

4. Birds Directive Annex I and Migratory Species

Council Directive 79/409/EEC (as amended) requires that species listed on Annex I and all species of regularly occurring migratory birds shall be the subject of special conservation measures concerning their habitat. Member states of the EU are required to classify Special Protection Areas for the conservation of these species. The main provisions relating to the classification of SPAs are contained in Article 4 of the Directive. Article 4 requires:

- i. that Member States: “shall classify in particular the most suitable territories in number and size as special protection areas for the conservation of these [Annex I] species, taking into account their protection requirements in the geographical sea and land area where the Directive applies”;
- ii. and that Member States: “take similar measures for regularly occurring migratory species not listed in Annex I, bearing in mind their need for protection in the geographical sea and land area where this Directive applies, as regards their breeding, moulting and wintering areas and staging posts along their migration routes.”

A network of Special Protection Areas (SPAs) has already been classified for inland, estuarine and terrestrial coastal areas in the UK (Stroud *et al.* 2001). However, currently SPAs exist only for land above mean low water (or mean low water springs in Scotland). Section 6.3.1 describes current work on identifying marine SPAs in the UK.

4.1. Birds for which marine SPAs will be considered

Table 4.1 below lists all birds in UK waters for which marine SPAs are being considered. Bird species to be considered have been identified by reference to the British List (British Ornithologists' Union 2000). Those species that are sufficiently rare in the UK that a description would need to be provided to the British Birds Rarities Committee for a record to be valid, are excluded from further consideration here (see British List). All other migratory species listed are assumed to be regularly occurring, as they are not vagrants. Note that one bird species is not included in Table 4.1 – the black guillemot (*Cephus grylle*) – because it is not considered to be migratory in the UK, nor is it an Annex I species, and is therefore outside the scope of the Birds Directive.

Table 4.1 List of bird species for which marine SPAs are being considered

Common name	Species	Status	Existing SPA(s) in UK?
Red-throated diver	<i>Gavia stellata</i>	Ann. I	✓
Black-throated diver	<i>Gavia arctica</i>	Ann. I	✓
Great northern diver	<i>Gavia immer</i>	Ann. I	
Great crested grebe	<i>Podiceps cristatus</i>	M	✓
Red-necked grebe	<i>Podiceps grisena</i>	M	
Slavonian grebe	<i>Podiceps auritus</i>	Ann. I	✓
Black-necked grebe	<i>Podiceps nigricollis</i>	M	
Fulmar	<i>Fulmarus glacialis</i>	M	✓
Cory's shearwater	<i>Calonectris diomedea</i>	Ann. I	
Great shearwater	<i>Puffinus gravis</i>	M	
Sooty shearwater	<i>Puffinus griseus</i>	M	
Manx shearwater	<i>Puffinus puffinus</i>	M	✓
Balearic shearwater ¹	<i>Puffinus mauretanicus</i>	Ann. I	
Storm petrel	<i>Hydrobates pelagicus</i>	Ann. I	✓
Leach's petrel	<i>Oceanodroma leucorhoa</i>	Ann. I	✓
Gannet	<i>Morus bassanus</i>	M	✓
Cormorant	<i>Phalacrocorax carbo</i>	M	✓
Shag	<i>Phalacrocorax aristotelis</i>	M	✓
Scaup	<i>Aythya marila</i>	M	✓
Common eider	<i>Somateria mollissima</i>	M	✓
Long-tailed duck	<i>Clangula hyemalis</i>	M	✓
Common scoter	<i>Melanitta nigra</i>	M	✓
Surf scoter	<i>Melanitta perspicillata</i>	M	
Velvet Scoter	<i>Melanitta fusca</i>	M	✓
Goldeneye	<i>Bucephala clangula</i>	M	✓
Red-breasted merganser	<i>Mergus serrator</i>	M	✓
Goosander	<i>Mergus merganser</i>	M	✓
Red-necked phalarope	<i>Phalaropus lobatus</i>	Ann. I	✓
Grey phalarope	<i>Phalaropus fulicarius</i>	M	
Pomarine skua	<i>Stercorarius pomarinus</i>	M	
Arctic skua	<i>Stercorarius parasiticus</i>	M	✓
Long-tailed skua	<i>Stercorarius longicaudus</i>	M	
Great skua	<i>Catharacta skua</i> ²	M	✓
Mediterranean gull	<i>Larus melanocephalus</i>	Ann. I	✓
Little gull	<i>Larus minutus</i>	M	
Sabine's gull	<i>Larus sabini</i>	M	
Black-headed gull	<i>Larus ridibundus</i>	M	✓
Ring-billed gull	<i>Larus delawarensis</i>	M	
Common gull	<i>Larus canus</i>	M	✓
Lesser black-backed gull	<i>Larus fuscus</i>	M	✓
Herring gull	<i>Larus argentatus</i>	M	✓
Yellow-legged herring gull ³	<i>Larus argentatus cachinnans</i>	M	
Iceland gull	<i>Larus glaucoides</i>	M	
Glaucous gull	<i>Larus hyperboreus</i>	M	
Great black-backed gull	<i>Larus marinus</i>	M	✓
Kittiwake	<i>Rissa tridactyla</i>	M	✓
Sandwich tern	<i>Sterna sandvicensis</i>	Ann. I	✓
Roseate tern	<i>Sterna dougallii</i>	Ann. I	✓
Common tern	<i>Sterna hirundo</i>	Ann. I	✓
Arctic tern	<i>Sterna paradisaea</i>	Ann. I	✓
Little tern	<i>Sterna albifrons</i>	Ann. I	✓
Black tern	<i>Chlidonias niger</i>	Ann. I	
Guillemot	<i>Uria aalge</i>	M	✓
Razorbill	<i>Alca torda</i>	M	✓
Little auk	<i>Alle alle</i>	M	
Puffin	<i>Fratercula arctica</i>	M	✓

Note: M = regularly occurring migratory species (Article 4.2, Birds Directive)

Ann. I = listed on Annex I of Birds Directive

Existing SPA(s) in UK? = Are there SPAs in the UK (Sept 2001) for which the species is a qualifying feature?

¹ Manx shearwater (balearic subspecies) *Puffinus puffinus mauretanicus* is listed Annex I to Birds Directive. Balearic shearwater is now considered a separate species *Puffinus mauretanicus*.

² Previously *Stercorarius skua*

³ Yellow legged herring gull (*Larus argentatus cachinnans*) is currently considered a sub-species by the British Ornithologists' Union, but is considered a separate species (*Larus cachinnans*) by other European countries.

4.2. Selection criteria and additional principles used for site selection for Annex I and migratory birds in the UK

The Birds Directive does not set out criteria for the selection of SPAs in the manner provided for in the Habitats Directive for SACs, nor has the Commission's Ornithological Committee ever formally agreed criteria or guidance for selection (other than in the most general of terms).

European case law indicates that Member States are required to list SPAs, notwithstanding other measures which may be in force for the protection of the species of birds concerned, and that the SPAs shall be selected on the basis of ornithological criteria (Case C-3/96 Commission v. Netherlands). The discretion of the Member States is limited to deciding upon the most suitable sites (and their extent) using those criteria. For the UK, guidelines relating to selection of terrestrial and intertidal SPAs have already been published, and criteria for marine SPAs will be an extension of these existing guidelines.

4.2.1. JNCC Selection Guidelines for Special Protection Areas

The criteria in Article 4 of the Birds Directive are very general, and some Member States have found it necessary to produce more specific guidance for SPA selection purposes. JNCC has published guidelines to assist in selection of sites as SPAs in the UK (JNCC 1999b). These guidelines are aimed at selection of terrestrial (including wetland and intertidal) SPAs, and may therefore need modification to make them relevant to the marine environment. The process is split into two stages:

Stage 1 to identify areas which are likely to qualify for SPA status.

Stage 2 to select the most suitable areas in number and size for SPA classification.

Stage 1 guidelines:

1. An area used regularly by 1% or more of the Great Britain (or in Northern Ireland, the all-Ireland) population of a species listed in Annex I of the Birds Directive (79/409/EEC as amended) in any season.
2. An area used regularly by 1% or more of the biogeographical population of a regularly occurring migratory species (other than those listed in Annex I) in any season.
3. An area used regularly by over 20,000 waterfowl (waterfowl as defined by the Ramsar Convention) or 20,000 birds in any season.
4. An area which meets the requirements of one or more of the Stage 2 guidelines in any season, where the application of Stage 1 guidelines 1, 2 or 3 for a species does not identify an adequate suite of most suitable sites for the conservation of that species.

The Stage 2 judgements are stated as being particularly important for selecting and determining boundaries (in terrestrial environments) of SPAs for thinly dispersed and wide ranging species. The following seven factors are used in Stage 2:

1. **Population size and density:** Areas holding or supporting more birds than others and/or holding or supporting birds at higher concentrations are favoured for selection.

2. **Species range:** Areas selected for a given species provide as wide a geographic coverage across the species' range as possible.
3. **Breeding success:** Areas of higher breeding success than others are favoured for selection.
4. **History of occupancy:** Areas known to have a longer history of occupation or use by the relevant species are favoured for selection.
5. **Multi-species areas:** Areas holding or supporting the larger number of qualifying species under Article 4 of the Birds Directive are favoured for selection.
6. **Naturalness:** Areas comprising natural or semi-natural habitats are favoured for selection over those which do not.
7. **Severe weather refuges:** Areas used at least once a decade by significant proportions of the biogeographical population of a species in periods of severe weather in any season, and which are vital to the survival of a viable population, are favoured for selection.

Applicability of these guidelines in the marine environment is discussed in Section 6.3 of this report.

4.3. Information available on Annex I and migratory birds

4.3.1. European Seabirds at Sea database (ESAS)

Data that could be used to identify marine areas where birds have been observed to aggregate are held in the European Seabirds at Sea (ESAS) database at JNCC. It holds data from a number of groups and institutes in north-west Europe who have adopted standardised methods for censusing birds at sea, mainly from ships. One of the important aspects of the ESAS database is that it also includes data collection effort, therefore effort-related data analysis may be performed on the data. The ESAS database contains nearly 2 million bird and cetacean records, which were collected during boat-based transect surveys covering over 500,000 km of NW European waters. Data are collected in all months of the year and have been since the first surveys in 1979. Rare species and those whose distribution is primarily close to the shore (outside of the main area of sea-based surveys), are not well represented in the ESAS database.

Whilst the ESAS database provides an enormous amount of valuable data, one of the difficulties faced in terms of data availability, is the lack of repeat surveys which would allow us to assess the permanency of any aggregations identified, and consistency of use of areas over time. Analysis of counts of guillemots on the waters of the Moray Firth between May and July of 1992 and 1993 indicated that the distribution was widespread and variable at finer scales, though reasonably consistent at coarser scales. Many of the aggregations of guillemots identified on individual cruises appeared to be ephemeral, indicating that if data from a single sample cruise were used to identify important areas the results could be misleading. Combining interpolated data for all cruises, however, it was possible to identify some areas which tended to hold consistently high or low densities of birds. This suggests that numerous repeat surveys might be required to identify consistently important marine areas for birds (Harding and Riley 2000a).

There is also an issue of scale in the selection of marine areas for birds. Harding and Riley (2000b) looked to see whether important areas for birds could be identified within the

waters of the Moray Firth, focusing on an area of sea encompassed approximately within a line extending from Duncansby Head in the north to Fraserburgh in the south (Mudge & Crooke, 1986). Considering the overall distribution of birds in the North Sea, Skov *et al.* (1995) identified the Moray Firth as a component of a more extensive important marine area for birds known as the Moray Firth – Aberdeen Bank - Tees.

4.3.2. Aerial survey data

For some species that feed inshore, aerial survey data are also available. Surveys of common scoter have been carried out under contract to CCW in Carmarthen Bay since 1998 and in Liverpool Bay since 2000. These were expanded in 2001 to include other inshore species and covered all sites within the Irish Sea and St. George's Channel. The JNCC's Seabirds at Sea Team began surveys of inshore seabird species in the Moray Firth, Firth of Tay and Firth of Forth in 2000. These surveys were expanded to include the Thames Estuary in 2001, but may ignore those species with a significant 'western' distribution (i.e. long tailed duck, wintering divers etc.).

These surveys will be sufficiently detailed to allow population sizes to be worked out in these areas and plot the limits of the seabird distribution using spatial analysis techniques. However, there are not many repeat surveys yet for all species to determine consistency of the populations of inshore species in these areas.

There will be gaps in coverage in inshore waters, where aggregations of inshore seabirds are known from land-based surveys (e.g. WeBS), but systematic aerial surveys have yet to be carried out (e.g. the outer Wash and adjacent coastlines). Aerial surveys are not a particularly appropriate method to determine the size and distribution of inshore seabird aggregations in areas where there is a heavily indented coastline, such as in parts of western Scotland, the Orkney and Shetland Isles and in parts of Cornwall.

4.3.3. Other data

A number of other data sources may contain useful information on bird distributions in inshore waters, although they relate primarily to bird distributions whilst on land.

JNCC, as the UK Government's advisors on nature conservation, must regularly and accurately update their knowledge of the size and distribution of seabird populations, so that changes over time and their causes can be identified. This is currently achieved through three projects. The JNCC maintains the ***Seabird Colony Register***, which contains information on numbers at all known seabird colonies in Britain and Ireland dating back to 1969. JNCC co-ordinates the ***Seabird Monitoring Programme***. Under this scheme, breeding numbers, performance, survival and diet are recorded annually at selected colonies by conservation organisations, as well as by dozens of volunteers. ***Seabird 2000*** is a national seabird census, conducted in partnership between the JNCC and other nature conservation organisations, to census all seabird colonies between 1999 and 2002. *Seabird 2000* follows on from two previous seabird censuses conducted in 1969-70 and in 1985-87. *Seabird 2000* will:

- Reveal long-term national trends (over the last 30 years) by comparing its findings with those of the two previous censuses;
- determine whether population trends recorded at local levels by the Seabird Monitoring Programme are representative of national trends;

- provide the first accurate estimates of breeding population size of British storm petrel and Leach's storm petrel.

Wetland Bird Survey data (WeBS) The Wetland Bird Survey monitors non-breeding waterbirds annually in wetlands throughout the UK. Two types of data are collected in coastal wetlands; *core counts*, made at high tide, and *low-tide counts*. Wetland areas are divided into count sections and counts are made by the 'look-see' method from shore of most species of non-breeding waterbirds. However, some groups of species, such as gulls, are only partially monitored.

Core counts are made monthly from September to March, with count days co-ordinated nationally. The network of wetland sites in which core counts are made extends to around 2,000 sites and includes all major estuaries along with many soft-sediment coastal areas. Rocky shorelines are under-represented in core counts.

Low-tide counts have been made in 62 estuarine sites throughout the UK. They are not made annually, but are repeated typically every six years, however, more frequent coverage has been made on some sites. Counts are made monthly from November to February, and as with core counts most species are counted.

In general, for both types of count, all birds in the immediate open-water inshore area of a count section are recorded, although the offshore distance at which birds are recorded is highly variable. This latter problem, along with that of poor coverage of gulls, means that there is some limitation to the value of WeBS data for identifying SPAs in the marine environment. Summary WeBS data are published annually in *Wildfowl and Wader Counts* (BTO/WWT/RSPB/JNCC). Full WeBS *core count* data are readily available from the WeBS Secretariat at Wildfowl and Wetlands Trust and *low-tide count* data are available from the organiser (Andy Musgrove) at the British Trust for Ornithology.

WeBS Non-estuarine Waterfowl Survey (NEWS) – carried out in 1997/98 these were counts of waterbirds along 38% of the UK's non-estuarine coasts. **Winter Shorebird Count** – 1984/85 counts that covered 78% of UK coast, but were limited to waders and Eider. Data are available from WeBS Secretariat. Data for birds using inshore open-waters may have the same limitation as the WeBS data.

Data is also available from specific research projects by the country conservation agencies, non-government organisations and from consultant's reports and published studies, as well as from local bird recorders.