

A6.93 Guillemot *Uria aalge* (breeding)

1. Status in UK

Biological status		Legal status		Conservation status	
Breeding	✓	Wildlife and Countryside Act 1981	General Protection	Species of European Conservation Concern	
Migratory	✓	Wildlife (Northern Ireland) Order 1985	General Protection	(UK) Species of Conservation Importance	Table 4
Wintering	✓	EC Birds Directive 1979	Migratory	All-Ireland Vertebrate Red Data Book	

2. Population data

	Population sizes (pairs)	Selection thresholds	Totals in species' SPA suite
GB	703,500	7,035	665,056 (95% of GB population)
Ireland	102,510	1,025	28,064 (27% of all-Ireland population)
Biogeographic population	2,250,000	22,500	693,120 (31% of biogeographic population)

GB population source: Lloyd et al. 1991

All-Ireland population source: Gibbons et al. 1993

Biogeographic population source: Lloyd et al. 1991

3. Distribution

Guillemots have a circumpolar global breeding range. They are found in the North Atlantic, North Pacific and Arctic Oceans, occurring mainly in boreal and low Arctic zones, but extending south into temperate regions and north to the high Arctic (Cramp 1985). They are highly colonial and the exact distribution of breeding colonies within this range is determined by the presence of suitable cliffs on which to nest as well as patterns of abundance of their marine food. Four sub-species have been described, of which two occur in Europe (and Britain). The nominate sub-species *U. a. aalge*, breeds in Iceland, the Faeroes, Scotland (north of *c.* 55° 39'N), the Baltic and Norway (north to 69°N), whilst *U. a. albionis* breeds in Britain south of *c.* 55°39'N, Ireland, Helgoland (Germany), Brittany (France) and western Iberia (Cramp 1985; Lloyd *et al.* 1991).

In the east Atlantic (and Europe), largest numbers occur in Iceland. The greatest number of Guillemot colonies are found in Britain and Ireland, with significant numbers also along the coasts of Norway and Russia, and to a lesser extent around the Baltic (Sweden and Denmark), and on the Atlantic coasts of France (Brittany), Spain (Galicia) and Portugal.

The main concentration of breeding Guillemots in the UK in 1985–1987 was in the north of Scotland (Lloyd *et al.* 1991). Here, the largest numbers were found in Orkney, Shetland, Caithness, the Western Isles, Sutherland (the island of Handa) and Kincardine and Deeside

(Fowlsheugh). The principal breeding area in Northern Ireland was Rathlin Island (Antrim). In comparison, colony sizes were smaller in England and Wales, with the largest colonies in Humberside (Bempton-Flamborough), Northumberland and Devon, with Gwynedd (Carreg y Llam) and Dyfed holding the largest proportion of the Welsh population (Lloyd *et al.* 1991). Guillemots are absent from the low coastlines of south-east England, with no colonies between Bempton-Flamborough in Yorkshire and the Isle of Wight on the south coast.

Guillemots are coastal, cliff-nesting species differing from other North Atlantic alcids (except Brünnich's Guillemot *U. lomvia*) in that they will use open nest-sites (Cramp 1985). Breeding adults are extremely site-faithful (Harris & Wanless 1988; Harris *et al.* 1996). At sea, Guillemots prefer continental-shelf waters of 51–100 m depth (Stone *et al.* 1995).

Outside the breeding season, Guillemots occur widely in the seas off north-west Europe. In July, chicks leave the colonies before they can fly and swim out to sea to fledge. In the period July to September, major concentrations occur in inshore areas. In midwinter, Guillemots are more widely distributed in the North Sea, the English Channel and the Western Approaches, reflecting a general southward movement of most northerly breeding birds (Stone *et al.* 1995). In spring, they again move northwards to the vicinity of their breeding colonies.

4. Population structure and trends

Birds breeding in the UK belong to the North Atlantic population of 2,250,000 pairs (Lloyd *et al.* 1991).

There were few records of Guillemot numbers at colonies in Britain and Ireland before Operation Seafarer in 1969. Accordingly, few firm conclusions can be drawn about changes in populations, a problem compounded by the difficulty of estimating numbers at large colonies (Lloyd *et al.* 1991). Cramp *et al.* (1974) however, suggested – on the basis of counts at a few colonies for which good early counts had been made – that Guillemots had declined in England, Wales and south-west Scotland, whilst elsewhere in the UK numbers had increased. In the absence of good data, however, this remains largely speculative.

The population estimates from the Seabird Colony Register surveys (1985–1987) showed that the British and Irish Guillemot population had approximately doubled since the 1969–1970 estimate of 576,915 birds (Harris 1993) to a total of 1,203,100 birds. Between the 1969–1970 survey and that in 1985–1987, numbers of breeding Guillemots increased by over 50% in all regions of the country. Regions where particularly notable changes were recorded included south-west and north-west Scotland, Shetland, north-east England and Wales where there were increases of 381%, 141%, 121%, 224% and 130% respectively (Lloyd *et al.* 1991).

Regular monitoring counts show regional differences in patterns of change. Numbers in the north and east peaked in the late 1970s and early 1980s before stabilising or slightly declining (Lloyd *et al.* 1991; Harris 1993). At a few colonies in south-west Britain declines between 2%–10% were recorded between 1975 and 1982 (Rothery *et al.* 1988). Elsewhere in the south and west, however, numbers increased throughout the 1970s until the mid-1980s. Subsequently, the trend was reversed in the south, although increases continued around the Irish Sea (Harris 1991).

Detailed data are lacking, but population changes in Britain and Ireland do not appear to have been affected by changes elsewhere in Europe. There is insufficient information to assess the status of Guillemot in Iceland although there is little compelling evidence to indicate any recent large population change (Nettleship & Evans 1985). Declines in many Norwegian colonies have been evident for the last 30–40 years. On Vedøy, in the Røst archipelago, there was a 93% decline in the number of pairs between 1960–1963 and 1990 (Anker-Nilssen &

Barrett 1991). Much of this decline occurred before a crash in Barents Sea Capelin (*Mallotus villosus*) stocks that further decimated Guillemot (*U. a. hyperborea*) colonies. The small colonies in France, Spain and Portugal have all declined in recent decades to the point of becoming endangered (Harris 1997).

Elsewhere in Europe, small populations have experienced recent increases. In Germany, the single colony on Helgoland has increased from c. 1,000 pairs in the 1950s to 2,400 pairs in the 1990's (Cramp 1985; Harris 1997). The Danish, Swedish and Finnish Baltic population increased from 8,800 pairs in the mid-1970s to 13,000 pairs in the mid-1980s because of breeding season protection (Lyngs 1992).

The factors causing Guillemot population changes are not always clear. It has been suggested that the most important reason for the decline on Vedøy, Norway was the annual mortality of many thousands or tens of thousands of birds caught in fishing nets which compounded the effect of poor breeding success resulting from food shortages (Anker-Nilssen & Barrett 1991). Mead (1989) identified drowning in fishing nets, as the biggest threat to Guillemots in north-west European seas. Oiling, chemical poisoning and disease are other causes of mortality that may be critical (Harris 1997). Linking the large regional and temporal differences in the causes of mortality to widespread increases and some subsequent declines is difficult (Mead 1989). A direct relationship has been found, however, between changes in food availability and Guillemot numbers. There is a strong negative correlation between Sprat *Sprattus sprattus* numbers in the North Sea and first-winter mortality of Guillemots (Harris 1997).

5. Protection measures for population in UK

SPA suite

During the breeding season, the UK's SPA suite for Guillemots supports, on average, 693,120 pairs. This amounts to about 95% of the British breeding population, about 27% of the all-Ireland population and about 31% of the international population. The suite comprises 34 sites (Table 6.93.1) where Guillemot has been listed as a qualifying species.

6. Classification criteria

The 13 Guillemot colonies in the UK that support more than 1% of the international breeding population (East Caithness Cliffs; Fair Isle; Farne Islands; Foula; Fowlsheugh; Handa; Marwick Head; North Caithness Cliffs; North Rona and Sula Sgeir; Noss; Rathlin Island; Troup, Pennan and Lion's Heads; and West Westray) were considered under Stage 1.2, and all were selected after consideration of Stage 2 judgements. An additional 21 sites were selected under Stage 1.3 (see section 5.3), with Guillemot being identified as an important component of wider breeding seabird assemblages at these localities.

All the sites selected are multi-species SPAs, important for a range of other seabirds. Many have a very long recorded history of occupancy, with written records from at least the latter part of the 19th century (Holloway 1996).

The suite encompasses sites in Northern Ireland, northern England, Wales and Scotland. As the selection of sites under Stages 1.2 and 1.3 resulted in a suite which gives adequate coverage of the range and numbers of this highly colonial species in the UK, it was not considered necessary to select additional sites using Stage 1.4

Distribution map for breeding Guillemot SPA suite

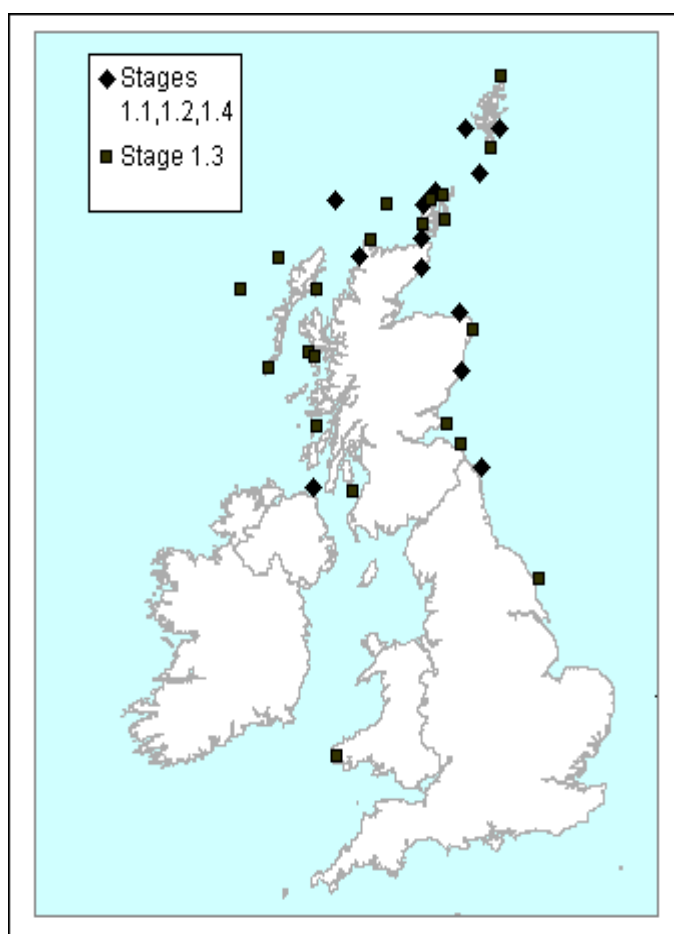


Table 6.93.1 – SPA suite

Site name	Site total	% of biogeographical population	% of national population	Selection stage
Ailsa Craig	3,350	0.2	0.5	1.3
Buchan Ness to Collieston Coast	8,640	0.4	1.2	1.3
Calf of Eday	8,241	0.4	1.2	1.3
Canna and Sanday	3,858	0.2	0.6	1.3
Cape Wrath	9,159	0.4	1.3	1.3
Copinsay	13,333	0.6	1.9	1.3
East Caithness Cliffs	71,509	3.2	10.2	1.2
Fair Isle	25,165	1.1	3.6	1.2
Farne Islands	23,499	1.0	3.3	1.2
Firth of Forth Islands	22,452	1.0	3.2	1.3
Flamborough Head and Bempton Cliffs	16,150	0.7	2.3	1.3
Flannan Isles	14,693	0.7	2.1	1.3
Foula	25,125	1.1	3.6	1.2

Site name	Site total	% of biogeographical population	% of national population	Selection stage
Fowlsheugh	40,140	1.8	5.7	1.2
Handa	76,105	3.4	10.8	1.2
Hermaness, Saxa Vord and Valla Field	11,363	0.5	1.6	1.3
Hoy	13,400	0.6	1.9	1.3
Marwick Head	24,388	1.1	3.5	1.2
Mingulay and Berneray	20,703	0.9	2.9	1.3
North Caithness Cliffs	26,994	1.2	3.8	1.2
North Colonsay and Western Cliffs	6,656	0.3	1.0	1.3
North Rona and Sula Sgeir	28,944	1.3	4.1	1.2
Noss	30,619	1.4	4.4	1.2
Rathlin Island	28,064	1.3	27.4% (Ire)	1.2
Rousay	7,102	0.3	1.0	1.3
Rum	2,680	0.1	0.4	1.3
Shiant Isles	12,315	0.6	1.8	1.3
Skomer and Skokholm	7,067	0.3	1.0	1.3
St Abb's Head to Fast Castle	20,971	0.9	3.0	1.3
St Kilda	15,209	0.7	2.2	1.3
Sule Skerry and Sule Stack	6,298	0.3	0.9	1.3
Sumburgh Head	10,752	0.5	1.5	1.3
Troup, Pennan and Lion's Heads	29,902	1.3	4.3	1.2
West Westray	28,274	1.3	4.0	1.2

TOTALS	693,120	30.8%	94.5% 27.4% (Ire)
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