical stage in their life cycles, or provides refuge during adverse conditions
- Regularly supports 20,000 or more waterbirds
- Regularly supports 1% of the individuals in a population of one species or subspecies of waterbird
- Supports a significant proportion of indigenous fish subspecies, species or families, life-history stages, species interactions and/or populations that are representative of wetland benefits and/or values and thereby contributes to global biological diversity
- An important source of food for fishes, spawning ground, nursery and/or migration path on which fish stocks, either within the wetland or elsewhere, depend

The Convention on Wetlands of International Importance was adopted in 1971 at Ramsar in Iran. There were 42 designated Ramsar sites in Scotland by August 1998 and another 20 potential Scottish sites have been identified. The application of the Ramsar label indicates that an SSSI is a valued wetland site, a habitat which has declined worldwide and is often important for waterfowl and other wetland birds.

Sources of information

Joint Nature Conservation Committee website

<http://www.jncc.gov.uk/>

Important Bird Areas (IBA)

The Important Bird Areas (IBA) Programme of Birdlife International is a worldwide initiative aimed at identifying and protecting a network of sites that are important for the long-term viability of naturally occurring bird populations. The programme aims to guide national conservation strategies and assist the conservation activities of international organisations.

Box A.4 - Relevant categories of criteria for IBA site selection

- A4i – Site is known or thought to hold, on a regular basis, 1% or more of a biogeographic population of a congregatory waterbird species
- A4iii - Site is known or thought to hold, on a regular basis, at least 20,000 waterbirds, or at least 10,000 pairs of seabird, of one or more species
- B1i - Site is known or thought to hold 1 % of a flyway population or other distinct population of a waterbird species
- B2 – Site is one of the most important sites for a species with an unfavourable conservation status in Europe
- B3 - Site is one of the 'n' most important sites for a species with a favourable conservation status in Europe but with its global range concentrated in Europe
- C2 – Site is known to regularly hold at least 1% of the flyway or EU population of a species considered to be threatened in the EU
- C3 - Site is known to regularly hold at least 1% of the flyway or EU population of a species not considered to be threatened in the EU
- C4 – Site is known to regularly hold at least 20,000 migratory waterbirds, or at least 10,000 pairs of migratory seabird, of one or more species
- C6 – Site is one of the five most important in the European region for a species or subspecies considered threatened in the EU

Sources of information

Birdlife International website

<http://www.birdlife.org.uk/>

Important Bird Areas in Europe: Priority sites for conservation. Vol. 1: Northern Europe. Birdlife International