

## A6.16 Whooper Swan *Cygnus cygnus*

### 1. Status in UK

Biological status		Legal status		Conservation status	
Breeding		Wildlife and Countryside Act 1981	General Protection Schedule 1(1)	Species of European Conservation Concern	SPEC 4 (winter) Favourable conservation status (secure) but concentrated in Europe
Migratory	✓	Wildlife (Northern Ireland) Order 1985	General Protection Schedule 1(1)	(UK) Species of Conservation Importance	Table 2
Wintering	✓	EC Birds Directive 1979	Annex I Migratory	All-Ireland Vertebrate Red Data Book	Internationally important

### 2. Population data

	Population sizes (individuals)	Selection thresholds	Totals in species' SPA suite
<b>GB</b>	5,600	56	2,394 (44% of GB total)
<b>Ireland</b>	10,320	100	1,853 (19% of all-Ireland total)
<b>Biogeographic population</b>	16,000	160	4,247 (27% of biogeographic population)

GB population source: Kirby 1995a

Ireland population source: Way et al. 1993

Biogeographic population source: Rose & Scott 1997

### 3. Distribution

The Whooper Swan is monotypic and has a Palearctic breeding distribution between 55°N and 70°N, from Iceland to the Bering Sea. They winter south to western Europe, the Black Sea, the Caspian Sea, central China and Japan (Scott & Rose 1996). In western Eurasia, Whooper Swans breed in Iceland, Norway, Sweden, Finland and northern Russia, and winter in Denmark, Germany, southern Sweden, Britain, Ireland, Belgium, northern France, the northern Black Sea and the Caspian Sea (Laubek *et al.* 1999). A few birds move slightly further south in some years. A very small number of birds attempt to breed in Scotland each year, but with only occasional success.

In the UK, most non-breeding Whooper Swans occur in northern Britain and Northern Ireland. Ringing recoveries indicate that the majority of these birds originate from the Icelandic breeding stock. It has been suggested that some birds wintering in the south of Britain originate from continental breeding grounds (Garðarsson 1991) but this remains unclear (Laubek 1998). The large wintering flock that occurs at the Ouse Washes has doubled over the past ten years (Cranswick *et al.* 1999) making this site the species' main wintering area in Britain. Lough Neagh and Lough Beg are by far the most important sites in Northern Ireland and, together with the Ouse Washes, regularly hold >5% of the Icelandic population.

Re-sightings of individually marked Whooper Swans in Ireland have shown that these birds are particularly mobile, frequently moving between Britain and Ireland, as well as using several sites within Ireland, in a single winter (McElwaine *et al.* 1995). Nevertheless, Whooper Swans show a high degree of winter site fidelity (Black & Rees 1984).

Whooper Swans winter on freshwater lakes and marshes, and, in western Europe especially, on low agricultural land, generally in coastal areas (Owen & Kear 1972; Owen & Cadbury 1975). Whooper Swans were occasionally reported feeding in potato fields during severe weather conditions in the 1940s and have regularly done so since the 1960s (Kear 1963). Recent estimates indicate that less than 15% of Whooper Swans occur on arable land during the winter (Rees *et al.* 1997).

#### **4. Population structure and trends**

Four discrete populations of the Whooper Swan have been identified in western Eurasia (Rose & Scott 1997). The Icelandic breeding stock winters in Iceland, Britain and Ireland and comprises about 16,000 birds (Cranswick *et al.* 1996). Another population of approximately 59,000 swans occurs in the rest of north-west Europe, wintering primarily in Denmark, and the Schleswig-Holstein and Mecklenburg regions of northern Germany (Laubek *et al.* 1999). Approximately 17,000 individuals make up the western Siberia, Black Sea and eastern Mediterranean population, and the fourth population of at least a further 20,000 occurs in western Siberia, wintering near the Caspian Sea.

The Icelandic population is believed to be stable or declining slightly. The most recent population census in January 1995 found some 15,842 birds, of which 7,799 (59%) were in Britain and Northern Ireland, 7,072 were in the Republic of Ireland, and 971 (6%) wintered in Iceland (Cranswick *et al.* 1996). Elsewhere in north-west Europe, breeding numbers have increased in Norway and Sweden (by 11% per annum, Haapanen 1991) although much of this increase may be the result of re-colonisation of areas where the species had formerly been eradicated by man (Garðarsson 1997).

In the early 1960s, it was estimated that around 5,000 – 7,000 were wintering in Britain (Boyd & Eltringham 1962; Boyd 1963). Numbers at this time were probably higher than those in previous decades but confirmatory data are sparse (Owen *et al.* 1986). The first full census of Britain and Northern Ireland took place in November 1979 (Brazil & Kirk 1981). The coverage of this survey was incomplete, but it was estimated that 6,765 birds were present in Britain and Northern Ireland during that year. Owen *et al.* (1986) estimated that the population had increased by 6% per annum between 1970 and 1979, and attributed this rise primarily to reduced mortality.

The first co-ordinated census of the entire Icelandic breeding population took place in 1986 and estimated the total population to be 16,700 swans, of which 5,136 were counted in Britain and 2,363 in Northern Ireland (Salmon & Black 1986). The population total increased to 18,035 by the second census of 1991 (Kirby *et al.* 1992) when 5,225 and 3,484 swans were counted in Britain and Northern Ireland respectively. Between this and the most recently reported census in 1995 (see above, Cranswick *et al.* 1996), the total population declined at a rate of 3% per annum, probably due, in part, to poor breeding success over the period. The results of the January 2000 census will indicate how numbers have changed since the 1995 decline.

#### **5. Protection measures for population in the UK**

##### **SPA suite**

In the non-breeding season, the UK's SPA suite for Whooper Swans supports, on average, 4,247 individuals (calculated using WeBS January site totals for the period 1992/93 to 1996/97 – see section 4.4.1 and Appendix 2 for further explanation). This total amounts to about 44% of the British population, about 19% of the all-Ireland population, and about 27% of the international flyway population. The suite comprises 20 sites where Whooper Swan has been listed as a qualifying species (Table 6.16b.1).

WeBS counts of swans at many of the sites selected may often include numbers in surrounding areas of intensively managed farmland outwith the SPA boundary. This is especially the case in Northern Ireland (Lough Foyle and to a lesser extent Lough Neagh) and highlights the continuing need for sympathetic management of these surrounding agricultural areas.

Some of the sites selected for the suite, for example the Rinns of Islay, are used particularly during the autumn and spring passage periods and less so during mid-winter.

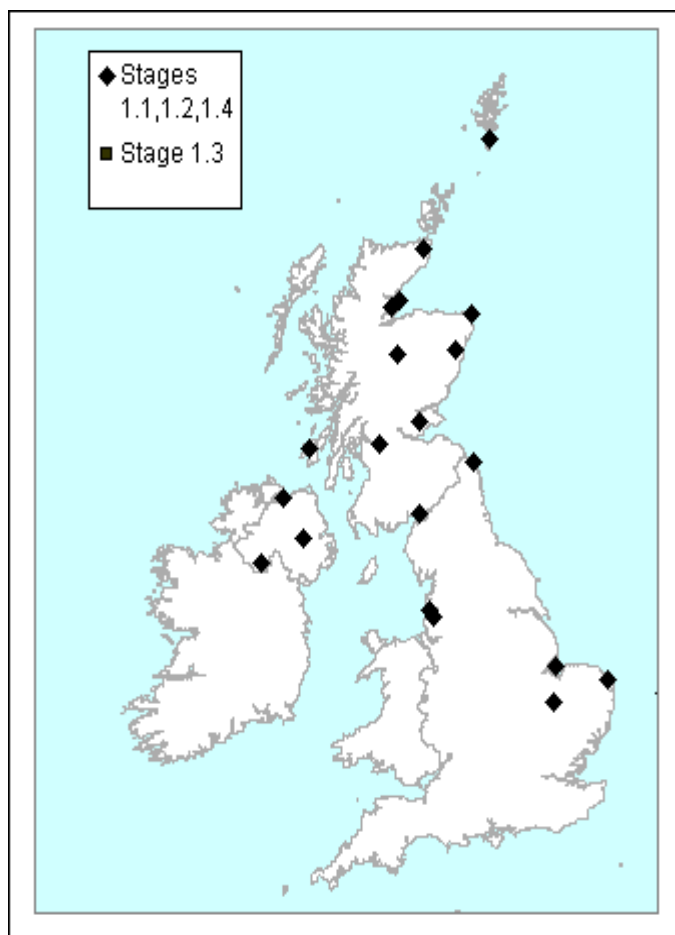
## **6. Classification criteria**

All sites in the UK that were known to support more than 1% of the national population were considered under Stage 1.1, and all except two were selected after consideration of Stage 2 judgements. The two sites holding smallest numbers in Scotland were not selected — Wigtown Bay, and Mill Dam, Shapinsay. Caithness Lochs and Lochs of Spiggie and Brow in Shetland were preferred sites to Mill Dam, Shapinsay, occurring in the northernmost part of the range and holding greater numbers, whilst the Upper Solway Flats and Marshes was likewise selected in preference to Wigtown Bay

The sites within the SPA suite are distributed throughout the winter range of Whooper Swans in the UK, and hold all the main centres of distribution, from a site in Shetland, through Scotland, to Northern Ireland and to eastern England. Most sites are multi-species SPAs, of importance also for a range of other waterbirds, although Black Cart, Lochs of Spiggie and Brow, and Upper Lough Erne have been selected solely for their importance for Whooper Swans. There is a very long recorded history of occupancy at most of these sites (Boyd in Atkinson-Willes 1963). Away from these sites, only small, often transient, numbers of Whooper Swans occur during the winter.

As the selection of sites under Stage 1.1 resulted in a suite of SPAs which includes the main population centres of Whooper Swans throughout their UK distribution, it was not considered necessary to select additional sites using Stage 1.4.

## Distribution map for Whooper Swan SPA suite



**Table 6.16b.1 – SPA suite**

Site name	Site total	% of biogeographical population	% of national population	Selection stage
Black Cart	220	1.4	3.9	1.1
Broadland	133	0.8	2.4	1.1
Caithness Lochs	250	1.6	4.5	1.1
Cromarty Firth	55	0.3	1.0	1.1
Lindisfarne	79	0.5	1.4	1.1
Loch Eye	213	1.3	3.8	1.1
Loch Leven	101	0.6	1.8	1.1
Loch of Skene	203	1.3	3.6	1.1
Loch of Strathbeg	183	1.1	3.3	1.1
Lochs of Spiggie and Brow	143	0.9	2.6	1.1
Lough Foyle	890	5.6	8.6 (Ire)	1.1
Lough Neagh and Lough Beg	1,031	6.4	10.0 (Ire)	1.1
Martin Mere	621	3.9	11.1	1.1
Ouse Washes	963	6.0	17.2	1.1
Rinns of Islay	140	0.9	2.5	1.1

<b>Site name</b>	<b>Site total</b>	<b>% of biogeographical population</b>	<b>% of national population</b>	<b>Selection stage</b>
Ribble and Alt Estuaries	159	1.0	2.8	1.1
River Spey - Insh Marshes	190	1.2	3.4	1.1
The Wash	68	0.4	1.2	1.1
Upper Lough Erne	352	2.2	3.4 (Ire)	1.1
Upper Solway Flats and Marshes	117	0.7	2.1	1.1

TOTALS	4,247 (in January)	26.5%	43.5% 18.5% (Ire)
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